

Graphics:

Image formats:

Bitmap (Raster) VS vector:

- Bitmap graphics use less processing power than vectors, while Vector graphics use more processing power than bitmaps
- Bitmap graphics made up from pixels, while Vector graphics made up from lines equations and calculations
- Bitmap graphics are less precise than vectors, while Vector graphics are more precise than bitmaps
- Bitmap graphics take up more memory than vectors, while Vector graphics take up less memory than bitmaps
- Bitmap graphics take up more storage space than vectors, while Vector graphics take up less storage space than bitmaps

Code	Format	Name	Description	Remarks
1.	JPG or JPEG	Joint Photographic Experts Group	JPEG quality drops when images are edited and saved. If you plan to continually edit your files, JPEG is not the format for the job. But if you need to display photos online, JPEG is just right.	Recommended for photographs, not for graphics/icons
2.	PNG	Portable Network Graphics	Choose PNG when you need a small file that maintains its original quality.	Recommended for static graphics/icons, not for photographs
3.	GIF	Graphics Interchange Format	Use GIF for simple web graphics with limited colors. GIF files are the smallest of the four because they are always reduced to 256 colors, making for fast-loading visuals. That said, GIF isn't recommended for files with a large range of colors, like photographs or other detailed imagery.	Recommended for ANIMATED graphics/icons only
4.	TIFF	Tagged Image File Format	TIFF doesn't compress to make for smaller files, because they are meant to preserve quality.	if you plan to edit digital images
5.	Bmp	Bitmap	BMP files are uncompressed, hence they are large	

Use for Web Pages / Web Applications

The following is a brief summary for these image formats when using them with a web page / application.

1. **PNG** is great for IE6 and up (will require a small CSS patch to get transparency working well). Great for illustrations and photos.
2. **JPG** is great for photos online (Photograph)
3. **GIF** is good for illustrations when you do not wish to move to PNG
4. **TIF** shouldn't be used online within web pages - wastes bandwidth
5. **BMP** shouldn't be used online within web pages - wastes bandwidth

Using Photo editor software to:

1. Resize (change the image dimensions)
2. Crop
3. Flip horizontal
4. Flip vertical
5. Rotation
6. Colour depth
7. Black and white (no other colours)
8. Change the image format
9. Decrease the image resolution (quality) to decrease the image size on disk