

## The Television Production Process

When watching television, somebody's vacation videos, a blogger's video podcast, or even a movie, you probably feel that you could do just as well or even better than what's on the screen. This may be true, but it is more likely that you will be surprised to find how difficult it is to match the high production values of the average television show, even if the content begs for improvement. The automatic features of most equipment may even fool you into believing that television production is relatively easy—until your luck runs out. Even if your short vacation video looks pretty good to you, it may need much more effort and production skills to make it look good to somebody else. A seemingly simple 55-second chat between a news anchor in Portland and a soccer star in Madrid during half-time presents a formidable challenge even for experienced production personnel. This book will help you meet such a challenge.

The digital era has brought a general convergence of digital video and the necessary production processes, regardless of whether you are working in broadcast television, in digital cinema, or independently on small video projects. Fortunately, this convergence has a common base: multicamera and single-camera television production. Learning the ins and the outs of multicamera television production allows you to readily adapt to other forms of digital video or cinema production. In fact, you will find that even established cinema directors have learned from television the advantages of multicamera productions, but they have also discovered that it is much harder to switch from single-camera production to multicamera use than the other way around.

The major problem with learning television production is that to understand the function of one piece of equipment or production phase, you should already know all the others. Chapter 1 is designed to help you with this chicken-and-egg problem. It provides you with an overview of the initial production process, the people involved in small and large productions, and the necessary tools to generate the screen images and sound—the standard television equipment. Later chapters provide more detailed descriptions and explanations of equipment, production processes, and workflow.

Section 1.1, What Television Production Is All About, walks you through the three phases of production, demonstrates a useful production model, and introduces you to the major nontechnical and technical production personnel.

Section 1.2, Technical Production Systems, introduces you to the basic single-camera systems, the expanded multicamera systems, and the major television equipment.

### KEY TERMS

**clip** A shot or brief series of shots as captured on the hard drive and identified by a file name.

**effect-to-cause model** Moving from idea to desired effect on the viewer, then backing up to the specific medium requirements to produce such an effect.

**EFP** Stands for *electronic field production*. Television production outside of the studio that is normally shot for postproduction (not live). Part of field production.

**ENG** Stands for *electronic news gathering*. The use of portable camcorders or cameras with separate portable video recorders, lights, and sound equipment for the production of daily news stories. ENG is usually not planned in advance and is often transmitted live or immediately after postproduction editing.

**medium requirements** All content elements, production elements, and people needed to generate the defined process message.

**multicamera system** The use of two or more video cameras or camcorders for the capture, selection, recording, or transmission of video footage.

**news production personnel** People assigned exclusively to the production of news, documentaries, and special events.

**nontechnical production personnel** People concerned primarily with nontechnical production matters that lead from the basic idea to the final screen image. Also called *above-the-line personnel*.

**postproduction** Any production activity that occurs after the production. Usually refers to either video editing or audio sweetening (a variety of quality adjustments of recorded sound).

**postproduction editing** The selection and the assembly of clips (shots) in a logical sequence.

**preproduction** The preparation of all production details.

**process message** The message actually perceived by the viewer in the process of watching a television program. The program objective is the defined process message.

**production** The actual activities in which an event is recorded and/or televised.

**single-camera system** The use of a single video camera or camcorder for the capture, recording, or transmission of video footage.

**technical personnel** People who operate and maintain the technical equipment. Also called *below-the-line personnel*.

**television system** Equipment and people who operate the equipment for the production of specific programs. The basic television system consists of a television camera and a microphone, which convert pictures and sound into electrical signals, and a television set and a loudspeaker, which convert the signals back into pictures and sound.



## What Television Production Is All About

As a painter it is relatively easy to get your idea onto the canvas. All you need is something to paint on, some paints, a brush, and, of course, a little technique. You are the only one involved in the translation process from idea to image. Such a translation process for even a simple television production, however, is considerably more complex. You are seldom alone in the production process, face strict deadlines, and are always forced to work with a variety of complex equipment. This section gives a brief overview of the three phases of production—preproduction, production, and postproduction—suggests a production model that will streamline the use of people and equipment, and charts the major nontechnical and technical personnel. **ZVL1** PROCESS→ Process introduction

### ▶ THREE PRODUCTION PHASES

Preproduction, production, and postproduction

### ▶ PRODUCTION MODEL

Effect-to-cause model, medium requirements, and process message shaping medium requirements

### ▶ PRODUCTION PEOPLE

Nontechnical production personnel, technical personnel and crew, and news production personnel

## THREE PRODUCTION PHASES

Regardless of whether you are part of the nontechnical or technical personnel, or whether you work with a big production team or all by yourself, you will inevitably be involved in one or all three of the production phases: preproduction, production, and postproduction.

### Preproduction

**Preproduction** includes all the preparations and activities before you actually move into the studio or the field on the

first day of production. It usually happens in two stages. Stage 1 consists of all the activities necessary to transform the basic idea into a workable concept or script. In stage 2 all the necessary production details, such as location, crews, and equipment for a single-camera or multicamera production, are worked out.

### Production

As soon as you open the studio doors for rehearsal or a video-recording session, or load a camcorder into the van for a field shoot, you are in production. Except for rehearsals, **production** involves equipment and normally a crew—people who operate the equipment. It includes all activities in which an event is video-recorded or televised.

### Postproduction

The major activity of **postproduction** consists of video and audio editing. It may also include color correction of video clips (so that the red shirt of an actor looks the same from one shot to the next), the selection of appropriate background music, and the creation of special audio effects. When using a single camera film-style, which means that a scene is built by recording one shot after another with only one camera, the postproduction activities may take longer than the actual production. **ZVL2** PROCESS→ Phases→ preproduction | production | postproduction

## PRODUCTION MODEL

Like any other model, a production model is meant to help you move from the original idea to the finished production as efficiently as possible. It is designed to help you decide on the most effective approach the first time around, evaluate each major production step, and finish on time. Its function is similar to that of a road map: you don't have to follow it to get from here to there, but it makes finding your way much easier. In any case, don't dismiss such a production aid simply because you haven't heard it mentioned in "the real world." It is presented here to give you an edge over the people in "the real world" who might not have heard of it or dismissed it before trying it out. If you feel that it is restrictive and cramps your creativity or style, don't use it.

### Effect-to-Cause Model

Like most other production models, the **effect-to-cause model** starts with a basic idea, but instead of moving from the basic idea to the production process, it jumps to the desired communication effect on the target audience—the

general program objective. This program objective can be reached through a specific message that, ideally, the viewer will actually receive, internalize, or act on. Because this all-important message is generated by the process of the viewer's watching the video and audio content of your television program and attaching meaning to it, we call it the **process message**. This process requires that you as a producer have a fairly clear idea of what you want the target audience to learn, do, and feel before you think about the necessary technical requirements. The model suggests that you move from the general idea directly to the desired effect and then back up and think about how to bring about—cause—this effect. **ZVL3** PROCESS→ Effect-to-cause→ basic idea | desired effect | cause | actual effect

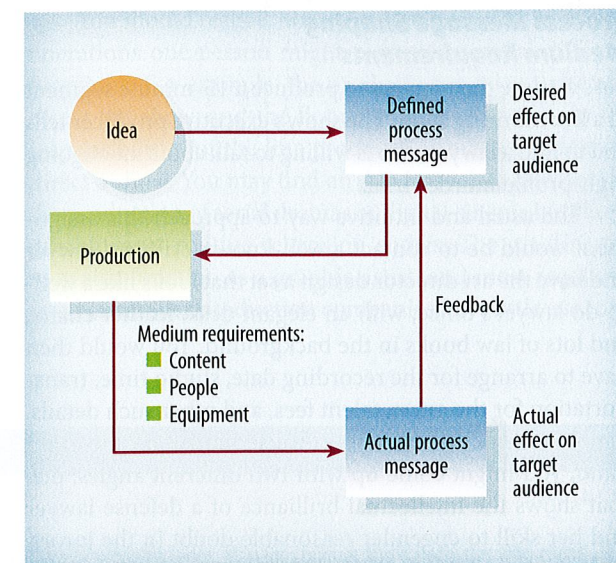
The more the actual process message (viewer effect) matches the defined one, the more successful the communication. **SEE 1.1**

**Defined process message** Rather than being driven by the initial idea, the production process is now driven by the defined process message—the desired effect on the target audience. As such it is more inclusive than a mere program objective. Before proceeding with your production, you need to be sure to get the audience's attention. This you normally do with a program angle—a certain program element that hooks the viewer, much like using bait when fishing.

**Angle** As you undoubtedly know, the angle is a specific story focus, a point of view from which to look at and describe an event. It can lead to an obvious bias of who tells the story, or it can be subtler and make a story more interesting to watch. In reporting news, you need to be careful with angles that introduce specific points of view.

For example, if you were to side with the owner of a dog who bites the letter carrier, your story angle might be the rising crime in the neighborhood and the dog's attempt to protect his master. If, on the other hand, you were to empathize with the letter carrier, your angle may well be the viciousness of the neighborhood dogs and the need for stricter leash laws. In a news context, both angles contain an unacceptable bias, but in a drama such an angle may play an important role in perceiving the dog as the hero (the letter carrier was actually an escaped convict in disguise) or the villain (the dog had previously bitten a child on the way to school).

You can also use an angle that gives the story a specific approach without introducing a strong bias. For example,



## 1.1 EFFECT-TO-CAUSE PRODUCTION MODEL

The effect-to-cause production model jumps from the initial idea and story angle directly to the desired effect—the process message. It then backs up to the medium requirements that suggest the production elements and processes necessary to produce the defined process message.

you could document a popular singing star by watching her give a concert for a large enthusiastic audience or by observing her during a studio recording session. The first version would be a more public "looking-at" point of view, the second a more private "looking-into" point of view. This would change not only what equipment you need (a multicamera setup with live switching or extensive postproduction for the first version) but also your shooting style (many more close-ups for version 2 than for version 1).

### Medium Requirements

The advantage of this model is that the precise definition of the process message and a specific angle will help the content and production people work as a team and facilitate selecting the necessary content elements, production elements, and personnel—the **medium requirements**. By first carefully defining the desired effect on the audience, you can then decide quite easily on the specific people you need to do the job (content expert, writer, director, and crew), on where to do the production most effectively (studio or field), and on the necessary equipment (single- or multicamera, studio or field cameras, types of mics, and so forth).



Process Message Shaping  
Medium Requirements

Let's assume that you are to produce a 15-minute segment of a live morning show. The show's executive producer tells you to find a lawyer who is willing to talk about an ongoing high-profile murder trial.

The usual and intuitive way to approach this assignment would be to contact a well-known criminal lawyer and have the art director design a set that looks like a well-to-do lawyer's office, with an elegant desk, leather chairs, and lots of law books in the background. You would then have to arrange for the recording date, studio time, transportation for the guest, talent fees, and other such details.

When using the effect-to-cause model, on the other hand, you might come up with two different angles: one that shows the intellectual brilliance of a defense lawyer and her skill to engender reasonable doubt in the jurors, and another that reveals the emotional makeup and the inner conflict of a lawyer defending a suspect despite the overwhelming evidence that he is guilty.

Here's how the two different angles might influence the resulting process messages and, in turn, dictate different production approaches:

**Process message 1:** *The viewer should gain insight into some of the major defense strategies used by the guest.*

In this case, the questions would revolve around some of the lawyer's former cases and the reasons for their success or failure. Would you need an interviewer who understands the law? Yes. The interviewer could interpret the legal language for the audience or immediately challenge the lawyer's ethics within the framework of the law. The elaborate studio set resembling the lawyer's office would also be appropriate. You may even consider conducting this interview on-location in the lawyer's actual office.

**Process message 2:** *The viewer should gain deeper insight into the conscience and the feelings of the lawyer when handling an especially difficult case as well as how she deals with personal ethics when applying specific defense strategies.*

Do you now need a host who is a legal expert? Not at all. In fact, a psychologist would probably be better suited to conduct this interview. You might opt for close-ups of the lawyer throughout most of the show. You may even stay on a close-up of the guest when the host asks questions. Reaction shots (the lawyer listening to questions) are often more telling than action shots (the lawyer answering). Does this interview require an elaborate set? No. Because the interview deals primarily with the lawyer as a person

rather than the person as a lawyer, you can conduct it in any environment. Two comfortable chairs on an interview set are all you would need.

As you can see, in this case the angle was not stated separately but rather embedded in the defined process message. Would you need a process message if you were to write a play? Of course not. Even a nicely formulated process message would not help you write a more effective drama. Any dramatic presentation has its own internal structure that does not benefit from stating its desired effect on the audience. It is more important to think about character development and conflict than defining whether you want the audience to cry or laugh. More goal-directed program forms, however, such as instructional shows, interviews, documentaries, and certainly advertising, can benefit greatly from a precisely stated process message. **ZVL4** PROCESS → Effect-to-cause → basic idea | desired effect | cause

Finally, some unsolicited advice: There has been a great reluctance in television production to show "talking heads"—people talking on close-ups without any supporting visual material, special effects, or a constant dribble of background music. Do not blindly adopt this prejudice. So long as the heads talk well, there is no need for additional visual or aural clutter.

PRODUCTION PEOPLE

Even the most sophisticated television production equipment and computer interfaces will not replace you in the television production process; you and those working with you still reign supreme—at least so far. The equipment cannot make ethical and aesthetic judgments for you; it cannot tell you exactly which part of the event to select and how to present it for optimal communication. You make such decisions within the context of the general communication intent and through interaction with other members of the production team—the production staff, technical crews, engineers, and administrative personnel. You may soon discover that the major task of television production is working not so much with equipment as with people. In general, we can divide the production personnel into nontechnical personnel and technical personnel. Because news departments work independently of the regular production personnel, we list them separately.

Nontechnical Production Personnel

The *nontechnical production personnel* are generally involved in translating a script or an event into effective television images. They are also called above-the-line

personnel because they fall under a different budget category from the technical crew, who are called below-the-line personnel. The above- and below-the-line distinction is anything but absolute or even uniform, however, and it changes depending on the crewmembers' union affiliations and the budgetary or union practices of the production company. We therefore use here the more self-evident division of nontechnical and technical personnel. Figure 1.2 shows the principal functions of the major nontechnical production personnel. **SEE 1.2**

You should realize, however, that in smaller television operations one person might carry out several different functions. For example, the producer may also write and direct the show, and the floor manager may take on the responsibilities of the line producer or occasionally even direct a show. You may find an AD (associate director) in the production of serial dramas or digital cinema but rarely during most routine television shows. The art director may also function as a graphic artist, and most medium-sized or smaller production companies have little use for a

1.2 NONTECHNICAL PRODUCTION PERSONNEL

PERSONNEL	FUNCTION
NONTECHNICAL PRODUCTION PERSONNEL	
Executive producer	In charge of one or several large productions or program series. Manages budget and coordinates with client, station management, advertising agencies, financial supporters, and talent and writers' agents.
Producer	In charge of an individual production. Responsible for all personnel working on the production and for coordinating technical and nontechnical production elements. Often serves as writer and occasionally as director.
Associate producer (AP)	Assists producer in all production matters. Often does the actual coordinating jobs, such as telephoning talent and confirming schedules.
Line producer	Supervises daily production activities on the set.
Field producer	Assists producer by taking charge of remote operations (away from the studio). At small stations, function may be part of producer's responsibilities.
Production manager	Schedules equipment and personnel for all studio and field productions. Also called <i>director of broadcast operations</i> .
Production assistant (PA)	Assists producer and director during the actual production. During rehearsal, takes notes of producer's and/or director's suggestions for show improvement.
Director	In charge of directing talent and technical operations. Is ultimately responsible for transforming a script into effective video and audio messages. At small stations, may often be the producer as well.
Associate director (AD)	Assists director during the actual production. In studio productions, does timing for director. In complicated productions, helps "ready" various operations (such as presetting specific camera shots or calling for a video recorder to start). Also called <i>assistant director</i> .
Floor manager	In charge of all activities on the studio floor. Coordinates talent, relays director's cues to talent, and supervises floor personnel. Except for large operations, is responsible for setting up scenery and dressing the set. Also called <i>floor director</i> and <i>stage manager</i> .
Floor persons	Set up and dress sets. Operate cue cards and other prompting devices, easel cards, and on-camera graphics. Sometimes help set up and work portable field lighting instruments and microphone booms. Assist camera operators in moving camera dollies and pulling camera cables. At small stations, also act as wardrobe and makeup people. Also called <i>grips</i> , <i>stagehands</i> , and <i>utilities personnel</i> .



1.2 NONTECHNICAL PRODUCTION PERSONNEL (continued)

PERSONNEL	FUNCTION
ADDITIONAL PRODUCTION PERSONNEL	
In small operations these production people are not always part of the permanent staff or their functions are fulfilled by other personnel.	
Writer	At smaller stations and in corporate television, the scripts are often written by the director or producer. Usually hired on a freelance basis.
Art director	In charge of the creative design aspects of show (set design, location, and/or graphics).
Graphic artist	Prepares computer graphics, titles, charts, and electronic backgrounds.
Makeup artist	Does the makeup for all talent. Usually hired on a freelance basis.
Costume designer	Designs and sometimes even constructs various costumes for dramas, dance numbers, and children's shows. Usually hired on a freelance basis.
Wardrobe person	Handles all wardrobe matters during production.
Property manager	Maintains and manages use of various set and hand properties. Found in large operations only. Otherwise, props are managed by the floor manager.
Sound designer	Constructs the complete sound track (dialogue and sound effects) in postproduction. Usually hired on a freelance basis for large productions.

permanent costume designer, wardrobe person, property manager, or sound designer. Television talent—the performers and actors who work in front of the camera—are usually considered part of the nontechnical production personnel (discussed in chapter 15). **ZVL5** PROCESS→ People→ nontechnical

Technical Personnel and Crew

The *technical personnel* consist of people who are primarily concerned with operating equipment. They are usually part of the crew. The technical personnel include camera operators, audio and lighting people, video-record operators, video editors, CG (character generator) operators, and people who set up communication and signal transmission equipment. The term *technical* does not refer to electronic expertise but rather to operating the equipment with skill and confidence. The true engineers, who understand electronics and know where to look when something goes wrong with a piece of equipment, usually do not operate

equipment; rather they ensure that the whole system runs smoothly, supervise its installation, and maintain it. You may find that in larger professional operations, however, the technical production people are still called engineers, mainly to satisfy the traditional job classification established by the labor unions.

The DP (director of photography) is sometimes listed as part of the nontechnical personnel and sometimes as part of the technical team. The term, borrowed from film production, has found its way into television. In standard motion picture production, the DP is mainly responsible for lighting rather than for running the camera. In smaller digital cinema productions and EFP (electronic field production), the DP operates the camera as well as does the lighting. So when you hear that an independent television producer/director is looking for a reliable and creative DP, he or she is primarily referring to an experienced EFP camera operator. **SEE 1.3 ZVL6** PROCESS→ People→ technical

As mentioned, many of the functions of technical and nontechnical production people overlap and even change,

1.3 TECHNICAL PERSONNEL

PERSONNEL	FUNCTION
ENGINEERING STAFF	
These people are actual engineers who are responsible for the purchase, installation, proper functioning, and maintenance of all technical equipment.	
Chief engineer	In charge of all technical personnel, budgets, and equipment. Designs system, including transmission facilities, and oversees installations and day-to-day operations.
Assistant chief engineer	Assists chief engineer in all technical matters and operations. Also called <i>engineering supervisor</i> .
Studio or remote engineer-in-charge	Oversees all technical operations. Usually called <i>EIC</i> .
Maintenance engineer	Maintains all technical equipment and troubleshoots during productions.
NONENGINEERING TECHNICAL PERSONNEL	
Although skilled in technical aspects, the following technical personnel do not have to be engineers but usually consist of technically trained production people.	
Technical director (TD)	Does the switching and usually acts as technical crew chief.
Camera operators	Operate the cameras; often do the lighting for simple shows. When working primarily in field productions (ENG/EFP), they are sometimes called <i>videographers</i> and <i>shooters</i> .
Director of photography (DP)	In film productions, in charge of lighting. In EFP, operates EFP camera.
Lighting director (LD)	In charge of lighting; normally found mostly in large productions.
Video operator (VO)	Adjusts camera controls for optimal camera pictures (shading). Sometimes takes on additional technical duties, especially during field productions and remotes. Also called <i>shader</i> .
Audio technician	In charge of all audio operations. Works audio console during the show. Also called <i>audio engineer</i> .
Video-record operator	Runs the video recorder.
Character generator (CG) operator	Types and/or recalls from the computer the names and other graphic material to be integrated with the video image.
Video editor	Operates postproduction editing equipment. Often makes or assists in creative editing decisions.
Digital graphic artist	Renders digital graphics for on-air use. Can be nontechnical personnel.



depending on the size, location, and relative complexity of the production. For example, you may initially have acted as a producer when setting up the video-recording of the semiannual address of a corporation president; then, on the day of the shoot, you may find yourself busy with such technical matters as lighting and running the camera. In larger productions, such as serial dramas or a talent series, your job responsibility is much more limited. When acting as a producer, you have nothing to do with lighting or equipment operation. When working the camera, you may have to wait patiently for the lighting crew to finish, even if the production is behind schedule and you have nothing else to do at the time.

### News Production Personnel

Almost all television broadcast stations produce at least one daily newscast; in fact, the newscasts are often the major production activity at many stations. Because news departments must be able to respond quickly to a variety of production tasks, such as covering a downtown fire or a protest at city hall, there is generally little time to prepare for

such events. News departments therefore have their own **news production personnel**. These people are dedicated exclusively to the production of news, documentaries, and special events and perform highly specific functions. **SEE 1.4**

Don't be puzzled if you hear the assignment editor of a news department sending several VJs to cover breaking stories. *VJ* stands for *video journalist*—an individual who must combine the functions of reporter, videographer, writer, and editor. This rather demanding job was obviously not instituted to improve news coverage but to save money. Nevertheless it is apparent that you can no longer afford a narrowly focused training but must be fluent in all aspects of television production.

As in any other organization, television and corporate video involve many more people than what you see listed in this section, such as clerical personnel and the people who answer phones, schedule events, sell commercial time, negotiate contracts, build and paint the sets, and clean the building. Because these support personnel operate outside the basic production system, their functions are not discussed here.

### 1.4 NEWS PRODUCTION PERSONNEL

PERSONNEL	FUNCTION
<b>News director</b>	In charge of all news operations. Bears ultimate responsibility for all newscasts.
<b>Producer</b>	Directly responsible for the selection and the placement of the stories in a newscast so that they form a unified, balanced whole.
<b>Assignment editor</b>	Assigns reporters and videographers to specific events to be covered.
<b>Reporter</b>	Gathers the stories. Often reports on-camera from the field.
<b>Video journalist (VJ)</b>	Reporter who shoots and edits his or her own footage.
<b>Videographer</b>	Camcorder operator. In the absence of a reporter, decides on what part of the event to cover. Also called <i>news photographer</i> and <i>shooter</i> .
<b>Writer</b>	Writes on-the-air copy for the anchors. The copy is based on the reporter's notes and the available video.
<b>Video editor</b>	Edits video according to reporter's notes, writer's script, or producer's instructions.
<b>Anchor</b>	Principal presenter of newscast, normally from a studio set.
<b>Weathercaster</b>	On-camera talent, reporting the weather.
<b>Traffic reporter</b>	On-camera talent, reporting local traffic conditions.
<b>Sportscaster</b>	On-camera talent, giving sports news and commentary.

### MAIN POINTS

- ▶ The three production phases are preproduction, production, and postproduction.
- ▶ Preproduction includes the preparation of a show before the actual production activities take place. It usually happens in two stages: the first is the move from the basic idea to the script; the second is the designation of the necessary equipment (cameras, microphones, and so forth), facilities (studio or field production), and people to transform the script into a television show.
- ▶ Production includes all the activities in which equipment and the crew operating it create the actual program or program segments. The program can be video-recorded or put on the air; the segments are usually video-recorded for postproduction.
- ▶ Postproduction involves mostly video and audio editing. The various program sections that were recorded in the production phase are put into the proper sequence. It can also include the enhancement of the pictures and the sound.

- ▶ The effect-to-cause model facilitates the production approach. It moves from the basic idea to the process message (the desired effect on the viewer) and from there to the medium requirements (content, people, and equipment) necessary to actually cause the process message. The closer the defined and actual process messages match, the more successful the program.
- ▶ The nontechnical production personnel (also called above-the-line), include a variety of people who design the program (writers, art director, sound designer, and so forth) and execute the program (producers, director, floor manager, and assistants).
- ▶ The technical personnel (also called below-the-line) include the engineers, who install and maintain the equipment, and the nonengineering technical personnel, who operate the equipment.
- ▶ The news department has its own production personnel, who consist of a variety of producers, writers, assignment editors, graphic artists, reporters, and videographers as well as video journalists, who report, operate the camera, and write and edit the story.