



Name the image format

There are two basic image types – Raster Image and Vector Images. All the file formats discussed on the following pages are one of these image types.

Raster Images (or Bitmap Images)

Raster images are a type of digital image that uses tiny rectangular pixels, or picture elements, arranged in a grid formation to represent an image. Because the format can support a wide range of colours and depict subtle graduated tones, it is well suited for displaying continuous-tone images such as photographs or shaded drawings, along with other detailed images.

Raster images cannot be increased in size – so the maximum size a raster image can be displayed or printed will be dictated by the number of pixels in the file (commonly called ‘low resolution’ (or ‘low-res’) for web images and ‘high resolution’ (or ‘hi-res’) for professionally printed images.

Vector Images

Vector images are a type of digital image that uses geometric shapes, points, lines and curves. Like raster images, vector images can support a wide range of colours, but it is best suited to graphic images that contain flat colours or gradients. It is not suitable for photographic images.

Because vector images do not contain pixels, they can be displayed at any size without loss of quality.



JPEG (or JPG)

Joint
Photographic
Experts Group

JPEG's extension is widely written as .jpg. JPG is a raster image and is the most common image file format across the web. It uses a lossy algorithm when saving to the file. So it's best to save as a JPG only once.

Best for: Photographic images for use in websites, social media, email and publishing on the internet.

Not for: High quality printing, logo design or images with a transparent background.



PNG

Portable
Network
Graphics

PNG is a "lossless" raster image format. By lossless, it means you can edit and save the image as often as you like and not lose quality. It is a low resolution file and can be saved with a transparent background.

Best for: Photographic images and graphic elements for use on websites, social media, email and publishing on the internet.

Not for: High quality printing or logo design.



GIF

Graphics
Interchange
Format

GIF is most commonly used in its animated form, which is all the rage on social media and in banner ads. In their more basic form, a GIF is a raster image formed from up to 256 colours in the RGB colourspace. Due to the limited number of colours, the file size is drastically reduced.

Best for: Animated images and graphics for use on websites, social media, email and publishing on the internet.

Not for: High quality printing or logo design.



WEBP

Web Picture
Format

WebP is a raster image file format developed by Google intended as a replacement for JPEG, PNG, and GIF file formats. It supports both lossy and lossless compression, as well as animation and transparency.

Best for: Photographic and graphic images for use on websites.

Not for: High quality printing.



RAW

RAW
unprocessed
data

RAW is a raster image file format that stores the largest amount of detail out of any raster file type, which photographers can then edit, compress, and convert into other formats.

Best for: Storing images captured on professional digital cameras.

Not for: Images for use on websites, social media, email, publishing on the internet or high quality printing.



HEIF

High Efficiency
Image File
format

HEIF is a raster image file format mainly used by smart phones. It's very similar to JPEG except it supports more advanced image compression. To use an image saved in this file format, it must be opened in an image editor and saved in the appropriate format e.g. JPG for web or TIFF for professional print.

Best for: Images with small amounts of video embedded e.g. 'Live Photos' on Apple iPhone.

Not for: Images for use on websites, social media, email or publishing on the internet.



TIFF (or TIF)

Tag Image
File Format

TIFF is a raster image file format that can be compressed but doesn't lose quality. This file type is preferred by designers who work with high quality images. TIFF files are also commonly used when saving photographs for print.

Best for: High quality printing and photography.

Not for: Images for use on websites, social media, email or publishing on the internet.



PSD

Photoshop
Document

PSDs are raster image files that are created and saved in Adobe Photoshop, the most popular image editing software. This type of file contains "layers" that make modifying the image much easier to handle. Within the layers, this file type also supports vector images too.

Best for: High quality photographic images and high quality printing.

Not for: Images for use on websites, social media, email or publishing on the internet.



PDF

Portable
Document
Format

PDF is used for capturing and reviewing rich information with graphics, type, images and interactive features from any computer, anywhere. PDFs support both raster images and vectors images. PDF's can be low resolution for web download and high resolution for high quality printing.

Best for: Graphic documents, design proofs, scans, page layouts, interactive documents.

Not for: Images for use on websites, social media, or email.



EPS

Encapsulated
Postscript

EPS is a vector image file format that has been designed to produce high-resolution graphics for print. Will not loose quality if scaled to large sizes.

Best for: Graphics, logo design, illustration, high quality printing.

Not for: Images for use on websites, social media, email or publishing on the internet.



AI

Adobe
Illustrator
Document

AI is the image format preferred by designers and the most reliable in all types of projects from web to print. It is the industry standard for creating graphic images from scratch. Illustrator is a vector image file format.

Best for: Graphic images, logo design, illustration, high quality printing.

Not for: Images for use on websites, social media, email or publishing on the internet.



SVG

Scalable Vector
Graphics

SVG is a web-friendly vector file format. This can significantly reduce the file size of graphic images i.e. logos.

Best for: Graphic images for use on website.

Not for: High quality printing or photographic images.