

How could optimize image size?

Who never complained about downloading big attachments by email, which takes forever? We often found out that some pictures were sent in full resolution or in a non-optimized format. We will try to give you some guidelines on how to manipulate and handle your pictures.

Parameters to look at for an image

Size on Disk: This is the space taken on the hard drive. Our main concern when we want to share a picture by email. Here are some ideas of sizes:

- 1 Mpixel Camera will generate image files of roughly 300KB.
- 2 Mpixel Camera will generate image files of roughly 1MB.
- 3 Mpixel Camera will generate image files of roughly 1.5MB.
- 4 Mpixel Camera will generate image files of roughly 2Mb.
- 5 Mpixel Camera will generate image files of roughly 3Mb.

Size in Pixel: this is the number of pixels, which composes the image. For example a normal PC screen size in pixels is: 1024x768 pixels.

3Mpixel Camera will generate images that are: 2048 x 1536 pixels = 3.1 Million Pixels

4Mpixel Camera will generate images that are: 2272 x 1704 pixels = 3.8 Million Pixels

5Mpixel Camera will generate images that are: 2592 x 1944 pixels = 5.0 Million Pixels

Resolution: This is the quality of the image. It will give you the density of information and the limit of stretching you can do on the image. This is counted in Dot (=pixels) Per Inch (DPI). The 2 key values are:

Resolution of a computer screen: 72 dpi

Resolution of a print copy (so you don't see the dots: between 200 and 300 dpi

I want to Print an image

If I want to print a picture in **Letter Size** (photo quality) you need to have 200 to 300 dpi on the 8.5x10 inch page. Therefore your image, to be printed correctly, need to be :

8.5 inch x 200 pixels = 1700 pixels

10 inch x 200 pixels = 2000 pixels

Therefore a 3Mpixels camera should be able to generate a Letter Size photo quality print if the original image is not cropped.

I want to Archive an image

Ban some formats like: **.BMP** (Bitmap) because it is too demanding in size

Best Practice: Always keep a copy of your original file. This will avoid your image to be degraded or altered if you do modifications on it or if you compress it. You would always be able to come back to that original.

File Format to use when you make modifications: .TIF: If you want to make modifications on an image, it is recommended to save it under a TIF format (if possible). This format is compressed, but doesn't lose any details on the image.

When sharing an image: JPG: When you want to share an image, it is recommended to use this format, as it will be compressed and lighter than other format. But keep in mind that the image will be degraded (this may not be visible on the screen)

I want to Email an image.

An image sent by email will be 99% of the time view on a computer screen and never printed. Therefore you don't need to send a file that has a resolution higher than 72dpi and bigger than 800 x 600 pixels. So it fits nicely inside a big screen. By choosing these parameters your file will most likely be about 100KB.

Name	Size	Type
*04.jpg	42 KB	IrfanView JPG File
*05.jpg	102 KB	IrfanView JPG File
*06.jpg	28 KB	IrfanView JPG File
*10.jpg	88 KB	IrfanView JPG File
*23.jpg	93 KB	IrfanView JPG File
*24.jpg	75 KB	IrfanView JPG File
*27.jpg	64 KB	IrfanView JPG File
*28.jpg	89 KB	IrfanView JPG File

How to change these parameters?

In this example the interface is the software IrfanView (www.irfanview.com), but it should be similar in all the graphical software.

Most of the time under the **Edit** menu you will find a **Resize** or **Resample** option.

This will let you set either the width or the height of your image as well as the DPI.

- Set the DPI
- Then set your number of pixels you want your new image to be.
- Save your image as a new file to avoid losing your original picture.

An image sent by email needs to be between 50 and 100KB.

Finally once you have all your pictures at the correct size, you can attach them to an email. This will make your correspondent happy, as the download will be easier for the same result on the screen.

