



# TELEVISION PRODUCTION

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# 9

## Video Control and Effects

*production switcher*: Standard control room switcher that enables the TD to put any video source or composite picture on the air.

A *production switcher* (Figure 9.1) is to video what an audio console is to audio: a master controlling and mixing device. Production switchers serve two production phases. First, they are used to switch (edit) a production in real time when decisions on shots and effects are done by the director as a show is recorded or broadcast. Second, they are used in postproduction when the a video switcher and all its effects capabilities are tied in with the videotape editing process.

Today's production switchers go far beyond the simple switching and mixing of video sources. They commonly include a SEG (special effects<sup>1</sup> generator) or DVE (digital video effects) unit<sup>2</sup> which can shrink, expand, flip, spin, wipe and combine images in a multitude of ways. In fact, it seems impossible to envision a visual effect that can't be done with one of today's most sophisticated SEGs. Unlike film, where visual effects, or *opticals*, take days or weeks to complete, in video, effects can be set up and examined immediately. With digital video a sequence of highly complex visual effects can be slowly "built" element by element, electronically memorized and then played back at a touch of a button. Because of video's advantages in doing visual effects, many of today's film effects are created in high-resolution video and then transferred to film.

1. Since special effects are not all that special any more, many feel that the term *visual effects* is more appropriate.

2. It is difficult today to make a clear distinction between *production switcher*, *postproduction switcher*, *special effects generator*, *digital video effects unit*, and *digital video manipulator*. All of these terms are used to describe switching/visual effects units. Facilities that require elaborate visual effect capabilities commonly have one or more separate video effects units designed to supplement the basic production switcher.

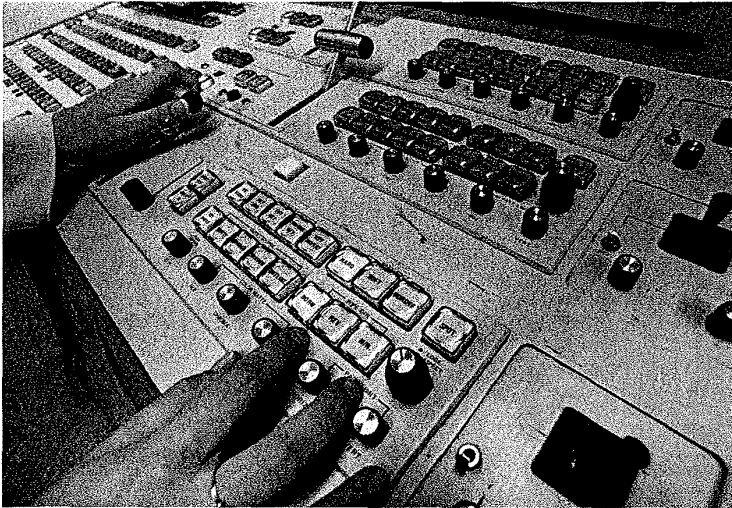


FIGURE 9.1

A production switcher is to video what an audio console is to audio: a master controlling and mixing device. Switchers serve two production phases: first, to switch (edit) a production in real time, and second, for postproduction where the switcher's effects capabilities can be tied in with the editing process.

## COMPUTER-BASED SWITCHING AND EFFECTS

In recent years dedicated switchers—especially for postproduction work—have been replaced to some degree by computer-based systems that can do a wide variety of postproduction tasks, including titles, graphics and video effects. The introduction of the Video Toaster system for the Amiga computer in 1990 represented a major step in this direction (Figure 9.2). It was at this point that affordable, broadcast-quality video effects became available to a wide range of

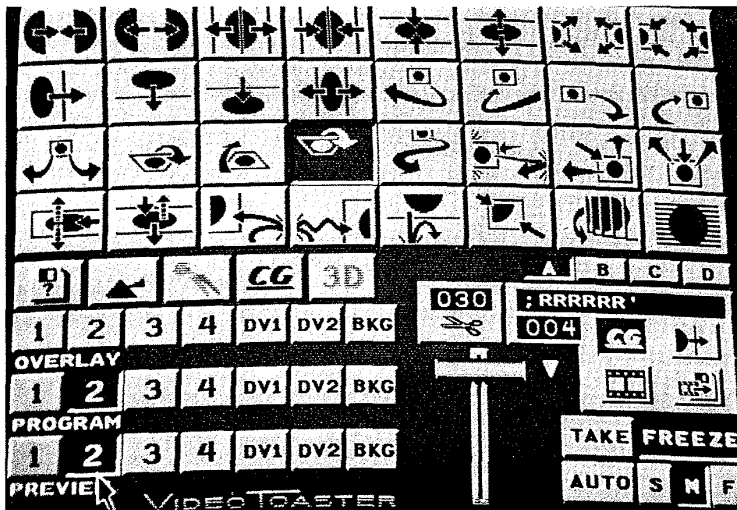


FIGURE 9.2

With the introduction of the Video Toaster system, affordable, broadcast-quality video effects became available to a wide range of video users. Many of the on-screen symbols used in this desktop computer system are designed to look like elements of a standard video switcher.

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