

Set the Camera

notes

Less is More

Your camera automatically reduces the size of the image files by compressing them to fit more on the memory card. The amount of compression is the second important setting on your camera because it affects image quality—and less is more!

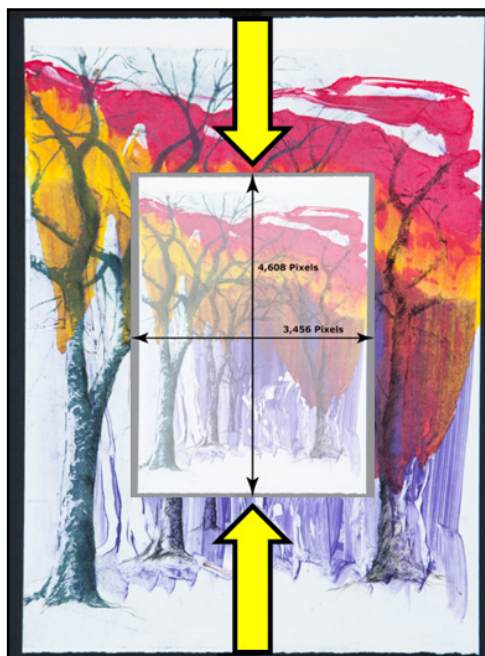
What is Compression?

To understand image quality better, let's start by taking a closer look at what compression means.

All digital cameras and mobile devices save images, like this one, as JPEG files—the most commonly-used format for images. JPEG is the acronym for an industry group that defined the format almost 25 years ago. Files of this type usually have “.jpg” as the extension at the end of the file name.

The JPEG format is popular because images are compressed to make the file size smaller—typically reduced by 50% or more. This permits the camera to save more images on a memory card than it could without compression.

Importantly, the camera does not change the image size during compression. In other words, the camera reduces the file size without changing the pixel dimensions of the image.

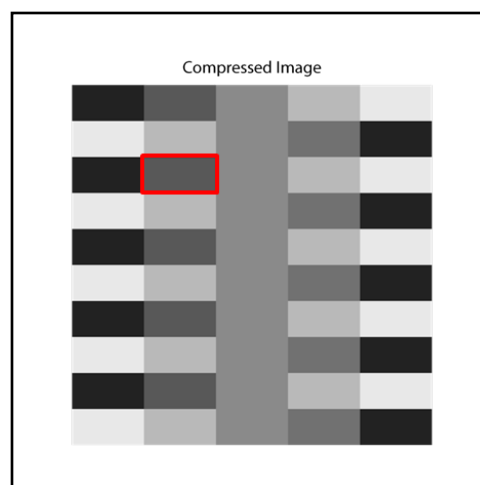


Sounds like magic, doesn't it?

About JPEG Compression

The compression takes place by means of a complex computer algorithm performed by the camera on the image. At the risk of oversimplifying the process, an illustration may be helpful.

As it processes the image, the camera compares the color values of adjacent pixels—these two, for example. If the colors are “close



Set the Camera

notes

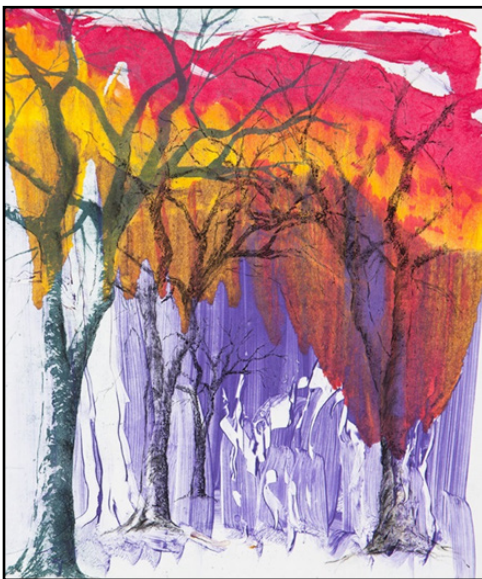
enough”, they are averaged and stored as a single value for both pixels. Using the same color for a group of many pixels requires less space to store the image. This yields a compressed file with a smaller size.

The image still has the same number of pixels it had before compression, but you can see that some of the color detail is permanently lost—in other words, the compression is “lossy” and so comes at a cost. When the file is opened later and uncompressed, the original differences in colors between the pixels that were averaged cannot be recovered

Why Compression Matters

Compression matters when shooting your work because the amount applied by the camera can be changed. In other words, you can set how much the image is compressed—that is to say, how close is “close enough” when the colors of adjacent pixels are compared during the compression process.

Let’s look at a couple of examples. This image was saved by the camera with a low amount of compression. The image is high quality and the color detail is readily visible—even when enlarged.



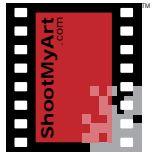
Low-Compression Image



Low-Compression Enlarged 2x

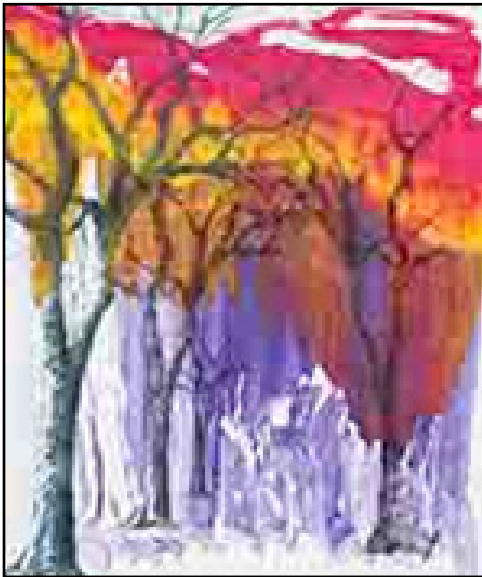
By comparison, this image was saved with a high amount of compression. The image appears “softer” and much of the color detail has been lost—even though it contains the same number of pixels. The effect of high compression is even more pronounced when the image is enlarged.

So less compression yields a higher quality image. When photographing your work, therefore, you’ll want to use the highest quality setting on the camera so that the least amount of compression is applied when the

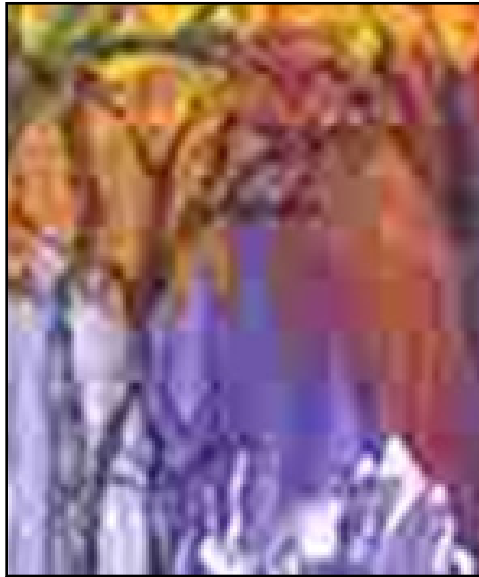


Set the Camera

notes



High-Compression Image



High-Compression Enlarged 2x

image is captured. Although this increases the size of the image file, it will minimize the effect of compression and give you the best quality.

Setting the Image Quality

Now, let's look at how to set the amount of compression on your camera so that you have the highest image quality.

On this Canon camera, I first press the Function button—which opens the function or settings menu.

Then I use the dial to find the image quality settings and select the setting for the highest quality. Here it's "S" for Superfine, but it may be labeled "Fine" or "High Quality" on your camera.

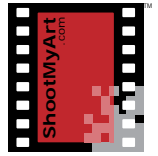


If you're unsure about which setting to use, most cameras show you how many shots are remaining on the memory card. Use the setting that shows the lowest number—this is one with the lowest compression and largest file size.

Finally, I press the Function button again to set the image quality.

Setting Both Size & Quality

On some cameras, the quality setting is combined with image size into a



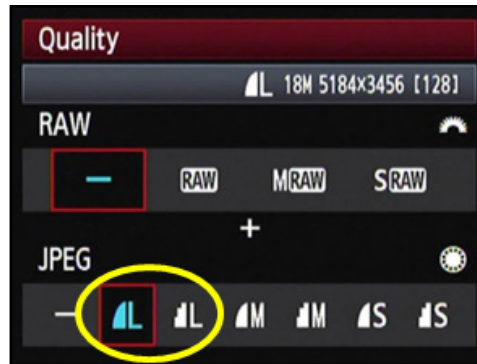
Set the Camera

notes

single setting. On this Canon DSLR, the quality settings are accessed from the menu. I first press the menu button, and from the menu access the image quality settings. Then I use the dial to select the highest quality.

For each resolution setting, there are two selections for the level of compression. The “stair-step” icon on the right indicates the choice with lower quality and more compression. The smooth icon on the left indicates higher quality and less compression.

Again, if you find the choices confusing, pick the setting that gives you the fewest number of images remaining on the camera card. This will be the one with the lowest compression. Finally, I press the Set button to make my choice.



If you're using a phone or tablet to shoot your work, the image quality usually is already set at the maximum for the lowest compression and can't be changed.

Now you've got it—your camera is set to use the lowest compression for the highest image quality.

Setting the Image Quality on Your Camera

1. Locate the instruction manual or user guide for your camera. Look in the Index for “Compression” or “Image Quality” or in the Table of Contents for a section on image settings. Write the page number where the instructions are found here: _____.
2. Turn on your camera and follow the steps listed in the instructions to set the camera to the maximum image quality. Write the name of the setting here: _____.
3. More information about the compression settings usually can be found in the Specifications section at the back of the manual.
4. Make any other notes about setting the image size here: