







3,2,1...Action! Acknowledgements



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Pinnacle Studio 8 Documentation and Website

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3,2,1...Action! *Table of Contents*



Page

Instructor's Guide

Skills

| | Introduction | |
|---|---|----------|
| | Overview of skills | 1 |
| | What is Videography? | 1 |
| | Instruction 1 – Scripting and Storyboarding | 1 |
| | Instruction 2 – Camera Basics/Filming | 1-2 |
| | Instruction 3 – Editing Video & Software Basics | 2 |
| | Instruction 4 – Editing Sound | 2 |
| | Instruction 5 – Final Cut | 2-3 |
| G | uide | |
| | Videography Overview | 4 |
| | Videography Roles | - 4 |
| | Videography – Individual Skill Areas | |
| | Writing Skills for Video | 5 |
| | Speaking Skills for Video | 6 |
| | Scripting and Storyboarding | 7 |
| | Camera Basics | 8 |
| | Camera Technique & Tips | 9 |
| | Filming | 10 |
| | Filming Techniques & Tips | 10-12 |
| | Editing Overview | 13-14 |
| | Pinnacle Studio 8 Software Basics | 4 - |
| | The Dickemeter | 15 |
| | Edit Modo | 10 17 |
| | The Movie Window | 12 |
| | The 5 Audio Tools | 19-21 |
| | Capturing Video | . 22 |
| | Audio | 23 |
| | Final Cut | 24 |
| | Make Movie Mode | 24 |
| | Codecs | 25 |
| | Compression formats | - 26 |
| | | |

| Appendix A – Sample Script Template | 27 |
|---|-------|
| Appendix B – Blank Script Template | 28 |
| Appendix C – Sample Video Storyboard Template 1 | 29 |
| Appendix D – Sample Video Storyboard Template 2 | 30-31 |
| Appendix E – Blank Video Storyboard Template | 32 |



3,2,1...Action! Instructor's Guide



• Introduction – Total 30 minutes

- o Presentation 20 minutes
 - Overview of all skills sessions
 - What is videography overview
 - Instructor explains Videography Roles
- Activity Small groups 10 minutes. Participants break into groups of approximately 5 people, and are assigned a role. Groups choose a theme and tell large group. (These teams will be together throughout the first 1 ½ days the workshop)

Roles:

- Director
 - Scriptwriter/Wardrobe
 - Videographer
 - Talent
 - Editor/Props

Themes:

| Parts of a (fill in the blank) | High Fashion on the Farm |
|---|---|
| A Sports Instruction Video | A Dance Instruction Video |
| A Game Show | A Reality Show |
| Soap Opera – 6 Pillars of Character | A Mad Scientist Talk Show |
| Interview with a Famous Figure (ex. George Washington, Genghis Khan) | Instructional Video – How to Play a Musical Instrument |

Instruction 1 – Scripting and Storyboarding – Total 30 minutes

- Activity Storyboard Bingo 10 Minutes. Each small group gets an envelope containing pieces of a storyboard. When smaller groups have assembled their storyboards, they work with other small groups to put together one of three larger storyboards.
- o Presentation 20 minutes
 - Writing Skills for Video
 - Speaking Skills for Video
 - Scripting
 - Storyboarding

• Skill Session 1 - Scripting & Storyboarding – Total 90 minutes

- o Group participants script and storyboard their teams theme.
- Instruction 2 Camera Basics/Filming Total 60 minutes
 - o Explain how to use the camera, camera technique 10 minutes
 - Activity Camera Scavenger Hunt Hand out form where participants identify parts and pieces of the camera 10 minutes

o Presentation – 20 minutes

- Filming Overview
 - Planning
- Filming Techniques
- Lighting

- Take Additional Shots
 - Filming Tips
 - Microphones



3,2,1...Action! Instructor's Guide



5

4

1

2

3

- Activity Camera Round-Robin 20 minutes. Each participant is given a number from 1-5. The first round uses the following starting sequence: #3 asks the questions (interviewer); #'s 2, 1, & 5 answer the questions (the talent); and #4 videotapes the responses (videographer). Questions are based on the teams themes. After 2-3 minutes of interviewing, the camera is passed to participant #2, who becomes the videographer; #1 becomes the interviewer; and #'s 5, 4 & 3 answer the questions. This continues until all participants have had the chance to experience all 3 roles.
- Skill Session 2 Filming Total 90 minutes
 - Film the chosen video theme according to layout of the scripting and storyboard scenes
- Instruction 3 Editing Video & Software Basics Total 60 minutes
 - Editing Overview 5 minutes
 - o Presentation –15 minutes
 - Software Basics/Navigation Pinnacle Studio 8.0 show functionality and tour of Pinnacle. (use overhead projector/laptop)
 - o Presentation -15 minutes
 - Capturing video
 - Choosing images
 - Timeline
 - Title
 - Saving
 - Activity Editing Video Practice 25 minutes. Participants download one of the clips they filmed during the Camera Round-Robin activity. In round-robin fashion, they choose images, insert them into the timeline, add a title and save. This lets each participant experience how to use the software. If time allows, teams can work on a second clip.
- Skill Session 3 Editing Video Total 60 minutes
 - In skill session groups, team participants edit their themes.
- Instruction 4 Editing Sound Total 30 minutes
 - o Presentation 15 minutes
 - Tweaking Sound
 - Adding Voice-over
 - Adding Music
 - Activity Editing Sound Practice –15 minutes. Participants tweak sound, add voice-over and music to the clips they edited in the Editing Video Practice.
- Skill Session 4 Editing Sound Total 60 minutes
 - o In skill session groups, team participants and add sound to their themes.

• Instruction 5 - Final Cut – Total 30 minutes

- o Presentation 10 minutes
 - Evaluate your video
 - Consider the audience
 - Re-edit if necessary
 - Importance of a MASTER copy



3, 2, 1... Action! Instructor's Guide



- Overview of the codec and mediums •
- Details on the difference between the mediums and considerations as to why you choose audience, space, sizes for websites •
- What is rendering and compiling?
- 0 Activity – Codec & Medium Scenario Activity – 13 minutes. Participant groups are given scenarios to choose the correct codec and medium. Each group may talk a little about one of the scenarios, what they chose and why.
- Question: Is there a reason they would want to have a different version of medium for pod cast, web, email, etc?
- Skill Session 5 Final cut Total 60 minutes
 - In skill session groups, participants evaluate their team theme, film, re-edit if 0 necessary, render and compile. .

Tasks

- Hand out supporting materials for all Skill Sessions
- Hand out video camera's at end of Scripting and Storyboarding Skill Session to use for hands-on Camera Basics.
- Open floor to specific questions Q & A would be best if done after each Skill Instruction.
- Retrieve all video cameras at the end of Skill Session 3.

Materials

- video cameras
- laptops, cables, power supplies, microphones
- Extra copies of blank scripting and storyboarding handouts (templates)
- Handout of the Description of Video Production Roles
- Handouts:
 - Sample Script Template 0
 - Blank Script Template 0
 - Sample Video Storyboard Camping 0
 - Sample Video Storyboard Wedding (2 pages) 0
 - Blank Video Storyboard 0
- One Blank Tape for each camera
- Laptop with Pinnacle Studio 8 for overhead real-time presentation of software
- Projector and/or Ethernet cables for overhead slide presentation





Videography Overview

What is Videography?

[Instructor - ask group to raise hands – picks one to give definition. If no one volunteers – move on giving definition]. "Basically, videography is the recording of a performance by means of video camera and videotape".

To make a good video, you need to learn several skills – During this workshop, participants will learn as many of these skills as possible, primarily Scripting and Storyboarding, Filming, Editing, Adding Audio, Text, Titles, Menus, and Producing a Final Cut.

You will also learn and participate in several Video Production roles - the following roles or jobs are part of *most* video production projects. Depending on the size of a video production or the number of available persons on a production team, multiple roles may be accomplished by one person, or some roles may not be necessary, depending on your video theme.



Videography Roles

- **Producer**—the person who gives overall leadership to the content, message, audience, and objectives of the production, such as setting up shoot days for taping on location and making sure all the production tasks are assigned and completed. The producer also is responsible for the budget and timeline. It's his or her responsibility to see that the production is done on schedule and within a predetermined budget.
- **Director**—the person who gives overall leadership to the location video shooting. The director "directs" the on-air talent and instructs the camera operator (videographer) about the type of shots to get and when to roll tape. The director calls out that most famous of movie-making lines, "Action!" He or she also works with the videographer to produce the storyboard.
- **Screenwriter** (Scriptwriter) the person who writes the script, copy, narration or voice-over for a film, commercial, television show, or video.
- **Graphic Artist**—the person who designs and creates visuals to enhance and support the message.
- Videographer—the person who operates the video camera. The videographer also works with the producer and director to create the best possible shots; lights and films the shots the director requires; and works with the director to produce the storyboard (also called the 'shot list').
- Editor the person who primarily does the editing, digitizing, re-editing, and compressing of the video. The editor must be proficient with software used to assemble the raw footage, and put scenes together to most effectively convey the video's message to its audience.
- **Wardrobe** (and Makeup) helps dress actors in costumes approved by the director and adds makeup to all the actors.
- **Reporter/Interviewer/Narrator/Presenter –** works with the director, writers, and interviewees to produce the best possible responses for the director, and raise questions for the writers. Also known as "on-air" talent.

[Instructor – Ask, "Do you know of any I did not mention?" – Composer, Art Director, 1st AD, Prop person. Also mention that participants need to think about their personal strengths and each other's strengths. Ask, "What are your interests?" "What roles will your story need?" You may choose to combine some of the roles – or perhaps you have a special role that is not listed.]





Writing Skills for Video

Most rules of good writing apply to video scriptwriting. The information written for a narrator to read on tape is called "copy." The copy may be read from off-camera [Instructor – explain off-camera], so viewers see some other pictures while they hear the narrator. It may also be memorized or read (using cue cards or a cueing device such as a TelePrompTer) so viewers see the actual "talent" on-camera [Instructor – explain on-camera] as he or she talks.

A few tips for adapting writing for video follow. (Note: The same rules apply if you are adapting activities for audiocassette recordings or radio productions.)

- Write clearly and simply.
- Write in a conversational tone, so viewers feel as though they're sitting with you while you tell them a story.
- Keep sentences short.
- Use first and second person (For example, "You can make a difference...").
- Use action verbs such as "join," "come," "write," and "buy."
- Use words that clearly communicate and conjure up powerful emotional images.
- Use comparisons and metaphors. [Instructor explain metaphor indirect comparison between two or more seemingly unrelated subjects that typically uses "is a" to join the first subjects, example: Life is a dream. If I were to say, "Sweet as sugar", would that be a comparison or metaphor?]
- Edit your copy. Take out unnecessary words and change verbs to communicate action and present tense.
- If you decide to use a narrator:
 - Use a stopwatch to time yourself or your narrator reading the copy.
 - Limit the number of words so the narrator can easily read the copy within the number of seconds you need to fill. For example, the script for a 60-second spot or commercial should be no more than 75-100 words.
 - If the narrator cannot read the copy clearly within the amount of time you want, eliminate words, phrases, or sentences.
- Test your script:
 - Read the script aloud and rehearse it before you do any filming.
 - Listen to be sure it's clear and easy to understand.
 - Read it aloud to someone else and ask if he or she can understand your message.
 - Make any changes you need to keep the message clear, simple, understandable, and as powerful as possible.





Speaking Skills for Video

Most of the rules of good speaking and presentation skills apply to video as well. Here are a few tips to help you become a better on-camera presenter, or "talent."

- A strong confident voice makes your message more believable. So Speak up!
- How do you make your voice sound strong and confident?
 - o Relax, breathe deep, lower your voice and project from your diaphragm.
 - Vary your pitch, volume and pacing to hold viewers' interest.
 - Try to sound like yourself! Imagine that you are speaking to a friend rather than to a microphone.
 - Try to avoid sounding like you are reading from a book, monotonous or singsongy.
 - Enunciate, and speak very clearly.
 - Find a comfortable, medium speed. Do not talk too fast or too slow.
 - Exaggerate your delivery and put strong emphasis on key words. Be dramatic.
- Keep your facial expressions appropriate to your words. That is, do not smile or smirk if the message is serious. Smile and look joyful if the message is positive or heartwarming.
- Watch a network newscaster or reporter and pay attention to his/her pitch, speed, facial expressions, and gestures. What did you notice?
- Stand up straight, look people in the eye and do not fidget.
- Eye contact is extremely important and powerful. If you want to look directly at your video audience, look at the camera lens as if it were the familiar eyes of your best friend. Do not let your eye stray away from the camera lens while it's recording. Wandering eyes make you look shifty and insecure. Practice by saying your script as you look at an eye-level mark on the wall. As with most things in life, the more you practice, the better you become.
- Use hand gestures only if appropriate. Effective hand gestures come from being relaxed and spontaneous. (Playing with your hair, scratching and rubbing your knuckles are not effective hand gestures!)
- If you are using a hand-held microphone, hold it about four inches away from your mouth.
- Just do it! Almost everyone is nervous about speaking in front of groups (and cameras)! The more you do it, the better and the easier it gets. Really.





Videography - Individual Skill Areas

SCRIPTING & STORYBOARDING:

Scripting starts with a written outline of what the video's main ideas are, matched with how to show or explain those ideas. It is developed like a story: There is a beginning, middle, and a conclusion or summary. But first – you need an audience. Who are you writing for? Considering your audience is like putting a foundation on a house. Your audience supports your video. There are also characters and images/sounds that convey these ideas.

- When storyboarding and scripting a video, you usually think about just the visual aspect (I want to show this, and then I want to show that). But remember audio is half the video – what are people hearing at the same time? While you are showing examples, demonstrations and photos, is there narration? Does the length of narration part equal the length of the visual
- part?
 [Instructor introduce the Video Script Templates see samples Appendix A & B. Also use slides of Appendix A and B.
 - Video Script Templates are sheets of paper divided vertically into 2 columns. The left column is "video" (what you see) and the right column is "audio" (what you hear).

<u>Storyboarding is a visual reference and layout of your script</u>. It is a mockup with drawings and descriptions of what is seen, heard and the transitions between those items. It helps you visualize the action described in your script.

The storyboard helps keep you organized as you tape by dictating what video to shoot and what audio and graphics to produce.

- [Instructor introduce the Video Storyboard Templates] see samples Appendix C, D, E.
 Video Storyboard Templates:
 - Put rough sketches in the boxes to represent how each different camera shot will look on the screen.
 - Notes describing the shots and transitions can go between the boxes.
 - Write the audio for each shot on the lines below.

When starting out with storyboarding -

- Don't worry about effects like transitions/ wipes/ fades. Just get the basic script and ideas down.
 - Later you can add the details like effects, graphics and transitions.



Be specific in your storyboard. The **details make a good video**. While developing your storyboard, you can arrange shots and get a feel for how the video flows. You are given the opportunity to fine-tune the visual and audible components.

Side Note:

One of the best resources for ideas is to watch other videos:

- Does the director hold a shot for very long, or is it broken up with different angles?
- If someone is speaking to the camera, do you watch him or her for 5 minutes straight, or are you shown cutaway video of what the person is talking about?
- Does the director show a photo or a camera angle for 10 seconds or for 3? You'd be surprised how long 3, 5, 7 or 10 seconds are when looking at a still shot. Count them yourself you'll notice that a director doesn't usually stay on a shot more than 3 or 4 seconds.





Camera Basics

Most video cameras come equipped with the same components. They have become more standardized over the years, so your video camera should have most of the features listed below. Two hands-on camcorder activities will help you locate, identify, and use the majority of these components.

| The following components or feat | ures can be found on the Canon ZR | 701VIC VIdeo camera. |
|----------------------------------|-----------------------------------|------------------------------|
| LCD Screen | LCD panel OPEN button | AV IN/OUT terminal |
| | | Phone terminal |
| Backup battery cover | One button – three functions | |
| | AF Shift button | USB terminal |
| Digital Effects Button | Stop buttop | Dionter adjustment lever |
| (including a congrate on (off) | Index screen button | Diopter aujustment lever |
| (including a separate on/on) | Index screen button | Viewfinder protect cover |
| | | viewinder protect cover |
| One button – two functions | One button – two functions | |
| Self-Timer button | Focus button | Photo button |
| Data Code Button | Playback button | |
| | | Advanced accessory shoe |
| Program Selector switch | One button – three functions | |
| | Rec Search + button | Zoom lever |
| One button – three functions | Fast Forward button | |
| Card Mix Button | Card + Button | Built-in speaker |
| Slide Show button | | 1 |
| Stitch assist button | Terminal Cover (2) | Tape/Card switch |
| | | |
| Memory card slot | Assist Jamn | Grin helt |
| Memory card slot | Assist lamp | Ship ben |
| Card access indicator | Pomoto sonsor | Strap mount |
| | Remote sensor | Strap mount |
| Charge indicator | Ctores misraphans | Consiste componing ant cover |
| Charge indicator | Stereo microphone | Casselle compartment cover |
| | | |
| Selector dial | S-video IN/OUT terminal | Cassette compartment |
| | | |
| DC IN terminal | DV IN/OUT terminal | Power Switch |
| | | |
| Menu button | Open/Eject switch | Start/Stop button |
| | | |
| Battery attachment unit | Tripod socket | Strap mount |
| ç | | |
| Battery and Battery release | MIC terminal | Viewfinder |
| Button | | |
| | | |
| | | |

The following components or features can be found on the Canon ZR70MC video camera.





CAMERA TECHNIQUES AND TIPS:

When to use telephoto (zoom) – Using the telephoto lens can give a dramatic effect to your videos, but it also takes a considerable amount of practice to use it efficiently. Some things to consider about using telephoto are:

- If you zoom to telephoto, the picture will not be in focus.
- Use telephoto sparingly and slowly moving too quickly into a zoom may cause you to lose your subject from the field of view. This could cause the whole scene to be lost if you can't reverse out and save it.
- The more you use the telephoto, the more your camera is susceptible to movement. In other words, the closer your subject, the harder it is to keep the camera steady.

[Instructor – Try this – film a subject without using the telephoto. Then film the same subject using the telephoto and notice how the closer you get to maximum zoom, the harder it is to keep the camera steady.]

• If you really want to get close to your subject, use a tripod to steady the camera.

Holding the Camera – the correct way to grip the camera is to slide your right hand under the grip belt and adjust the belt with your left hand. Adjust the belt so that you can reach the zoom lever and photo button with your index finger, and the start/stop button with your thumb. This may take some getting used to. Be persistent!

Wide Angles – Wide-angle filming is done with a special attachment to the camera lens called the Wide Attachment or Wide-Angle lens. It allows you to capture more width of field than the normal lens. More width means more 'stuff' in your pictures. Good choices for wide-angle filming are large groups of people as in crowds, graduations, or weddings; or scenery and landscape scenes of mountain ranges, lakes, large buildings – perhaps the White House or Lincoln Memorial. The beauty of the wide-angle is that you can stand much closer to your subject and make its image larger. The downside of using the wide-angle, or any other additional lens or filter, for that matter, is that it takes time to mount. Sometimes a shot can be lost in your efforts to improve it. Most professionals carry multiple cameras configured with different lenses. If a shot becomes available, they simply grab the right camera and shoot.

Think outside of the box - Experiment with some of the tips and techniques given here—and then try breaking the rules to see what you can learn from the experience. For example, someone decided awhile back that shaky camera movement is "in," so now you see it all the time on national television advertisements and programs. Think outside of the box and see what you come up with.

Don't overdue it! - The <u>biggest mistakes</u> people make when using camcorders are <u>overusing the</u> <u>zoom function</u> and <u>moving the camera erratically</u>.

Now that you know some of the basics of camera basics, go out and play with your camera! It's the best way to learn. Film scenes in a variety of situations and then play back and critique your results.

...And Have Fun!





3,2,1...Action! Skills Guide



<u>FILMING:</u>

Overview - Before the cameras roll, you should already have a pretty good idea of what your final video will look like based on the scripting and storyboarding. This is the 'grunt work' of producing the video. Naturally, there are some unknowns that you will only capture when shooting the video, unanticipated shots will always come up, for instance – interviews with different people, additional angle shots you think would add to your video, and shots you weren't able to get the first time around, but feel you might need for your video.

Planning - Think through your goals and what you'd like to have on tape. Use your storyboard as your guide and **shoot only what you need**. [Instructor – ask, "What's one good reason for this?" Answer – Much less editing!]



A sit-down interview – multiple angles of a building and its doorways – a wide-angle shot of someone running down a hill, then a close-up of the person's facial expression. Again, a good storyboard will take care of this list for you. [Instructor – review sample scripting and storyboard templates].

FILMING TECHNIQUES AND TIPS:

Film only as much of each scene as you really need to get your point across—no more, no less.

"Match action" - between shots or scenes. This means if you are filming a wide shot of a scene and then you shoot a close-up or medium shot of the same scene, the positioning of people or props must be the same. For example, if you are filming a wide shot of a group of people and the next scene you want to shoot is a close-up of one of those people, be sure that the person's body positioning is exactly the same for the close-up as it was in the wide shot.

[Instructor question] "Have you ever noticed mismatched shots in television programs or movies?"

Just for fun, watch carefully when viewing television programs to see if the director or "continuity" person made sure the action from one scene to the next is carefully matched. For example, you might see an actor's arm on the table in one shot, and then in the next shot it's in his or her lap. This looks quite humorous in dialogue sequences where there are several cuts back and forth between angles.

Cutaways - another option for adding visual appeal and interest to your tape. A cutaway is a shot very different than what was in the previous scene. For example, in one scene the viewer sees a young person on-camera talking about his or her father. In the next scene, the viewer sees a close-up of the father and hears the voice of the young person talking about him. (To accomplish this, the young person would need to stay off camera but very close to the microphone.)

Ending a Scene - press the *pause* button on the camera to end a scene.

- Remember, the sound or background noise will cut off every time you press the pause button.
- If you are in a <u>noisy environment</u> for one scene and then a <u>quiet environment</u> for the next, your tape will sound abrupt at those points. [Instructor you may need to explain "abrupt"]
- If you have music in one scene and pause the camera while you move into another scene (with or without music), the sound will be choppy and clipped. If you want to have music playing in a scene, have someone slowly fade the music out as part of the scene before you pause the camera to end the scene. It will sound more natural and appealing.



3,2,1... Action! Skills Guide





Lighting - The single most important thing you can do to improve the look of your videos is to improve your lighting. Different lighting produces different effects on film. A video filmed in poor light looks dark and grainy. Pay attention to the light source and make sure the scene is well lit. Use as much natural light as possible.

- Is it from overhead? Lamp? Sun?
- Try to place your subject so the light falls evenly across it.
- Never film into the sunlight unless you are trying to make a dark silhouette of your subject.
- Film so your back or side is to the light source and your subject is facing the light.
- Use a lamp or other filter to shed more light on your subject, if possible.

Take Additional Shots - While you are out shooting, get some extra shots and angles to use later in editing in case you decide you need more footage. Too much video is always better than not enough.

 \Rightarrow Don't add these extra shots to your storyboard or you will lose the story theme.

Filming with a Tripod - When using a tripod, keep the camera as steady as possible and turn your whole body with the camera when you want to "pan" or move the camera left or right. Some photographers find it best to hold the camera with two hands and plant their feet firmly, shoulder-width apart. Other photographers hold the camera with their left hand and gently use the tripod's extendable pan-and-tilt handle to move with the scene. Setting up the shot first while the camera is in pause mode or not recording is a good practice, as well. Most video cameras will only remain in pause mode for a couple of minutes before automatically reverting to non-recording mode. When you're ready to shoot, a simple click to record is all that's needed. The grip belt should not be used on a tripod mount, because it could cause you to move the camera even more.

Avoid excessive panning - Limit panning (left and right), tilting (up and down), and zooming in and out of a shot. It is better to lock the camera in one place, let the action happen in the frame, stop the camera, re-adjust the shot and start shooting again.



External microphone - Use an external microphone whenever possible! A camera's built-in microphone is only good for getting "natural sound." But if you are doing an interview, you will definitely need to attach a microphone to the speaker. Nothing is more annoying than to listen to a narrator in a busy hallway or large, echo-y room.







The "rule of thirds" - Frame your shots with the "rule of thirds." The natural tendency is to put a speaker's eyes or a horizon in the middle half of the frame. This causes too much "head-room" and an overall awkward-looking shot. It's better to frame the speaker's eyes along an imaginary top-third line of the frame, leaving marginal space for the head and top of the frame.



The "rule of thirds" is perhaps 'the' best-known principle of photographic composition. It is the basis for well-balanced and interesting shots. The 'rule of thirds' comes naturally to some photographers. For others, it becomes second nature with practice.

The basic principle behind the rule of thirds is to imagine breaking an image down into thirds (both horizontally and vertically) so that you have 9 parts.

Identify four important parts of the frame where you should consider placing points of interest.

The theory is that if you place points of interest in the intersections or along the lines, your photo becomes more balanced and will enable a viewer to interact with the image more naturally. Note the point of interest in the bee picture is the eyes – which are at an intersection point.

People's eyes usually go to one of the intersection points most naturally rather than the center of the shot. Using the rule of thirds works with this natural way of viewing an image.





In learning how to use the rule, the most important questions to ask are: "What are the points of interest in this shot?" And, "Where am I intentionally placing them?"

Hold that pose! – Often, a person who finishes talking on-camera will look away for approval ("Was that OK?") or to see if filming is done. This looks awkward, so have the speaker keep looking at the camera until you call "cut."

Padding - Add some "padding" at the start of the action and at the end – about 5 seconds after start of recording and the same at the end. This provides room for editing the shot or accommodating a transition. If a person is speaking on-camera, start recording, wait about 5 seconds, then cue him or her to begin. When talking is finished, keep recording for about 5 seconds, stop the camera, and then call "cut."



3, 2, 1... Action! Skills Guide



EDITING OVERVIEW:

Editing is the art of assembling scenes to create a meaningful story or message on film or video. When editing, you can arrange the scenes in any order you want, with creative transitions and special effects. Unlike film editing, there is no splicing or touching the tape in the video editing process, which is completely electronic.

Use these simple steps to get that great video going! And...stay focused! Don't jump to adding audio before you have your scenes in the right order and your transitions completed.

- Start by capturing the video electronically with video editing software. The capture procedure transfers the raw footage video from the camera to the computer.
- Then drag the scenes and shots in order onto the timeline. Since you already have your storyboard, use it as your guide for laying out your video.



- **Trimming video clips** This is a fundamental editing operation. Trimming adjusts the in and out points of a clip to remove unwanted footage. No data is lost by trimming, so the original Album scene is not altered. You can always reset clips back to their original state or select different trim points. There are two ways to trim in Studio:
 - o Directly in the timeline
 - Using the clip properties tool

How to trim a clip

The easiest way to trim a clip is to have only one clip in the timeline to work with. Next, expand the timeline using the mouse. [Instructor: "How do you expand the timeline?"] (put the mouse over the Timeline and drag it to the right). Do not put the mouse directly over the edit line. You can expand the clip to it's maximum expansion size. [Instructor: Ask, "How do you know when a clip is expanded to maximum size?"] (each tick mark represents a single frame) Next, put your mouse over the right edge of the clip and drag the left – watch the Player at the same time, because it will show you the last frame in the trimmed clip. Reduce the clip as much as you like. Clip edges can be dragged both left and right. When you release the mouse button, the clip will be trimmed.

Add transitions – transitions bring dramatic effects to your videos. They're animated! So, the video starts to portray feelings, emotions, sadness, happiness...all by choosing a transition between scenes that emphasizes intent. Some effects are exotic, some are sophisticated, the point being that they are used to ease or emphasize the passage of one clip to another.

How to use transitions –

It couldn't be any easier – they are stored in the Album. Find the transitions section in the album, drag one from the Album to the Movie Window, and drop it beside the video clip or still image. Studio's default transition duration is 2 seconds. So, the second clip will start to run 2 seconds before the 1st clip finishes. In the beginning of the transition you will only see the first clip. Gradually the 2nd clip appears, and after 2 seconds, the 2nd clip is fully displayed.



 Add audio – the process of adding background music, or audio tracks to your video. Audio, music, sound, and voice-overs are discussed in more detail in the following pages.







• Add graphics/text – when you add text and graphics to your video, you can give your audience the chance to read or view items like credits, dates, jokes in balloons, express emphasis by putting large letters across a frame of video. Depending on what your intent is, you can make it more emphatic with text and graphics. Studio provides pre-designed menus, and CD covers, holiday wishes, birthday wishes, and so on.

In the "real world" of video production, editing is a complex process with unlimited creative possibilities. The process of video editing allows you to add elements like computer graphics and music. It's accomplished through multiple tape machines, computers, and an operator or "editor" who pushes buttons.

A little basic knowledge will turn your raw footage into an interesting and exciting film. With clever editing, you can build emotions into your video and captivate your audience.

Now that you know these important concepts, the next step is to become familiar with Video Editing Software. The software you will be using in this handbook is called Pinnacle Studio 8. Pinnacle is commercial style software, but written for the beginner.

Let's have a look at Pinnacle Studio 8......





Software Basics – Pinnacle Studio 8

When you first open Studio 8, you will see a screen that looks similar to the one on the right.

[Instructor: Creating movies with Studio is a three-step process:]

Capture/ Edit/ Make Movie

Click the *Capture* button.





[Instructor: This is the capture screen for DV or MicroMV equipment connected to a 1394 port (fire wire)]

[Instructor Note: When you are capturing video from DV or MicroMV, the DV set-up lets you control the tape transport of the camcorder or VCR using an on-screen control – the Camcorder Controller]



Camcorder Controller

Diskometer





The Diskometer

| | | Drive (C:) | <u> </u> |
|---|---------------|----------------|---------------------------------|
| | | Free: | 23904 MB |
| | | Used: | 15102 MB |
| | | This | disk can store approximately |
| | | 1 hour | . 45 minutes |
| | DV full-q | uality capture | |
| | MPEG ca | apture | |
| | Preview- | quality captur | e |
| 1 | Start Capture | Settin | gs |

Video files can be very large. As you learned during your skill sessions, 'Don't shoot any video you don't think you'll need.'

If you follow that simple rule, you will save time moving your file into Studio, keep editing to a minimum, and save lots of time rendering your video.

The diskometer does two things:

- Displays the amount of space available on the capture drive,
- 2. Gives the approximate duration of video that can be accommodated.



Capture quality settings can be selected by using one of the 3 preset buttons displayed here.





EDIT MODE -

The Album – contains the source materials for your video production. It's divided into 6 tabbed sections. [Instructor – show these on the overhead if possible]

- Video Scenes from your captured raw footage
- o Transitions fades, dissolves, push ups, slide downs
- Titles editable titles you can also be used as overlays or full screen graphics, as well as used as overlays or full screen images.
- Frame Grabs your collection of still images and grabbed video frames, can be used as overlays or full screen images.
- Sound Effects Studio's collection of .wav and .mp3 audio files.
- Disc Menu chapter menus. These can be used in DVD authoring.

The Player – the player displays a preview of your edited movie or shows what is selected in the Album.

Preview window – Point of Focus. Displays moving video during playback, still images, titles, and player views mentioned above.

Standard playback controls – control the player. Standard button fronts. Jog buttons step movie forward and backward by single frames.

Player Scrubber – The player scrubber quickly traverses forward and backwards through your captured video or through your edited movie. As you move the scrubber, the preview window shows the current frame.

Counter – displays your current position in hours, minutes, seconds, frames. Can be manually edited.



Edit Mode Window



3, 2, 1... Action! Skills Guide



THE MOVIE WINDOW

Split Clip button – the razorblade is used to split the currently-selected clip or currently-edited scene in the Album.

Delete Clip button – Deletes currently-selected content in any of the Movie Window views.

Timeline view – shows the position and duration of clips relative to the Timescale. Displays 5 tracks for placement of video, audio, title overlays and graphics, sound effects or voice-overs, and background music. A 6th track for menus is above the video track. Tracks can be independently locked to avoid being edited with others.

Movie Window views - timeline, storyboard, and text views.

Clip placement feedback – gives you several types of feedback on clips in timeline view.

The Status line -Placement symbols -

The toolboxes – video & audio. They provide convenient point-and-click interface to the operations of adding clips to your movie or adjusting existing clips. Only available in Edit Mode.

The title editor – can combine text, images and other graphic resources to make titles and disc menus.



Movie Maker Window (not all controls are shown)





- The 5 Audio Tools -

Clip Properties – here you can trim the audio clip (adjust start and end times) and type in descriptive names.



Volume and fades – this tool allows you to control all three audio tracks using the master audio level control.

Level controls can mute any or all of the tracks and add real-time volume fades to any of the tracks.







Voice-overs – here you can add narration or commentary as you preview your edited video.

Recording voice-overs is very easy. Connect a microphone to the input jack of the PC sound board, open the voiceover tool from the audio toolbox, click *Record* and speak into the microphone.

You cannot record voice-over unless you have at least one video clip in the Movie Window.



CD Audio – add background music from an audio CD.

Adding music from CD's may be a direct violation of copyright law. Make sure you are aware of the legalities before you add any CD track.

Downloading music from the World Wide Web and using it in your video would only be acceptable if that music is guaranteed to be 'royalty free'. Choose your download site with this in mind.

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3,2,1...Action! Skills Guide



SmartSound[®] Tool (Music/Audio from Studio) – lets you create background music in the *style* of your choice.



All these types of audio are added to your production as audio clips. These clips can be moved around, trimmed, and edited in much the same manner as video clips.





CAPTURING VIDEO -

Brief explanation of Capture quality

DV:

- Full quality DV capture
- Uses about 200 MB of disk space per minute of video, example: 2minutes = 400 MB
- Advantage clips won't have to be recaptured at full resolution when outputting your finished movie.

MPEG:

- Less space than DV but more time.
- 3 presets of quality are available: High, Medium, Low + Custom
- Use the lowest quality that meets the requirements of all movie equipment you will be using.
- Finished movie outputs: Low outputting to VCD; Medium S-VCD; High DVD.

Preview:

- Decreases disk space use by lowering video quality only during editing
- Studio recaptures preview-quality clips at full quality.

Capturing your video

Now you're ready to move the video from the camera into Studio 8. Switch the camera to VCR (or VTR) mode.

Capture Video steps

- 1. Since you will be saving DVD, you want to capture MPEG, High movie output.
- 2. Click the desired capture setting on the Diskometer
- 3. Click the *Start Capture* button on the Diskometer *(capture video dialog box is displayed)*
- 4. Type a name for your source video
 - *a.* Use a naming convention if you are making multiple DV captures in preview quality from the same tape
- 5. Click the *Start Capture* button in the Capture Video dialog box button changes to *Stop Capture*. Two things happen as the Capture begins.
 - a. The Player displays the incoming digitized video being saved to the hard drive,
 - b. Studio performs automatic scene detection
- 6. Click Stop Capture button to end capture at point you select.

Throughout the capturing process, the software will automatically detect the natural breaks in the video. This is called Scene Detection. There are 4 different ways scenes can be detected.

- Automatic based on time/date only available when capturing from a DV source. New scene starts when discontinuity is found in time stamp data on the tape during capture.
- Automatic based on video content new scene started whenever large changes in images occur. Dependent on stable light source. Example: A strobe light would produce a scene each time it flashed.
- Create a new scene every xxx seconds where you choose the second interval. [Instructor why would this be a useful feature?]

Manually – hit the space bar to create a new scene – you can decide where the scene breaks should be.



3,2,1...Action! Skills Guide



AUDIO:

In most filming situations, the audio (sound) is just as important as the video (picture). However, if the sound is not good, this frequently means that the film is unusable. If you really want the sound on your video to be good, you need to pay attention to not only what's going on around the scene you're shooting, but also where the microphone is in relation to your subject. One way to do that is to be sure to eliminate distracting noises (such as blowers, voices, and equipment) before shooting or find another area for your scene.

Camcorder Microphone

Most camcorders have built-in microphones that work fine for recording room or ambient sound. Recording subjects no more than 9-12 feet away from the camera and if the room is very quiet would also be acceptable audio in the video. Any scenario that deviates too far from those constraints would require the addition of an external microphone. [Instructor – ask for an example of where camcorder microphones would be ok to use.]

External Microphones

You can greatly improve your audio quality by using an external microphone whenever possible, and particularly when doing interviews. You can buy or lease hand-held (like news reporters use) or lavaliere (clip-on) microphones from stores that sell video equipment. For the purpose of this instruction you will be using lavaliere microphones. These are small, attachable microphones, and where you attach them also has a bearing on how good your audio will be. [Instructor – may need to explain with examples where to place microphone, i.e., be sure collar material, jackets, or clothing does not rub on the microphone when the subject moves.]

Raw Soundtrack

The raw soundtrack is brought along with the video during Capture Mode. It will appear in the Movie Window Timeline view on the Main Audio track below the Video track.

Add-on Audio

Studio has a starter set of effects in **.wav** format already installed. These can be used as add-on's to enhance and bring different moods to your video. In addition, **.mp3** files can also be dropped onto the Timeline from the Album, or CD audio tracks can be imported. [Instructor – this is a good place to discuss the ethics involved in "ripping" music from a CD, and the process for requesting permission to use copyrighted materials.]





Audio Toolbox – In Pinnacle, this can be found by clicking the toolbar in the Movie Window, and then click the Audio Toolbox button. Five (5) tools (shown on following pages) can be used either to operate on or create audio clips.

- Clip properties
- Volume and fades
- Voice-overs
- CD audio
- Automatic background music

Timeline and Audio Tracks - the timeline in Pinnacle has 3 tracks for audio: "original" audio (synchronous audio) – captured with your video clips

- voice-overs and sound effects sound effects brought into your production
- CD tracks and SmartSound[®] background music additional add in music

Even though the three audio tracks have their specialized roles, these tracks mainly control on which track new audio clips appear. So, anytime a new video clip is added to your production, the raw soundtrack will always appear on the original audio track, new voice-overs always will appear on the sound-effect/voice-over track and so on. Once the audio clip has been created – you can move it to a different audio track. [Instructor: ask, "What would be the advantage to switching audio tracks?" (below).]

Switching audio tracks –Switching between audio tracks gives you added flexibility to use two sound effects simultaneously – you could have two audio clips on two different tracks.



3, 2, 1... Action! Skills Guide



FINAL CUT

The final cut of your video will be where you take your last look at what you've edited, re-evaluate it, fine tune the details, and re-edit it if necessary. Some things to consider as you re-evaluate:

- First and most importantly, ensure you have a Master Final copy and be sure you keep it in a safe place.
- Does it follow the storyboard the way it was laid out?
- Does it tell your story, meet your goals and portray the intent you want to get across to your audience?
- Who is your audience? (Try looking at your video through the eyes of your audience.

Once you've taken the time to re-evaluate your video and you feel it is complete, the next step is to decide which display medium to render your video to. In order to do that, you will need to become familiar with the different mediums.

Which medium do you need? DVD? Webpage? IPOD? VCR tape? AVI File?

- Again, "Who's your audience?" A younger crowd? Wedding? Family video? Grandparents?
- How can you best reach them? Email? Website? Snail mail? Text?
- What technology is their technology? CD? DVD? VCR Tape? Computer file? Streaming Video? (Quick Time Video or RealPlayer), Digital Audio Player (IPOD)?

These are all things to be considered before compiling and rendering your video.

Some words on IPODS – a portable media player that started as a digital audio player, now in its 5th generation which is video-capable. Information can be stored on a hard drive or flash memory. Apple's iTunes transfers music, photos, videos, games, and calendars to the models that support those types of media. IPOD's are quite popular with 100 million world wide.

Make Movie Mode – Once you have decided which medium to render your production into, the Make Movie Mode is where the final phase of your video production takes place. You can output and share your video movies to several media types and in a variety of formats.

You can **output** your movie to Videotape, DVD, VCD or S-VCD (Videotapes, Digital Movies, and Discs), or you can **save** your movie as AVI, MPEG, Windows Media or Real Video files, or share to the Internet.



The Make Movie screen reflects the hardware available on your system in the Diskometer display. Each time you select a different medium, the Diskometer will recalculate the required and available space.

Compiling is the process of assembling and organizing videos into a form that would be useful to someone else.

Rendering is the process of compressing your video, audio, images, titles, text and transitions into one video file. Because of the amount of information to be compressed, rendering is a time consuming process.

Once the video has been rendered, it cannot be changed. Once it's done, it's DONE!



3,2,1...Action! Skills Guide



CODECS

What are Codecs?

- o It's a software that packs and unpacks the image data.
- o Stand for <u>Co</u>mpressor / <u>dec</u>ompressor
- o Can be implemented in either software or hardware -

[Instructor – Can anyone tell me what that means? What's an example of the hardware and what's an example of the software?]

Overview of Compression formats -

Video compression – reduces the quantity of data used to represent video images. Video compression, like data compression, is a tradeoff between disk space, video quality and the cost of hardware required to decompress the video in a reasonable time. For example, DVDs use a video coding standard called MPEG-2 that can compress approximately 2 hours of video data by 15 to 30 times while still producing a picture quality that is generally considered high quality for standard-definition video.

Audio Compression - is a form of data compression that reduces the size of audio files. Audio compression algorithms are implemented in computer software as *audio codecs*. Generic data compression algorithms are impractical because compression ratios are low (around 50-60% of original size) and they do not work in real time. Specific audio "lossless" and "lossy" algorithms provide far greater compression ratios and are used in mainstream consumer audio devices.

[Instructor – ask "Can anyone tell me what the definition of lossless and lossy data compression is?]

Lossless data compression is a class of data compression algorithms that allows the exact original data to be reconstructed from the compressed data. Lossless data compression is used in many applications. For example, it is used in the popular **ZIP** file format and in the Unix tool **gzip**. It is also often used as a component within lossy data compression technologies. Lossless compression is used when it is important that the original and the decompressed data be identical, or when no assumption can be made on whether certain deviation is uncritical.

Lossy data compression does not allow the exact original data to be reconstructed from the compressed data.

Typical examples are executable programs and source code. Some image file formats, like PNG or GIF, use only lossless compression, while others like TIFF and MNG may use either lossless or lossy methods.

Image Compression – data compression on digital images. The best image quality at a given bit-rate (or compression rate) is the main goal of image compression. The quality of a compression method is often measured by the Peak signal-to-noise ratio. It measures the amount of noise introduced through a lossy compression of the image. Scalability (a quality reduction achieved by manipulation of the bitstream or file (without decompression and recompression)), Region of interest coding (where certain parts of the image are encoded with higher quality than others), and Meta information (where compressed data can contain information about an image like author or copyright information, statistics or even color and texture) are also important properties of image compression schemes.

Media Container – a computer file format that can contain various types of data, compressed by means of standardized audio/video codecs. Simpler container formats can contain different types of audio codecs. More advanced container formats can support multiple audio and video streams, as well as multiple audio and video streams.





Compression formats -

| | ISO/IEC | ITU-T | Others |
|---------------------------------|--|--|--|
| Video compression formats | MJPEG · MPEG-1 · MPEG-2 · MPEG-4 ASP · MPEG-4/AVC | H.261 • H.262 • H.263 • H.264 | AVS · Bink · Dirac · Indeo · MJPEG · RealVideo · Theora · VC-1 · VP6 · VP7 · WMV |
| | ISO/IEC MPEG | ITU-T | Others |
| Audio compression format | MPEG-1 Layer III (MP3) • MPEG-1 Layer II • MPEG-1 Layer I • AAC • HE-AAC | G.711 • G.722 • G.722.1 • G.722.2 • G.723 • G.723.1 • G.726 • G.728 • G.729 • G.729.1 • G.729a | AC3 · Apple Lossless · ATRAC · FLAC · iLBC · Monkey's Audio · µ- law · Musepack · Nellymoser · RealAudio · SHN · Speex · Vorbis · WavPack · WMA · TAK |
| | ISO/IEC/ITU-T | | Others |
| Image compression formats | JPEG • JPEG 2000 • lossless JPEG • JBIG • JBIG2 • PNG • WBMP | | APNG · ICER · MNG · BMP · GIF · ILBM · PCX · TGA · TIFF · HD Photo |
| Madia | General | | Audio only |
| container formats | 3GP · ASF · AVI · DMF · DPX · F MXF · NUT · Ogg · Ogg Media · € VOB | LV • Matroska • MP4 • QuickTime • RealMedia • | AIFF · AU · WAV |



3,2,1...**Action!** *Appendix A Sample Script Template*



[Some Title]

| Video | Audio |
|--|---|
| Fade into medium shot of Stephanie in front of the Ft. Bragg basic training obstacle course. She walks over to a group of teens preparing to start the obstacle course | STEPHANIE ON-CAMERA: Hello and welcome to our show "Teens Tell All About Deployment." I'm Stephanie and today I'll be taking you on a video tour of the Ft. Bragg basic training obstacle course. This course is designed to test Soldiers' physical fitness before they are sent into the field. As part of a program designed to help youth understand deployment, a group of teens participated in the Ft. Bragg obstacle course. |
| Shot of the obstacle course with teens involved in each station. | STEPHANIE VOICE-OVER (MUST SPEAK LOUDLY DIRECTLY INTO THE MICROPHONE TO BE HEARD OVER BACKGROUND NOISE.) |
| Close-up of Mark who | This is an exciting and stressful time for the teens as they try to complete the course in the allotted amount of time. None want to let their teammates down by finishing late. |
| by Stephanie | Mark: (Mark explains in his own words his feelings about the obstacle course and its difficulty. He also talks about how much he's learned about what his deployed father had to go through before he left. He will try to make his answer about 30 seconds long). |
| Stephanie on-camera | STEPHANIE ON-CAMERA: |
| the course. | You know it sounds like a lot of other teens feel the same way. Most who have participated in this program have talked about how much they've learned about what their fathers and mothers do. Everyone agrees that they are very proud of what their parents are doing to serve this country. |
| | Obstacle course team finishes and everyone cheers. |



| Video | Audio | |
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3,2,1...Action! Appendix C Sample Video Storyboard Template 1



The storyboard: a map for making an entertaining vacation movie.





2) CUTAWAY: Setting up tents.



3) Cut back to MASTER SHOT of tents being set up.



4) MASTER SHOT: Arriving on Rocky Island in lake.



5) CUTAWAY: Close-up of hand on Rocky Island.



6) Cut back to MASTER SHOT of climbing up Rocky Island and jumping into the lake.



7) MASTER SHOT: Building campfire.



 CUTAWAY: Close-up of a hand lighting the tinder.



9) MASTER SHOT: Campfire started and coming to life.



10) MASTER SHOT: Cooking dinner around campfire.



11) CUTAWAY: Close-up of campers enjoying their food.



12) Cut back to MASTER SHOT of people sitting around campfire. Dad looks full and satisfied.





The storyboard: a map for creating a wedding video full of memories.





The storyboard: a map for creating a wedding video full of memories (cont'd).



| Child & Youth Services | 3,2,1Action! Appendix E Blank Video Storyboard Template | |
|------------------------|--|-------|
| The Storyboard: | | Page: |
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3, 2, 1... Action! *Note Page*



Notes –

