The New Mouse

in

Animation

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The MacIntosh

by Peter J. Sucy

The New Mouse
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As a free-lance photographer and filmmaker I recently found myself falling farther and farther behind in my paperwork. Letters to write, bookkeeping to do, slides and photographs to file and keep track of, all of which was leaving less and less time to photograph and print, which are (or at least that's what I thought) a free-lance photographer's primary duty. And worst of all my avocation, animation, had been completely set aside for the past few years.

Inevitably I came to the decision that I needed a computer to increase my productivity in the area of paperwork management. This decision to purchase a computer followed the announcement of Apple's Macintosh by just a few weeks, what a happy coincidence! I hadn't heard about the Macintosh when I first went to a few computer stores looking for the right machine to handle my paperwork. One smart salesman persisted in showing me this new machine even though it was a bit higher than my original price ceiling. I think it was love at first sight.

The New Mouse
in
Animation

He showed me the MacWrite program first and I was duly impressed with the number of fonts and sizes available but not quite sold. Wisely he had saved the best for last, MacPaint. When he first moved an object he had drawn on the screen with the lasso, I recognized instantly the immense possibilities this computer offered as an animation tool. And when he printed out to the Imagewriter a picture of what I had just seen on the screen I was immediately sold.

Here in one machine was the solution to my paperwork problem and a visual tool that rivaled my standard methods of producing and especially manipulating images.

With the recent announcements of the availability of animation software and an image digitizer, I can see now that other people recognized the Mac's potential in this area also. With an image digitizer, 'snapshots' of real scenes, people, or even copies of other photographs can be transferred to the Mac's screen and via MacPaint be modified or enhanced and this includes the making

The New Mouse
in
Animation

of multiple copies with slight changes in position. These multiple images when photographed by a motion picture camera frame by frame and then projected as a continuous sequence of still pictures, gives us the illusion of motion.

Right now there are two methods for transfering Mac images to film that I know of, and neither is without its' drawbacks. The first method is to print the screen image on the Imagewriter and then photograph that. An advantage to this procedure is that color can be hand applied if desired. Additional animation elements can be overlaid and complex moves using camera movements and zooming are also possible with this method. The major drawback is that the Imagewriter's speed (or lack of it) and an insufficient memory buffer, tie up the computer for what seem like endless minutes as it passes the image in manageable pieces to the printer. Adding a printer buffer of at least 64K would free up the computer but would not speed up the printing operation. The solution to that problem may lie in the introduction of the new low-cost laser printers which are

The New Mouse
in
Animation

rumored to be just over the horizon.

The other method of screen imaging I alluded to earlier is much faster but not nearly as flexible as going to paper. That method is photographing the Mac screen directly with an animation camera or a movie camera with single frame capabilities. Good results can be achieved if you are careful to use a shutter speed that is slow enough to avoid freezing the scan lines (about $1/30^{th}$ of a second or slower).

The limitations encountered with direct photography are numerous. First of all you are unable to view an entire MacPaint document, just the open window. This drawback seriously limits your camera movements, especially zooming. And until there is a color monitor available you are limited to monochromatic animations.

It is concievable that software will be developed that will not only allow you to construct animation sequences and view them

The New Mouse
in
Animation

on the screen, but will be able to interpolate any number of frames between two images providing extremely smooth actions or movements.   Future software developements may also do away with the motion picture camera.   You may be able to select what portion of the screen you want to view, much as you choose a lens. It is feasible that you could program complex moves such as zooming or panning or both just by specifying starting and ending points and the number of frames or time to completion.

    With a music composition program you can write original compsitions to accompany your spectacular computer generated animations.   And the price of all this power is considerably less than what a decent animation stand and camera would cost.