

Image Resolutions for Print

Converting Smartphone photos for use in print publications

Step 1: Transfer your photos from your phone to your PC or Mac

Send via text message to your email address, or save via a plug-in drive to the phone. You may be able to open a window to see a list of the images you want to transfer.

On your computer, select, copy, and paste your download to/from Explorer (PC) or Finder (Mac) to a folder on your computer hard drive.

Step 2: Convert any HEIC photos from your phone to JPG format

1. Most photos are saved either as *.JPG or *.HEIC (which is a compressed format that saves space on your device). But working with photos is easiest if they are in the *.JPG format. (see <https://www.wikihow.com/Open-Heic-File>).

2. To convert an image file to another format:

In Windows, use the photo software that comes with Windows: “Photos” and/or “Paint”. Open the program, and then open the image file.

On an Apple Mac, right-click on the file and select Open with Preview—the file launches in the Preview program. Or, import the files to your Photos app.

3. Convert to the *.JPG format using the “Save As” option.

Step 3: Choose/Open your image editing software

A few simple image editing programs come with your computer but often won’t work for this type of conversion; others are external purchases. It’s important that the software you choose can resize the dimensions but can also adjust the resolution. Mere screen capture programs mostly do not work for this. Popular packages that do work are:

1. Gimp (Win & Mac, free download): (Image menu/Scale Image)
2. IrfanView (Win, free download): (Image menu/ResizeResample)

The two above are free. Below are programs for purchase. For more sophistication at a higher price, Paint Shop Pro and Photoshop are well known:

3. SnagIt Editor (Win & Mac, \$63): (Image menu/Resize Image)
4. Corel Paint Shop Pro: (\$80)
5. Adobe Photoshop: (multiple monthly subscription plans starting at \$23/mo.)

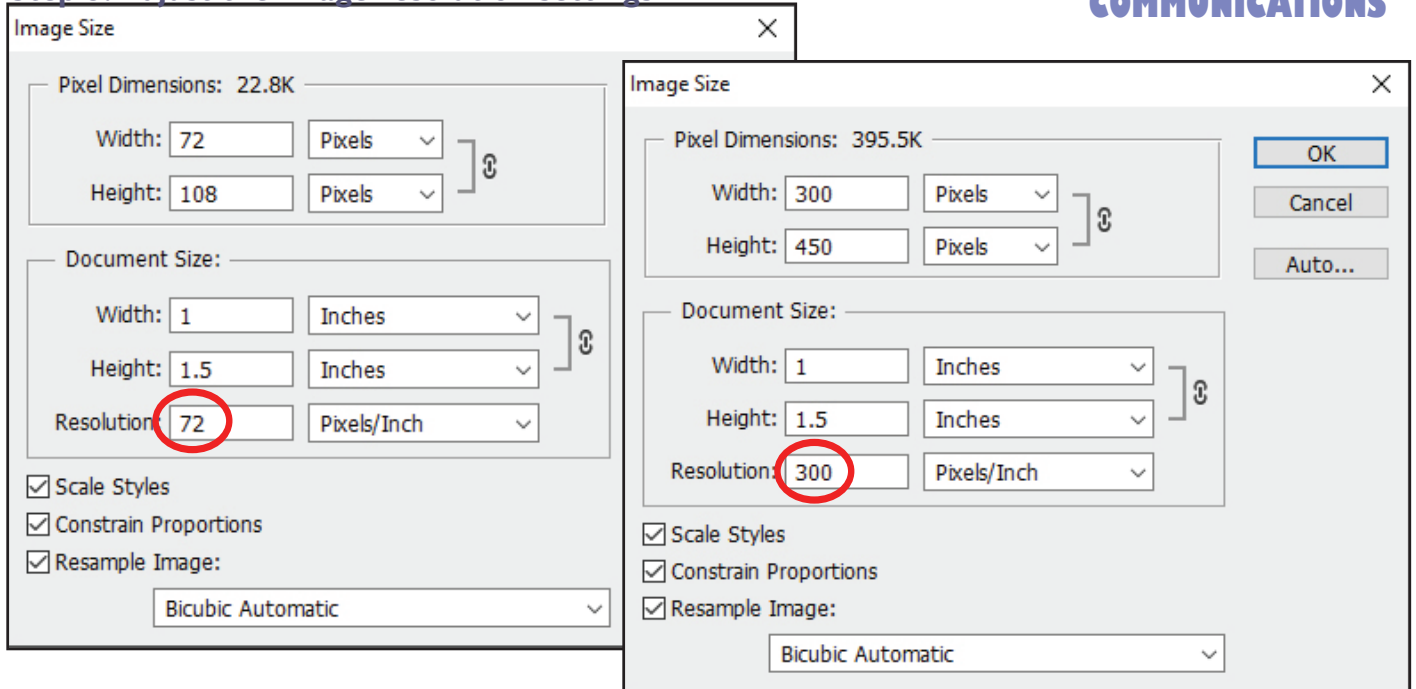
Step 4: In your image editing program, find the file properties of the image

Open the image and look at its file properties to find the following information:

1. Width and height. Expressed either in inches or in pixels, preferably both.
2. Resolution (PPI, or “pixels per inch”). Photos taken on your phone are usually 72 ppi, which is fine for viewing on a screen (phone, tablet, or web), but when used in a printed piece, 300 ppi is preferred.

The goal is to resize according to desired final resolution.

Step 5: Adjust the image resolution settings



Photoshop: Image/Image Size

(See similar dialog boxes in other graphics software)

1. The dialog box at above left is for an image measuring 1” x 1.5” at 72 ppi. Pixel dimensions are 72p x 108p.
2. At right is a similar image also measuring 1” x 1.5” but set at 300 ppi. Pixel dimensions are 300p x 450p.

When you change the resolution in the Resolution box, the width and height of the image in pixels also change. If the resolution is adjusted to a higher number, the dimensions adjust lower, and vice versa. If the original image is very large in dimensions to begin with, and you then adjust the resolution higher, the result, although smaller in inches, may still be large enough for your project. But if the original image is small with low resolution to begin with, attempts to convert to higher resolution will make the image very much smaller in inches, and possibly too small to be useful.

If all you have is an original 72 ppi image destined for print (hopefully rather large in dimensions), multiply the desired finished pixel width number and the desired finished pixel height number by four (actually, 4.16, but 4 makes the math easier to remember) to learn the approximate pixel dimensions needed at 300 ppi. That’s the size you’ll need before you take the next step in sizing for print.

Finished size	@72 ppi	@300 ppi
2 inches	144 px	600 px
3 inches	216 px	900 px
4 inches	288 px	1200 px
5 inches	360 px	1500 px
6 inches	432 px	1800 px



1. First, find the needed final dimensions in inches.
2. Find the equivalent desired finished pixels in width and height by using the chart at left and adjust. Name and save the file.
3. Example: Your photo is 4032 px wide by 3024 px tall at 72 ppi (which is 56” x 42”). Convert the ppi and reduce the image dimensions at the same time. In this case, set the resolution at 300 and divide the inches by 14 to yield a reduced image that is 4” x 3” at 300 ppi, which in pixels measure 1200 px wide and 900 px tall. When you can, let the software do the calculations for you.