

The images you use on your website should be saved at the same width and height that you want them to appear on the page.

For example, if you have designed a page to include an image that is 300 pixels wide by 150 pixels tall, the image you use should be 300 x 150 pixels. You may need to use image editing tools to resize and crop the

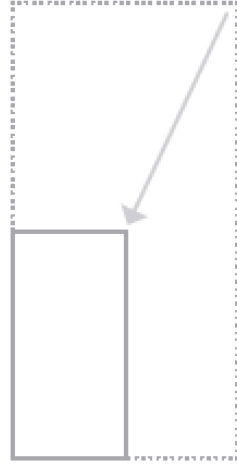
image. When sourcing images, it is important to understand how you can alter the dimensions of an image; imagine that you had designed a web page to include an image that is 300 pixels wide by 150 pixels tall:

ONLINE EXTRA

Visit the tools section of the website accompanying this book to watch a video guide to resizing images in Photoshop and GIMP.

REDUCING IMAGE SIZE

You can reduce the size of images to create a smaller version of the image.



Example: If your image is 600 pixels wide and 300 pixels tall, you can reduce the size of the image by 50%.

Result: This will create an image that is quicker to download.

INCREASING IMAGE SIZE

You can't increase the size of photos significantly without affecting the image quality.

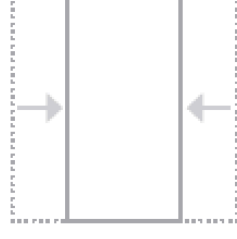


Example: If your image is only 100 pixels wide by 50 pixels tall, increasing the size by 300% would result in poor quality.

Result: The image will look blurry or blocky.

CHANGING SHAPE

Only some images can be cropped without losing valuable information (see next page).



Example: If your image is 300 pixels square, you can remove parts of it, but in doing so you might lose valuable information.

Result: Only some images can be cropped and still make sense.

Animated GIFs show several frames of an image in sequence and therefore can be used to create simple animations.

Below you can see the individual frames that make up an animated GIF that shows an orange dot revolving around a circle — like the kind of animation you might see when a web page is loading.

Some image editing applications such as Adobe Photoshop allow you to create animated GIFs.

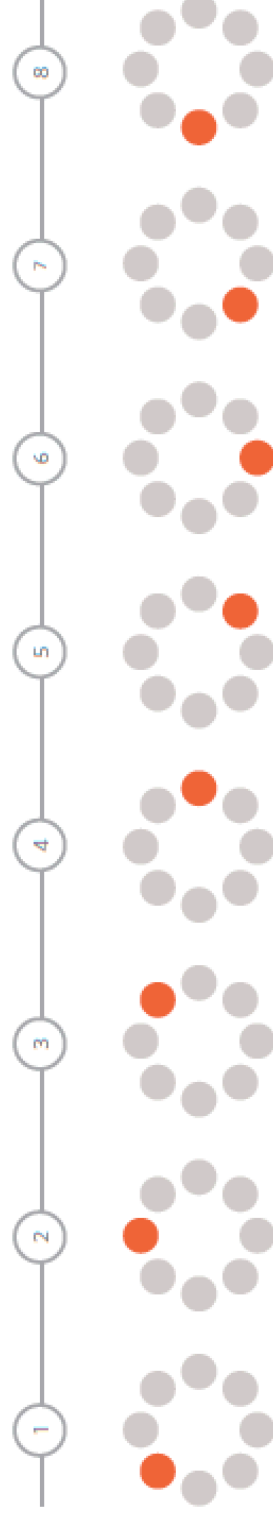
There are several tutorials about how to do this on the web. There are also several websites that allow you to upload the graphics for the individual frames and create the animated GIF for you.

IT IS IMPORTANT TO REMEMBER:

Each extra frame of the image increases the size of the file, and can therefore add to the time it takes for an image to download (and web users do not like waiting a long time for images to download).

Because GIFs are not an ideal format for displaying photographs, animated GIFs are really only suitable for simple illustrations.

Some designers frown on animated GIFs because they remember a lot of amateur web designers overusing them in the 1990's.



Images created for the web should be saved at a resolution of 72 ppi. The higher the resolution of the image, the larger the size of the file.

JPGs, GIFs, and PNGs belong to a type of image format known as **bitmap**. They are made up of lots of miniature squares. The **resolution** of an image is the number of squares that fit within a 1 inch x 1 inch square area.

Images appearing on **computer** screens are made of tiny squares called **pixels**. A small segment of this photograph has been magnified to show how it is made up of pixels. The web browsers on most desktop

computers display images at a resolution of **72** pixels per inch (ppi). Images in **print** materials (such as books and magazines) are made up of tiny circles called **dots**. These images are usually printed at a resolution of **300** dots per inch (dpi).



For this image:

JPEG at 300 dpi = 1,526kb

JPEG at 72 ppi = 368kb

Due to the fact that computer displays are capped at a resolution of 72 ppi, using images on the web with a higher resolution will not result in better image quality — only in larger file sizes, which will increase the time needed to load them and therefore slow down viewing of your web pages.

TRANSPARENCY

Creating an image that is partially transparent (or "see-through") for the web involves selecting one of two formats:

TRANSPARENT GIF

If the transparent part of the image has straight edges and it is 100% transparent (that is, not semi-opaque), you can save the image as a GIF (with the transparency option selected).

PNG

If the transparent part of the image has diagonal or rounded edges or if you want a semi-opaque transparency or a drop-shadow, then you will need to save it as a PNG.

Transparent PNGs are not fully supported in older browsers, most notably Internet Explorer 6 (IE6). There is some JavaScript you can use to get around this issue. The details of this script can be found in the tools section of the website accompanying this book.

Vector images differ from bitmap images and are resolution-independent. Vector images are commonly created in programs such as Adobe Illustrator.

When an image is a line drawing (such as a logo, illustration, or diagram), designers will often create it in vector format. Vector formatted images are very different to bitmap images.

Vector images are created by placing points on a grid, and drawing lines between those points. A color can then be added to "fill in" the lines that have been created.

The advantage of creating line drawings in vector format is that you can increase the dimensions of the image without affecting the quality of it.

The current method of using vector images for display on websites involves saving a bitmap version of the original vector image and using that.

Scalable Vector Graphics (SVG) are a relatively new format used to display vector images directly on the web (eliminating the need to create bitmap versions of them), however its use is not yet widespread.

