

## Hints and Tips

Here are some useful techniques you can use to get the most out of JPEGView.

If you have memory, use it!

Increase JPEGView's memory as much as you can (using the Get Info box from the Finder). JPEGView comes initially set to use only 768k of memory; although this is adequate for most basic operations, there is a great advantage to be gained by increasing the available memory. When JPEGView has enough free memory, it will store an off-screen copy of the uncompressed image displayed on your screen, which will be used to redraw obscured parts of the window instantaneously. If there is not enough free memory for this extra copy, JPEGView will have to decompress the image again before it can update an obscured window.

In addition, if you use color quantization and give JPEGView enough memory for a 24-bit image the size of your screen, the image will only need to be decompressed once. To give you an idea of how much memory is needed for optimal performance, here is a table of minimum recommended memory sizes for various monitor setups. To determine how much memory you should give to JPEGView, take the value in the table appropriate for your monitor and add to that the compressed size of the largest image you would like to view.

For 256 colors with no quantization:

- 12" monitors: 450k
- 13" monitors: 550k
- 16"/full-page monitors: 800k
- 21"/two-page monitors: 1250k

For 256 colors with quantization, or for Millions of colors:

- 12" monitors: 1050k
- 13" monitors: 1550k
- 16"/full-page monitors: 2450k
- 21"/two-page monitors: 4250k

Note again that these memory values are not hard minimums; rather, they are the minimum memory needed to show optimum performance on single images. The default allocation of 768k is adequate for viewing almost any image less than 500k compressed, albeit with some speed degradation.

Avoid dithering, if possible.

If you're running a 256-color display and have two-pass color quantization turned on, you will almost certainly run into occasional problems with dithering. Why? JPEGView uses your Mac's built-in dithering, which works rather well on images where there is not a very good match between the system's colors and the colors in the image. Once you've turned on color quantization, however, JPEGView picks a rather good set of colors for the image, and the match between the sets of colors is much closer. For such images, Apple's dithering sometimes produces dithering artifacts, which appear as small, grainy sections in the image.

To date, I have found no way of adequately preventing this from happening short of writing my own dithering routine and reimplementing Apple's CopyBits routine — a daunting task to say the least! The best way to avoid the problem presently is to simply turn off dithering for these images. In fact, give undithered images a chance and you may find that color quantization does quite acceptably without it!

Make good use the Crop & Zoom feature in the View menu.

There is a lot of power hidden in this innocuously titled feature! In fact, the primary reason for it being there, believe it or not, is that it is a replacement for scroll bars. With most image viewing utilities on the Mac, you are initially shown only a portion of the image, which you then must scroll around in, looking for whatever details you're interested in. If you're lucky, maybe it will let you automatically scale the image to fit on your screen.

JPEGView takes exactly the opposite approach: you are given the full image first, scaled to fit on your screen, with

the option of zooming in on any part of that image. To do this, you simply click and drag a selection rectangle on your image, and then select Crop & Zoom from the View menu. Additionally, when used in conjunction with the Select Screen Area option in the Edit menu, you can automatically select a screen-sized chunk of the image to view at full resolution by simply dragging the selection rectangle anywhere in your image.

This approach has three important advantages: first, you gain back all the screen area taken up by those annoying scroll bars in the window; second, you are not required to have enough memory to buffer the entire decompressed image at full resolution; and finally, rather than scrolling around helplessly wondering what you are looking for, you can see with your own eyes the full image and move the selection rectangle over the interesting portions. It may not be the method you're used to, but I believe it is far more powerful than the standard scroll bars.

Create a folder of aliases to use for your slide show

This technique allows you to choose exactly which images you want to display in your slide show without having to reshuffle your image collection. Simply make aliases of all the images you want to have in your slide show, drag them all into a separate folder, and run the slide show from that folder. JPEGView will automatically resolve the aliases and display the images as you would expect.

Use the greyscale palette to improve image quality on 256 color displays.

On 8-bit color systems, try viewing JPEGs in greyscale for better image quality (use the Colors menu). The JPEG format stores 24 bits of color data, which must be approximated with dithering on systems with fewer colors. However, when the color-specific information is removed from the JPEG, only 8 bits of greyscale data remain, which will not need to be dithered on 8 bit greyscale systems. If you can live without color, you can achieve much higher image quality this way.

Make sure you convert JPEGs to JFIF format before posting and trading them!

When swapping JPEG pictures with others — and especially when uploading JPEGs to public access sites! — always make sure you save the image as a JFIF file; otherwise, only Mac users will be able to read the file and you're liable to make some others upset!

Be careful if you are converting your GIFs to JPEGs!

A heated and never-ending debate has been filling the Usenet over whether converting GIF files to JPEGs is a good idea. Those opposed to the idea claim that JPEG was not designed to work with 256 (or fewer) color pictures and that JPEG only makes bad pictures look worse. Proponents feel that the space savings gained more than makes up for any quality degradation, which becomes minimal for high-quality GIFs. So, who's right and who's wrong? Unfortunately, it depends on the GIF image. For line drawings, cartoons, and GIFs with very few colors (16 or less), conversion to JPEG is usually a bad idea, as GIF compresses such images very well and JPEG will likely create some unwanted "noise" in the image. For high-quality, 256-color GIF images, JPEG compression does pretty well and introduces little visible loss in image quality. For other images, a judgement can only be made on an image-by-image basis. The conversion issue is by no means clear-cut.