

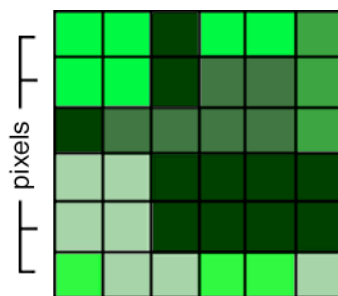
JPEG Compression

The JPEG format is mainly for optimizing photographs to send out over the Internet. The exception being small photographs (100 x 100 pixels) which generally look better saved in the GIF format. Sometimes experimenting with the different formats is the only way to determine which will give you the smallest file size with the best quality.

JPEG uses a lossy compression method, which means when decompressed the image will **not** be the same as before compression and will have lost information contained in the original file. Each time you save a JPEG image it will lose more information. For this reason, it is best to save an original of your image in another format and work from that original when making changes. There is no need to save your file in JPEG unless you want to send it over the Internet, either as part of a web page or as an attachment to an email.

How it works.

JPEG compression does not work by reducing long lines into simple formulas, like GIF compression. Instead it breaks the image into zones and throws away subtle color differences. For instance, here is an example of a 6x6 file before compression:

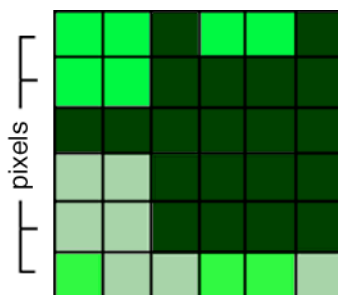


or

a	a	d	a	a	b
a	a	d	e	e	b
d	e	e	e	e	b
c	c	d	d	d	d
c	c	d	d	d	d
a	c	c	a	a	c

a = bright green
b = medium green
c = gray green
d = dark green
e = brown green

Here it is after compression:



or

a	a	d	a	a	d
a	a	d	d	d	d
d	d	d	d	d	d
c	c	d	d	d	d
c	c	d	d	d	d
a	c	c	a	a	c

Reduced to:

a = bright green
c = gray green
d = dark green

Moreover, when saving an image in JPEG format, you can select how much compression to use and, therefore, how much information to throw away. The more the image is compressed, the more the quality is reduced and the smaller the file size.

Unlike GIF, reducing the number of colors in the palette of a JPEG image will not necessarily reduce the compressed file size. Blurring, however, will reduce the file size, just as sharpening will increase it.