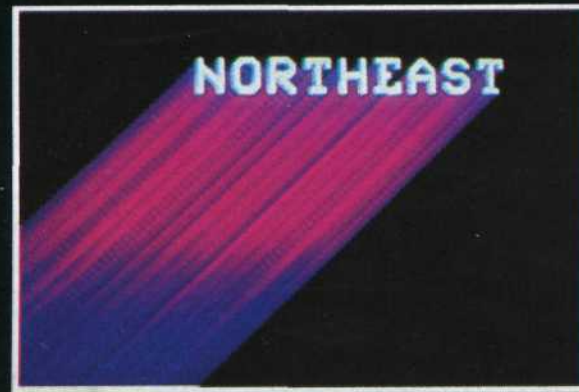




SPECIAL

TITLE SLIDES THAT'LL KNOCK 'EM DEAD

By Jack
and
Sue Drafahl





EFFECTS

Make your next slide show state-of-the-art with home computer graphics

Everybody is caught up in the computer era, especially photographers. Cameras, meters, enlargers, processors, and timers have all benefited from high technology. It's not surprising to find photographers interested in new ways of combining



NORTHWEST

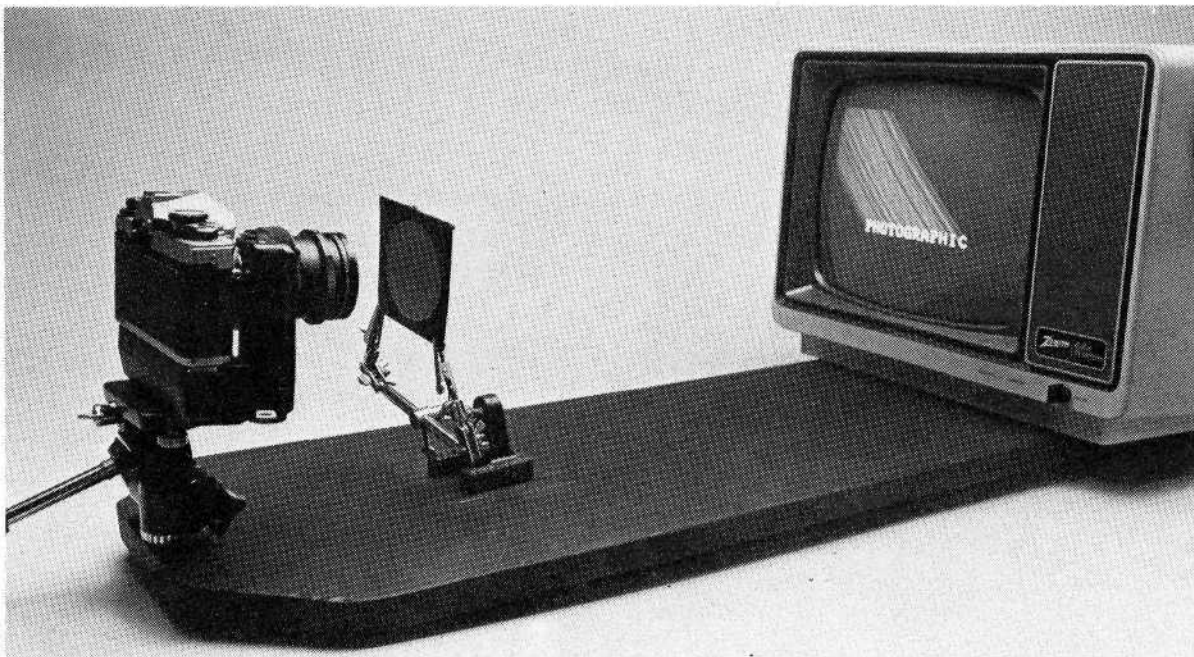


IMAGE CONCEPTS



COMPUTER
APPLICATIONS

TITLE SLIDES



4. Camera mounted to board with Electrician's Helpers holding filters.

both conventional photography and computers. For years, software programs for personal computers have allowed you to type words that can then be photographed for use as title slides. Now you can also produce title slides that streak, spin, and zoom.

Before the advent of computers these types of slides could only be done on an optical stage, a complicated and expensive device that allows precisely controlled movements of the camera in relation to the artwork. The advantage to using computer graphics photographed off your monitor is that neither the camera nor the monitor moves—only the image on the screen.

GRAPHICS MAGICIAN

When most people think of computer graphics, they think of bar graphs, pie charts, typed copy, and simple pictures. Now computer title slides in which the images actually move on the computer screen are possible with the new and innovative computer software on the market. There are several computer software programs that allow the user to make animated graphics. Graphics Magician, by Penguin Software Company is one such program that we feel best represents what animated graphics are all about. For this article, we used it on an Apple II+ computer to show you how to create spins, streaks, and zooms.

THE SHAPE AND FONT EDITOR

Animated programs can be divided into three parts. The first is the Shape and Font Editor. Here the photographer can make his own let-

ter fonts or shapes using what is called an edit window. Each letter or shape is drawn dot by dot, using the various key functions listed in the software manual or in the Shape and Font Editor itself. After each letter is completed, it is saved on a data diskette to be used later.

If you do not want to make your own fonts or shapes, you may choose fonts and shapes already in existence, using a program called Shape Capture. In this program, computer pictures of preexisting fonts or shapes may be loaded into the computer, and then each individual letter can be traced by the computer and loaded into the Shape and Font Editor.

Shapes and pictures may also be hand drawn on a software device called the Koala Pad. This enables you to sit and compose a drawing which can then be transferred to the computer screen. Once saved to a data diskette as a picture, it can be loaded into the Shape Capture and Shape and Font Editor program.

THE PATH EDITOR

The second part of the animation program is called the Path Editor. With this program you can direct paths across the screen for the letters or shapes to follow. You can find the various commands for constructing computer paths in your software manual or in the Path Editor itself. If all the shapes and fonts will move in the same direction, as in a streak, then only one path is necessary. If zooms and spins are desired, each shape or font will need its own separate path. If you want the letters

to have a white exposure at the end of the streak, then a special command is necessary to hold the letters in place for a set amount of time before continuing into the streak mode. Each path should be saved on a data diskette separately to be loaded in later.

THE ANIMATION EDITOR

The third part of the Graphics Magician animation program is the Animation Editor itself. Here, the shapes or fonts, plus all of the paths, are loaded into the computer from the data diskette. You can then call up a letter, and specify where you want it to start on the screen in terms of X and Y coordinates. The X values are the horizontal coordinates from 1 to 279; the Y values are the vertical coordinates from 1 to 180.

You must then assign a path for each of the letters to travel. If you want a simple streak, assign the same path to all the letters. Spins and zooms will require different paths. After you have called all the necessary letters and plotted their paths, test the program by using the Animated Test Function. Once the program is satisfactory, it can be saved on a diskette. This completes the programming part of producing animated title slides.

PHOTOGRAPHING THE MONITOR

Now you need to set up your camera. You can use a tripod, but the alignment of the camera and screen is critical, and it will be difficult to achieve consistently using a tripod. If your tripod has a removable head, purchase a board three to four feet long and eight to ten inches wide. Drill a 1/4-inch hole three to four inches from one end of the board. Remove the head of the tripod and mount it to the board. Now carefully set your computer monitor at the opposite end of the board. Alignment and leveling of the camera and monitor are much easier when they are both on the same plane.

If you have a winder or motor drive for your camera, it is best to use it. These help keep the camera from moving between exposures, and allow registration of multiple exposures on a single frame of film. You must use a lens with a focal length longer than 100mm, or the screen will be distorted in your final slides.

FILTERS

The colors used in all of the title

TITLE SLIDES

```
THE GRAPHICS MAGICIAN - PENGUIN SOFTWARE
WRITTEN BY MARK PELCZARSKI, DAVID LUBAR,
AND CHRIS JOCHUMSON

PART 1 - THE ANIMATION SYSTEM
(S) SHAPE EDITOR
(P) PATH EDITOR
(A) ANIMATION EDITOR
(D) DOCUMENT ANIMATION TABLE

PART 2 - THE PICTURE/OBJECT EDITOR
(J) JOYSTICK VERSION
(T) APPLE TABLET VERSION
(H) HIPAD VERSION
(L) LIST/TRANSFER PICTURES

ALSO (M)MODIFY DISK ACCESS (C)ATALOG
(B)INARY TRANSFER UTILITY (Q)UIT

MASTER DISK:D1 DATA DISK:D2
U2.84 COPYRIGHT 1983, PENGUIN SOFTWARE
CHOICES IN PARENTHESES
```

2. The "Graphics Magician" menu.

```
.....
A      A      A      A
.....
A      A      A
.....

IJKM ZXQW C B F R S E A 1-7 0 (H)ELP
WIDTH:15, HEIGHT:18, BORDER:0
COLOR: WHITE HBIT OFF ALL SET
```

3. The program's Shape and Font Editor.

```
MOVE CURSOR TO START, THEN PRESS 'S'
CUIDJKNM, J ESC S
X:140 Y:96
```

4. The Path Editor.

ALL PHOTOS BY THE AUTHOR

slides shown here were achieved by the use of Kodak's No. 25 red, No. 58 green, and No. 47 blue separation gel filters. These are known as "pure cutoff" filters and they are used in making color separation negatives for dye transfer prints. The colors obtained from a color monitor itself are not really satisfactory for achieving these effects. Photographic color filters render a much truer and richer color, and colors can be easily changed during exposure. The most important reason for using Kodak gels is that any monitor can be used. Green, amber, or white screen—it doesn't matter. The slides reproduced here were made using Kodak gels and a Zenith green screen monitor.

You're probably saying, "Wait a minute—colored slides from a green screen?" Right. Here's what you do. Turn up the brightness on the monitor. This eliminates a lot of the green and blends the image dots together. Use long exposure times—basically overexposures. Any time you overexpose a monitor image, which is not truly monochromatic, it goes toward white. Since the Kodak gels are pure cutoff filters, meaning that they transmit only their own color with very little or no color crossover, the color of the filter will be transmitted and all other colors will be blocked. If you're still skeptical, wait until you begin testing and all things will be clear.

Many other colors can be made either by buying other color gels or by mixing the gels you have—making separate exposures of the same image with two or more different colors. For example, a red exposure followed by a blue exposure on the same frame of film would result in a magenta image.

To help hold the filters still during exposures, you'll need an auxiliary device. One such handy tool is called an Electrician's Helper (photo 1). It uses alligator clips and can be found in most electronics stores.

Once you have set up the camera and monitor, position the filter holder near the front of the camera lens. Place the appropriate filter into the holder. Load a roll of color slide film (ISO 64/19° to ISO 100/21°) into the camera. Attach a cable release to the camera and set the shutter speed to B (bulb).

Load Graphics Magician into the computer and call up your special streak, spin, or zoom. Start the program and align your camera with the special effect so that the image fills the frame. Your shutter should still be on B and the f-stop set to about f/4. Turn out the room lights and place a black card in front of the camera lens. Start the computer animation program. Depress the cable release and remove the black card for a one second white exposure. Replace the black card. Do not advance the film. You have just made the exposure necessary for the white letters at the end of the streak, spin, or zoom. The letters should not have moved during this exposure.

The next exposure on the same frame of film will produce the actual streaking. Set the filter holder and desired filter in front of the lens. When the letters start to move from their stationary position necessary for the white exposure, remove the

black card. At the end of the streak, spin, or zoom, close the shutter and advance the film. You must try several exposures to find the one that is correct for your computer screen.

It is important to make tests to determine proper exposure times and apertures. Screen brightness and settings vary greatly, so the initial aperture and time given above is only a starting point. You should be advised, though, that the green filter requires about one f-stop less exposure than the red filter, and the blue filter requires about one f-stop more exposure than the red filter. So if you have determined that red filter calls for one second at f/4, expose the green filter for one second at f/5.6, and the blue filter for one second at f/2.8. This will adjust your exposures for the different filter densities.

FOR MORE INFORMATION

There are hundreds of uses for computer graphics, so use this as a starting point. Keep in mind that this article is based on Graphics Magi-

cian and that other programs may be quite different.

For more information on Graphics Magician contact Penguin Software Co., 830 Fourth Ave., Geneva, IL 60134. List price is \$59.95. This program is made for Apple computers but will soon be available for I.B.M., Commodore, and Atari computers.

For those photographers who prefer a simpler method of producing these special effects, a diskette entitled Photographix is available from Image Concepts. It retails for \$19.95 and features six different special effects using one typestyle. All the necessary paths, letters, and animations are already loaded on the diskette. You only need to boot the diskette, type the desired title, and take the picture. Any editing of Photographix can be accomplished using the Graphics Magician program. For more information about Photographix contact Image Concepts, 2575 N.E. Kathryn, No. 16, Hillsboro, OR 97124. ■

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