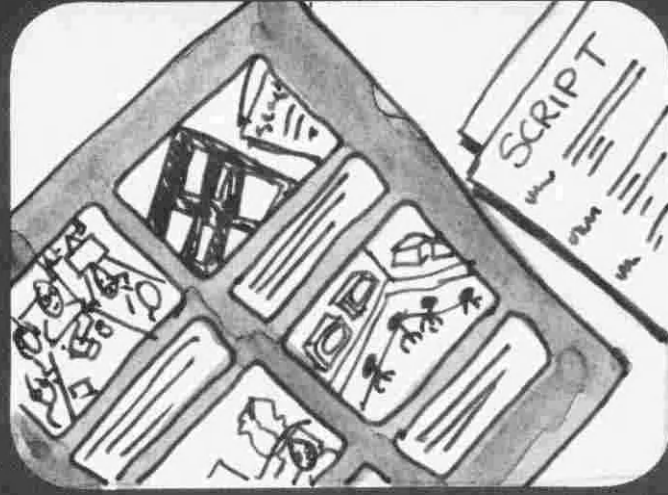Preplanning is the name of the game. The more details that can be worked out before production begins the better.

Storyboards: One method of mapping out the plot of your production. Rough sketches and dialogue for crucial scenes guide both director and client.

What, Me Produce Video?

The road to professional video production has more than its share of curves. Herein are contained enough guideposts to speed you on your way.

By PETER R. SCHLEGER

My first assumption is that your primary job function is in an area other than media. My second is that your media production experience is limited, at best. No article can give you everything you need to know to produce video programs. That said, let me try to outline some of the most important aspects for you.

Three definitions are useful in this discussion:

■ *Client*—The person who needs a video program.
■ *Executive producer*—The person who supervises the production and who coordinates the client's need with the line producer.
■ *Line producer*—The person who actually makes the program. The line pro-

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ducer hires the writer, the crew and editor, rents the necessary equipment and facilities, orders coffee, coordinates everything and supervises duplication.

The client communicates with the executive producer and must know how to say, "When will I have it?" and, if the latter is stalling, "That's what you said last week." The executive producer communicates with the line producer and must know how to say, "How's it going?," "Is there a way to work around that?," and "That's what you said last week."

In smaller organizations, one person may have all three jobs. In larger organizations, there is usually a more developed bureaucracy. The client gets approval from his or her vice president, then goes to the corporate video manager with the request. The video manager becomes that program's executive producer and assigns the project to a line producer on staff. In other organizations, the

video manager may be the entire department, and becomes the line producer as well.

Some organizations have full in-house production capabilities. Others have partial production capabilities, and will go to outside facilities for editing or duplication. Still others have line producers on staff with no in-house production capabilities, and some organizations have nothing. I will go on the assumption that your organization is like the last, and that you have become the line producer.

The line producer's responsibility is to place the client's message on videotape in such a way that the audience will receive only what the client expects them to receive; video output equals client message input. The line producer can't be responsible for the client's sanity or that the program will ever be seen.

You must hire the writer. (For this, and all hiring, see the "For Further Reading"
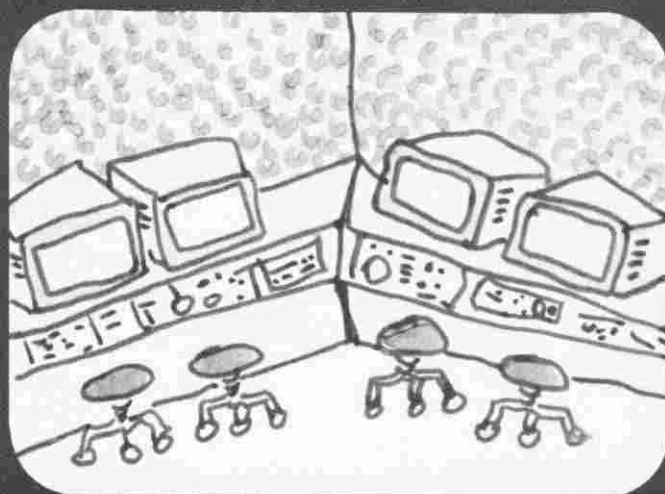
Every minute wasted looking for missing equipment costs you time and money. Exhaustive preproduction checklists can prevent such delays.

Problems real and imagined will appear when you play back the day's work on the monitors. None of your questions should go unanswered by the director.

> **An accepted wisdom is that people–clients–cannot visualize how the words on paper translate into screen images.**

section and my comments about *The Video Register*.) Line producers may also be writers. I particularly enjoy this dual role as it guarantees "the way it is read is the way it was wrote."

Let's talk

The production process begins with a meeting. Typically present are the client, experts on the client's staff who provide content support, the executive producer, line producer and writer. The client presents his or her ideas, objectives and opinions on how to carry them out. The client might even have begun writing the script. Such efforts tend to be unproducible, but often contain usable ideas, lines or information. If there is a script, it is quickly read by everyone. The line producer must complement the client, and the writer must come up with a producible concept. The concept is the basic format and content of the video program.

For example, a panel discussion with three guests, each of whom will introduce a new benefits change. Some writers can arrive at a concept on the spot, others have to ruminate for a time. Concepts can be born of committee in the meeting, or they can be a *fait accompli* if the client has big clout.

Before everyone in the meeting gets too carried away with production ideas, "old man budget" must sit in. Most clients know roughly what they can spend. Smaller companies usually can't afford anything extravagant. The biggies cannot afford not to be extravagant since their image is at stake. Both line producer and writer should know what they can create within a certain budget. Good animation is expensive. Computer animation can run into thousands of dollars per screen second. (The Sixth Fleet sailing up the Mississippi can be even more expensive!) If it is decided that there is only enough

money to shoot one day in a studio, then it is hard to shoot each of our three hypothetical panel members in their homes getting ready for the program, although it would have added a nice touch. It makes it even harder to have each of those homes be in a different part of the country, including some establishing landmarks. (This could be faked, but we wouldn't want to cheat.)

At this point the meeting breaks up. The writer goes home to ruminate, if no concept was agreed upon. The best meetings—and they usually last a day—result in agreement on probable location, probable time frames and a very rough budget. If so, the second meeting would be the first script review. If it isn't a great meeting, then the second meeting reviews the concept and the third meeting becomes the first script review.

Generally speaking, a video script has the dialogue on the right half of the page,

and image description with camera instructions on the left. A film script fills the entire page and explains the scene, gives dialogue and might have shots called in the sequence in which they occur. I am allergic to iron-clad formats, and double space everything on the right half of the page in such a way as to be clear to all who read it. This leaves the left side free for changes, notes, random thoughts and instructions to the director and talent (the term for those who appear on camera). It also allows the director space to plan the shots.

The storyboard

This brings us to the first decision. An accepted wisdom is that people—clients—cannot visualize how the words on paper translate into screen images. In my script conferences, I ignore the accepted wisdom and explain what's going on if it isn't clear. The second option is to make a storyboard for the client. This is a series of small squares filled with cartoon-like pictures or photos that represent what the TV screen will show as the script progresses. The third option is the video story board, the actual program shot quick and dirty.

Each option costs more than the one before it. If the future of your company is riding on the video program, do all three. Otherwise, it is a decision based on client need, time constraints and budget.

Sometimes a video storyboard is shot to see how forms, brochures and equipment will look on camera. As a rule, if you aren't sure whether the camera will pick up the fact that the form is outdated, or that the machine isn't really what you're claiming it is, know that the camera tells no lies. It will pick up everything. You must be prepared to cheat by never showing that form on camera, or by shooting the equipment in such a long shot that nobody will know what they're seeing.

One simple way to help the client visualize sets or locations is to show samples of previously made programs. Get them from production houses, or other companies and producers. (See *The Video Register.*)

The only time a pre-program video (this is not a video storyboard) is very important is when you are about to do a program on technical or procedural training. Too often what the client knows should be correct hasn't been done in the field ever. It could be that the people in the field just may have the better way. Taping a maintenance person changing dringles in locomotive engines might avoid hours of research or prevent a useless video program from being produced. This could be shot by your local "I Will Tape Your Wedding or Bar Mitzvah" videographer who owns one-half-inch equipment and will do it for a couple of hundred dollars.

However you proceed, make certain the client has signed-off on the script he or she has approved. The client must know that what is on paper is what will
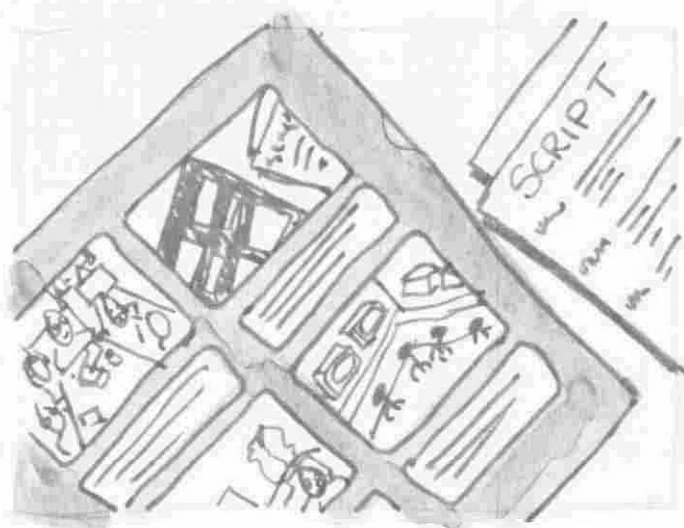
appear in the final program. No production should ever start without an approved, signed-off script. That is the law.

Know also that if it's not good in the script, it's not going to get any better on camera, and nothing gets saved in the editing room. Ideally, the client should be present during the actual shoot to make changes. Fixing things is cheapest in the writing stage, gets more expensive in each succeeding stage of production, and is devastating if tapes must be recalled.

Pre-production

With the script finished and approved, it is time to enter into pre-production. One can do them simultaneously. But if time permits, it is wise to finish all the writing and then go into pre-production. In pre-production, the crew is hired, talent contracted, locations chosen, studio time reserved and editing time reserved. Every detail (props, food, cue cards, teleprompter copy, scripts to talent) should be taken care of now.

Life is simplest for the line producer who has the budget to hire a production house to do the shoot. They have a director, crew and equipment. They will deliver everything to the appointed place. They are reliable. They know their equipment, and the crew has worked together before. Often, production houses have production trucks carrying every piece of gear you could ever need for a shoot. If something is needed, it's readily at hand.

Less simple is hiring freelancers, and renting equipment. If you're lucky, you'll get a director who can hire the rest of the crew for you and take care of equipment rental and delivery. The greatest work and biggest risk occur when you have to hire each crew member separately, contract for equipment based on the advice of the cameraperson and bring it all to the set.

Next comes the hiring of talent or arrangements to use real people (company employees who play themselves). This is usually a big decision, and should be the client's decision. Who is more credible: an actor playing a riveter, or the riveter playing himself? If I have the money, I want to work with professionals. They enhance the production and make the shoot go more quickly. They know how to read copy, make adjustments and are not nervous in front of the camera.

Work through a talent agency. It costs you 10 percent of the actor's pay, but you don't have to run around looking for the right person. If budget is a consideration or the client wants real people—and the format is appropriate—hire a professional narrator who will be in each scene with the real people and serve as an anchor. One mistake I once made (a good line producer makes each mistake only once) was to mix pros and amateurs in the same scene. The contrast was too great.

On the other hand, I've worked with terrible professionals. Unless the director

or I know the talent, I will insist on seeing video-taped samples of his or her work, or I will require a casting call.

Whom should one use as a narrator? A celebrity, a professional narrator or a real expert in the field? The professional does it best, the real person is looked at as authoritative, but the celebrity has the greatest credibility. If Karl Malden says I'll get a refund for my lost traveler's checks, I'm sure I will. Celebrities cost more money than other people, so I like to look for famous has-beens or semi-celebrities. Disc jockeys are examples of the latter. They can read copy well, have a name in local markets and add a touch of distinction to the program without breaking the budget.

Another decision is where to locate your shot. If you need a factory shot, go to a factory. If you need an office or cafeteria, the ones in your own organization might do. You can save the sometimes stiff studio rental costs if you use your own space. Still, a studio is quiet and offers wonderfully controlled production. There are no interruptions, the phone doesn't ring and there is no disruption of work as may occur if you use your own offices.

Can you get more shooting done in the studio than you can on location? Which costs more: the studio for a day or the crew for an extra day? Location credibility might override all other considerations. Again, the client makes the final decision.

Budget

Now is a good time to discuss the budget. Traditionally, the end-use of the program determined what type of format you would shoot in: one inch, three-quarter inch, or one half-inch. The wider the tape, the better the quality, the more you could do with editing and the better the program looked. And the more the program cost. Those costs were justified if the audience was large enough or important enough. A big budget usually meant one-inch tape. Today, however, the new Betacam and Recam high-speed, one-half-inch tapes look great and—while they are themselves costly—do not need a large crew, saving you money in the long run.

Regardless of your audience, a fixed budget limits you. If your budget is flexible, but not extravagant, you have many options and you must do a lot of homework. We have already talked about talent and its cost variations, location versus studio, production and the production values of a program. These all can be

played with. Next comes production format. Even different cameras rent for different prices. Your location and concept determine budget. Editing has many options that can add to or subtract from cost.

Sometimes your client will say, "Here's $10,000. What can we do for that?" At other times it will be, "This is a message I must present. It must be done effectively. What will it cost?" Ultimately, your client will make the final decisions, but you have to present the alternatives and costs of each.

How to start? First, before scripting starts, get a rough idea of a favored concept and its alternatives. Say you've agreed on a panel discussion. How much is the studio? How much would it cost to build a set? What would a professional moderator cost? Can it be done on broadcast quality, three-quarter-inch tape or do we have to go with one-inch? Can we skip the studio and have the discussion in the corporate flower garden around a table over lunch? The options are limitless.

Take your options and research the costs of each. It probably could be done on the phone in a day if you know who to call, can describe what you're trying to do and people are willing to work up budgets quickly. It could also be that

you're best off visiting a production house and editing facility (sometimes they are the same place) and looking at different finished programs. You may be delighted with three-quarter, or you may want one inch with full digital effects editing.

Regardless of how many quotes you get from different production and editing facilities, make certain that each item on each bid is broken down. It will make you smarter, and you'll start to understand the apples and oranges of video. How much does the cameraperson cost? The camera? What type of camera? What does that camera do? How many crew members do I get? How much is the director? If we shoot outdoors, can I save on a crew member? How much does tape cost? How much is the transfer to three-quarters with time code?

You must ask every question you can

think of. You must find out every possible billable item on the shoot and how much each item costs. Never accept a blanket price because you won't know what you're paying for, or how you can play with it to meet your budget. Some facilities are union shops; some have certain minimums in terms of crew rental or studio time. Get everything down on paper. Even incidental items can mount up. Find out payment terms. If the production company needs a serious down-payment for next week's shoot, but your organization is slow with the checks, you may have a problem. The more questions you ask, the more surprises you'll avoid. The more surprises you avoid, the more happy you'll be in your work.

Prices vary markedly across the country. By changing markets (e.g., New York to Tulsa) you can save money in parts of your production. For example, full digital editing costs me $6,000 or so in New York, plus tax. The same editing can be done in St. Louis for less than half that, and coming from New York I don't pay tax. With air fare around $300, hotel $40, car rental $50, a big meal $20 and all the ice cream I can snack on $6.95, it doesn't take a financial consultant to figure out I would be better off flying to St. Louis or another city for a day or two.

Never accept a blanket price because you won't know what you're paying for.

Crew

Crew size is crucial. Each person on the crew has a job. Sometimes it takes four people to get a job done right, sometimes three, sometimes six. For example, if you must light a large area, you'll need people to bring the lights, set up the lights and remove those lights. The more crew members you have, the quicker it will go. If you have location moves with those lights, you will need a fifth crew member. The production company will tell you what you need and why. It is up to you to make those judgment calls. Do you need to hire a production assistant to bring coffee or will you bring your secretary?

The only justification for having enough crew members on the shoot is to make sure that every job is done correct-

45

ly. The cameraperson should think of the camera only, and not be expected to dash over to turn on the video recorder.

The last major pre-production item is your meeting with the director. This is a large budget item and can take one day of the director's time. You'll go over the script and visit every location.

You'll pick your shots, discuss set-ups, estimate the length of the shoot, go over electrical problems and answer all the production questions. Ask the director if there's anything that may have been overlooked. The director is your partner on the shoot and can make you look good. Ultimately, if you do enough video work, you'll try to find a director with whom it's fun to work, and who'll do the job you need.

Editing decisions must be made in pre-production. As I mentioned, full digital effects editing with a good character generator runs from $3,000 (St. Louis) to $6,000 (New York). Prices vary even within markets, so you'll have to call to find out what you get, how much it costs, and what it looks like. Some houses charge an all-inclusive price; others charge for every piece of equipment you use. A third type of charge is accrued when you only pay for the time you use certain equipment. Again, explore.

Digital effects editing is called on-line since it involves computers. However, you are not editing in the traditional sense of making decisions where to piece one scene onto the next, or which of two scenes looks better. At several hundred dollars an hour, it is too expensive. Instead, you make those decisions when you are off-line editing at around $300 a day.

Production

Now it is time for production. Shoot a one-inch camera original that has time codes on the tape. Transfer these to three-quarter inch cassette tapes with the time codes clearly visible. Now take those tapes to an off-line editing suite, edit your program, note on a log the code numbers of the opening and closing frame of each shot you are using, decide on the digital effects and character generator copy you need and note that on the log. This may take a day.

The next day, take that log to the on-line editing suite. The one-inch originals are mounted on machines, the editor punches in numbers from the log sheet and each shot is put on a new one-inch tape called the edited master. Sometimes you'll want a digital effect between cuts

Figure 1—Program Work in Process

This is valuable as a checklist, especially when you get involved with several productions at the same time. Not every element applies to every program.

Note: This form is to be used both as a checklist for all elements of a program as well as the various stages of completion of those elements.

Program Title_____

Date Program Needed_____

Outline Completed _____ Outline Approved _____

Script Completed _____ Script Approved _____

Shooting Day and Date _____

Location _____ Location Notified _____

Cast_____

Cast Notified_____ Scripts Handed Out_____ Cue Cards Made_____

Crew _____

Crew Notified _____ Scripts Handed Out _____

Location Scouted_____ Storyboard Completed_____

Set Decorated ____ Props Collected ____ Production Graphics Collected ____

Principal Photography Completed _____ Date _____

Pick Up Photography Completed _____ Inserts Completed _____

Editing Completed _____

Music Taped _____ Audio Recorded _____ Tracks Mixed _____

Post Prod. Graphics Completed _____ Graphics Inserted _____

Titles Made _____ Titles Photographed _____ Titles Assembled _____

Comments _____

_____

Opens/Closes Written _____ Opens/Closes Photographed _____

Opens/Closes Assembled _____

Comments _____

Transferred to VHS _____ Transferred to Protection Copy _____

(the frame with your narrator spinning around). At other times you'll want the character generator to do its work. When all this is finished, you'll have a completely finished program ready for duplication. Another term for on-line editing is conforming, since you are conforming the camera original to the shots you've decided upon.

Now it is time for the shoot. Most of your work is finished by now. If there is one job on the shoot that you have, it is to make certain that every line of every scene has been shot. (I like to "orange out"—highlight—the script as it is completed.) You may want to hire a script person or have your secretary do it, but it is a job that must be done. In addition, I will offer my line readings after a take if I feel that my words are being distorted.

Also, you must approve the scene that looks good, and is the probable for the final program. Generally, you'll shoot until

a take is good. Sometimes you'll try one more, but that depends on how tight the schedule is.

Another consideration is the care and feeding of the cast and crew. I will give them danish and coffee in the morning, lunch with them and offer coffee, soda and some cookies in the afternoon. I think they appreciate it, and I hope they'll work just a little bit harder if they see we are running late.

Ask questions as you shoot. It's better to get your doubts and concerns out in the open than to keep quiet and regret it later. For example, your colors will appear unstable when you are playing the shots back on the monitor. This gets corrected in post-production, but it is better for your peace of mind to voice your concerns about the color than to wonder if something has gone wrong. A thoughtful director will remind you that the color is okay, but not under playback

circumstances. These types of questions must always be on your lips. Remember, it is your money, and the crew is trying to please you. They enjoy working and would like to be hired again.

As a line producer, you must offer the client final approval on each phase of the production. After the script, the client may want to approve the talent, look at the camera originals before off-line editing, look at the off-line edit, approve the edited master prior to duplication and look at some dubs before they get sent out.

Music generally is added during the on-line edit from previously selected choices. There are music libraries that charge by the needle drop, and most post-production houses have some records in-house for you to play. However, all this investigation must happen during pre-production.

A quick word about two types of problems: those that are there and you never caught them, and those that aren't there, but your client thinks they are. On one shoot we took black and white stills to put the scene in a follow-up employee manual. Some time after checking over a handful of dubs I heard a click. I played it back and confirmed it on other tapes. It was the photographer's camera, and nobody caught it through the shooting and editing. I decided that nobody would catch it so I never told anyone.

If there is one job on the shoot that you have, it is to make certain that every line of every scene has been shot.

The other problem can be more serious. The actor reading the opening of one program read "weekend admissions." My client, while checking the off-line edit, heard "weakened admissions." This was the first time I'd even thought of that interpretation. I argued with my client that nobody else had interpreted it his way and, given the context of the sentence, it wouldn't pose a problem. The client won the argument.

Your last responsibility is to order the dubs. Do a spot check to make certain they are of good sound and fine image. Also make certain that your distribution points order the correct format: Beta 1 or Beta 2, VHS or ¾ "U" Matic. Keep an extra copy of each format distributed in the home office in case a back-up tape must quickly be sent out.

There is always something that is forgotten in a production. An often overlooked necessity is the release form. Get a signed release from every person appearing or speaking on camera who is not represented by an agent. This is especially important of your organization's employees, friends and family. Have them sign a release in which they allow you to use their voices or likenesses. Pay them one dollar for that. If the employee suddenly gets fired, they won't turn around and sue the company over their part in the program. It has happened.

Enjoy the production process. Plan ahead. Plan well, research and ask lots of questions. I wish you luck.

For Further Reading

The Video Register (Knowledge Industry Publications, 701 Westchester Ave., White Plains, NY 10604), published annually, is the most important all-inclusive directory of people in video: users, dealers, facilities, production services and consultants. It lists each geographically, and provides full details of what they do and whom to contact. Useful for finding whom to hire, it is also good for contacting other users in your area who might have recommendations. $47.50.

Video Editing and Post Production: A Professional Guide, by Gary H. Anderson, (1984), is a comprehensive work on post-production and editing. It covers technical data, explains the editing suite set-up, off-line, on-line, digital effects, the theory of editing and preparing for post-production. The name is misleading in that you don't have to be a professional editor to take advantage of this book. $34.95.

The Nonbroadcast Television Writer's Handbook, by William Van Nostran (1983), provides the rules of the game (even though I believe the only way to become a writer is to write). It covers research, storyboarding, script structure and some very usable do's and don'ts about writing. It has a good bibliography and list of professional organizations of interest to non-broadcast writers. $29.95.

Although this article has dealt only with linear videotape production, interactive video is a technology to be reckoned with. *The Handbook of Interactive Video* (1982), edited by Steve and Beth Floyd, provides an overview of interactive video including such topics as understanding in-teractive technology, equipment, design, producing, budgeting and the future. Additionally it offers a section of case studies. $34.95.

A Practical Guide to Interactive Video Design (1984), by Nicholas V. Iuppa, is the latest addition to the interactive bookshelf and concentrates on the writing and design of interactive programming. Heavily illustrated with flowcharts and diagrams, it makes the subject easy to understand. Reader self-tests make this a comprehensive and useful text. It also ties theory to various business applications. $34.95.

Corporate and Instructional Video: Design and Production (1983, Prentice-Hall, available through ASTD Prof. Pub. Program), by Diane M. Gayeski is a very thorough, practical, useful (though too serious) approach to all aspects of video production. It includes basic text information, from working with clients and budgeting to pre-production planning, shooting and post-production. It offers many sample forms, logs and charts now being used in the corporate world. $23.00.

The Video Guide (1982, Howard W. Sams & Co., 4300 West 62nd Street, Indianapolis, IN 46268), by Charles Bensinger, is the basic introduction to the world of video. In its third edition, it deals heavily in the technology and equipment of video but in a light, easy-to-understand and well illustrated format. It tells you what plugs into where, and how to trouble shoot. An enjoyable read; an intimidating subject simply handled. $18.95.

The Video Production Guide (1983), by Lon McQuillin, edited by Charles Bensinger, continues the *Video Guide* tradition of making the subject of video—this time production is emphasized—light and easy to understand. Covers all areas of production, defines all the crew positions and responsibilities, and the mechanics of how to do camera, lighting, miking and editing. He gives some horror stories, plus engineering information useful to know in its overview format. $28.95.

There is one new magazine:

Video Pro (350 East 81st Street, New York, NY 10128). Of the magazines I receive free, this is the one best geared to the corporate video manager and user. It has the most articles which I read from start to finish, and is written in a pleasant, informative style. It is geared only to video. It is the only video magazine I would pay for.

Figure 2—Video Checklist: Going on Location

I live by lists. This form is vital if you are so successful at producing that you suddenly become the video department. It is much easier to go down a list such as this than to stand around by the station wagon asking each other, "Now, do we have everything? Steve, did you take the mikes? Nancy, did you take the..."

☐ Camera (Sony 1610)
☐ CMA 5 Power Box
☐ Tripod
☐ Dolly
☐ 25' 10 Pin Camera Extension Cable
☐ Cable: Video out to VCR Video in (BNC plug to UHF plug)

☐ VCR (Sony 2860)
☐ Power Cable
☐ Dust Cover

☐ RF Modulator
☐ Cable: Video in from VCR Video out (UHF plug to UHF plug)
☐ Cable: Audio in from VCR Audio Monitor (RCA plug to mini plug)
☐ Cable: Coaxial out to TV Receiver (F plug to F plug—75 OHM)

☐ TV Receiver (when not taping in a barkers store)
☐ Optional: 75 OHM to 300 OHM Adapter (if unsure of antenna input on TV receiver)

☐ Shure Mic Mixer
☐ Cable: Mic out to VCR Mic in (XLR plug to mini plug or XLR plug to 2 parallel mini plugs when recording on both channels)
☐ Microphone #1
☐ Microphone #2
☐ Microphone #3
☐ Microphone Extension Cables (3 @ 25') (XLR plug to XLR jack)

☐ Headphones

☐ Light Kit

☐ Wheelit Cart

☐ Extension Cable with 4 Jack Box # 1 (3-prong 120 volt)
☐ Extension Cable with 4 Jack Box # 2 (3-prong 120 volt)
☐ Extension Cable (3-prong, single jack)
☐ Option for Connecticut: 100' Extension Cable (3-prong, single jack)
☐ Orange Adaptors (3 @ 3') (3-prong plug, 3 jack column)

☐ Videotape Raw Stock (4 @ 20 minutes, minimum per day)

☐ Scripts (2 copies)
☐ Cue Cards
☐ Thick Felt Tip Pens (2 black, 1 red)
☐ Clip Board
☐ Colored Pens for Marking Script
☐ Log Sheet

☐ Gaffers Tape (2 rolls minimum)

☐ Makeup Kit

☐ Spare Lamps for Light Kit
☐ Spare Mic Batteries
☐ Extra Cable Ties