

The ProJPEG™ Interface

ProJPEG™ has one main options dialog for controlling compression parameters when saving images. The options dialog contains an interactive quality preview, a check box to enable or disable the preview feature, information on image and file size, quality slider control, progressive check box, Huffman optimization checkbox, better subsampling checkbox , a pop-up menu for loading saved presets, and a button for saving presets.

controls and dialog items

- The compression preview

ProJPEG™ has a live compression preview that shows you exactly what your image will look like as a JPEG file as you adjust compression settings. The preview is fixed at 100% size and can not be scaled because any scaling would defeat the purpose of the quality preview by altering the way the image appeared. The preview area defaults to the top, left corner of the image being saved but can be scrolled to any portion of the image desired. The preview can also be disabled and enabled as desired.

- The enable/disable preview check box.

This check box enables or disables the preview in the ProJPEG™ options dialog. Working with the preview on provides interactive feedback as you adjust compression options, but it can be slower than using ProJPEG™ without the preview enabled.

- The image size readout

To the right of the preview, the top text in the ProJPEG™ options dialog is the image size. This is the size of the image being saved in pixels wide by pixels tall and does not change as you change compression settings.

- The approximate data size readout

When the quality preview is enabled the approximate data size is displayed below the image size. This is an approximation of the final compressed size of your JPEG file's data fork and the compression ratio achieved that is extrapolated from the exact compressed size of the current preview area of the image. If the area of the image being saved that is visible in the preview is representative of the entire image this estimate will be extremely accurate. However, the approximate data size and compression ratio is subject to some inaccuracy because it is based only on the portion of the image within the preview area.

- The quality slider

Below the approximate data size is the most important control in the ProJPEG™ options dialog, the quality slider. The quality setting is what is most determinant of image quality and compression. Its range is from zero to one hundred, and zero really does mean zero.

It is not advisable to save images at quality settings below 10 or above 90 since they are both extremes above or below which no usable advantage in compression or quality is gained.

The quality setting can also be entered numerically in the text edit field to the right of the quality slider. The valid range for the quality setting is zero to one hundred with greater numbers representing greater image quality.

- The progressive check box

This controls whether your image will be a progressive JPEG or a standard baseline compliant JPEG. Progressive JPEGs allow for incremental display similar to interlaced GIFs but more aesthetically pleasing to view. Progressive encoding is also slightly more efficient than non-progressive encoding and progressive JPEG files are generally slightly smaller than the equivalent non-progressive JPEG files.

Progressive JPEGs provide the fastest loading images possible for the web. However, there are still some remaining compatibility issues when using progressive JPEG files.

At the time of writing 12 web browsers support progressive JPEG in their current versions. The JPEG FAQ maintained by Tom Lane of the Independent JPEG Group maintains an up-to-date list of all known applications currently supporting progressive JPEG.

- The Huffman optimization checkbox

Huffman compression is the final step in the JPEG compression process. Normally a pre-calculated, general purpose Huffman table is used in this process as it results in faster compression. However, more efficient compression can be achieved by using a Huffman table that is optimized for the specific image being compressed. The 'Optimize Huffman Codes' option creates an optimized Huffman table for the image being compressed and results in slightly better compression efficiency with no additional quality loss in the image.

- The better subsampling checkbox

Checking this box causes ProJPEG™ to use a more accurate method of subsampling and improves image quality but generally results in slightly larger JPEG files than if this option were off.

- The presets menu

Presets allow you to save and rapidly set all control options when using ProJPEG™ to save a JPEG file. The presets menu affects all settings, including controls that are not visible from the basic options dialog. To load a preset simply select the preset in the menu and all controls will be changed automatically to the stored values in the preset. The option to create a new preset is only available from the advanced options.

- The save preset button

To create a new preset first make all the control settings you wish to store in the new preset then click on the 'Save Presets' button. You will be prompted to name the new preset then it will appear in the presets menu until it is deleted. The 'Save Presets' button is also used to delete presets. If you press the option key the 'Save Presets' button title will change to 'Delete Presets' and the currently loaded preset will be deleted from the presets menu when you click on 'Delete Presets'.