

JPEG vs. Raw Image Capture

Raw

- Not a file format, only sensor data.
- The manufacturer's software or frequently updated image software can convert the data to a proprietary format (.NEF, .CRW, .CR2, .ORF) or .TIF or Adobe .DNG. 12 or 14 bits per color = 68+ billion colors. 10MP data stays 10MP file. No losses. Image data stays untouched. Need editing. Higher dynamic range than lossy formats.
- Extra Information saved either in a sister "sidecar" file (.XMP), or DNG package. Exposure adjustments much wider. Heavy cropping is acceptable.

DSC00121.NEF
DSC00121.XMP
or
DCS00121.DNG
or
DCS00121.TIF
or
DCS00121.PSD

Reasons:

- Want maximum quality and ability to edit, especially for larger prints (13"x19"+).
- Are comfortable with computers and more sophisticated software programs.
- Have high speed cards and cables.

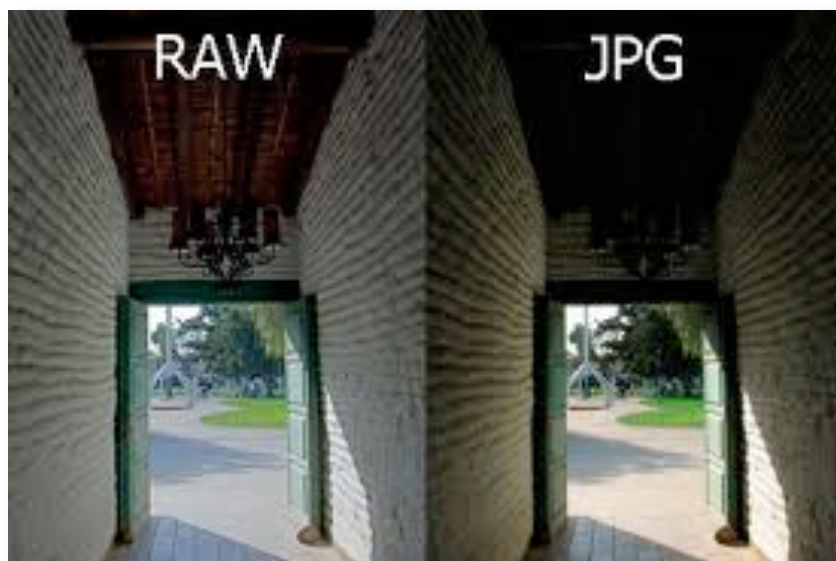
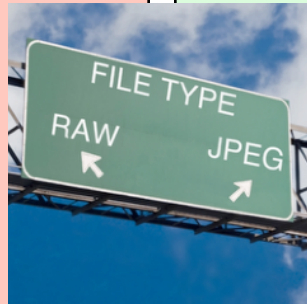
JPEG

- A standard file format for images (.JPG).
- Any operating system can read files.
- 8 bits per color = 16 million colors.
- Compressed data, losing information.
- 10MP data may become about 3-4MP file.
- Automatic in-camera editing: white balance, contrast, saturation, sharpness.
- Most images may not need editing.
- Saving or rotating may deteriorate quality.
- Lower dynamic range than lossless formats
- Extra Information remains in same file.
- Exposure adjustments limited.
- Enlarging or cropping is limited.

_DSC00121.JPG (AdobeRGB)
DSC_00121.JPG (sRGB)

Reasons:

- Don't have time/resources to edit images.
- Primarily shooting for web use, and prints that are photo album size (8"x10"-).
- Use limited size memory cards.
- Need fast transfers.



- You can select Raw+JPEG in get both with each shutter release.
- You can always create a JPEG from a raw file, but you can't make a lossless file from a lossy file.