

SMUSH PRO

Guide to Image File Formats

JPEG

- Supported on all browsers
- No support for animation or transparency
- Best for photography & large hero images
- Uses lossy compression



WebP

- NOT supported on Safari
- Limited animation support
- Uses Lossy compression that also supports transparency
- 25-34% smaller than JPEG

WebP Lossless

- NOT supported on Safari
- Limited animation support
- Best for reserving full image detail
- 26% smaller than comparable PNGs

WebP produces smaller file size than JPEG & PNG equivalent

PNG-8

- Limited to 256 colors
- No support for animation
- Supports transparency
- Best for screenshots or logos with limited color palette



GIF

- Supports animation and transparency
- Produces larger file than PNG-8
- For animation, WebM or MP4 produce smaller file

PNG-24

- Supports transparency
- Produces images with millions of colors without loss of detail
- 3x larger image file than compressed JPEG



PNG-32

- Supported on all browsers
- Uses an extra 8-bit alpha channel for advanced transparency capabilities
- Useful for creating transparency gradients



FUNCTIONAL SIMILARITIES

LOSSY VS. LOSSLESS COMPRESSION

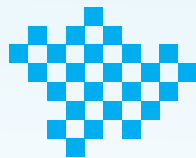
With lossy compression, some of your data will be lost forever. Lossy image compression permanently removes image data and degrades the image in the process.

This is not as bad as it sounds, as some detail might not be perceivable to the human eye.

Lossless compression, by contrast, preserves data so nothing is lost. Lossless algorithms keep all the necessary data to recreate the image exactly.

SVG

- Supported on all browsers
- XML-based markup language used to describe geometric shapes and positions in image
- Produces vector graphics that can be animated with CSS
- Not allowed by default in WordPress due to security risks



VECTOR

Vector images are mathematically generated from a series of points which are connected by lines and curves to form geometric shapes. An image can be resized to any shape, large or small without damaging the quality of the image.

RASTER

Raster graphics consist of a pixels arranged on a grid, with each pixel representing a color. Raster graphics only appear high quality at the resolution they were meant to be displayed at. If the image is scaled to a larger size, pixilation will occur.