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840AV Video Input/Output Frame Per Second Capabilities (3/94)

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TOPIC-----

We have a customer who is interested in using a Quadra 840AV to capture QuickTime video. He needs to know how many frames per second (FPS) he can expect from it.

DISCUSSION-----

- 1) How many FPS can I expect to capture without buying additional RAM using QuickTime 1.6 and 2.0? The FPS rate of QuickTime depends on a number of factors. The size of the movie, what media it is playing back from, whether or not there is audio attached to it, and which compression algorithms are used. QuickTime 2.0 will have about twice the performance at 1.6 all other things being equal. The next part of the answer depends if you want to use third-party hardware to give better performance in QuickTime. New MPEG (Motion Pictures Expert Group) hardware exists which will give up to 30FPS data rate at 640 by 480.
- 2) How many FPS with up to 64MB of RAM and setting up a RAM disk using QuickTime 1.6 and 2.0? You don't necessarily need to use a RAM disk to save a movie to. Some digitizing software allows you to save to RAM as a standard option. Increased memory will not improve performance, rather it allows longer recording times. Again, QuickTime 2.0 will have about twice the performance at 1.6 all other things being equal.
- 4) Is there any way to get the 840AV to capture video at (or very close to) 30FPS? Yes, you can get 30FPS input speed with a 840AV if the size is 320 by 240 or less and you record to RAM, or if you record frame by frame. The more RAM you have the better, more RAM simply gives you longer recording times.
- 5) What is the fastest rate at which video can be output from the 840AV to be recorded to a VCR? The fastest rate that you can output from the AV is similar to the fastest that the movie will play. The output is recorded in real-time.

Lastly it depends on the frame rate that you actually need. You can do backgrounds that playback at 1FPS and smaller foreground movies that are small and playback at 30FPS.

The underlying understanding is that you have to experiment with a number of variables in making QuickTime Movies. The hardest thing to do is create movies that play back from CD-ROM. To do this you need to use MovieShop or an equivalent product which will allow you to limit the playback speed to between 90K to 190K/sec depending whether you have a single speed or double speed drive.

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