

File Formats – Strengths & Weaknesses

Images - Typical Uses

.TIF

.JPG

.TIF

Weakness

- Large Filesize
(For 8 bit = Sensor
Resolution * 3-RGB)

Strength

- Lossles
- Supports Layers
(see PS)

Typical Uses

Fixed Storage where 'filesize' is of lower importance & **Image Editing** where 'Lossles' file-saving is important + it's support of 'layers' is an advantage.

.JPG

Strength

- **Small** (User selectable - see PS)

Weaknesses

- **Lossy**
- **No Layer Support**

Typical Uses

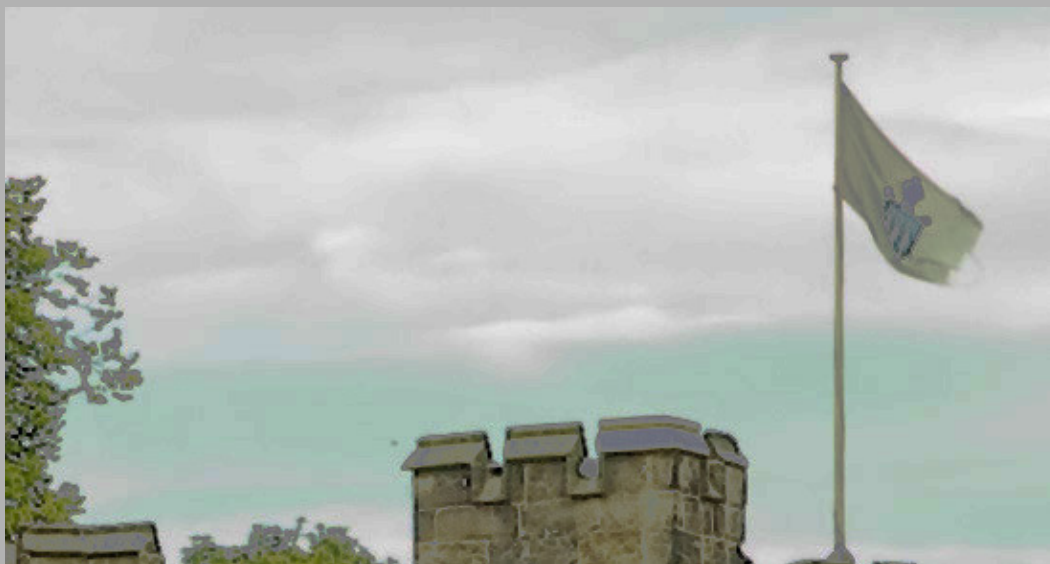
Where 'File Size' is important - **e-mail, web, portable storage**

Compression Examples



TIF

726 Kb



JPG

High Quality

49 Kb

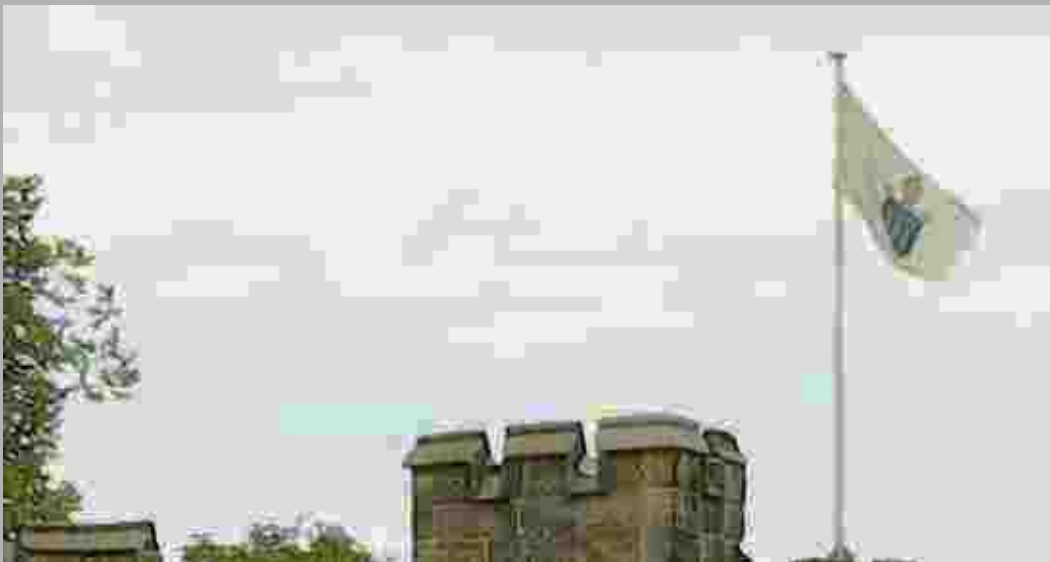
Compression Examples



JPG

Medium Quality

24 Kb



JPG

Low Quality

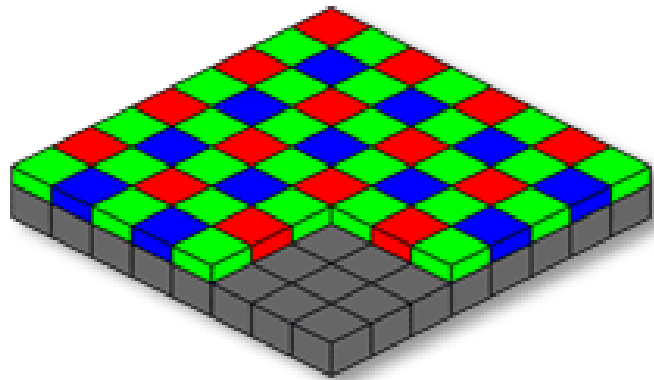
19 Kb

RAW

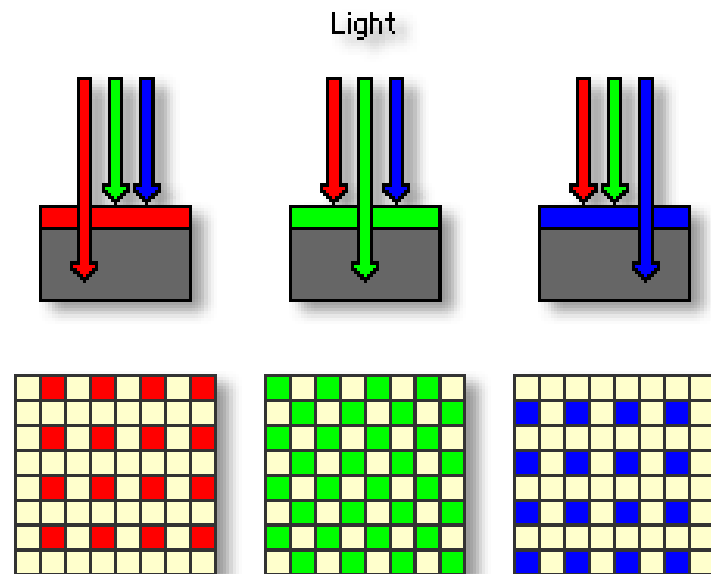
NOT a 'file format'

BUT 'un-processed' data from the
camera sensor.

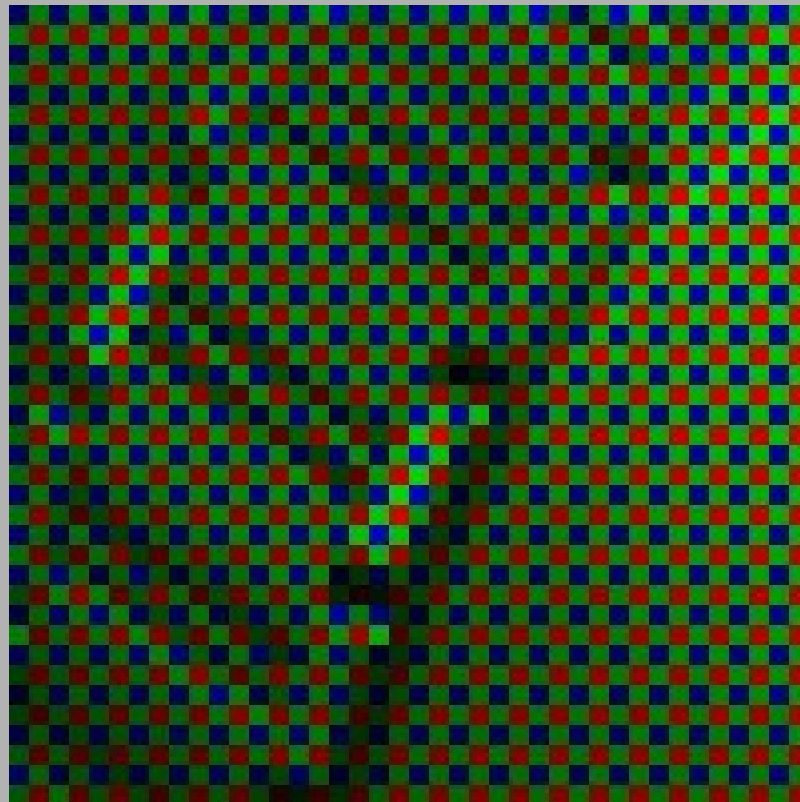
Digital Camera Sensor



Color Filter Array Sensor



Digital Camera Sensor Image - RAW



Digital Camera Sensor Image - Interpolated



Flexibility of RAW

Exposure (+/- several stops,
depending on software)

See Photoshop

Flexibility of RAW

White Balance

See Photoshop

Flexibility of RAW

Sharpening

(& other camera settings - noise reduction, JPG Compression etc.)

See Photoshop

Flexibility of RAW

Chromatic Aberration (some kinds)

See Photoshop

Flexibility of RAW

Vignetting

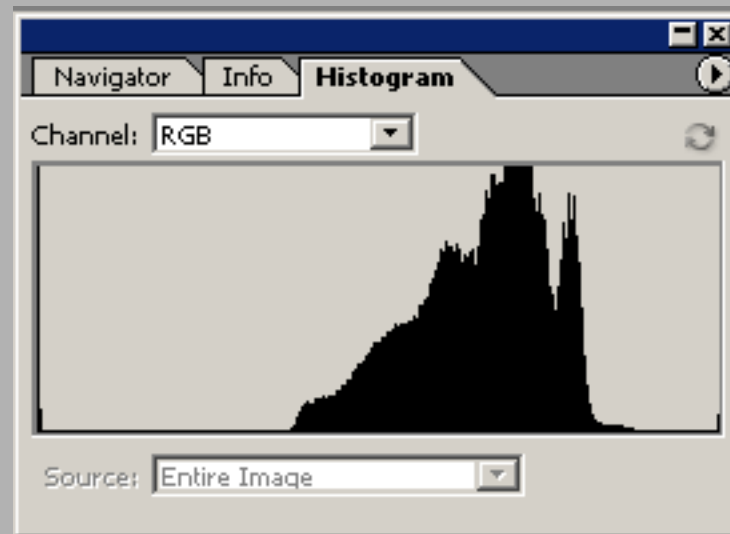
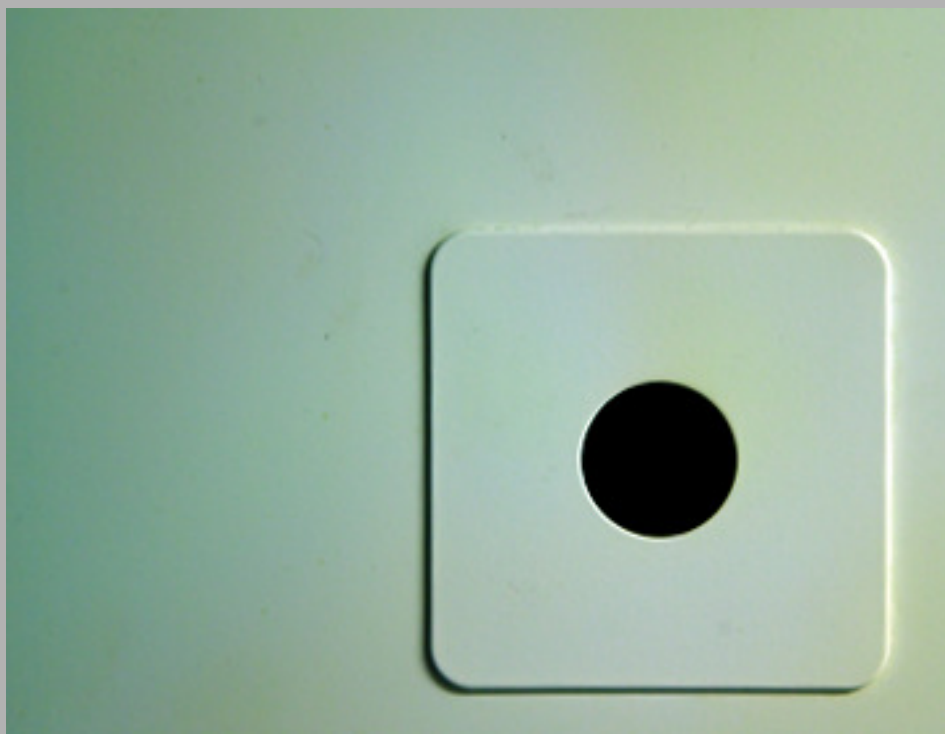
See Photoshop

Flexibility of RAW

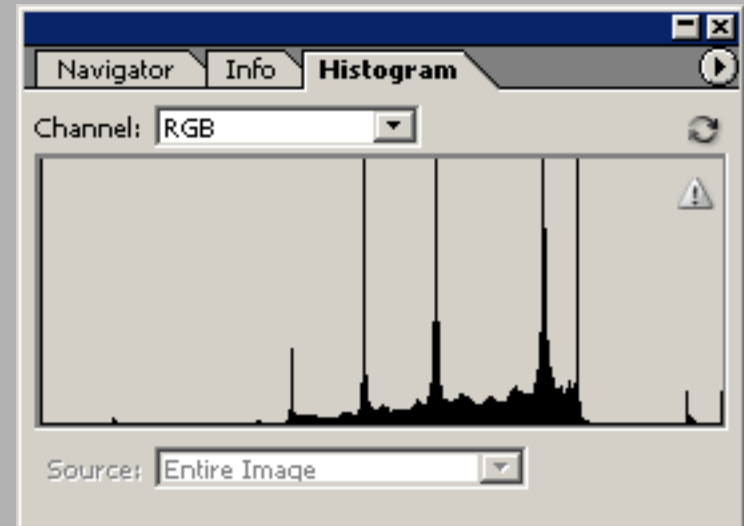
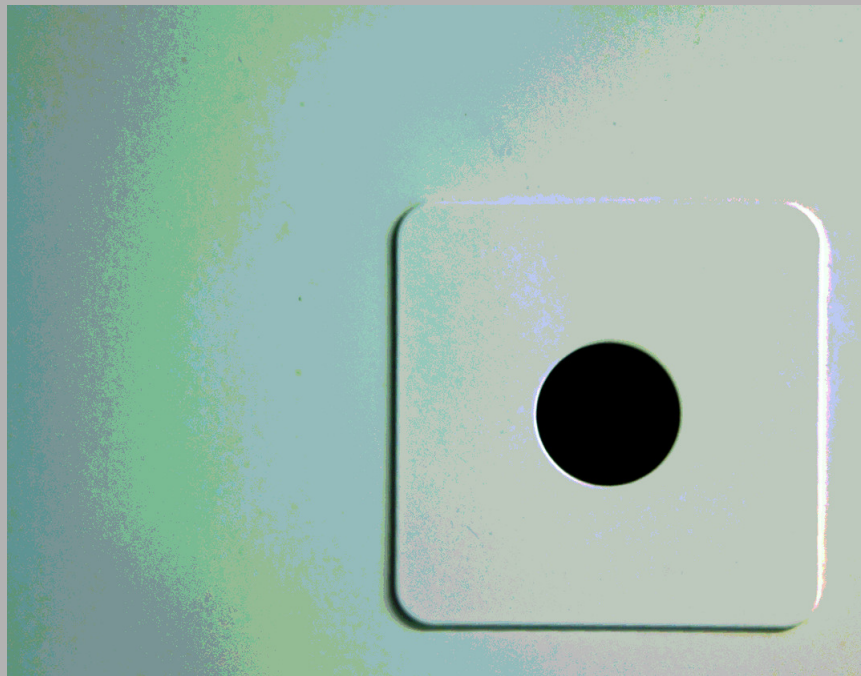
Colour Depth (12/14 bits)

(save to 16 bit TIF)

Colour Depth - 16 bit



Colour Depth - 8 bit



JPG vs RAW

Strengths

- Small (User choice)
- Compatibility
- Quick to process

Weaknesses

- Fixed 'DR'
- Camera Settings 'Fixed' in image
- 8 Bit

Weaknesses

- Large
- Proprietary format
- Slow to process (user choice)

Strengths

- Larger 'DR' (when processed)
- Freedom from Camera Settings
- 16 (12/14) Bit