

Optimising Images for use on your Website

Reducing images for Websites is a vital process to keep your site at optimal speed. There are three Main steps you need to consider:

- **Pixel Dimensions** — This is how many pixels constitute your image, in length and width. The larger the dimensions are for your image, the more professional your image will look, but the larger the file size will be. If the dimensions for a photograph are 2000×1500 pixels, the photo will render beautifully but eat up valuable space.
- **File Type** — Different types of files take up more space based on their uses, the amount of information they contain, and how the images themselves are rendered, as bitmaps or vector equations. To decide between JPEGs, PNGs, SVGs, or GIFs, [read our recommendations](#) for the best image formats for the web.
- **Quality** — If you maintain the original quality of the image, the file size remains large. Compressing an image involves limiting the file size by reducing the quality or removing hidden elements of an image. Learn more about the factors that affect image display for the web in our image resolution post.

Why Is Page Speed Important for SEO?

Your website's page speed is essential for two main reasons:

- **Faster page speed = better user experience**
Everyone has experienced a website that takes forever to load. It can be infuriating, causing users to exit the site before the content even loads. 43% of mobile users will close your site [if it doesn't load in five seconds](#).

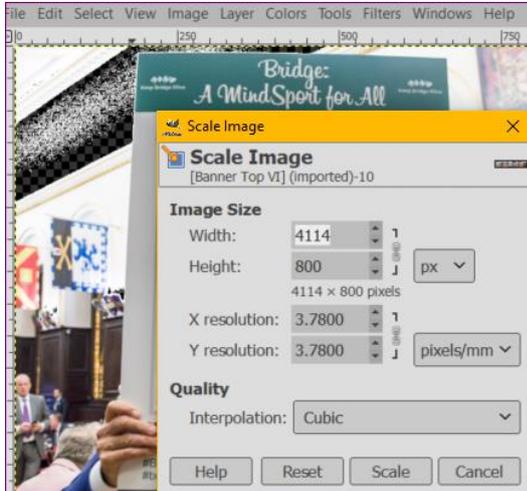
On the flip side, a site that loads quickly lets the user view your content with ease. The better the user experience, the more likely the user is to stay on the site, reading more content, or even making a purchase.

- **Faster page speed = better Google ranking**
Google's algorithm [considers page speed](#) when it ranks pages for its search engine. If you're looking to rank higher in search engine results (who isn't?), you might want to examine your page speed.

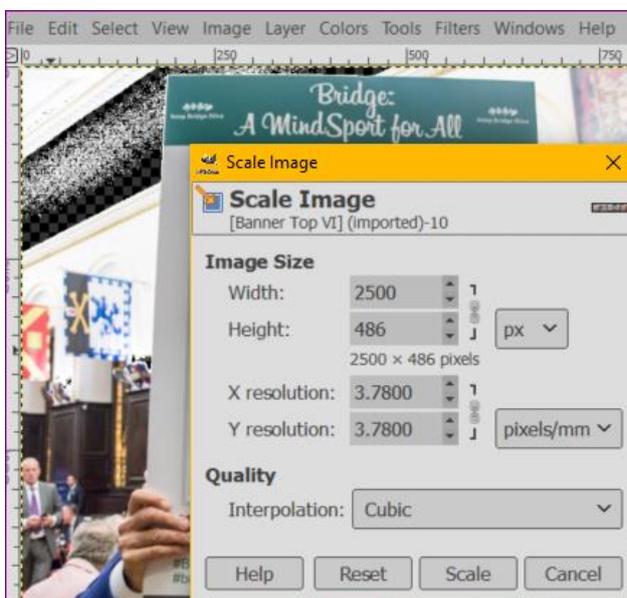
Steps to prepare you images for the Web

- 1- **For Windows PC's - Install Gimp (Free Image Editing tool)**
Other tools and online websites are also available for optimising images.
<https://www.gimp.org/downloads/>
- 2- **Once installed open your original image using Gimp**
- 3- **Go to Image> Scale Image**

- You will see the image width and height and the resolution and interpolation settings

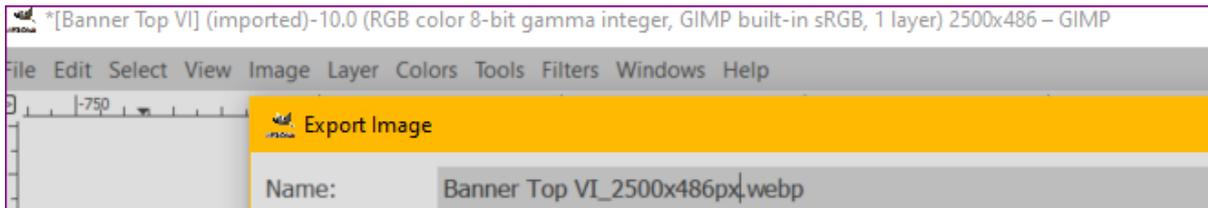


- Make sure image size is set to Pixels (px) and reduce the width of your image to the required size. When doing this the Height of the image should adjust accordingly. If you want to distort an image then click on the “paperclicks” next to the field which will separate height and width sizes so they can be adjusted individually (not recommended)
- Full-width images** — These images will cover the entire screen from left to right. In terms of pixel dimensions, keep these at 2400×1600 pixels.
- Inside-content images** — These images could be inside slideshow galleries, call-to-action buttons, or within a blog. For horizontal images, the maximum width should be 1500 pixels. For vertical images, stick to a width of 1000 pixels or less.
- Check and make sure that the X Y Resolution is no more then 72.000 px/mm. manually type this if the image has a higher resolution.
- Click Scale to adjust the image to your new size.

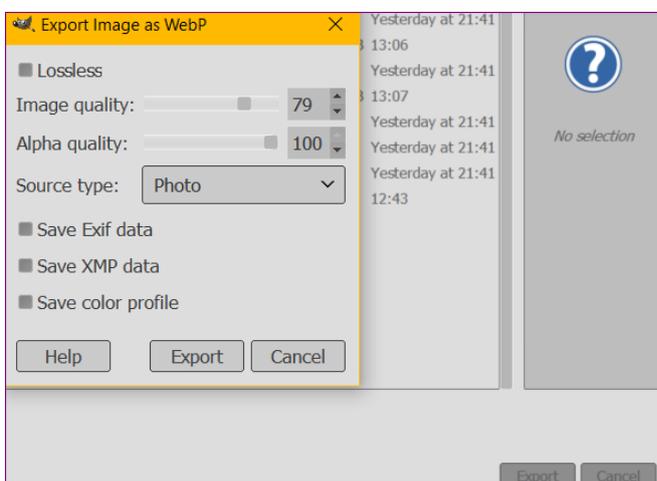


4- Now Export the file with compression

- Go to File> Export As...
- Choose your preferred file location to save your image
- Rename your image so as not to overwrite any existing files.
- Its recommended to include the new file size in your image name so it can be easily identified when uploading to your website.
- Now also change the file type of your image i.e *.webp *.jpg etc.



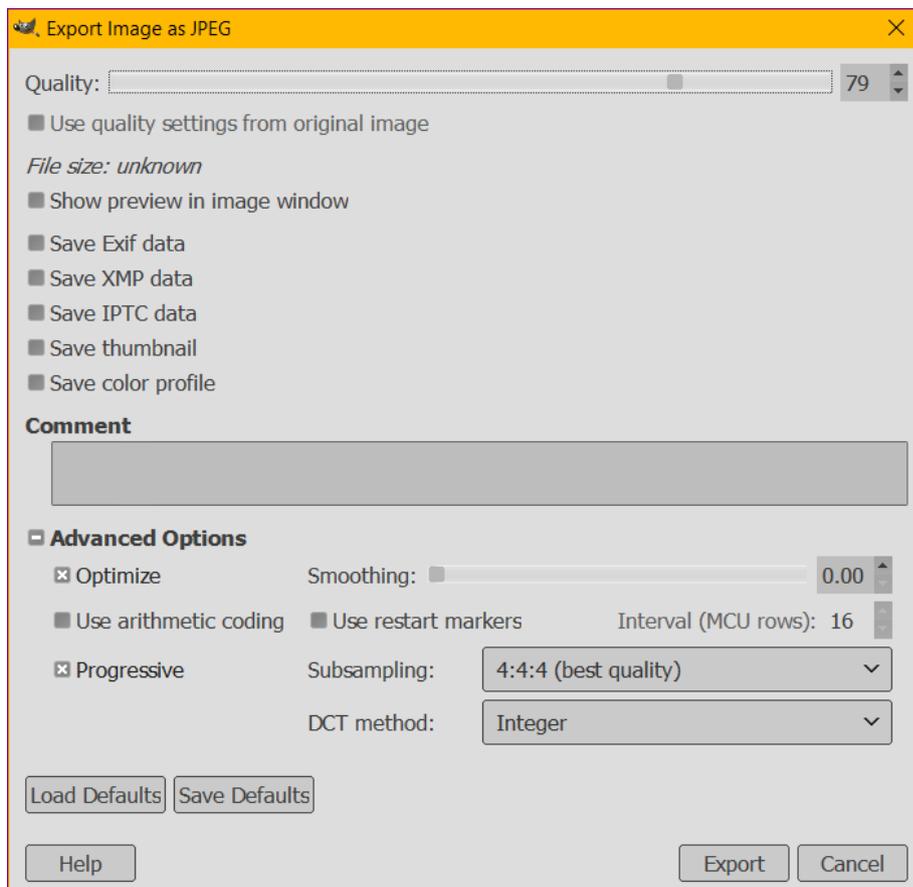
- **JPEG** – Use JPEG for photos, screenshots, and most other images. JPEGs use lossy compression, which means they sacrifice image data to reduce file size. You can play around with the quality settings to reach the optimal quality vs. file size.
 - **PNG** – Use PNG for images containing sharp geometric shapes because the curves and lines will render out cleaner than with JPEG. PNGs use lossless compression, meaning they hold onto all of the image data. Their file size will be bigger than other formats. This is also the format to use for Images that require a transparent background.
 - **GIF** – Use GIFs for animations, but avoid this format for still images, as it will limit the number of colors that render out in your image.
 - **WEBP** – A fairly recent file type with high compression ratios ideal for website images. Be aware though, some older browsers and devices may not support this image type. Also, some CMS systems will require edits to the Function PHP Files to be able to load and preview Webp Images.
- Set the image quality to around 80%
 - Make sure you untick “Save Exif data, Save XMP data and Save colour profile” (Important!)



- Click Export
- You file is now ready for upload to your website

5- Example of Exporting a *.jpg

- When Exporting jpg apply all the same options as illustrated above.
- “Click on Advanced Options”
- You can adjust Subsampling to 4:2:0 (Qtr) or leave as the default of 4:4:4 depending on the quality you require



6- Review your file size differences.

- By changing the view of your window to details you'll see the various file sizes and the evidence speaks for itself.
- In this example the original file was 5.4MB. You have now reduced this to 186KB a Huge saving for a full screen banner image.

<input type="checkbox"/>	Name	Status	Date	Type	Size
<input type="checkbox"/>	Banner Top IV.png	✓	21/04/2021 21:41	PNG File	5,443 KB
<input type="checkbox"/>	Banner Top IV_2500x502px.webp	✓	22/04/2021 13:06	GIMP 2.10.22	186 KB
<input checked="" type="checkbox"/>	Banner Top IV_2500x502px_V2-half.webp	✓	22/04/2021 14:28	GIMP 2.10.22	176 KB
<input type="checkbox"/>	Banner Top IV_2500x502px_V3-qtr.jpg	✓	22/04/2021 14:30	JPG File	247 KB