

Page One

Photography

In this forum, our staff would like to answer any questions you may have about photography or imaging.

Image Resolution

Question:

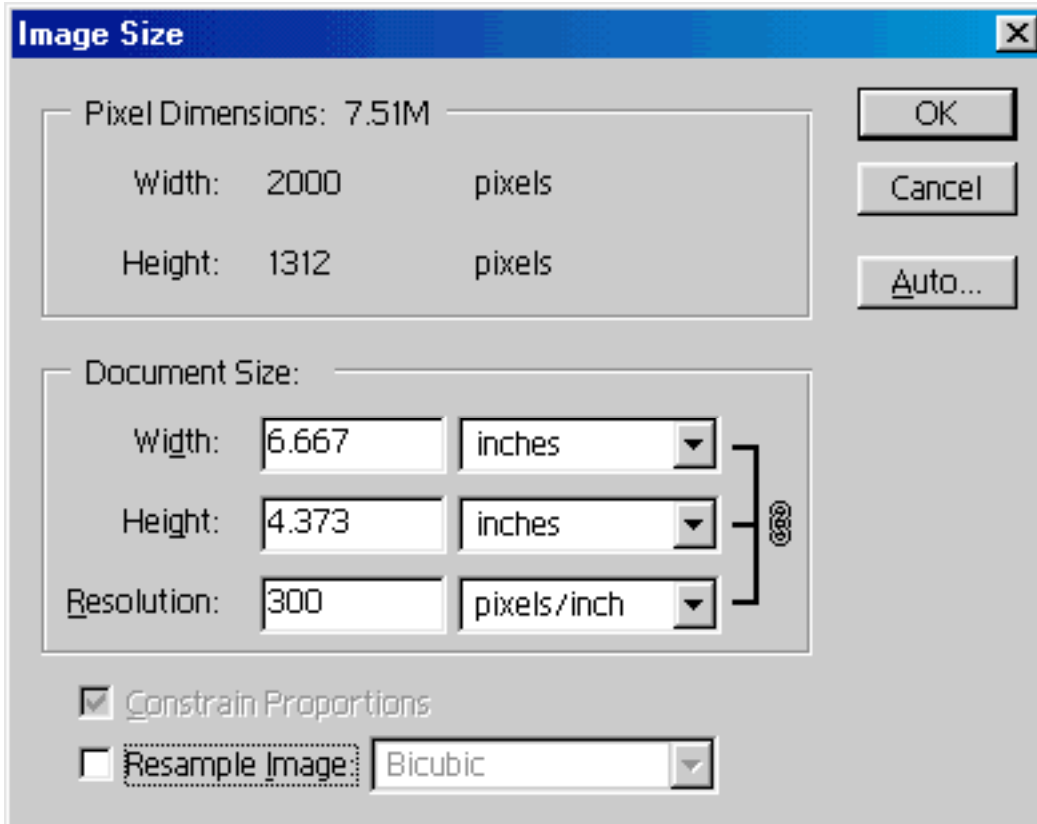
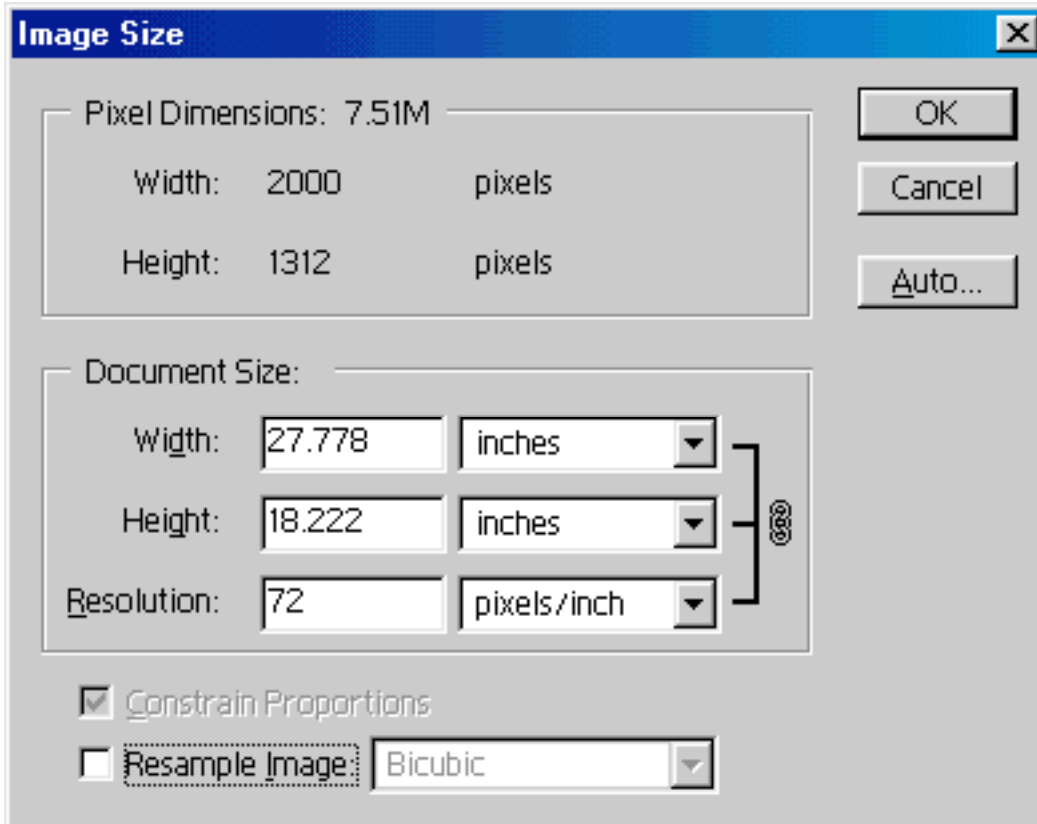
My designers say they can't use my image. They need 300 DPI and my camera only takes 72 DPI pictures. Can this be fixed?

Answer:

DPI (Dots Per Inch) is a description of the output of a printing Device. PPI (Pixels Per Inch) is the appropriate term for a digital image. This is what the question actually refers to. PPI is merely a description of the density of pixels when the file is spread over any given area. What really matters is the size of the file. Divide the number of pixels by the necessary PPI and you will see exactly how large (in inches) your file is.

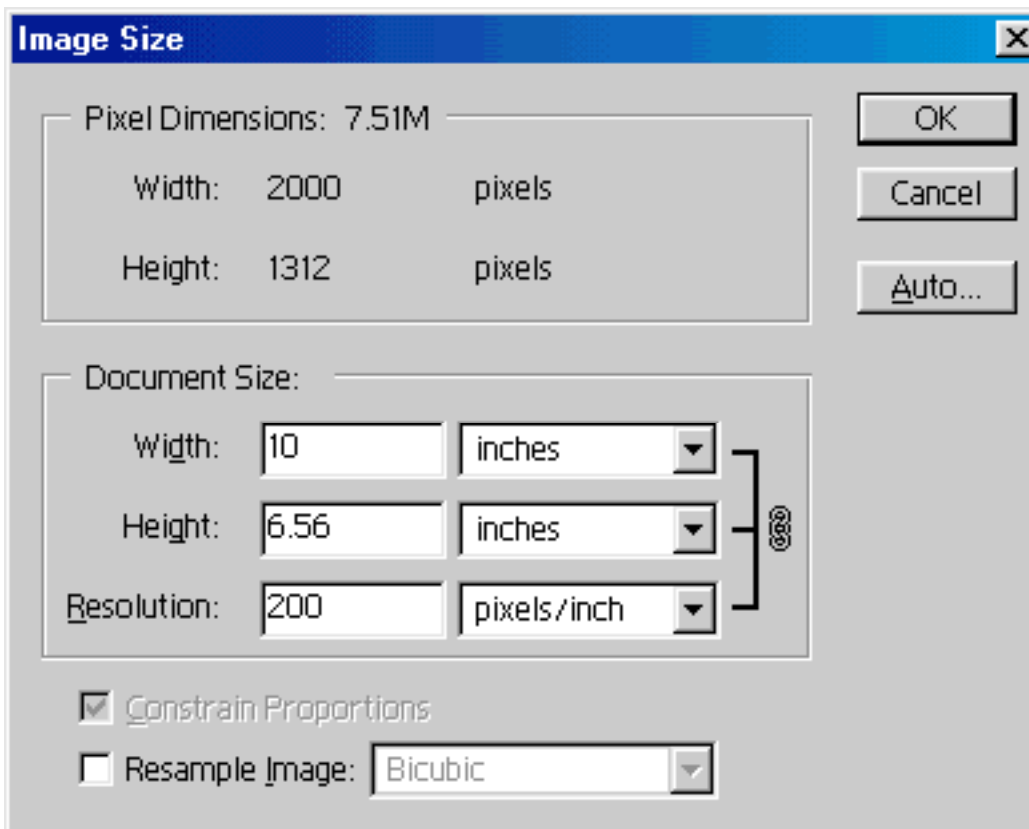
Example:

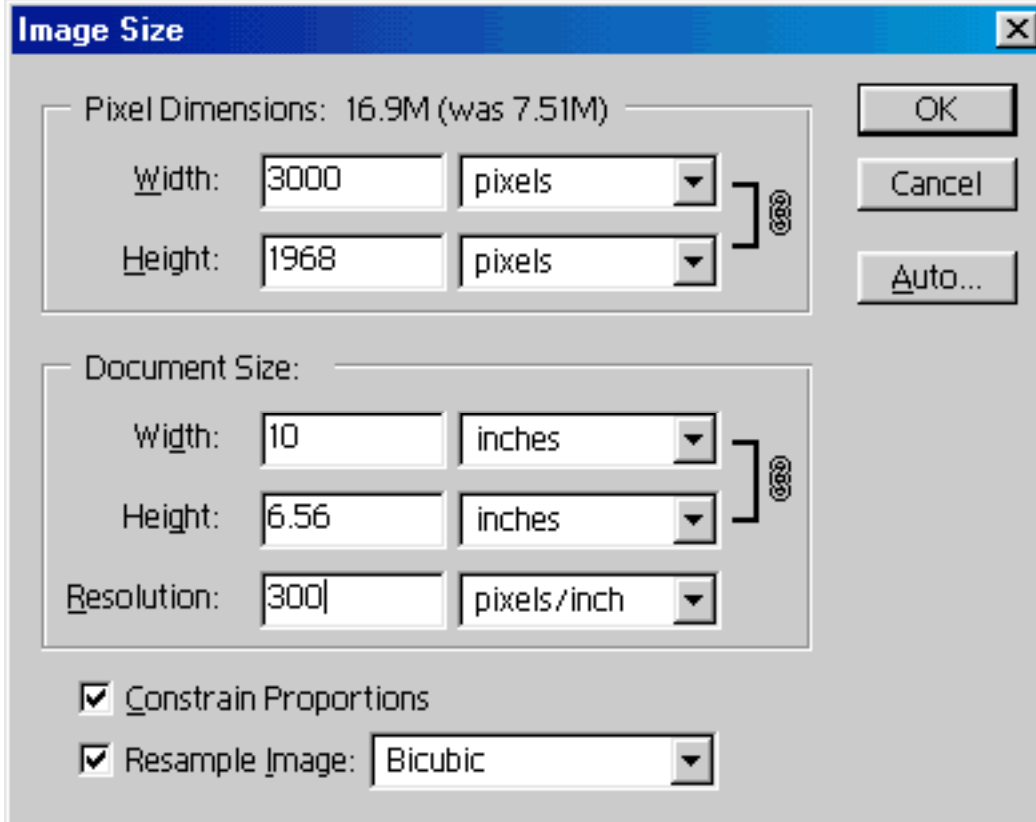
A 2.7 megapixel camera produces a file 2000 x 1312 pixels. At 72 PPI this file is 27.8 x 18.2 inches. At 300 PPI the same file is 6.7 x 4.4 inches. If the desired output is this size or smaller, you have more than enough data. Think of it in terms of water. 72 PPI would be cups and 300 DPI would be quarts. A gallon of water gives you 16 cups or 4 quarts. Image resolution works the same way. If you look at the dimensions of your file in inches at 72 PPI you can divide by 4 to see approximately how large the file will be at 300 PPI.



Still too small?

Due to the image structure of professional digital cameras, the image can normally be enlarged at least 50% without noticeable degradation. What this means is that an image that is the appropriate dimensions at 200 PPI can be resized (resampled) up to 300 PPI without compromising quality. In a pinch, you can do the same with consumer cameras, but the image will display some loss of crispness. If resizing and sharpening are carefully performed, the damage can be minimized.





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