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A GUIDE FOR THE NOVICE
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MAKING THE HOW-TO VIDEO: A GUIDE FOR THE NOVICE

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ABSTRACT

MAKING THE HOW-TO VIDEO:
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by

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With the availability of inexpensive video cameras, many people feel they can simply pick up a camcorder and immediately produce commercially viable how-to videos. While a number of these people do have a teachable skill or craft, they lack the knowledge needed to construct an instructional video.

Chapter one looks at the research into the problems inherent in producing videos. Forty how-to videos were evaluated on performance and production criteria. Problems with technical aspects of the videos were noted as well as differences between videos produced by professional productions houses and those produced on a tight budget.

The following chapters cover the research parameters. Solutions to the problems inherent in the videography, lighting, audio, talent performance, music use, set design, recording, and editing are covered in their own chapter.

The appendices contain information on the videos reviewed, and a two column format videoscript of the accompanying video "How to Produce a How-To Video," and a production forms packet.

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RESEARCH AND FINDINGS

RESEARCHING THE HOW-TO VIDEO

The major problem with researching how-to videos is the vast number of videos and the limited accessibility to the how-to video pool. Of the thousands of how-to videos that have been produced, available sources (as noted in Table 1, pg. 2) listed just over two thousand three hundred separate titles in twenty eight categories. The sources for these videos were four video catalogs, the How-To Video Source and three different volumes of the "No Movies" Video Catalog.

Further complications stem from the fact that, while there may be thousands of tapes on the market, in the Lansing area the pool from which to draw is limited to a universe of slightly over three hundred. During the research conducted for this paper, forty instructional videos were critiqued, the tapes were drawn from a mixture of programs that were professionally, semi-professionally and non-professionally produced.

For the purpose of being able to compare videos of similar subject matter, several topics were duplicated in this research. The most duplicated topics are, SPORTS (5), EXERCISE (4), GUITAR (4), BUSINESS (3), REPAIR (3), ARTS & CRAFTS (3) and LANGUAGE (2).

The videos ranged in length from approximately eight minutes to over one hour forty five minutes. Each video was critiqued according to the following parameters: audio, editing, graphics, lighting, script & continuity, setting, talent, and visual appeal. While some of the how-to

TABLE 1.

CATALOG VIDEOS BY CATEGORY

CATEGORY	HOW-TO VIDEO SOURCE	"NO MOVIES" VIDEO CATALOG (#1)	"NO MOVIES" VIDEO CATALOG (#2)	"NO MOVIES" VIDEO CATALOG (#3)	CUME
ADULT EDUCATION	83	1O	---	12	105
ADULT HAND CRAFTS	49	---	---	26	75
ART/GRAPHICS DESIGN	32	---	---	8	40
AUTO/BICYCLE REPAIR	13	---	---	---	13
BEAUTY & FASHION	27	3	3	5	38
BUSINESS SKILLS	61	20	11	30	122
CHILD CARE/PARENTING	31	17	8	8	64
CHILDREN'S ART/CRAFT	20	---	---	---	20
CHILDREN'S EDUCATION	52	15	10	8	85
COMPUTERS	148	2	---	---	150
COOKING/ENTERTAINMENT	74	2	---	27	103
DANCE	99	19	8	5	131
FITNESS	105	30	58	62	255
GAMBLING	17	31	---	5	53
GARDENING	12	---	---	---	12
HEALTH	83	12	8	7	110
HOBBIES & GAMES	25	1	---	7	33
HOME IMPROVEMENT	71	2	2	30	105
LANGUAGE INSTRUCTION	36	5	4	1	46
LOVE & SEXUALITY	25	25	4	4	58
MARTIAL ARTS/DEFENSE	69	4	2	---	75
MASSAGE	5	4	---	---	9
MUSIC	104	10	32	10	156
NOVELTY	---	7	---	---	7
PETS	20	3	5	4	32
PHOTOGRAPHY/VIDEO	36	13	15	7	71
SELF IMPROVEMENT	---	3	4	---	7
SPORTS & OUTDOOR FUN	263	19	9	62	353
TOTALS	1560	257	183	328	2328

videos were compared to each other, they were not judged by that comparison, but rather against the same standard of production values. The programs were also judged by these same standards regardless of the professional stature of the producers.

Since the majority of the videos observed were obtained from video rental sources, conditions such as video drop-out caused by tape wear and/or physical wrinkles in the tape were not taken into consideration when viewing the technical aspects of the programs.

While the instructional videos researched for this paper do not reflect the percentages (by subject matter) of those listed in the resource catalogs, twenty of the twenty eight categories noted in the catalogs were covered by the sample used in the research.

According to Table 2 (Video Share by Category, pg. 5), Fitness, and Sports & Outdoor Fun garner a combined share of 26.1% of the market. Of the forty tapes used in this research, nine, or nearly 25%, fall into this category. While this is a close correlation between universes, the rest of the sample does not match the tapes available as closely. The percentages exhibit a variance of up to plus or minus fifty percent. But this has no bearing on the validity of the research, since the focus of this paper is a standard of production values that should be maintained in instructional video programs.

Not only should these standards be maintained, they can be maintained with an understanding of the elements that are combined in producing a commercially viable how-to video, and the right amount of preparation and effort in using the information in the following chapters of this paper.

Nearly all the composition errors, aesthetic faux pas, and technical mistakes noted in the second part of this chapter could have easily been avoided if the professional producers and crew had been more attentive to detail during their taping.

The same can be said for those programs produced by fledgling producers, who were working with little or no budget. It is this group for which this paper and the accompanying video is targeted.

By following the information and suggestions in chapters two through twelve and the video produced in conjunction with this thesis, and putting forth the effort to develop the skills covered in the video, the average person with a skill to teach and access to semi-professional video equipment or a cable access channel, should be able to improve their video production skills by viewing this instructional video.

TABLE 2.

VIDEO SHARE BY CATEGORY

CATEGORIES	SHARE
ADULT EDUCATION	4.5
ADULT HAND CRAFTS	3.2
ART/GRAPHIC DESIGN	1.7
AUTO/BICYCLE REPAIR	0.5
BEAUTY & FASHION	1.6
BUSINESS SKILLS	5.2
CHILD CARE/PARENTING	2.7
CHILDREN'S ART/CRAFT	0.9
CHILDREN'S EDUCATION	3.7
COMPUTERS	6.4
COOKING/ENTERTAINMENT	4.4
DANCE	5.6
FITNESS	11.0
GAMBLING	2.3
GARDENING	0.5
HEALTH	4.7
HOBBIES & GAMES	1.4
HOME IMPROVEMENT	4.5
LANGUAGE INSTRUCTION	2.0
LOVE & SEXUALITY	2.5
MARTIAL ARTS/DEFENSE	3.2
MASSAGE	0.4
MUSIC	6.7
NOVELTY	0.3
PETS	1.4
PHOTOGRAPHY/VIDEO	3.0
SELF IMPROVEMENT	0.3
SPORTS & OUTDOOR FUN	15.2
TOTAL	99.8*

* .2% of the videos did not fit into any of the above categories.

RESEARCH FINDINGS

In the process of critiquing the forty videos, a remarkable number were found to have no blatant flaws that would be worth mentioning for the purposes of this study. Ten of the programs viewed met the standards of high end, professionally produced programs.

It is worth noting, however, that the majority of these videos were professionally produced, and on the high end. For example, the "Body by Jake FirmFlex Workout" was produced by the same people that produce the infomercials that hawk his products on nationwide television spots. And "Score More: Bowling" is a product of ABC Sports Home Video.

"Sirius Puppy Training" is another well made video, and while it made have been professionally produced, it was produced without the backing of capital assets that Body by Jake or ABC commands.

The main point in noting that these videos are virtually flawless is that, while they were backed by a good deal of money, it does not necessarily mean that you need deep pockets to produce a salable program. All three of these programs had the capability of being produced on a small budget with equipment available at most cable access stations and they would not have had their commercial appeal or salability affected.

This does not, of course, take into consideration that some people might be inclined to purchase a program with a well known production company name behind it over an equally well made program by a producer of lesser renown. This "big name" lure can also be attributed to the fact that many of these programs have a celebrity as the host.

While the errors may have been multiple in occurrence within a given program, only the presence of these errors are noted, not the frequency.

All of the information in the following section has been cross referenced in Appendix D on page 77.

The Video Camera

Since video is by its very nature a visual medium, the first aspect of the research to be covered will dwell on the use of the camera in these videos.

It may be a good idea to skip ahead and read the two-column format, video script in appendix G. Without the knowledge supplied in this script, many of the terms discussed will be unfamiliar.

Of the twelve videos noted to have problems with the visual aspect of their programs, three gave the impression that the cameraman and/or director thought that they would save time taping and at the editor by zooming in and out during the action to get detail shots, rather than halting the action and then editing in close-ups. This creates the potential for the viewer to miss an important part of the detail in the process being covered.

This was most evident in "Anybody's Bike Video." When working on the "crank set" (the gears attached to the pedals), the talent is well into the process he is describing before the camera is zoomed in close enough for the viewer to get a good look at his actions.

Other common problems involved how the shot was framed. There were repeated occurrences of shots being too tight or too loose in four of the programs. This is one point that is easily corrected with little effort and should be easily remedied by following the instructions in the video that

correspond to the advice stipulated in chapter two of this paper.

Other shared points that were lacking in visual finesse were common errors such as cutting from a stationary shot to a zoom in progress, and having the camera angled oddly so that horizontal lines appear slanted or the shot feels uncomfortable. One example of an odd camera angle was noted in "Tapping, Slapping, Popping Chords & Harmonics for Electric Bass - Vol. I." Not only is there an unnecessary cut at the point in question, it is a jump cut that goes from a well framed shot from the right of the instructor to a lower angle, about thirty degrees to the left so that the main focus of the shot is the instructor's limp, left hand hanging between his legs in a very unattractive manner.

There were three problems that were limited to occurrences on one video each, but they are to be noted as no less important than the other when trying to produce a program for commercial release.

In "Compatible Memories 'Memory Installation,'" printed matter that was in an extreme close-up was difficult to read.

At one point in "The Beginner's Series: Rock & Roll Bass, Vol. 1," dialogue did not match the visual on the screen. The camera was on a medium close-up of one part of the guitar while the instructor talked about something else.

In the video "Joy of Talking - Italian," while the talent spoke straight into the camera lens a plant appeared to be growing out of the top of her head. This can be an easy point to miss, especially when a novice camera operator is less intent on aesthetics than checking the focus, white balance, audio levels and the other technical points.

Lighting

There is little to be said about the problems with lighting in these videos. The lack or over-abundance of light and the presence of inappropriate shadows that made up the majority of infractions can be taken care of once the person fully understands the nuances of lighting and the abilities of studio and portable lighting instruments.

While only eight of the videos had noticeable errors involving lighting, only a few of these errors are worthy of noting.

In "Anybody's Bike Video" there is a shadow moving across the set during a close-up that is caused by something not related to the stationary shot being discussed in the dialogue. It is not that important in the overall scheme of the video, but can distract the viewer.

In "Inc. Magazine & AT&T: How to Really Start Your Own Business" there are shadows across the face of the talent while they are talking outdoors.

Surprisingly, "How to Photograph a Centerfold" had repeated troubles with the lack of back light during the exterior segments. It would seem likely that a photographer would make sure that they look good on video. One would assume that they know all about reflectors and how to use them.

Audio

When a person first works in video, it is normal for them to make the assumption that audio is not as important as video. But once they have experienced a few productions they come to the realization that, not only is the aural portion of a sequence as important as the visual, it can make or break the

visual.

An attractive and visually pleasing sequence can be seriously marred by extraneous noise, low audio signal levels, or distortion. Another audio concern that many beginners fail to fully understand is the use of natural sound.

An otherwise boring voice-over and action sequence can be made more interesting by recording a low level bed of the natural sound that was recorded while shooting the action footage. Of all the videos viewed "The L. L. Bean Outdoor Video Library - Introduction to Fly Fishing with Dave Whitlock" was the only program that had trouble with natural sound. Though most of the sequences took place out of doors, there was very minimal use of natural sound.

The lack of natural sound has the effect of distancing the viewer from the setting; while the inclusion of natural sound tends to bring the viewer into the video by making it seem more realistic.

Three of the programs had what could have been an error with recording levels during taping. This resulted in a great deal of hiss that was produced in an effort to raise the signal to acceptable levels in editing. Had the technician been more alert during the taping, the amount of hiss could have been lessened if not eliminated entirely.

Other problems that could have been eliminated by stopping tape and starting the sequence over, or simply re-doing an edit, include: late fades or clipping so that a portion of the audio is unintelligible or missing, loud, unidentified or extraneous off camera noises that can distract the viewer by making them wonder exactly what happened, and change in tone during a voice-over sequence.

Talent

Just as audio can make or break a video segment, the talent can make or break the entire program. There are three problems involving talent that are easily controlled.

The first is preparedness. If the talent has not gone over the script or cue cards, their delivery can suffer greatly and they can appear inept to the viewer. Few things ruin a person's credibility more than being at a loss for words on camera or the appearance of reading cue cards or a prompter. A cold prompter reading will most likely sound artificial, and, unless cue cards are held as close as possible to the lens, glancing to the side repeatedly can make the talent appear nervous or distracted.

The second is dressing the microphone. Dressing a microphone is an unimportant matter, but if it is neglected, the unnatural look of the cable hanging from the front of the talent can be distracting and disrupt the illusion of personal instruction that is desired in the video.

The third is attire. Often, if the talent has never been in a video before, the color of the clothing the talent is wearing is inappropriate for video. Bright hues, especially reds and blues can cause colors to bleed, even when using the most advanced equipment. White or dark material can cause contrast and lighting problems. Neutral colors of medium light reflectivity are best for videotaping purposes.

Two of the critiqued programs violated this rule by having the talent dressed in white clothing and placed in front of a light wall.

"Steve Colgate's Learn to Sail" video contained an interesting costume change. Judy Landers and Sam Jones were Steve's guests on his boat as he

explained to them how easy sailing really is. In all the sailing scenes Ms. Landers was wearing shorts and a windbreaker, then in every scene that takes place inside she is clad is a moderately revealing bikini swimsuit while both the men have not changed a shoe lace.

Two of the guitar videos had people who were great at their craft, but they left much to be desired as performers. Their monotonic delivery and lack of video-presence could soon lose the interest of all but the most interested viewer.

Several of the videos shared a root cause that manifests in many ways. When people are unaccustomed to working in front of a video camera they tend to get nervous and uncomfortable. This is all too obvious in video. A person who is uncomfortable can make the viewer feel uncomfortable as they watch. Other manifestations of nervousness can be boring/dry delivery, stilted/fake movements and repeated clearing of the throat.

One point noted in this research that is not negative is the use of celebrities in the video. Ms. Landers and Mr. Jones in the aforementioned sailing video, Steve Allen in "How to Make a Speech with Steve Allen," and Gary Burghoff in ""The Video Guide to Stamp Collecting" are all examples of using celebrities to increase the chances of selling the program. Unless a person is well acquainted with a celebrity and has the pull to convince them to perform in their video, using a celebrity can be cost prohibitive.

Of course, this does not prohibit people from using professional or semi-professional talent in their videos.

Set

The five critical points listed in the charts preceding these chapters, that were noted in four of the videos are, in reality, only two points: color scheme and lack of a natural feeling.

Often, when a person first works in video, they are so intent on getting the main focus of the shot to look nice, that they totally neglect the majority of the field of view... the background. Three of the videos in this study had the background either too bright or too plain, or both.

Furthermore, when working in a studio it is often the case that the set looks contrived. The unnatural look of the set can be attributed to props that seem out of place and are simply there for dressing. "Tapping, Slapping, Popping Chords & Harmonics for Electric Base - Vol. I" had several more set pieces than were needed which made for a cramped feel on the screen. In "Kathy Blake Dance Studio's Country Style Dance - Country Line Dances" it would have been more effective to have a bare set than to go with the bland flats that made up the back wall of the set. After all, this is presented as a dance class and where do dance classes usually take place but in a studio.

Furthermore, standing behind a podium with a sign that says "RESERVATIONS" hanging from a blank wall, as was used in "Living Language - Spanish," leaves much to be desired if you are trying to give the impression of being at the airport. The illusion could have been made a little less unnatural if the producers had simply added some "airport" noise in the background.

Once again, the right sounds could have helped make the video feel more natural, even on the unnatural set.

Graphics

Seven of the videos viewed were lacking in sophistication in regards to their use of graphics. Graphics can enhance a program by the use of color and design.., if the color and design of the graphics maintain a continuity either among the graphics as a whole or within the design elements of the program itself.

"Effective Resumes: Reading Between the Lines" provides a good example of graphics, with the important exception that the average viewer might have to press pause, rewind and play in order to read all of the message. No matter how great the graphics look, they are a nuisance if the viewer has to replay them to get all the information from them. This can be remedied by either leaving the graphic up for a longer period of time or putting the information on more than one page. Never put up more information than the average person can absorb in the time allowed.

Another point of interest concerning graphics is the use of fonts. Two of the videos sported design flaws related to the choice of lettering in their graphics. One video consistently used fonts that were too small to be easily read. Unless the viewer were very close to the screen or had a 25 inch or bigger television set, the combination of small letters and amount of information offered on the screen makes these pages ungainly and awkward to visually process.

The second video used handwritten letters and luminance keying for their graphics. This is not in itself a bad technique. The producers could have either made sure that whomever was chosen to do the lettering was artistic enough to make the lettering interesting, or designed a border or a background

of interest on which to have the text to appear.

Editing

When critiquing the editing in these videos most common mistakes involved continuity errors and jump cuts. Continuity errors are something that many people love to point out whenever they pop up in films of televisions shows. It brings a smile to their faces as they see the glass on the table as it vacillates between full and half full, or as the cigarette is barely consumed from one angle, but better than half gone from the other.

Jump cuts occur when a shot changes to a similarly framed shot and the talent appears to abruptly shift their position. There are artistic reasons that warrant the use of jump cuts, such as forcing attention on an object, or emphasizing an emotion like fear or confusion. The realistic nature of how-to videos precludes the use of jump cuts in any manner other than an opening or closing montage.

The most blatant continuity errors were observed in the video, "Effective Resumes: Reading Between the Lines." In several scenes the talent has changed her clothes while her male counterpart has not, and there is nothing in the program that would suggest a reason for the changes. It is not like the segments were supposed to take place at different times of the day or year, the changes just happened. Perhaps the producers thought that the change in attire was needed since the talent also had her hair done four different ways during the course of the hour.

The producers of "Rock 'n Roll Guitar Course 4" had a good idea of coding the beginning of segments with color backgrounds for the graphics in

each segment. The talent announced this and then, from that point on all the graphics had a white background. Continuity not only refers to the relationship of one shot to another but to an overall consistency with the program as a whole.

Other continuity errors ranged from cutting to shot where the talent is holding an object differently than they were in the previous shot, to objects being re-situated after a cut.

Timing is an important part of editing. There are many editing errors that stem from not having a full grasp of how to determine timing in edits.

Dissolves that last too long and either linger while the talent is engaged in actions other than those meant for the viewer (such as looking off camera and taking off their tie-tac mic), or catch the camera at the start of end of a zoom can be distracting to the viewer.

Graphics can be up for too short or too long a time. As mentioned before, having to reverse the tape can make a tape a job to watch, and one of the purposes of watching a video (instead of reading a book) is the ease of assimilation of information of watching a process rather than just reading about it. Anything that interrupts that assimilation can be a detriment to that assimilation.

There are few things that can make a person feel more awkward and self-conscious than being in front of a camera and having nothing to say. There are also few things that can make a person look sillier than sitting with the expectant expression that most people have while they are waiting to find out if they have to do another take.

Timing may not be everything, as it is in comedy delivery, but it is just about everything. If a video has beautifully composed shots, perfect audio, impeccable lighting, an engaging script, a realistic set, computer animated

graphics and Mel Gibson or Sandra Bullock for the talent, but the edits are timed poorly, the program will be a bust. Even the best delivery can seem awkward if the edits are too loose or too tight.

Just as bad timing can ruin an otherwise perfect program, a lack of shot variety, mismatched video/audio, or trying to glitz up a program with an over-abundance of wipes can characterize a video as an amateur production.

In both "Joy of Talking - Italian" and "Pump 'N Seal Vacuum Sealer," there is basically a few variations of one shot throughout the entire program. In the first video, most of the shots are medium shots of people talking before an undecorated, bland background. In the latter there are basically three shots: A wide shot of the set, a medium shot of the talent and the counter, and a close-up of the materials on the table. The producers could have broken up the monotony by merely changing the angle of the shots from time to time.

One would think that a corporation as big as Microsoft would exert a little more effort than most to ensure that anyone producing a tape about Windows 3.1 would keep the program free from error, but at one point in "Microsoft Windows 3.1" the voice over prompts you to "click" on "OK" while the action on the screen shows the cursor on "NO" and there is no "OK" on the screen. So what does a person do? Follow what they see or what they hear? They will just have to experiment, which would seem contrary to the purpose of purchasing the video.

Another problem with mismatched video and audio is most prevalent with "live on tape" programs. Often an inexperienced director will sit on a shot while the talent is talking and there is nothing of importance happening in that shot. A person with more time in the director's seat would recognize the need to cut to the talent, whereas the novice might stay on the other shot due to a fear of

missing any action.

The "Microsoft Windows 3.1" video was also plagued by a world of wipes. The number of wipes was equalled only by the variety of wipes. The producers might have thought that using all those different wipes made the program look all that more fancy and polished, but the amount of wipes, combined with that variety went more than a bit overboard.

Since this paper is concerned with How-To videos that are made by beginners, one might wonder why the emphasis on analyzing so many professionally done videos. The number of problems that were noted in the forty videos that were viewed for this thesis were, in reality, rather small for the number of videos observed. The main object of the research is to point out that mistakes can occur in even the higher budgeted projects. The reason for pointing out these problems is to give the novice a background of what to avoid. The purpose of the video and paper is to give the beginner suggestions that may help them avoid making the same mistakes, and thereby save them time, money and grief when they delve into the world of How-To video production.

Chapter Two

THE SCRIPT

All projects, whether building a house or producing a video program, begin with a concept, but once the concept has been formed it is necessary to organize that idea into some manageable form. Prior to building a house a person first needs to produce a blueprint and a detailed listing of materials to ensure that the final product matches the initial idea. This also helps to lessen waste of both time and materials. The same is true in video production. The video script is the blueprint and the production schedule is the listing of materials.

The most common form of script used in video production is the two-column format script. This script organizes the audio and video of the program into two columns (video on the left & audio on the right) that make it easy to follow the action and dialogue. Each shot is numbered by changes in the video portion of the program, and the matching audio is conveniently located on the same line across the page. By numbering the shots, the director, crew and talent can more easily communicate and refer to the script when discussing changes or trying to fine tune a segment during rehearsal and taping.

Valmont states that:

> Keeping things simple is especially important when planning a school video production. It is natural for enthusiastic teachers and students to want to add many bells and whistles to their first videos, but this is not wise. It is important not to let the sets, graphics, staging, and so forth overpower the basic lesson or information contained in the video. (Valmont, 1995, pg. 33)

While Valmont is referring to videos made by students and instructors,

this statement is also something that the novice producer needs to take to heart. The overuse of gimmicky wipes and digital effects can contrast with the message the producer is trying to get across. The first point at which a person can trim the fat from a production is in writing the script. They simply need to, "Outline the concept just as you would a lesson plan. Use whatever outlining method you prefer. For a very simple program, a numbered list of the key concepts is sufficient." (DeLuca, 1991, pg. 5) While the average person has never made a lesson plan, they most likely understand what an outline is. Drafting a simple step outline before writing the script can aid in first, organizing their thoughts and secondly, in putting the concept down in a form that is more easily transformed into a script.

While the outline is a good framework on which to base the script, the main problem facing the novice at this point is the fact that, "For many people, the hardest part of developing an effective video is thinking visually." (DeLuca, 1991, pg. 15) The following chapters on the video camera and editing (and the equivalent segments of the accompanying video) will serve as a primer in shot framing and sequence building for the beginner.

Another point that needs to be kept in mind during the process of writing the script is that, "realism makes the difference. Vignettes that look staged, contain predictable dialogue or appear 'too perfect' lack credibility." (Carlberg, 1985, pg. 46)

For a fledgling writer the most intimidating part of writing a videoscript can be the format of the script, the terminology of video, and the amount of abbreviations used in the script. To ease the pain of learning by trial and error, this paper includes a sample script (Appendix A, pg. ***), and a glossary of video terms (Appendix C, pg. ***).

The companion video will be furnished with a IBM formatted 3 1/2" diskette that will have all the forms included in this paper (excluding those that pertain only to the research and findings of this paper), and a copy of a shareware program called "AVScripter," with which the sample script was produced. This program has a manual on the disk that fully explains the program's operation.

Once the script has been written, it is necessary to arrange the segments of the script into a more manageable form. The easiest way to organize a script is to assemble the shots into groups by location. These locations are then organized by dates to make up a production schedule. DeLuca states that, "The purpose of a production schedule is to promote efficiency and to complete your project with the least possible expenditure of resources." (DeLuca, 1991, pg. 124) When working with a tight budget, or a high one, the most precious resource is time. By adhering to the shooting script it is less likely that the director will miss a shot while on location and have to spend valuable time assembling the crew, returning to the site, setting up the equipment, and taking hours to obtain some footage that would have taken minutes had it been taped at the initial setup.

The scripts are the first concrete pieces of material with which producers/directors work. They must be as error free as is possible. Therefore it is a good idea to have several people proofread them prior to production. The more time spent on making the script and shooting script precise, the less trouble there will be during the videotaping. Which brings up the next subject, the video camera.

Chapter Three

THE VIDEO CAMERA

"The television camera is one of the most important production elements. Other production equipment and techniques are often influenced by what the camera can or can not do." (Zettl, 1992, pg. 71) To some this may seem to be a rather bold statement, but it is true. Of course, the camera is not the only limiting factor involved in producing a video, the technology available at the facility can play a major part in what can or can not be done in a production.

When it comes to setting up for in studio productions, the facility engineer will be the person who prepares the equipment and is responsible for shading the cameras for correct color reproduction. Where most technical difficulties are for the novice is during a remote shoot.

White Balancing

How to properly white balance a camera is the first thing which should be taught about remote camera operation. The basic process by which a camera is color adjusted in the field is either a four or five step process.

The four step process: Making sure that the iris control is set at the "AUTO" position, any gain switches are placed in the "0" or "OFF" position and the filter wheel is in the position corresponding to the light in which you are shooting. (If you read the script at the end of this paper you know about these controls, they are discussed in further detail under the next sub-heading.) First, zoom all the way in on a pure white surface. (The white needs to be pure white, but there may be up to ten percent of other colors or black on the surface.)

Second, focus sharply on the surface, using an edge or a marking on the surface for a reference. Third, if the camera has one, press the black balance button (or flip the black balance switch), and lastly press the white balance button (or flip the white balance switch).

A camera requiring the five step process simply inserts a second white balance step prior to black balancing. Most older cameras require the white/black/white balancing. One thing to keep in mind is that, no matter what process is used when color balancing, white should always be the last operation since the electronics of black balance can affect the white balance, while the electronics of white balance will have no effect on the black balance.

Basic Operation of Camera Controls

While the configuration of controls may vary from camera to camera, and consumer grade camcorders have effects and other built-in functions, the fundamentals remain the same for all cameras. There are six basic types of controls on remote video cameras: White balance, audio, gain, iris, focus, and zoom. White balance has been covered, and audio will be discussed in chapter five.

Gain is a useful tool that is often misused. The function of gain is to increase the level of the video signal going to the tape. The reason for boosting the signal is to compensate for low levels of light when it is impossible to raise the light levels. This does not mean that gain should be used to make up for inadequate light on a remote shoot just because the crew doesn't to put forth the effort to set up the remote lights and decide to try to make do with available lighting.

Gain should be used only when there are no other alternatives. The reason being that with every increase in gain there is an increase in video noise (snow to the layperson), which can result in a grainy picture that may stand out when juxtaposed with footage shot with proper lighting.

This does not preclude the use of gain in an artistic sense. If the desired effect is to have a grainy visual, it is possible to pump up the gain and close the iris to compensate for the increase in brightness thereby achieving the graininess and maintaining correct exposure.

The iris has the potential of being controlled either, manually. remotely or automatically. Remote control of the iris is limited to in studio use and is usually the purview of the facility engineer. On most cameras, the switch used to select the three means of control is located on the lens.

Placing the iris control in the "AUTO" position causes the iris to open or close as the light decreases or increases. The iris will not only open when the lights are decreased, it will also open as a darker object is brought into the field of view and the amount of light reflecting from the set into the lens decreases. For this reason, it is not a good idea to leave the iris in manual when taping. This can be a problem when trying to put together a video using consumer grade camcorders which may not offer the option of switching out of auto iris mode.

When placed in "MANUAL," the "IRIS RING" (a ring on the lens with numbers ranging from 1.2 to 16 and the letter "f" preceding the first number) disengages from the electric motor that is part of the auto system. Now, the iris will remain where it has been set until manually rotated to another setting.

On nearly every camera there is a button by the auto/remote/ manual selector that will temporarily engage the auto control while the selector is in the "MANUAL" position. This allows a person to place the iris at what the camera

senses is the optimal setting, then use their own discretion to adjust the iris ring to their own preference. This is fully explained in the script accompanying this paper.

The focus ring is the largest control on the camera, being that it makes up the bulk of the body of the lens. Focus is one of the simplest controls to use. The body of the lens is a rotating barrel that may have the ability of focusing sharply, at as close as three quarters of a foot to as far away as seventy five feet.

One thing about focusing that usually causes trouble with beginners is forgetting to zoom in on the subject that is to be in focus. When focusing on an object, while zoomed in fully, the object will stay in focus whether the field of view is wide or narrow, but if the focus was adjusted while the lens was in a medium shot, the shot would most likely lose its focus once the shot were tightened.

The zoom control can switch from "SERVO" to "MANUAL." The servo control is usually a large rocker switch situated on the right side of the lens along with the iris control. Pressing the rocker on the "W" (wide angle) end will widen the field of vision. Pressing the "T" (telephoto) end of the rocker will narrow the field of view.

Usually, on the underside of this control is a switch that is used to select the servo or manual functions. There are two reasons to use the manual function. Conservation of energy and snap zooms.

When shooting on a remote that requires the use of batteries, the two things that use the most energy are the VTR and zoom motors. By placing the VTR in the "STANDBY" mode and using the zoom manually the life of a battery can be significantly extended. The temptation to use the servo for focus and composition can be curbed and the zoom control can be returned to servo mode

whenever needed for an upcoming shot.

The snap zoom is a quick change in focal length that quickly changes from a wide shot to a close-up, or vice versa. It can be effective to emphasize or shock, but in the context of an instructional video it is a technique best left to opening or closing sequences.

Shot Framing & Composition

Due to the innate nature of how-to videos, there are really only three shots that are of any concern: The wide shot, medium shot, and the close-up.

The wide shot should be used to establish the location and the materials that will be used in the demonstration. Examples of wide shots include: An exterior of the building, such as a candy store or blacksmith's shop, the wheels and shelves of pots in a ceramics studio, or the interior of an editing room.

The wide shot may seem easy to compose due to the nature of the shot, but there are more points to consider than just zooming wide and taking it all in. The director or videographer should have a sense of framing that will result in a shot that not only includes all of the elements required to be on the screen, but also eliminates those objects that need not be in the frame. Furthermore, they should also have a knack for capturing a scene that is pleasing to the eye. By paying close attention to big budget programs, especially film, the novice might be able to obtain an understanding what the aesthetics of shot composition entail. This does not mean that this person will automatically know how to compose great shots after watching hours of Alfred Hitchcock or Orson Welles, what it may do is give them a base upon which to experiment.

A medium shot of the talent is most useful in demonstrations during times of exposition when preparing for the next segment and there are no actions to accompany the dialogue. Medium shots can also be good transitional shots. They also provide the viewer with a slight breather, break up what might be a string of monotonously similar close-ups, and allow the talent to reestablish eye contact and the illusion of intimacy.

When composing this medium shot it is important to take three things into consideration: Head room, talk space, and the "rule of thirds." Headroom refers to the convention of keeping a slight gap between the top of the person's head and the top of the screen. Depending on the framing of the shot, the gap can be anywhere from one inch to one quarter inch when measured on an average 19" television screen.

The concept of talkspace seems to be one that often confounds the beginner. In shots where the talent is speaking directly to the viewer, talk space is not an issue. Talkspace comes into the picture when the viewer is an observer of a conversation between two or more persons. The standard medium shot, with talkspace, has the talent framed at a slight angle where both eyes are visible. The talkspace is created by framing the shot so that the talent's nose is horizontally centered on the screen.

The rule of thirds uses four imaginary lines (two vertical and two horizontal) to divide the video screen into nine equal rectangles. The lines are respectively placed one third screen width from the sides of the screen and one third screen height from the top and bottom of the screen. The most important of these lines is the upper horizontal line. By placing this line across the talent's eyes and centering their nose horizontally, the videographer will have little trouble adjusting the camera to achieve a more than adequate medium shot.

The most important shot in a demonstrative video is the close-up. "**Close-ups** isolate elements within the medium shot and reveal details previously unnoticed..." (Fielding, 1990, pg. 55) In a how-to video there is often rather intricate manipulation being performed for the camera, and poorly framed close-ups can ruin the ability of the video to get the information to the viewer. Every novice should be aware that the "...basic purpose in framing a shot is to show images as clearly as possible and to present them so that they convey meaning..." (Zettl, 1992, pg. 128)

The most important thing to realize when composing the close-up is framing. If the shot is too tight, a crucial action may have been rendered invisible. If it is too loose, the action may get lost on the screen if there are a number of objects in the frame, or it may just be too small to be appreciated on smaller television sets.

In writing about videography in general, Wurtzel states that there are times that, "...the audience <u>needs</u> to see a close-up..." and, "...the audience <u>wants</u> to see a good close-up..." (Wurtzel, 1989, pg. 97) If this is to be taken as a rule of thumb, it should be stressed even more so in an instructional video. Without the use of the close-up, the most important parts of the video may be too small on most screens to be seen clearly.

Yet, the overuse of close-ups can also pose a problem. "The talking head is avoided by most production people." (Fielding, 1990, pg. 123) When the major part of a how-to video has little to do with physical action, as in "Inc. Magazine & AT&T: How To Really Start Your Own Business," the visuals can become quite boring. Even the most engaging subjects can become uninspiring if the program lacks visual variety.

The solution here is to vary the shots of the talent by size or angle, or insert graphics to emphasize the exposition whenever the opportunity arises.

Shot Continuity

The main reason for trying to maintain continuity in a video is to keep the program flowing in a natural manner thereby maintaining the illusion of reality created in the video.

There are three means of tracking continuity during a video shoot. One is to shoot the video as a live taping, which is not recommended for the novice. Another is to find someone who catches every little detail about everything and ask them to work as your continuity director while you tape. Give them a pad and a pen, and have them take notes.

Shot continuity is controllable, but it takes a concerted effort. The person in charge of continuity must be someone who can be trusted to pay attention to detail, is not easily distracted, and will not be too timid to stop the taping in order to put something or someone in the proper place.

Maintaining continuity is easiest when all the taping of a scene or set of scenes is done in a single session, but by keeping detailed notes of such things as the talents' clothing and jewelry, placement of props and set pieces, and anything else that may be noticeable, the video should be relatively free of continuity errors.

Chapter Four

LIGHTING

When it comes to lighting, whether in the studio or on location, it is generally accepted that, "(t)he three broad purposes of lighting are (1) to provide the camera with enough light to function technically, (2) to enable viewers to see what an object looks like and where it is, and (3) to establish mood." (Zettl, 1992, pg. 18) With the development of the CCD (Charged Coupled Device), or "chip" camera, providing adequate light is a relatively effortless task. In cramped offices it is a common practice to use only one fixture to illuminate what would have demanded at least two lights with an older, tube camera. It is not recommended, but sometimes circumstances make it unavoidable.

For the same reason, these new cameras have no problems in fulfilling the second purpose of lighting. Their sensitivity to light makes them ideal for viewing objects of even very small dimensions without having to use multiple lights.

The third purpose of lighting is not a matter of electronics, but of aesthetics and taste. No camera is going to do the creative part of a person's work for them. The eye for setting mood can only come with observation, training and experience.

Just as there are three basic purposes of lighting, there are three basic places where a video shoot can take place, (1) in a studio, where the lighting is most easily controlled, (2) in an indoor remote location, where there may be light bleeding into the room from outdoors, which may cause white balance problems, and (3) outdoor remotes, where the only way to control the lighting during the day is with shadow and reflection.

Studio

There are three types of lighting that will most concern the how-to video: Talent/object lights, general set lights, and special lights.

When it comes to lighting the talent or an object which is the main focus of the shot, "Standard television lighting uses the three-point approach -- a key, fill, and back light to illuminate a subject." (Wurtzel, 1989, pg. 178)

The key is the main light of the three-point approach. It provides the baselight by which all other lights are set. This light is placed so that it illuminates the object from a position within thirty five to fifty five degrees in elevation and within the same arc from the vertical centerline of the object as reckoned from the camera lens. When an individual is not facing the camera directly, it is best that the key light illuminate the side of the individual nearest the camera. Depending upon the cameras, set-up of the studio, and personal tastes, the key light can be made to register within a range of one hundred to one hundred fifty foot candles, as measured with any light meter.

The fill light is used to soften the shadows created by the key. It should be positioned at the same elevation and arc as the key, with the arc being measured opposite the vertical centerline from the key, a mirror image, so to speak. The fill light, by rule of thumb, registers half the foot candles of the key light. Again, depending on cameras, taste, etc., that rule may be bent as much as plus or minus ten percent. In other words, the fill light could register between forty and sixty percent of the key light.

The back light has the function of separating the subject from the background and lending an air of three-dimensionality to the subject. The angle of elevation of the back light may be shallow or steep, depending upon the

placement of objects and the size of the studio. Often there is not enough room to achieve an angle equal to those of the key and fill. The only thing to do, in this case, is to place the fixture as far back as possible and hope for the best. The angle of arc for the back light is somewhat subjective. While the rule of thumb is to place the back light directly in line with the key light (180 degrees arc from the key), it can also be placed squarely behind the talent. If it is not possible to place the back light in either of these locations, it can be placed anywhere within the area between these two points.

Indoor Remote

The rules for lighting during an indoor, remote shoot are the same for those in the studio. Three point lighting should be attempted, if at all possible, but it may not always be possible to abide by this rule. Since most remote lighting is set up with fixtures on stands, rather than ceiling mounts, there is the possibility that the back light may have to be eliminated if there is not enough room for the stand, or if it is impossible to keep the stand out of the frame. Three point light should be attempted in all situations,

If this is the case, it may be necessary to bounce the light off of the wall or ceiling. Not only can this solve the back light problem, but, "(y)ou can also use (this as) the background light to provide some visual interest to an otherwise dull background."(Zettl, 1995, pg. 140)

In very cramped locations, the use of diffusion material or an umbrella will eliminate the harsh light caused by having to position the fixtures so close to the subject. It is also possible to use the edge of the light beam to soften the light falling on the subject. With this technique, and a little practice, you can use the

edge of the fill light to illuminate the subject and the "hot spot" as a reflected back light, background light, or both.

One problem with shooting in remote location that has windows is that there is a mixture of color temperatures, the 3400°K of the portable light, which is reddish in nature, and the 5200°K of the natural sunlight, which is bluish. The only way to assure that the camera will be seeing the correct colors is to position the white balance card so that both light sources are reflect into the camera lens, or simply block the outdoor light with window shades. Florescent lighting can also effect color temperature and white balance, so if it is possible, eliminate any overhead florescent lights.

Outdoor Remote

One might assume that a bright, sunny day is the videographers dream. In reality, the harsh shadows created by the direct sunlight make for some pretty bad visuals. "An overcast day is ideal for outdoor shooting. The cloud and fog act as giant diffusion filters: the giant and brutally bright spotlight of the sun becomes a huge but gentle softlight."(Zettl, 1995, 143) But what if there isn't time to wait around for an overcast day?

Fortunately, there are a few things that can be done about the problem of harsh sunlight. On an outdoor shoot, bring along a lighting kit. Most lighting kits have flags and reflectors. A flag is a flat, rectangle about eight by twelve inches in size that is used to block some of the sunlight falling on a subject. A reflector is the same size, but mirror-like in appearance, with one side smooth, and the other wrinkled (to soften the reflected light).

A flag is mostly used to soften the key light (the sun). Reflectors can be used to raise the fill light, in order to reduce shadows, and/or create a back light.

If flags and reflectors are unavailable, "(y)ou can use a simple white card as a reflector, (or) crumpled aluminum foil that is taped unto a stiff backing..."(Zettl, 1995, pg. 144) And, just as easily, similar objects can be used as flags.

As has been mentioned, lighting is one of the most important visual aspects of a program. If the light is not right, images may be hard to make out, the emphasis may be in the wrong place or the lihgt may distract the viewer from what is being conveyed.

Plan for adequate time to set the lights, rushing to get the lights done means settling for something less than desired. Remember the three-point set up and use it whenever possible, even outdoors (via flags and reflectors.)

Chapter Five

AUDIO

As stated in the first chapter, it is unwise to underestimate the value of the audio portion of a video program. Improper microphone placement, inadequate audio signal levels and extraneous noise can, individually or in combination, ruin an otherwise flawless taping session.

Microphone placement might seem to be one of the easiest problems to correct. One merely places the mic as close to the sound source as possible. But it may not be as easy as it appears. With a tie-tac microphone it is a simple matter to get the mic close to the speaker, but when the only microphone available is a hand-held mic it is impossible to maintain closeness without having the mic intrude upon the shot. It is also worth noting that the distance at which the mic must be held to keep it out of the shot increases as the angle widens. If a tie-tac microphone is unavailable it is best if a shot-gun microphone is used. The directional properties of a shot-gun microphone make up for the distance to the source and help to cut down extraneous noise.

The means of attaining adequate audio signal levels is a rather straight forward process. One needs to ensure that the level indicator registers between negative five and positive one on the level meter. Where the problem arises, for the most part, is the erratic levels that people maintain in their speaking. In the case where a person's variance in volume is exceptionally erratic, it may be necessary to have a person vary the levels manually in order to keep the audio from becoming too low and unintelligible or becoming too high and distorting.

Studio

With the lessened chance of unwanted noises and distractions when recording in a studio, one might ask what problems might arise in the studio.

There is always the possibility that there may be something wrong with the audio equipment. There might be a short in a cable or some other minor problem that can eat up valuable time while another is secured to replace the defective one, but equipment repairs are a condition that will be taken care of by the facility engineer. To ensure that the shoot will go smoothly, it is advisable to schedule a set-up session with plenty of time to iron out any trouble before the taping is to begin.

One thing about miking the onscreen talent that goes unnoticed by many newcomers is called "dressing" the microphone. This usually refers to lavalier (hung around the talents neck) or tie-tac (fastened to the clothing with a small clip) microphones. Dressing a mic is a way of making the the mic and its wiring less noticeable. Typically, the microphone cord is: (1) hidden behind and clipped to) a person's tie, (2) concealed by the talent's suit coat or jacket and clipped to their lapel, or (3) fed up under their shirt, blouse or dress and clipped to their shirt between the two uppermost buttons.

For persons wearing tee shirts or sweatshirts the mic is pulled up through the collar and clipped to the front of the shirt.

Since extraneous noise is usually easily controlled within the studio, one would think that once they get the talent miked, and there are no electronic problems that there is nothing else that can go wrong. But there are a few things that may occur.

The talent may have a habit of breathing out strongly and the rush of air will cause a rustling sound as it flows across the microphone. Another problem has to

do with the percussive power of the letter "P." When directed into a microphone, the puff of air that accompanies the "P" can cause the levels to be raised to the point of clipping off the sound. This occurance is called, "P-popping." To remedy these, use the windscreen that is most likely stored in the mic case or with the studio's audio supplies. If the P-pops are stubborn, moving the mic will be the only way to do away with them.

If the talent has long hair, it may brush against the mic and can cause a variety of noises. Similar sounds can come from the mic rubbing against clothing. Using a windscreen will not eliminate these sounds, the only remedies are to tie back the talent's hair or reposition the microphone.

Remote

Avoiding extraneous noise in the studio is not a problem, unless the person in charge does not know how to keep the crew in order. Where the problem occurs most is out on a remote shoot, where there are many things that can happen to disrupt the session.

Capturing the noises of the surrounding area is important in maintaining the "you are there" quality of a location video. For this reason, "(a)mbient sound should always be recorded, preferable on a separate track. These sounds are essential for continuity in postproduction." (Zettl, 1992, pg. 250) In fact, it might be a good idea to record a minute or two of natural sound, just to have the noise if needed for bridging to another segment or to help mask unwanted background noise where the desired natural sound was missing.

Natural sound may be the one thing in audio that all beginners tend to overlook. They do not realize its importance or its uses. As Zettl states, "...in most

sound recordings we try to eliminate as much of the ambient sound as possible, (but) in television these sounds, when heard in the background of the main sound source, are often important indicators of where the event takes place or even how it feels." (Zettl, 1992, pg. 281)

While it is desirable to have natural sound recorded to go with the video being acquired, it is not desirable if the natural sound is inappropriate. The most common unwanted natural sound is the rushing noise that comes from wind moving across the microphone. Fortunately, it may be negated by placing a windscreen over the microphone. While it may not entirely do away with the noise, it might limit it to a manageable level.

Most other unwanted sounds will be man-made noises that have intruded upon a natural setting, such as an airplane buzzing overhead or an automobile roaring past on a nearby road. If the disruption is minor, the director may choose to ignore it, but if the intrusion is a major concern, the only recourse might be to stop and start the shooting again, once the noise has abated.

Chapter Six

TALENT

"Television talent refers to all persons who perform in front of the camera. They are classified in two large groups: television performers and television actors." (Zettl, 1992, pg. 453)

Except for some rare cases, the beginning producer will not be enlisting a professional performer in the making of their how-to video. Most likely, they or a friend may end up being the talent. There is little advice that can be given to the amateur when they get in front of a camera other than, play it natural and relax. But there are several points that should be taken into consideration when choosing talent for a production.

Video Presence

There is a reason why actors look the way they look. This is not referring to the average "good looking, "Hollywood type", but to the fact that actors are usually chosen because they look the part. It would be foolish to choose a man that would look perfect as an English butler to play a hard-boiled detective, and it would be equally foolish to have a typical computer-nerd type (glasses, pocket protector, high voice and pimples), ala the "Nerds" movies, demonstrating the finer points of overhauling an engine.

The above examples may be extreme, but they make a point. It is also important that the producer is capable of viewing themself or the talent with a critical, unbiased eye. If the person on the screen is not videogenic, it will detract from the overall look of the video.

Furthermore, it is imperative that the performer feel comfortable in front of the camera. If the person on the screen is uneasy, that uneasiness may be perceived by the viewer as an indication that the person is not as familiar with the process as they should be. If the person is uncomfortable and moves stiffly and unnaturally, the video will look staged and the illusion of reality will be destroyed.

Aural Presence

Just as a clean, electronic audio signal is needed to make the reproduction of that signal usable, the sound itself needs to be clear and understandable. When it comes to the human voice, the tone and timbre of the voice is as important as the level and clarity. A person must enunciate clearly, of course, but when instructing via video it is best if the person's voice commands attention and is pleasing to the ear. How many times would a person listen to a tape if they found the narrator's voice to be irritating?

Not only is nervousness evident to the eyes, it is also picked up with the ears. A narrator that wavers in tonal quality or reads the script in an erratically paced manner will be perceived by the listener as being unsure of themselves and may not fully trustworthy in what they are saying.

Talent vs. Craftsperson

It may be better, for the video's sake, if the person who knows the craft or has the skill being taught and the narrator and/or on-screen talent are different people. The craftsperson would still be in the video and demonstrate the process, but they would have limited reason to speak to the camera. This would remedy any of above problems. The possibility of coming across as uneasy would be lessened due to the craftsperson being more intent on their craft than on the camera. Still, it may be several takes before the person is able to totally ignore the fact that they are being taped, but once they get used to the idea of doing, the job will be foremost in their mind. By using cue cards or a teleprompter, the talk of memorizing all the dialog is done away with and the talent may feel more at ease in front of the camera. Positive reinforcement from the director is also important. If the talent feels that they are getting better at the job, it may bolster their confidence and improve their performance.

Makeup

There is little reason to do elaborate, theatrical-style makeup for an instructional video. The beginner can make do with "(t)he most basic makeup item (which) is a foundation that covers minor blemishes. Water-based cake foundations, which come in a variety of skin tones, are generally used for television makeup." (Zettl, 1992, pg. 458) There is one other makeup item that may be put to use by the how-to video producer, translucent powder. This powder, which comes in cake form in a compact, can be brushed on or applied with the applicator in the compact. Its main use is to dull reflective area of the face and head. Foundation may be

reflective, and even mildly oily skin is definitely reflective. The translucent powder comes in a variety of skin tones, but will not cover blemishes and blotchy skin and will allow the unevenness to show through. People with clear complexions or male patterned baldness are those most likely to need translucent powder.

The main things to remember about talent is to find someone who is comfortable in front of the camera, is videogenic and has a good speaking voice. Make them feel at home and keep encouraging them.

Chapter Seven

MUSIC

One may think that it is not necessary to have music as part of an instructional video, but the right music added at the right times will make the video more alive and energetic and will also help to make slow or dull segments more bearable.

Popular & Production House Music

Unless a person is (or knows) a musician/composer, music can be prohibitive in a low shoestring-budget video. If using music by a popular recording artist, there are royalties due to the composer. These royalties are paid to ASCAP or BMI. Rates vary and will be discussed in chapter twelve.

There are many production houses that have an extensive library of music that they catalog by mood and type. They charge varying rates depending upon the length of the audio clip being used.

There are several companies that sell sound effects and music records, tapes and compact discs. Many sell the recording and the purchaser obtains the right to use the effects and music as much as they want at no extra charge, others expect more payment for every usage.

One problem with using production house music is that the same music may be found on several other videos, perhaps even videos concerning the same subject matter.

Original Compositions

Writing original compositions yourself is the least costly way to obtain the music needed for a video. The only catch is knowing how to write music. The next best thing is knowing someone who knows how to write music. This may not be as difficult as it seems. Nearly everyone know someone who plays an instrument. Most towns have someone who teaches piano or guitar. The trick would be to find a person who can also write and then getting them to come up with something that fits the feel of the program and sounds good.

While it may be possible to get a friend to help out for the thrill of seeing their name in the credit roll, a music teacher may want a little money along with the credit roll, and thereby pump up the cost of the video.

Music Placement

If music is to be used, there are several places where music should be included. The opening/title credits, any title/graphics pages that lack narration, long transitions between segments or scenes, and the closing credits. There may be other places where the producer or director wishes to have music, but that is a matter of style and form and not something that can be taught.

The main musical theme should be played during the open and close. If the open fades up from black, the music should fade up with it. Likewise, the music should fade softly at the end of the closing credits.

The music for transition can be the same as the open, or it can be a variation on that theme or a different tune of similar mood. Depending on the style and tastes of the producer or director, the transitional music can either come in low during the

final seconds of the end of a scene, carry through the transition at a higher level and fade out during the first few seconds of the next scene. Care must be taken that the level of the music does not interfere with the viewers ability to understand any narration before, during or after the transition.

Music can also be used to dress up a segment of video that is lacking in natural sound. While it may not be as desirable as the natural sound, it will be much better than a dead, hollow silence behind the narrator's voice.

Chapter Eight

THE SET

When most people think of a "set" in television, film or theater, they envision the typical studio or stage with all its rigging and technical apparatus. In theater, this is always the case, but in film and video there are often parts of a production that take place on location, that is, in an actual setting such as the woods, city streets or house. In a how-to video it may be easier to move the equipment to the location than it is to recreate the natural setting of the demonstration to be taped.

For example, it would be much easier to transport a camera, tape deck, audio and lighting equipment to a ceramics studio, than it would be to transport the potter's wheel, and kiln to the video studio.

This does not mean that every demonstration should be taped in a natural setting. Since the video studio is the most easily controlled environment, it is best that any production that can be done in the studio, is done in the studio.

When choosing the place to tape a video it is a good idea to keep the following quote in mind. "The four functions of set and staging design are (1) to provide the background and physical environment for the action, (2) to set time and place and to establish mood, (3) to give the show a unique style which unifies its visual elements, and (4) to work as an effective production element which complements the show's objectives and the production operation." (Wurtzel, 1989, pg. 475)

If the above objectives can't be achieved in the studio, a location shoot would seem in order, just as Wurtzel states, "(a) remote location offers realism, detail, and an atmosphere which is often impractical or impossible to recreate inside the studio." (Wurtzel, 1989, pg. 376)

Location

There are two main factors to consider when shooting on location, intrusive sound and lighting requirements. Both of these factors have been covered in the audio and lighting chapters of this paper. What will be considered here are points to keep in mind when choosing a location to shoot the footage.

When the shooting is to take place out of doors, it is important to remember the amount of equipment that will be needed. If the location is only accessible by a hiking trail, it may be an exhausting day's work just getting the equipment set up.

Fortunately, most location shoots for demonstrations will take place in a workshop, a kitchen or another setting that is difficult to reproduce in the studio. Aside from the possible constrictions on space for the video equipment, the availability of electrical outlets is one thing that must be taken into account when shooting in these settings.

It is recommended that the producer, director or other person in charge of the session scout the location for several reasons. Knowing if there are enough outlets to supply current to the camera, deck and lights is important. Find out which outlets are on the same circuit, put the camera and deck on one circuit and the lights on another. This will lessen the chances of tripping a breaker or blowing a fuse, and since the lights use the most current, keeping them on their own circuit will lessen the chance of harming the camera, deck or tape if the circuit is overloaded.

Studio

"A generic setting can be created with a chair placed away from a wall, a potted plant on one side, and a table lamp in the frame on the other. This helps

break up the background and to give the appearance of a comfortable atmosphere." (Benedict, 1992, pg. 115) This makes a nice setting for a how-to video that will be static in nature, such as instruction for a guitar techniques, needlepoint, or dry fly tying.

This set may be fine for the guitar and fly tying, but when considering a video such as needlepoint instruction, the basic setting described by Benedict may appear a bit spartan. Adding more set dressing will make the set appear more like a natural setting. "Set dressings include things that you would place in your own living quarters to make them look attractive and to express your taste and style of living." (Zettl, 1995, pg. 335)

With the addition of a painting on one wall, an oriental or spiral cord throw rug, a lace doily under the table lamp, and a rocking chair, the set will look more like a place where a person might spend their time knitting, crocheting or doing needlepoint.

Chapter Nine

RECORDING

In this chapter we will cover the recording of a video. Recording scenes that are to be edited together, and recording the action as it happens are the two basic taping techniques to be discussed. While recording to edit and recording live are herein treated as two separate entities, it should be noted that neither is written in stone. Segments of a video that is meant to be edited may be shot in a manner that emulates live-on-tape recording, likewise, it may be necessary to edit segments of a live-on-tape recording session.

Recording to Edit

The most significant aspect of taping to edit is the fact that it is not necessary to record the content in a linear fashion. The director can pick and choose which segments are to be recorded at which time. This can be a valuable time saving device, if the video has several segments that take place in more than place, and especially if one or more of the settings are used in more than one segment of the video. This is where the shooting script comes in handy. Once the director has a clear ideo of where the scenes take place, they can manage their time and record all the scenes in one location (or on one set) before moving on to the next.

One technical rule of taping for editing, that newcomers tend to forget, is the concept of pre-rolling the tape. A simple pause of five to ten seconds, while the tape is rolling, before the action starts, saves the frustration of later finding out that perfectly good footage is unusable because there is not enough time for the deck to become synchronized before the footage. This is easily remedied, yet many people

fall victim to this problem due to their enthusiasm and preoccupation with all the distractions that come up during a shoot.

Live on Tape

Taping a demonstration live should only be done if editing facilities are not available, if the process is one that can not be interrupted, or if the process is too expensive to conduct more for than one run through. With amateur talent and crew, it is likely that there will be many false starts and blown lines during the taping.

Running all the way through a demonstration in one fell swoop is difficult even for professionals. The advantages they have over beginners are experience and deep pockets. Experience cuts down on the time it takes to get things rolling and on tape. Deep pockets mean that the producers have the money it takes to hire a seasoned crew and rent facilities for a longer period of time.

Chapter Ten

EDITING

"The specific editing functions are: (1) combine, (2) condense, (3) correct, and (4) build. Although these functions often overlap, there is always a principle one that determines your editing approach and style -- the selection of shots, their length and sequence, and the transition with which you join them." (Zettl, 1995, pg. 238)

Combining refers to the assembling of the shots into scenes, the scenes into sequences, and the sequences into chapters or programs. Voice-over bites can also be combined so that the best of every take can be used in the program.

When editing is used to condense, the factor which is condensed is time. The scenes are cut together in such a way that the times in which there is little happening, or what is happening is not pertinent to the program is removed. It may actually be better to use the term "compress" rather than "condense" in this case. Editing to condense can also be used to edit the audio of a program to make it match the action of the video.

Editing to correct comes into play when two takes are combined and a third shot is laid over the edit to hide the jump cut. Editing to correct can also refer to editing voice-over bites to get rid of breath sounds, and other unwanted noises.

Building refers to the overall acts of editing: combining, condensing, and correcting that all work together to build the audio and video portions into a complete program.

Types of Edits & When to Use Them

There are four types of video transitions: (1) The fade, (2) the cut, (3) the dissolve, and (4) the wipe. When constructing a video, there are two types of audio edits that are usually used, the fade and the cut.

A fade involves either going to, or coming from black. This edit usually begins and ends a program. When used internally, it signifies a change in time or place, or the transition to another segment of the video.

The cut (also referred to as a take) is the least artificial of the edits and closely emulates the way a person perceives things when they change focus and shift their eyes to another object. Cuts are used within the body of a scene to focus the attention of the viewer to the important objects in the scene.

They best way to use cuts in a demonstration (as in all videos) is to start with a wide shot (to establish setting), cut to a medium shot (to focus attention on the demonstrator and equipment), cut to a close-up of the object in question, and finally, vary shots between these three shots as they are required.

When to use dissolves is a matter of style and form. Dissolves can denote a change in time or place, as does a fade, but the change in time is not considered to be as great as that involved in a fade. Dissolves can also be used to edit a string of images together during the opening or closing of a program. The images should be related to the program, and possibly contain images that are included within the program itself.

Wipes are the least natural of these edit techniques, and for this reason it is recommended that they be used sparingly. Wipes are a good way to emphasize things. By wiping a scene onto the screen the video is calling for the viewers attention. But over-using wipes can distract the viewer and soon their impact is lost.

Wipes can range from the simple, such as one scene wiping over the last from the top, bottom, left, or right. More complicated wipes include spiraling like the hand of a clock, rotating squares, and dozens of geometric patterns.

In many studios, there are digital effect generators that can recreate nearly any pattern that a person can imagine. But it is highly unlikely that the beginning producer will have access to studios with these pieces of equipment.

How & When to Use Graphics

"In short, effective television graphics (1) Establish a show's overall image, mood, and tone. (2) Convey information clearly and directly. (3) Help to simplify complex facts, concepts, of processes by presenting them visually." (Wurtzel, 1989, pg. 410) This is a concise statement about what graphics should do for a program, the way that these points are reached is another matter altogether.

The means of establishing the image, mood, and tone of a program is with the correct and consistent choice of fonts, and graphics. Using a variety of fonts is not frowned upon, but there should be consistency within the program elements. For example, the title could be one font, the title credits, another font, chapter headings, yet another, and closing credits, still another. In fact, there could be more than one font in, let's say, the closing credits. Crew positions could be one font, and the crew's names could be another.

To present the information clearly it should be noted that, "(g)ood readability results when the written information is within the essential area; the letters are relatively large and of a clean contour; the amount of information is limited; the background is not too busy; and there is good color and brightness contrast between the lettering and the background." (Zettl, 1992, pg. 425)

The fonts chosen have to be suitable for video display. Due to the alternating fields that make up a frame of video, if any of the horizontal lines that make up a letter is thin enough, those lines will flicker and render the display irritating to view. Furthermore, the fancier the font, the larger the words need to be. Fonts such as Old English style lettering are difficult to read on paper let alone a video screen.

When placing information on the screen, the amount of information entered depends upon the reason for putting the information there in the first place. If the graphic is a lower third, the information would consist of a person's name and occupation, or a building name and its location. Both would be placed at the bottom of the screen for a duration long enough to be read twice at a moderate speed. The information is direct and to the point, without information overload.

Title and credit pages should carry the minimum information needed. Credit rolls, in how-to video, should pass slowly enough to be read easily. There should not be the time crunch that television shows face that force them to roll the credits at light speed. These pages can be laid over black, but in most cases the looks of the pages can be greatly improved by running the credits or title over some kind of background.

The background could be scenes from the video, colored graphics generated by the character generator, still photos, or patterned fabric. Some of these backgrounds could be rendered more suitable if the camera were left slightly out of focus, so as not to distract the viewer from the text on the screen.

When using text graphics to emphasize what is being said in a video, the text should do little more than highlight the main points in question. To try to put that entire portion of the script on the screen would be redundant.

Editing can make or break a video. Everything may be perfect, the audio, videography and presentation might be excellent, but if the editing is loose (dead

spaces between cuts, overlong dissolves) or clipped (audio or video cut to early) the end result will come across as very amateurish. The extra time it takes to preview an edit, or if necessary, redo an edit will be more than worth is once the final product is viewed.

Chapter Eleven

INSTRUCTIONAL THEORY PRIMER

Knowing how to present the skill that one has chosen to make a video about is just as important as knowing the craft itself. When a person is well versed in the whys , dos and don'ts of a process, it is an easy thing to assume that the viewer knows more than they do. One of the basic laws of resenting a How-To video lesson is to assume that the viewer knows nothing about the subject and needs to be informed about every little bit of information that the veteran takes for granted. This is, of course, not the case if you are producing a video that is a follow up to a previous tape, though, if the video is an "advanced" lesson, it may still be a good idea to recap what was presented in the video(s) that came before.

Presentation Styles

There is one instructional mode that should not be used on video, unless the producer has developed a new approach that makes it interesting and entertaining. Sitting in a lecture hall and listening to an instructor spout an endless stream of facts is the bane of many a student. This method of instruction can seem even less appealing when coming from a medium that normally presents information and entertainment at a faster than life pace.

Tolley notes that, "(i)n most of our schools and colleges there is a heavy emphasis on facts, whether related or not. The lecture method so widely used need not mean that only facts are important, but with rare exceptions this is the case." (Tolley, 1977, pg. 62) In the How-To video, for the most part, "facts" should be replaced with "steps," the steps of a process. The process that is being taught should

be presented in steps, and these steps most likely are physical and need to be shown. Standing in front of the camera and talking about what it is like to paint a mountain scene, cannot compare with showing how to lay the paint on the canvas.

This does not mean that there is no place for lecture style instruction in How-To videos. The viewer can be prepared by the talent (in a lecture mode) as to what the next segment of the video is going to be about. This can also be accomplished with a voice-over and graphics at the beginning of each segment, the producer shouldn't get locked into one idea until they have considered every possible method.

Some beginners may go overboard in designing their video, especially if they find turning their skill into a script to be rather difficult. If one was to subscribe to Duncan's theory they would believe that "what is needed in order to avoid this frustrating situation is a systematic process for designing, implementing, and evaluating the total instructional program." (Duncan, 1978, pg. 21) The process Duncan goes on to talk about is "instructional theory," it is basically, "a systematic process in which the basic principles of teaching and learning are synthesized and applied to the... learning situation." (Duncan, 1978, pg. 21)

A person could spend hours learning all about instructional development, but with the How-To video it would seem the best to just sit down and list all the steps involved in the process and break them down into segments that fit together in units. The main idea behind breaking up the process into segments is to give the viewer a place to stap and take a break and allow time for absorbing the information. But be careful not to break in a arbitrary place, the break must make sense. Jaques Barzun came up with a good analogy, "...just as a complex athletic feat is made possible by rapid and accurate coordination, so all valuable learning hangs together and *works* by associations which make sense." (Barzun, pg. 25, 1959)

Every chapter could be a lesson unto itself. or be smaller parts of a larger scheme and be related to one or more adjacent chapters.

Each unit might be a chapter that that could be preceded by a introduction and followed by a recap. As mentioned previously, starting with a statement of what is to come can prepare the viewer for the lesson, likewise ending the segment with a recap of what had been presented can help the viewer to recall the information contained in the segment. This can be important, especially if the segment is a long one.

MacDonald suggests seven points to aid the instructor in teaching physical and manipulative skills. The points are: "(1) Analyze the skill in terms of the learner's abilities and development level, (2) Provide a good demonstration of the skill to be acquired, (3) Give a set of verbal instruction, or a plan, for carrying out the sequence of the actions, (4) Arrange for students to practice tighly organized skills (e.g. diving) as a whole; loosely organized skills (e. g. football, baseball) as components, (5) Make the conditions of practice as close as possible to the conditions under hwich the skill will be actually used, (6) Make practice periods relatively brief, but distribute them over a good number of days at short intervals (except when fatigue is a factor, (7) Provide informational feedback and correct inadequate responses." (MacDonald, pg. 82. 1991)

Not all of the points relate to video learning, but several of them do. Point One: Since the video may be purchased by anyone, it is impossible to determine the level and abilities of the viewer. The alternative is to assume that the viewer has no knowledge of the process, unless the lesson is an advanced level.

Point Two: This is what the tape is all about.

Point Three: This can be compared to the introduction and recap that accompanies each segment. Some videos come with a small booklet that the viewer

can refer to when a VCR is not available.

Point Four: The tape may emphasize the preferred manner and importance of practice, but from there the viewer is on their own.

Point Five: This may or may not relate to a skill, but again, it is the viewers own motivation that will govern this.

Point Six: Another point that is controlled by the viewer.

Point Seven: Feedback and correction will be provided by subsequent viewings of the tape.

All in all the How-To video is an unique means of instruction in many ways. Very few means of instruction are limited in that the instructor never has any contact with the student, as does the video. Other than knowing that the viewer has an interest in the subject, there is no means of ascertaining the knowledge that the student has in respect to the lessons. For the most part, How-To videos will be a demonstration of some skill, craft or process and the subject matter itself will determine what will be the structure of the lesson plan.

The points that most novice How-To producers will omit form their video is the introduction and recap of the segments. This can be an important tool for preparing the viewer for the upcoming lesson and reinforcing what the viewer has just been shown.

SUMMARY

Why put forth the effort to make a how-to video? Couldn't the same information be offered in print for less cost and time investment?

Some processes can be explained adequately in print media, but learning the same process can be facilitated if the steps are shown rather than simply explained. Further, according to Valmont since the persons that make up the how-to video consumer market are of the baby-boomer generation:

> "It is possible, because they have grown up with television, that today's students perceive information obtained from video differently from older generations who did not grow up under its widespread influence. While people growing up with more traditional forms of education have been more print oriented, today's students' cognitive learning styles and information-processing abilities might be heavily influenced by exposure to the massive information offered by television and video."(Valmont, 1995, pg. 12)

In the not-to-distant future, the generation that makes up the spending base for the consumer market will be the second boomer generation, the sons and daughters of the post WWII, baby boomers. But they will not have been under the sole influence of television, computers will play a huge part in their lives, and education.

Educational interactive CD-ROM programs have already begun to appear on the market. In doing a literature review for this paper, there magazine articles were noted that dealt with the subject of CD-ROM how-to programs.

Two of these articles covered the same program. "Inc. magazine's How to Really Start Your Own Business the Interactive CD-ROM... is adapted from an Inc. book and video series,"(Ehrenman, 1995, pg. 48)

According one of the articles, "(t)he first 'chapter' is titled 'Reality Therapy.' Here, nine entrepreneurs tell you to be patient and create a business concept – but

little else." And "...while the program offers workbook exercises to help you structure your business plan, you can't print any of the information." (Kinnaman, 1995, pg. 110)

The first chapter of the CD-ROM sounds very much like the opening of the video version, while the second part of the quote shows a judgment error on the part of the programmers. The interactivity of the CD-ROM and its ability to instantly access and display the lesson segments in a non-linear fashion are a define plus over the linear and long fast-forward/rewind times of a video tape, but if the program has options such as the workshop mentioned above, and has frustrating limitations, it can be worse than not offering the option at all.

One thing that this CD-ROM offers that a video cannot is the ability to obtain information as well as dispense it. "What sets this multimedia learning tool apart form most how-to guides is the way it tailors the presentation of its information to the user's needs."(Ehenman, 1995, pg. 48) By having the user input information into the computer, the program is able to present only the type of information in which the user is interested or requires.

"(Y)ou're asked a few brief questions about what you hope your business will accomplish five years from now. Your answers will determine which Mentor Panel of three on-line entrepreneurs can best help you achieve your goals. These mentors share their theories and experiences through brief video clips."(Ehrenman, 1995, pg. 48) This is something that is entirely impossible for a video program.

The other CD-ROM how-to is self-reflective. How to Create Multimedia CD is a "hands-on course," which contains, "presentation software, multimedia tutorials, expert tips, royalty-free video clips, still images and music."(Pemberton, 1994, pg. 112) This is one how-to that could be presented on videotape but the hands-on aspect of the CD-ROM allows you to do while you learn.

While computers are invading the household, the inroads they have made is nowhere as pervasive as that of VCR's. As the number of homes that have VCR's increase, the number of people that might be likely to purchase how to videos will also increase. And one factor that may influence the choice to purchase will be affordability. One good way to cut the cost of a video is to cut the production costs, but the cost cutting does not mean that the quality of the production has to suffer. With a little care, and a lot of attention to detail a serious amateur can produce a video that will rival that of some of those made by high-end production houses.

Whether by video or computer, in the end it all comes down to the point that Kinnaman makes: "Technology can serve as a critically important resource for creating powerful, meaningful, and authentic contexts for learning."(Kinnaman, 1993, pg. 86)

When producing a How-To video there are two production points that cannot be ignored.

It may not bother the viewer if the lighting is not perfect, camera shots may not be perfectly framed, but still framed well enough to get the idea across, the editing may be a little loose in places, and the audio clipped in others, but overall, the video does what it sets out to do. That is, show a process in such a way that the viewer can duplicate the process after a few viewings and a little practical application.

While moderately sloppy work can result in a usable product, it will, most likely, be a product that will sit on the shelf (in the store or home). All the guidelines in the preceding chapters are important and need to be kept in mind while working on a video, but there are a couple points that need to be foremost in the mind of the producer.

REALISM. Make the events as realistic as possible. If the talent makes a

slight error, but recovers quickly, it may not be necessary to stop and do another take, this may make the video seem more real and alive. Write the script in informal, everyday speech. Don't tie the talent's tongue with words that they would rarely use in a conversation. Treat the viewer as a friend, talk to them, not at them. Keep the setting natural and appropriate to the subject of the video.

CONTINUITY. Keep a sharp eye on details. Or better yet, find someone who will make it their job to stop the taping if anything is blatantly discontinuous with what has gone before.

APPENDIX A
SHOOTING SCRIPT

APPENDIX A

SHOOTING SCRIPT

LOCATION	SHOT NUMBERS
Studio	3, 4, 5, 16, 17, 18, 23, 25, 26, 27, 43, 47, 48, 49, 50, 59, 64, 67, 76, 86, 90, 92, 94, 95
B-Roll	2, 7, 9, 10, 11, 12, 14, 15, 19, 20, 21, 22, 24, 28, 42, 52, 58, 60, 61, 62, 63, 65, 66, 85, 88, 89, 93
Control Room	45, 57
B-Roll	46
Edit	(69), 70, 72, 74, 75, 77, 79, 84
B-Roll	(69). 71, 73, 78, 80, 81, 82, 83, 87
Lobby/CCU	29, 30, 31, 32, 33, 96
B-Roll	13
Audio Lab	54
B-Roll	53
TA Office	8
Makeup	51
Outdoors	34, 35, 36, 38, 39, 40, 41, 44
B-Roll	37, 55, 56

SHOT NUMBERS NOT INCLUDED IN SHOOTING SCRIPT:

1 – Edited segment of "PEANUT VIDEO"

6, 91, & 97 - Graphics only

98 - Fade to Black

APPENDIX B
PRODUCTION SCHEDULE

PRODUCTION SCHEDULE

DATE	TIME	ACTIVITY
Mon., July 15	10:00	Tape edit room B-Roll
	12:00	Break for lunch
	1:00	Tape lobby/CCU B-Roll
	2:00	Tape E control B-Roll
Wed., July 17	1:00	Tape outdoor B-Roll & segment Tape audio lab B-Roll & segment if weather bad
Fri., July 19	10:00	Tape E control segment
	10:30	Tape edit room segments
	12:00	Break for lunch
	1:00	Tape lobby/CCU segments
	2:00	Tape TA office segment
Mon., July 22	10:00	Tape audio lab B-Roll & segment Tape outdoor B-Roll & segment if weather bad on July 17
	12:00	Break for lunch
	1:00	Tape makeup segment
Wed., July 24	10:00	Tape studio segments & B-Roll
	12:00	Break for lunch
	1:00	Continue studio taping
Fri., July 26	10:00	Tape studio segments & B-Roll
	12:00	Break for lunch
	1:00	Finish studio taping

APPENDIX C
PRODUCTION FORMS

APPENDIX C

PRODUCTION FORMS

The forms in this packet are generic in design and permission is granted

to the purchaser of Making the How-To Video: A Guide for the Novice to copy and use the forms as they are, or alter them to suit their own personal requirements.

The following is a brief explanation of the five forms contained in this packet.

STORYBOARD

The six segments of this form are used to flesh out the action of a video on paper. Each section has a space to list the shot number, which type of transition is to be used, what camera movement may be required and lines for audio cues and notes.

Some storyboards have places to indicate how the shot is to be framed. This seems redundant as the drawing should express the shot composition. Don't feel self-conscious if you are not a great artist, most storyboards contain stick figures and very rough sketches.

The audio cues are included to help the reader with the story flow. The shot number listing will then sync the script to the storyboard. The notes lines are useful for specifying the exact effect of transitions of transitions and camera movement.

PRODUCTION LOG

This form will save you the hours you could spend logging your tapes in an edit suite. By keeping a running log while you are taping, you will be immediately prepared to begin the editing process. You will also know ahead of

time which takes are most likely usable and which are not. The following is a brief explanation of some of the entries you will make on the form.

The *TAPE & SHOT NUMBERS* are important because you will later use them to fill out an edit flow sheet to which you will refer while editing the program. And edit flow chart is simply a sheet of paper with the shot numbers (in order) listed with their tape numbers and in points.

EXAMPLE:

SHOT #	TAPE #	IN POINT
1	3	00:25:24
2	1	15:02:22
3	4	22:25:12
4	3	01:53:09

In the case of laying an uninterrupted sequence that will have other shots cut into it (as laying a scene that covers shots 1 through 4 above, then shots 2 and 3 are inserted) you may want to make notes of that on the flow chart.

It is a good idea to jot down a short DESCRIPTION of the shot. It will save having to refer to the script every time you have a question about that cut. You can also make notes in this section and keep track of the take numbers.

Keeping track of the TIEM IN and TIME OUT is the main reason for maintaining a production log. If you are using time code it is a good idea to reset the times so that the hour reads the same as the tape number. If you are using control track as your logging reference, you must reset the control track to zero or your logs will be useless. Remember, while time control is frame exact, control track will only give you an approximate tracking and you will have to periodically rewind the tape and reset the control track to zero. You will always have to rewind and reset when you switch tapes.

Obviously, keeping track of the TIME IN is to let you know where each shot starts. But why keep track of the TIME OUT? It is not entirely necessary , but it does allow you to keep track of the length of each shot.

A check mark, OK or question mark in the USE? column will let you know the status of each take at a glance without having to write any additional notes in the description section.

This form can also be used to log the tapes while in an edit suite.

EDITING LOG

You should use this form while editing to make a record of each edit as you complete them. To keep this form neat, I suggest that you usr a pad of paper to take notes and then fill out the form as you finish each edit. If you review your program after editing and find that something is not exactly the way you wanted, it will be easier to find which tape has the shot that you are looking for and precisely where it is, if you can refer to an editing log.

The following is a brief explanation of some of the entries you will make on this form.

The TAPE# entry is simply the number of the tape with the raw footage that is being used.

The DECK entry is used to keep track of which deck (in a multi-source system) the tape was in during the edit. Some source decks are not horizontally phased with each other. So, when trying to match frames within a shot, the picture can shift to one side if a different deck is used for the matching edit.

The SOURCE IN and SOURCE OUT entries will indicate which footage on the source tape has been used.

The RECORD IN and RECORD OUT entries will indicate where the footage has been place on the master tape. It is a good idea to periodically rewind the master tape and reset the timer if you are using control track for logging purposes.

The NOTES entry is a good place to jot down reminders on transitions like wipes and dissolves. If you know approximately what shot number a wipe or dissolve is near, you can glance at the editing log to find the effect and save time searching the script for that shot. Other notes you may make could be whether it was and audio channel one and/or two edit, or a video oly edit, or any combination of audio and video, and any special effects (such as posterization or freeze frames).

RELEASE FORMS

These are very basic release forms. They cover minimal contractual points and may not be valid in all situation, states or countries. I recommend that you consult a lawyer or paralegal before you use these forms.

PRODUCTION LOG

Program__________________ Producer___________________ Page #_____

Tape #_______ Notes____

SHOT #	DESCRIPTION	TIME IN	TIME OUT	USE?

EDITING LOG

Program_____ Producer_____ Page#_____

TAPE #	DECK	SOURCE IN	SOURCE OUT	RECORD IN	RECORD OUT	NOTES

TALENT RELEASE

I, _____, hereby authorize *(YOUR NAME OR PRODUCTION COMPANY)* to use my name, image and/or voice as recorded during the production of the program: _____ _____. I also authorize the editing, duplication (in full or in part) and distribution of said recording for the aforementioned program only.

I acknowledge that *(YOUR NAME OR PRODUCTION COMPANY)* holds all rights of ownership to these recordings and that if any monentary compensation is due me, it is limited to the amount of $_____.

PLEASE PRINT:

Name:_____

Street:_____

City:_____ State:___ Zip_____

SIGNATURE:_____ DATE:_____

WITNESSES:

SIGNATURE:_____ DATE:_____

SIGNATURE:_____ DATE:_____

If the above signer is below eighteen years of age, I signify that I, _____, am the parent of legal guardian of said minor and agree to the above conditions.

SIGNATURE:_____ DATE:_____

LOCATION RELEASE

Permission is hereby granted to *(YOUR NAME OR PRODUCTION COMPANY)* to use the property described below for a scene or scenes in the production of the program:

_____.

(YOUR NAME OR PRODUCTION COMPANY) is also granted the right of editing, reproduction (in full or in part) and distribution of said recording for the aforementioned program only.

Access to the property is granted for, and limited to, the following dates:

_____ _____ _____ _____ _____

_____ _____ _____ _____ _____

Dates are subject to change if affected by weather conditions or illness. Notification of proposed change of one or more of the above dates will be made _____ days/hours priors to said date and the rescheduled access must be agreed upon by both parties.

(YOUR NAME OR PRODUCTION COMPANY) agrees to hold full responsibility for any and all damage to property and liability to persons involved in the production of the above program.

(YOUR NAME OR PRODUCTION COMPANY) declares itself free from any liability due to negligence and/or deliberate actions of the owner or agents of the premises.

I, _____, acknowledge that I am an authorized representative of the premises listed below and agree to all the terms as listed above.

Location:_____

Street:_____

City:_____ State:____ Zip:_____

Property Representative Signature:_____

Title:_____ Date:_____

APPENDIX D
CROSS REFERENCE OF ANALYSIS

APPENDIX D

CROSS REFERENCE OF ANALYSIS

TITLE	VIDEO	GRAPHIC	SCRIPT	AUDIO	LIGHTING	TALENT	SETTING	EDITING
ABV	A E	---	---	---	D	---	---	---
BSRRB	C D G I	---	---	C	---	D E	---	B
BSDMP	---	---	---	---	C	---	---	---
BBJFW	---	---	---	---	---	---	---	---
C;G-1	---	---	---	---	---	---	---	---
C-T&P	---	---	---	A	---	---	---	---
CGC	---	---	---	---	---	---	---	---
CM-MI	F	---	---	---	---	---	---	---
DC-TC	---	---	---	---	---	---	---	---
DIYHR	B	C	---	---	---	---	---	A
ERRBL	---	B	---	G	---	I	---	G J
FPT	B C D	C	A	---	---	A	A B	B
FBEDW	---	---	F	---	---	---	---	G
HEW	D	---	---	---	---	---	---	G
HTIDT	---	---	---	---	---	---	---	---
HTMAS	---	---	---	---	---	B	---	---
HPC	---	---	---	---	J	---	---	---
HTRSY	---	---	E	---	E G I	---	---	B
HTSHV	---	---	A	---	---	---	---	---
JTI	J	---	---	---	---	---	---	C I
KBCLD	A	---	B H	---	---	---	C D	---
LLS	C	E	---	---	---	A	A B C D	---
LLBOV	---	---	---	---	---	---	---	---
MEHIS	---	---	---	---	F	---	---	---
MW3.1	---	---	F	---	---	J	---	K
NS-VE	---	---	---	---	---	---	---	---
P&SVS	A	---	---	---	---	---	---	---
RAWES	---	A F	---	---	F	---	---	---
RRGJT	---	A	---	---	---	C	---	B E
RRGT4	---	A D	D	---	A	C	---	E G H
RF-BP	---	---	F	---	---	---	---	---
SCB	---	---	---	---	---	---	---	---
SPT	---	---	---	---	---	---	---	---
SC-LS	---	---	---	A C	---	A B	---	---
TSPCH	G	---	---	G	---	E	B E	D E
VGTSC	---	---	---	F	---	---	---	---
YHGHH	---	---	---	---	---	---	---	---
YFSWC	---	---	---	A	B	---	---	---
WES-C	G	---	---	---	---	---	---	---
WBWEK	---	---	---	---	---	D H	---	---

APPENDIX E
KEY TO ANALYSIS POINTS

APPENDIX E

KEY TO ANALYSYS POINTS

VIDEO

A - Camera zooms in when a cut would be better.
B - Lines in background skewed due to angle
C - Shot framed too tight
D - Shot framed too loose
E - Zoom ends with shot too wide
F - ECU of printed material lacking clarity
G - Odd camera angle
H - Camera zooms to soon after a cut
I - Shot has no action that relates to dialog
J - Merge shot (set object appears to come out of talent)

GRAPHIC

A - Fonts bland & boring
B - Title out too fast to allow reading
C - Font too small
D - Keyed - crudely handwritten lettering
E - Late chance of graphic in relation to dialogue
F - Page background flat and boring

SCRIPT

A - Described action missed by camera
B - Pauses at odd times
C - Introduction overlong
D - Demo/Prop on camera too short of a time
E - Tape cueing gimmick that is useless
F - Action/dialog do not match
G - Dialog is unnatural & contrived
H - On camera talent does nothing

AUDIO

A - Hiss
B - Unidentified noise
C - Extraneous noises too loud
D - Natural sound missing
E - Voice clipped
F - Tone change in middle of a segment
G - Voice late in coming up full

LIGHT

A - Studio - no back light
B - " - too dark
C - " - shadows on talent
D - Location - inappropriate shadows
E - " - too dark
F - " - shadows on talent
G - " - too much back light
H - Outdoor - too dark
I - " - shadows on talent
J - " - too little back light

TALENT

A - Clothing needs a makeover
B - Talent is a celebrity
C - Talent not a good presenter
D - Talent appears nervous/uncomfortable
E - Talent appears unrehearsed
F - Talent makes inappropriate noises
G - mic is not dressed
H - Talent boring/dry
I - Some movement stilted/fake
J - Talent obviously reading cue cards

SET

A - Background too bright
B - Background too bland
C - Setting unnatural
D - Color scheme bland
E - Props seem contrived and out of place

EDITING

A - Faulty dissolve
B - Jump cut
C - Lack of shot variety
D - Inappropriate shot in regards to voice over
E - Window wipe error
F - Graphic(s) up over-long
G - Continuity error
H - Talent on too long while inactive
I - Edit timing off
J - Cut during zoom
K - Unnecessary use of wipes

APPENDIX F
KEY TO VIDEO TITLES

APPENDIX F
KEY TO VIDEO TITLES

ABBREVIATION	VIDEO TITLE
ABV	Anybody's Bike Video
BSRRB	The Beginner's Series Rock & Roll Bass, Vol. 1
BSDMP	Bob Stone's 30 Timeless Direct Marketing Principles
BBJFW	Body By Jake's FirmFlex Workout Guide
CLG-1	Calligraphy: 1
C-T&P	Carving Techniques & Projects
CGC	The Coleman Guide to Camping
CM-MI	Compatible Memories "Memory Installation
DC-TC	David Caradine's Tai Chi
DIYHR	Home Video Library - Better Homes & Garden's "Do It Yourself Home Repair"
ERRBL	Effective Resumes: Reading Between the Lines
FPT	Fastpitch Pitching Techniques
FBEDW	Fight Back: Emergency Self-Defense for Women
HEW	How To Enjoy Wines
HTIDT	Armstrong Video #8604-VTFD "How to Install Dry Tile"
HTMAS	How to Make a Speech with Steve Allen
HPC	How to Photograph a centerfold
HTRSY	Inc. Magazine & AT&T: How to Really Start Your Own Business
HTSHV	How to Shoot Home Video: The Basics
JTI	Joy of Talking - Italian
KBCLD	Kathy Blake Dance Studio's Country Style Dance - Country Line Dancing
LLS	Living Language - Spanish
LLBOV	The L. L. Bean Outdoor Video Library - Introduction to Fly Fishing with Dave Whitlock
MEHIS	Made Easy Home Improvement Series - Ready to Remodel
MW3.1	Microsoft Windows 3.1
NS-VE	Nikon School - Video Edition: N8008s
P&SVS	Pump 'N Seal Vacuum Sealer
RAWES	The Road to Achievement Vol. III - Winning Entrepreneurial Style
RRGJT	Rock & Roll Guitar with Jerry Tubb
RRGT4	Rock 'n Roll Guitar Course #4
RF-BP	Recover From Back Pain
SCB	Score More - Bowling
SPT	Sirius Puppy Training
SC-LS	Steve Colgate's Learn to Sail
TSPCH	Tapping, Slapping, Popping Chords & Harmonics for Electric Bass - Vol. I
VGTSC	The Video Guide to Stamp Collecting
YHGHH	Yardening with Jeff Ball "How To Grow Healthy Houseplants
YFSWC	Your First Step to Watercolors with Gene Pollock
WES-C	Warm Up Exercise Shorts - Cycling
WBWEK	Win at Bridge with Eddie Kantar

APPENDIX G
TWO COLUMN VIDEO SCRIPT

HOW-TO PRODUCE A HOW-TO VIDEO
by Michael J. Caruso

	-VIDEO-	-AUDIO-
1	FADE TO DEMONSTRATIONAL VIDEO OF PEANUTS BEING ROASTED	Roasting peanuts the old fashioned way...
2	DISSOLVE TO WS STUDIO WITH CAMERAS AND EQUIPMENT IN BACKGROUND, TALENT SEATED ON STOOL	VO: The demonstration that you just saw was a short piece that I videotaped several years ago in the kitchen of my family's candy store. What you saw was an edited session of three separate batches of peanuts. I had no help shooting this and had to set up the camera as I worked. So, I shot two or three angles for each batch and the result is a video that looks like a single shooting.
3	CUT TO MS TALENT TALENT RISES BEFORE NEXT CUT	TALENT: In the near future, I plan to put together a much longer program showing how candy has been made by my family for the past seventy five years. The old fashioned way, using copper kettles, wooden paddles and a gas flame. I also plan to do it on a tight budget. If you're watching this program, you also have a skill that you would like to put down on tape, and perhaps, try to market.
4	CUT TO WS STUDIO, EQUIPMENT & TALENT	TALENT: All this equipment may seem complicated and intimidating, and it may be. But after studying the basic principles that you will be seeing on this tape, you will know what it takes to put together a demonstrative video, and you'll avoid making the mistakes that first time producers tend to make.

	-VIDEO-	-AUDIO-
5	CUT TO MS TALENT	TALENT: Well, I'm sure you're anxious to get into the program. If you haven't already done it, rewind the tape back to the beginning, press the reset button and take note of the counter number at the beginning of each chapter. When the time comes that you want to review a segment, you can prevent wear and tear on you tape heads by fast forwarding to the counter position rather than scanning ahead and searching for the right chapter.
6	FADE TO TITLE CG (How-to Produce a How-To Video) CHANGE PAGE CG (A Video Guide for the Amateur)	TITLE MUSIC FADES UP FULL MUSIC CONTINUES
7	DISSOLVE TO ECU PAGE OF VIDEO SCRIPT CG (CHAPTER ONE) CG (The Script)	MUSIC CONTINUES
8	FADE TO MS TALENT AT COMPUTER WITH SCRIPT ON SCREEN - HOLDS UP FORMS AND DISKS AS THEY ARE MENTIONED	MUSIC FADES OUT TALENT: Before you tape a demonstration you need something to demonstrate. And if you're watching this you've got an idea of what that is already. You may be able to see it all in your mind and have it well planned out, but take my word for it... if you don't have a script to which you can refer, you could be asking for trouble.

(CONTINUED)

-VIDEO-	-AUDIO-
8 CONTINUED:	While putting this program together, I spent quite a few hours planning exactly what I would say and the order in which I would say them. I Revised the script several times, moving chapters around and adding things as they came to my mind. After I was satisfied with the shape of the program, I went over the script and grouped all the different scenes together into what is called a shooting script. A shooting script is simply a listing of all scenes from each location listed together by shot number. By using the shooting script, I shot everything that took place in the same location in one set up, even if they were in different chapters. Without a script to follow I would have run the risk of forgetting a shot, which could have cost me valuable time if I had to return and shoot it at a later date. Included with this tape is a computer program for IBM and compatibles that will make it easy for you to produce a two-column format video script. There's a manual on the disk in a read-me file. It's simple to use and will work in conjunction with almost any word processor. The disk also includes three files of my own. With one file, you can use the scripting program to print out a copy of the script for this video. The other files are saved in Word Perfect five one format and include the shooting script and a packet of usefull forms.

	-VIDEO-	-AUDIO-
9	FADE TO MS VARIOUS CAMERAS CG (CHAPTER TWO) CG (The Video Camera)	MUSIC FADES UP FULL
10	FADE TO MS STUDIO VIDEO CAMERA ON PEDESTAL CAMERA PANS FROM STUDIO CAMERA PAST REMOTE CAMERAS TO HOME VHS CAMERA, ALL ON TRIPODS.	MUSIC FADES OUT VO: No matter how much different they look, all modern cameras operate by the same principles. The way they operate isn't important to you, how to operate them and how to use them to the best effect, is.
11	CUT TO MS VARIOUS CAMERAS CG (Focus and Exposure)	
12	CUT TO VARIOUS MCU'S, CU'S, ECU'S OF OPERATIONS AND COMPONENTS MENTIONED IN TEXT	VO: Unless you plan to use consumer grade video equipment that has an auto-focus mechanism, proper focus is important in all aspects of videography. The focus ring is located on the camera lens and can be nearly as wide as the lens is long. To properly focus on an object, first use the zoom control to get the tightest shot possible of the subject. Now use the focus ring to get the sharpest picture possible. When you have done this the subject will be in focus no matter if you zoom all the way out or all the way in. As you can see if I focus on something with the lens zoomed part of the way out, when I zoom in, you will see that the image loses focus. (CONTINUED)

-VIDEO-	-AUDIO-
12 CONTINUED:	The next thing you need to know about focusing is how to alter the viewers attention to objects using what is called a rack or roll-focus. By using the focus ring to alter the point of focus in the image you can make one object sharp while another becomes slightly obscured. This will take a little experimenting, but once you've done it, you will see just how simple an operation it is. Consumer grade camera also tend to have auto-exposure circuitry to keep users from wasting time and tape by over or underexposing their footage. While this is fine for home videos, it lacks the versatility that is needed in producing a How-To video. The exposure ring is also located on the camera lens. It is generally about a quarter inch wide and will have the letter "f" on it along with several numbers. You will find a switch for the iris on the lens, it is used to move control of the exposure from manual to auto or remote. Remote is used only in a studio setting and will be taken care of by the facility engineer. While you may want to use the auto iris to set correct exposure for the lighting where you are taping, you may find that there are problems with leaving the iris in auto while you tape. (CONTINUED)

	-VIDEO-	-AUDIO-
12	CONTINUED:	The main problem is that the iris will tend to open or close a little as darker or lighter objects are brought into the frame. As you can see, when I place this dark object into the picture the iris opens a little and when I remove it, the iris returns to its previous exposure. This is unnatural and can be distracting. So, your best bet is to use the auto iris to gage the exposure that the camera wants, then switch to manual to make minor adjstments and keep the iris where you want it.
13	CUT TO MCU CAMERA CONTROL UNIT	VO: If you have access to a studio, such as your local cable access channel, there will be an engineer present to take care of the technical side of preparing the equipment.
14	CUT TO MS REMOTE CAMERA	VO: But if you need to shoot your footage on location, you'll be using remote equipment and be responsible for everything yourself.
15	CUT TO SEQUENCE OF MCU'S, CU'S, ECU'S OF OPERATIONS AND COMPONENTS MENTIONED IN TEXT CG (Color Adjustment)	VO: The first thing you should know about the camera is white and black balancing. Letting the camera know what black and white are allows the camera to register color correctly. Though the placement and appearance of the switches may differ from camera to camera, the basic principle is the same. The camera will have filters built into it that compensate for the different types of light that you might be working under. A setting of 3200 degrees is for indoor

(CONTINUED)

	-VIDEO-	-AUDIO-
15	CONTINUED:	lighting, 5600 degrees is for outdoor. If your camera has a black balance switch, it is most likely that you will need to black balance first, since with most cameras, a change in the black balance can affect the white balance. The operation is simple, with the iris control in the auto position, simply press the switch until the viewfinder goes dark. The iris will reopen when the black level has been calibrated. White balancing is a bit more complicated. You must have a white surface to focus upon and you must balance in the light by which you intend to tape. There can be writing or lines on the white, but the portion in the viewfinder must have at least a ninety percent pure white surface. Focus sharply on the white surface. With the iris still in the auto position, press the white balance switch and watch the viewfinder for the indication that the camera has completed the operation. Some cameras have auto white balancing, but they're mainly home cameras and don't produce the image quality needed to stand up to editing and dubbing.
16	FADE TO WS STUDIO WITH TALENT SITTING ON STOOL, FACING CAMERA - KEY AND FILL LIGHTS DOWN LOW	MUSIC FADES UP FULL (CONTINUED)

	-VIDEO-	-AUDIO-
16	CONTINUED: CG (Shot Composition)	
17	ZOOM IN TO MS TALENT ON STOOL - LIGHTS COME UP FULL	MUSIC FADES OUT TALENT: Those were the basic technical properties that you need to know about cameras. While they are important in capturing a usable image, it is equally important that you know the basic esthetics of shot composition. You may think that I simply set this stool here, sat down and began taping. And you'd nearly be right. But once it came time to roll the tape, you can be sure that more time was spent on getting the shot just right before we rolled the tape.
18	CUT TO FOOTAGE FROM CAMERA WHILE PERFORMING THE OPERATIONS MENTIONED IN THE TEXT	NAT SOUND UNDER VO: First, as you know, the camera was focused and the iris set at the optimal exposure. Then the camera operator made adjustments of shot sizing, head room and talk space. NAT SOUND FULL TALENT: Those were the basic technical properties that you need to... NAT SOUND OUT
19	FADE TO MS TALENT ON STOOL A HORIZONTAL SPOT SHADOW SHADES THE TALENT'S EYES ON CUE	TALENT: I may have mentioned a couple of terms with which you are unfamiliar. Namely headroom and talkspace. Headroom is the space between the top of the screen and the top of the person's head. (CONTINUED)

	-VIDEO-	-AUDIO-
19	CONTINUED:	
	TALENT TURNS TO THE RIGHT, CAMERA ADJUSTS ACCORDING TO TEXT	A good rule of thumb is to place the person's eyes about one third of the way down from the top of the screen.
	A VERTICAL SPOT SHADOW INDICATES THE CENTER OF THE SCREEN ON CUE	Talkspace is the art of framing the person when they are talking to someone so that the conversation mimics real-life observation. If I were talking to someone on my right (TURN), the camera would change its framing like this.
		You can see the difference if the camera centers the subject in the frame or if it pans too far to one side. The rule of thumb here, is to center the person's nose horizontally in the frame.
20	CUT TO MS	VO: When framing objects, it is important that you draw attention to the item you intend to highlight. In this shot, the lighting fixture is centered and lit slightly brighter than the camcorder and mic. That's because the next section is about lighting.
	1/2 K FIXTURE, CAMCORDER AND MICROPHONE ON TABLE TOP	
21	FADE TO MS	MUSIC FADES UP FULL
	1/2K FIXTURE, CAMCORDER AND MICROPHONE ON TABLE TOP	
	CG (CHAPTER THREE) CG (Lighting)	
22	DISSOLVE TO	MUSIC CONTINUES
	LOW ANGLE OF LIGHTING GRID	
	CG (Studio Lighting)	

	-VIDEO-	-AUDIO-
23	FADE TO WS "NEWS BRIEF" SET - TALENT SEATED AT DESK LIGHTS GO ON AND OFF ON WHEN FIRST MENTIONED DIAGRAMS WILL BE CUT IN WHEN THE POSITIONS OF EACH LIGHT IS MENTIONED	MUSIC FADES OUT TALENT: There are three types of studio lighting that will concern you. They are three point.. set wash... and accent lighting. Three point lighting is what is illuminating me right now. It consists of a main light, called the key, a second called the fill and a third called a back light. The key light is generally placed forty five degrees from the center of the subject and forty five degree up. The fill is placed similarly, but on the opposite side. The back can be placed directly opposite the key, or anywhere within the forty five degree arc between there and directly behind the subject. The purpose of the key light is to provide the light necessary for a good video signal. The fill eliminates shadows and the back separates the subject from the background. They key and back are of equal intensity while the fill is generally at half the value of the key. It may take time, but with a little practice you should be able to light a person and eliminate any unsightly nose or chin shadows with only a few adjustments.
24	CUT TO MS 1/2 & 1K FRESNELS ON TABLE CU'S AND MCU'S OF FIXTURES AS NEEDED	VO: Three point lighting uses fresnel fixtures, you can recognize them by ten concentric rings on the lens. The correct focusing of the light on the subject can be determined by spotting the beam and placing the spot on

(CONTINUED)

	-VIDEO-	-AUDIO-
24	CONTINUED:	the area of interest. The correct lighting level is then determined by flooding the instrumrnt and reading the intensity of the light with a light meter. Focusing mechanisms vary from manufacturer to manufacturer, but the principle is the same.
25	DISSOLVE TO WS "THE SHOW" SET - TALENT WALKING AROUND SET	TALENT: Three point lighting works well on a static set where the people stay in one place. But if your video requires you to move around, your going to have to light it with a general wash. This is a basic set up and no spots have been highlighted.
26	ZOOM OUT TO EWS SET AND LIGHTING GRID LIGHTS GO ON AND OFF ON CUE	TALENT: As you can see these light are not fresnels. These fixtures are called scoops and they have no focusing mechanism. They simply provide a large volume of light to a large area. Several fixtures light the same area from different angles. If you lit this set from only one direction you would have garish shadows. The same happens from area to area, if you don't have the different angles covered.
27	DISSOLVE TO WS "INTERVIEW 'B' SET" SET - TALENT STANDING ON SET LIGHTS GO ON AND OFF ON CUE	TALENT: Lastly, accent lighting is used on the set also. This set would seem rather dull without the scoops highlighting the blue curtains. Likewise, the flats surrounding the set are bland without the slashes of light on them. (CONTINUED)

	-VIDEO-	-AUDIO-
27	CONTINUED:	Another means of dressing up a set is to use transparent, colored sheets of a material called a gel. Set in front of the lighting instrument the can be used to add a little color to a slash or a bare wall. The one thing to remember about using a gel it that you should avoid using the spot function on the fixture. It will soon result in a nice hole burned in the center of the gel.
28	FADE TO MS OPEN LIGHT KIT CG (Remote Lighting)	MUSIC FADES UP FULL
29	FADE TO MS TC STUDIOS LOBBY - TALENT AT DESK	MUSIC FADES OUT TALENT: If your video can't take place in a studio, like my short peanut roasting video, then you're most likely going to have to use a remote lighting kit. This can create several problems. You need to be sure that you have room to set up both the camera and the lights, and you need to be careful not to blow fuses by overloading the electric circuits with two or three, six hundred watt lamps all burning at the same time.
30	HORIZONTAL WIPE TO WS TC STUDIO LOBBY - REMOTE LIGHTS VISIBLE	TALENT: You'll probably want to use three point lighting like I am here. The problem may be that there is not enough room for all three lights. Or, you may not be able to get far enough away and there is too much light falling on the subject. Another problem may be that

(CONTINUED)

	-VIDEO-	-AUDIO-
30	CONTINUED:	you can't get the back light out of the frame. Here's a few tricks to help you solve those problems.
31	JUMP CUT TO WS FIXTURES NOW HAVE UMBRELLAS	TALENT: Reflective umbrellas soften the light and come in handy when you cant get far enough away in tight places.
32	JUMP CUT TO WS ONE FIXTURE HAS LOST UMBRELLA AND POINTS AT CEILING	TALENT: Another trick is to reflect the light off of the ceiling. You'll have to experiment with the angle, but it should do the job.
33	PUSH WIPE TO FS DESK WITH MAC COMPUTER - TALENT IS SEATED IN FRONT	TALENT: In this case you can reflect the back light off of the wall and create an accent along with your back light. But be careful, if the wall is brightly colored you could get some odd coloring on your subject.
34	FADE TO WS OUTDOOR BY WKAR SATELLITE DISHES - TALENT WALKS A BIT	TALENT: Your video might take place outdoors, and you might think that as long as its a moderately sunny day you won't have any lighting problems.
35	CUT TO MS TALENT - IN SILHOUETTE WITH SUN COMING FROM BEHIND	VO: But what if the angle you have to shoot from ends up placing the subject between you and the sun?
36	JUMP CUT TO MS TALENT - BAD SHADOW ACROSS FACE	VO: Or the angle that the light is coming from throws a distracting shadow across your face? Do you wait hours until the sunlight comes from the correct angle?
37	CUT TO MCU REMOTE LIGHT STAND WITH REFLECTOR	VO: In this case you can make use of a reflector. You simply bounce the light off of it and onto you subject.

	-VIDEO-	-AUDIO-
38	CUT TO WS TALENT - SHADOW ACROSS FACE - REFLECTED LIGHT MOVES TO FACE	VO: It only takes seconds and while the result may not be as good as direct sunlight, its better than waiting for the light to come to you naturally.
39	CUT TO WS TALENT - OVEREXPOSED IN OVER-BRIGHT SUNLIGHT, SHADED BACKGROUND IN CORRECT EXPOSURE - IRIS CHANGES ON CUE	VO: And what if its a really bright day and you need to have both the foreground and background well lit. You try to adjust the iris, but no matter what you do you can't balance it the way you want it.
40	JUMP CUT TO WS SAME FRAME BUT WITH FILTER SET ON THE NEUTRAL DENSITY FILTER	VO: Now, while it may not be perfect, both the bright and shaded areas are lit well enough to be seen without having to overexpose the bright area. What I did here was to use the 5600 +25 percent filter on the filter wheel. This filter is used mainly for overly bright days like today.
41	CUT TO MS LIGHT STAND WITH A FLAG ON IT	VO: I also used flags to cast shadows on the brightest area to tone it down a bit.
42	FADE TO MS VARIOUS MICROPHONES ON TABLE TOP CG (CHAPTER FOUR) CG (Audio)	MUSIC FADES UP FULL
43	FADE TO WS TALENT SEATED ON STOOL - MICS & CABLES ON NEARBY TABLE - CU'S OF EACH PIECE OF EQUIPMENT AS THEY ARE MENTIONED	MUSIC FADES OUT VO: In most cases, your talent will be miked with a tie-tac mic like I'm wearing now. You'll notice that the wire has been hidden inside my shirt and the small microphone is barely noticeable.

(CONTINUED)

-VIDEO-	-AUDIO-
43 CONTINUED:	The cable that runs to the audio patch box is connected to this end of the mic and I've got it hanging from my waist at this time. In some cases you may want to dress this cable by having it run down the inside of your pantleg, or you may have the mic wire running down your pantleg. This keeps the cable from getting in the way when you move around and keeps it out of the picture except on the widest shots. The power supply is taped to your lower leg so that you can connect and disconnect the cable easily over a long day of shooting. In the outdoor lighting segment I was miked with this wireless mic. The principles are the same as the mic I'm wearing now, but it allows a little more freedom of movement and you don't have to unhook every time you take a break. I also had a wind screen covering the mic. The screen helps deaden unwanted noise and almost eliminates the rustling of the wind across the mic surface. A hand-held mic like this is good for off camera recording, such as an announcer or narrator, and in electronic news gathering interview and reporting, but they're intrusive and awkward when taping a demonstration. (CONTINUED)

	-VIDEO-	-AUDIO-
43	CONTINUED:	A shotgun mic can pick up your voice from off camera, but it takes another crew person to handle it so that it is always pointing directly at the speaker. And it can be a problem if you only have one shotgun and two or more speakers.
44	CUT TO WS OUTDOOR - TALENT STANDING BY STREET	NAT SOUND CUTS OUT & NARRATION CHANGES TO STUDIO VO ON CUE TALENT: One thing to remember about recording on location is that there are a lot of noise that you can't control like you can in a studio. VO: But, even if you aren't taping your narration in the field, you may want to record the natural sound so that you can play it low in the background to keep the segment from seeming flat and unnatural.
45	DISSOLVE TO MS TALENT AT AUDIO BOARD - CU'S OF ELEMENTS AS MENTIONED	TALENT: Recording audio outdoors is pretty straight forward. There's one or more sockets to patch the cable into and a corresponding audio level dial for the socket. But in the studio, there's a lot more that you can do with the audio signal. Audio boards vary in configuration and the amount of features that are available. The feature that most people have difficulty mastering is the equalizer. On this board, there are four levels of frequency equalization. One high, two mid-range and one low. By adjusting the dial to the plus or minus side, you can increase or decrease the presence of the frequency desired. (CONTINUED)

	-VIDEO-	-AUDIO-
45	CONTINUED:	One of the problems with equalization is that with the high range, you increase hiss as you boost the signal. One of the benefits is that if you have a person that speaks so softly that you have a problem getting a good level, you can boost the mid-range and raise the voice level.
46	CUT TO CU'S VU METER - FIRST ON THE AUDIO BOARD THEM ON CAMCORDER	VO: Speaking of good levels, you should try to keep the needle or LCD bar between minus five and plus one on the meter.
47	FADE TO MS TALENT ON STOOL SILHOUETTED BY BACK LIGHT CG (CHAPTER FIVE) CG (On-Screen Talent)	MUSIC FADES UP FULL
48	FADE TO MS TALENT ON STOOL	MUSIC FADES OUT TALENT: You know, if I'd had a choice I wouldn't be talking to you right now. But I'm taping this at a university and it's summer and I was lucky to get a few friends to help me with camera work and other things. If I'd had the time or money, I would've gotten someone else to be the on air talent. You see, I don't think I'm all that videogenic, and like most people, I hate the way I sound on tape.
49	CUT TO WS STUDIO - TALENTS WALKS AROUND WHILE TALKING	TALENT: I've got a few things to tell you about on-screen talent, and some of them may seen unkind, but they're true. If you're uncomfortable in front of the camera, the viewer will notice and it'll detract from the program. (CONTINUED)

-VIDEO-	-AUDIO-
49 CONTINUED:	If you've got the skill to do something but you are nervous speaking on camera, let someone else do the talking while you supply the labor. You'll be surprised how much more relaxed you can be when concentrating on doing the demonstration and not having to worry about flubbing a line.
50 CUT TO MS TALENT	TALENT: There's no way to bring this up and not seem tactless. But if the on-screen talent has any features that may distract the viewer from what is being demonstrated, people may lose interest. There's a reason why most actors are attractive. I've got a lower front tooth that's pushed back a little, and depending on the angle that the light is coming from, on camera, it can appear that I'm missing a tooth. I know people have noticed it in some of the videos friends have talked me into doing. Little things like this can distract the viewer at times and they may miss something important. Another thing that you have to take into account when choosing who will be on the screen is voice quality. The speaker must be able to be clearly understood. If the person has an irritating voice, like something that makes you think of fingernails on a chalkboard, people might not be able to handle listening for too long. I know that that's an extreme case, but remember... anything that may distract the viewer can harm

(CONTINUED)

-VIDEO-	-AUDIO-
50 CONTINUED:	the video.
51 CUT TO WS TALENT IN DRESSING ROOM TALENT APPLIES MAKEUP	VO: One more thing you need to know a bit about is makeup. Both Patrick Stewart and I have to have our heads dusted with a translucent powder to cut down on glare. The only difference is that I have to put mine on myself. TALENT: Another useful makeup technique you will probably use is applying a foundation. You don't need to put on a lot, but most people have an uneven complexion and the camera can exaggerate the unevenness, and just a light covering is sufficient for most cases.
52 FADE TO MS ALBUMS, CD'S & CASSETTE TAPES ON TABLE TOP CG (CHAPTER SIX) CG (Music)	MUSIC FADES UP FULL
53 FADE TO WS TALENT IN AUDIO STUDIO - CU'S OF APPROPRIATE OBJECTS ON CUE	MUSIC FADES OUT TALENT: The music to which you've been listening during the title fades has been produced specifically for this video. Had I decided to use a popular song, I would've had to makes arrangements with BMI or ASCAP to secure the rights to use the tune. Fortunately, if you don't have the talent or a musically inclined friend you can still avoid the royalty payments that these two organizations demand. There are also production houses that produce music and will sell you the rights to one of their compositions for a single one

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	-VIDEO-	-AUDIO-
53	CONTINUED:	time fee. There are also many sound effects CD'S and tapes that will have short pieces of incidental music that are yours to use an much as you want for no fee other than the purchase price.
54	CUT TO MS TALENT	TALENT: Not only will you want music at the open and closing sequences of your video, you may want to use music as a bridge between segments as you've seen in this program. Further, if you have any internal segments that go on without any dialogue, you may want to have music softly playing in the background. TALENT: One thing that you must keep in mind is that you shouldn't settle for any music just because it fits your budget. Keep looking until you find the music that best matches your video.
55	FADE TO WS EXT. COMM. ARTS BUILDING CG (CHAPTER SEVEN) CG (Setting)	MUSIC FADES UP FULL
56	CHANGE PAGE CG (Location)	MUSIC CONTINUES
57	FADE TO MWS TC STUDIO - TALENT SEATED AT SWITCHER	TALENT: Other than the problems with lighting in cramped quarters that I talked about earlier in the tape and the problems with uncontrolable noise when out of the studio, the main problem with shooting in the field is aesthetics. You may want to scout ahead before you choose a place to

(CONTINUED)

	-VIDEO-	-AUDIO-
57	CONTINUED:	tape. The setting should reflect the subject matter of the video. If not directly, as does this control room, then indirectly by mood or lighting.
58	VERTICAL WIPE TO WS BARE STUDIO CG (Studio)	MUSIC FADES FULL
59	FADE TO WS TALENT ON STOOL	MUSIC FADES OUT TALENT: Suppose I was producing a video on how to play the guitar? Sitting on this stool with my guitar and amp is as natural as can be, but this bare studio makes me seem out of my element.
60	DISSOLVE TO FS BARE STUDIO - STOOL, GUITAR AND AMP CENTERED IN FRAME	VO: But all you need is a little imagination...
61	JUMP CUT TO FS FLATS POP IN, ONE BY ONE	VO: ...some flats...
62	JUMP CUT TO FS SET PIECES POP IN ONE BY ONE	VO: ...a few accent pieces...
63	JUMP CUT TO FS LIGHTS COME ON ONE BY ONE	VO: ...some highlights...
64	JUMP CUT TO FS TALENT POPS IN	TALENT: ...and while this may not look like your guitar teachers home, it is quite a bit more cozy than the bare set we saw before.
65	FADE TO MCU VIDEO TAPES ON TABLE TOP	MUSIC FADES UP FULL

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	-VIDEO-	-AUDIO-
65	CONTINUED: CG (CHAPTER EIGHT) CG (Taping)	
66	CHANGE PAGE CG (Taping Live)	MUSIC CONTINUES
67	FADE TO FS STUDIO E CONTROL - TALENT AT SWITCHER - PROJECT BEING REHEARSED IN STUDIO - CU'S OF SWITCHER FUNCTIONS BEING CARRIED OUT AS THEY ARE MENTIONED	MUSIC FADES OUT TALENT: Taping live may sound like a contradiction in terms but it refers to the process of taping and doing you basic editing at the same time. The video switcher is used to cut... fade... dissolve... or wipe from source to source. The drawbacks with taping live is that you need a more experienced crew and more rehearsal time when taping. If you want to do a fifteen minute demonstration and make a mistake at the ten minute mark, and have to start all over, it can get frustrating, for you and the crew. It would be best to tape segments of the program live, then edit them together.
68	DISSOLVE TO MS VIDEO TAPES ON TABLE TOP CG (Taping for Editing)	
69	DISSOLVE TO MS TALENT - IN EDIT ONE - CU'S OF FORMS AS MENTIONED	TALENT: When taping to edit, you have several things to remember. First of all you should let the tape preroll for ten seconds before the action starts. Most editors require that the tape roll for five seconds so that the source and record decks can match speed and timing. (CONTINUED)

	-VIDEO-	-AUDIO-
69	CONTINUED:	You should also allow a postroll since the editors also have a similar function at the end of each edit. Another thing you may want to do is log the footage while you tape. Filling out a form like this will save you a lot of time when it comes to searching for the footage while editing. It eliminates the time you would spend going over the tapes to log them in the edit studio. Another thing to keep your eye on is continuity on the set. If you have to shoot over a period of days a form like this will help you keep track of such things as the placement of props or the way the talent was dressed.
70	CUT TO MWS EDIT ONE - TALENT HAS ON DIFFERENT SHIRT	TALENT: Even the smallest continuity error can distract the viewer from your video message.
71	FADE TO CU EDIT ONE KEYBOARD CG (CHAPTER NINE) CG (Editing)	MUSIC UP FULL
72	FADE TO FS TALENT IN EDIT ONE	MUSIC FADES OUT TALENT: There are four basic types of edits. Cuts... dissolves... fades... and wipes. Each has a specific function and each effect denotes a specific transition.
73	CUT TO MCU EDIT ONE KEYBOARD	VO: This was a cut, it's the most common transition and best mimics the way we perceive changing our attention form one focal point to another.

	-VIDEO-	-AUDIO-
74	CUT TO FS TALENT IN EDIT ONE	TALENT: Cuts are rarely used as a transition from location to location. And when they are they're usually preceded by an overlap of audio from the scene before or after the cut.
75	DISSOLVE TO FS TALENT IN EDIT TWO	TALENT: The most common transition used when changing locations is the dissolve. It's not as natural feeling as the cut, and it gives the feeling of a passage of time or change of location.
76	FADE TO FS TALENT IN STUDIO E	TALENT: Fades are used to denote a greater passage of time than the dissolve, or the ending of one scene, sequence or chapter.
77	DIAGONAL WIPE TO FS TALENT IN EDIT ONE	TALENT: The wipe is the most artificial type of transition used. It can be used with changes in time or location just as the wipe or dissolve, but they can make a video look amateurish if over done.
78	CUT TO CU EDIT KEYBOARD - ECU'S OF BUTTONS AS MENTIONED	VO: There are two basic ways to perform edits, an assemble edit and an insert edit. An assemble edit is similar to taping four half-hour programs one after another on a two-hour tape.
79	CUT TO MS TALENT IN EDIT ONE	TALENT: This kind of editing is only used when you will be editing one shot after another in sequence. There is an electronic signal recorded on the tape as you perform assemble edits. But at the end of each edit, this signal, called control track, is disrupted. Not every edit ends up being perfect. You may be well into a program when you realize that you want to change a shot or a whole sequence in the

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	-VIDEO-	-AUDIO-
79	CONTINUED:	middle of what you've already edited, but you want to leave the following footage intact.
80	CUT TO CU EDIT KEYBOARD - ECU'S OF BUTTONS AS MENTIONED	VO: Since you will break the control track and ruin the program if you do an assemble edit, you'll want to do an insert edit. An insert edit will replace the video and/or audio, but not the control track. When performing an edit you need to select an in point for both the source and record tapes and an out point for one or the other. Once the points are chosen, you should preview the edit and make any adjustments before pressing the edit button.
81	CUT TO MS PATCHFIELD - CU'S OF PATCHES AS MENTIONED	VO: Some editors prefer to lay control track down before they start editing. To lay control track, you must have a video source fed into the recorder. The most common source is video black. Once the source is patched to the input of the recorder...
82	CUT TO MS VTR	VO: ...you simply press the record and play buttons and wait. This is referred to as blacking a tape.
83	CUT TO CU VTR - ECU'S OF BUTTONS AS MENTIONED	VO: While the tape is blacking the counter numbers will roll. There are two types of counter numbers with which you will be concerned. I've already mentioned control track, which the video deck keeps track for by counting the signals as the tape runs. The other is time code. Time code keeps count by recording a specific numbered code for each frame of video on the tape.

	-VIDEO-	-AUDIO-
84	CUT TO MS TALENT IN EDIT ONE	TALENT: The advantage of using time code is that there is little chance for tape slippage while searching for footage or editing. Some editors can slip as much as five frames during an edit when using control track.
85	FADE TO MS CHYRON CG (CHAPTER TEN) CG (Titles, Lower Thirds and Credits)	MUSIC FADES UP FULL
86	FADE TO FS TALENT AT CHYRON - EXAMPLES OF GRAPHICS CUT OR KEY IN ON CUE	MUSIC FADES OUT TALENT: There are a few ways that you can put you titles and credits on the screen. You can write them on poster board and tape them... You can write them on poster board and use the video switcher to key them over other video... Or, you can use an electronic character generator to key them, just like my name is being keyed as a lower third, right now. Character generators come in many styles from many manufacturers.
87	CUT TO MCU CHYRON IN EDIT ONE	VO: Some are very limited in that they have a rather small number of fonts available for use.
88	CUT TO MCU CHYRON IN STUDIO D - ECU'S OF PAPERS & KEYBOARD BUTTONS AS CUED	VO: Others have more fonts available, but only those furnished by the manufacturer. They may also be limited in the number of fonts that you are able to use at one time.

	-VIDEO-	-AUDIO-
89	CUT TO MCU CHYRON IN STUDIO E - ECU'S OF BUTTONS AS CUED	VO: The newest generation of character generators use computers. This model is able to use nearly every windows compatible font, and is able to display up to eight fonts at one time.
90	DISSOLVE TO MS TALENT IN STUDIO E	TALENT: I'm sure you know what a credit roll is, but here're a few examples of the other ways you can bring your words to the screen.
91	CUT TO BLACK CG - EACH FUNCTION COMES UP ON SCREEN IN WORDS DESCRIBING EACH FUNCTION AS THEY ARE MENTIONED	VO: There's the cut... the fade... there are various kinds of wipes... the words can crawl across the screen... and the words can come up one character at a time in a slow reveal.
92	DISSOLVE TO MS TALENT IN STUDIO E	TALENT: One more thing that you need to keep in mind is that you should try to maintain continuity of format and fonts in your graphics. At the beginning of each chapter, I picked a background that reflected what the chapter was about. If I had decided to go with a simple colored or patterned background, or even black, I would have kept the same background on every title page. You probably noticed that I used the same font throughout the program, except when I illustrated the different ways that words could come up on the screen. Which may make you wonder why there are slots for up to eight different fonts. In this video, I used the same font but I used three slots to give myself three different heights of that font. The other five, I used for the

(CONTINUED)

	-VIDEO-	-AUDIO-
92	CONTINUED:	five fonts I used for ten examples.
93	FADE TO MS HOW-TO TAPES ON TABLE TOP CG (CHAPTER ELEVEN) CG (The How-To in Particular)	MUSIC FADES UP FULL
94	FADE TO WS STUDIO WITH CAMERAS AND EQUIPMENT IN BACKGROUND, TALENT SEATED ON STOOL	MUSIC FADES OUT There are only two things I'm going to talk about here. Continuity and mistakes. People are always nitpicking about continuity errors in films and on TV. I'm one of them. We love it when we catch a glass of water that goes from nearly empty to full and back as the angles change in a scene. What can I say, it makes us feel superior, it'd never happen if we were in charge of continuity. Or, so we believe. But during a hectic few hours of taping things are bound to go unoticed, if left to memory. So remember to keep notes of where things are and you should cut continuity errors to a minimum.
95	CUT TO MS TALENT ON STOOL	What if you make a mistake in your demonstration? Retape the segment, if taping for editing. Reshoot the entire video if you have to go through the whole thing live. Or... go on... acknowledge the goof, and explain what to do if the viewer does the same thing. This may sound odd, but it can work. I watched a video on wood carving and, as the carver was working on a delicate piece, the wood split

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	-VIDEO-	-AUDIO-
95	CONTINUED:	along the grain and instead of starting over, the man showed the viewer how to remedy the situation. Not only does this let the viewers know htat experts can make mistakes, but it taught them how to cover the error, which is a valuable lesson in itself.
96	FADE TO WS TC STUDIOS LOBBY - REMOTE EQUIPMENT ALL READY TO GO	Well, that's the basics. I hope you got something out of this tape. If you're wondering where I'm headed, I've just finished all the scenes that take place in this room and now I going to shoot all the scenes that take place outdoors. In fact, I haven't shot the scenes in the audio labs or in the edit bays. So, if you don't mind, I better get to work or you won't have any video to watch in the first place. Hmmm... sounds like a time paradox to me. Well, goodbye and have fun making your video.
97	FADE TO CREDITS	MUSIC FADES UP FULL
98	FADE TO BLACK	MUSIC FADES OUT

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