



Image Resolution: Understanding Pixels

Image Resolution: Print vs. Web



What's image resolution?

The resolution of an image refers to the density of the **pixels (or printed dots)** that constitute it. The higher the resolution, the crisper the image will be.

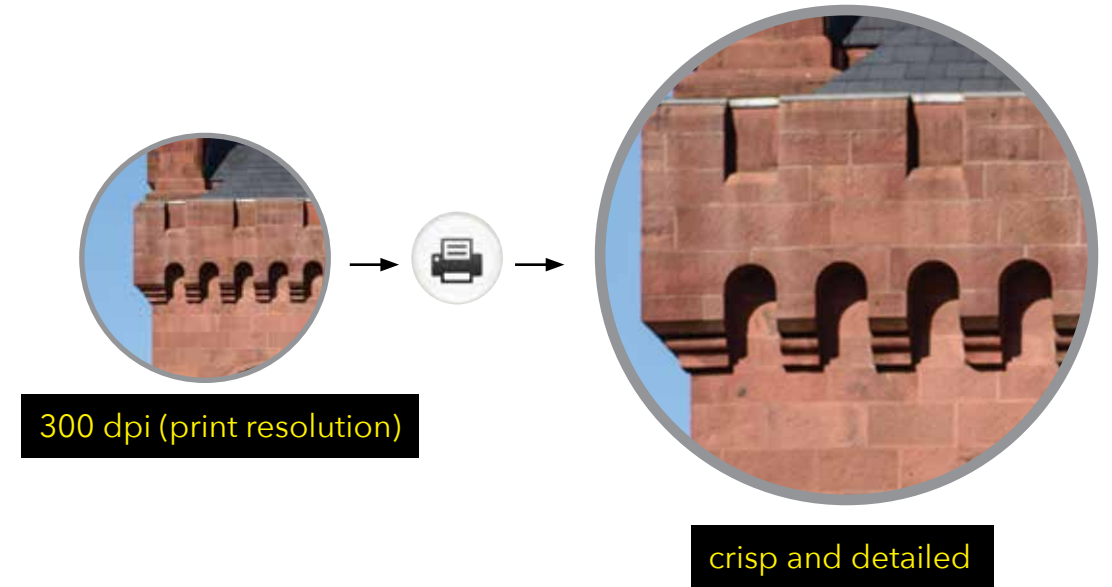
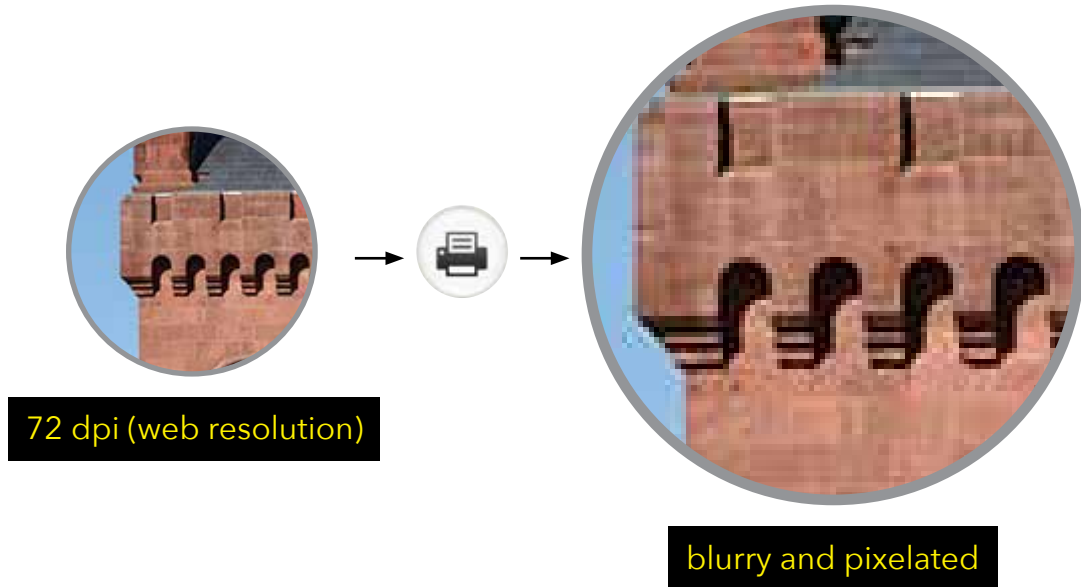
Those are pixels!

Image Resolution:

Print vs. Web

Pixelated is a term used to indicate the degradation of the image. The eye can start to see the individual pixels, and the edges become very jagged.

For professional print graphics, 300dpi is standard. 300 DPI images have 300 dots per square inch. So, if we have an image that is 300 pixels by 300 pixels – we can print it at 1" × 1" at 300 DPI. If this is the final output size, we are good to go.



The Right Image at the Right Size



Mural needs to be at
140" w x 95" h



Image on rail needs to be at 14"w x 7"h

Image Resolution:

What can you do?

Math!

Find the overall dimensions of the image, and then do some math.

On a Mac

Right-click (or control-click) on an image.

Select "Get Info."

Under the "More info" tab, look for Dimensions

You should see a number like "3300 × 2550"
(some number x some number). These numbers
show the number of pixels in the image
(width x height).

On a PC

Right-click on image icon.

Select "Properties."

Click the "Summary" tab in the
properties window

You'll see values for the Width, Height,
Horizontal Resolution and Vertical Resolution.

(You can see screen shots here). Ignore the
Horizontal and Vertical Resolution values. Just
pay attention to the overall Width and Height

The MATH

So, if you want to print an image that is 3300×2550 (listed as Width=3300px, Height=2550px on a PC), you need to divide each value by 300 to see how many inches you can print at 300 dpi (high-resolution).

Medium resolution = divide by 150 = print at 150 dpi

Low resolution = divide by 72 = print at 72dpi

(only acceptable for murals which is viewed from a distance and where details are not important).

The MATH

$3300 \div 300 = 11''$ (width)

$2550 \div 300 = 8.5''$ (height)

So, you could print this 3300px × 300px image at 300 DPI
at a size of 11" × 8.5"

Any bigger than this, and you risk the image becoming pixelated. Sure, you can enlarge the image a little bit beyond this size, if you need to, but it's best if you don't.

Please NOTE:

This is a basic process to help identify good images for production in initial research of image selection. You cannot add pixels into an image to increase resolution. An image will need to be rescanned to create a higher resolution (to have more pixels).

There are specific requirements needed for custom art, especially if it is reproduced in a large scale from its original source. **Always ask your designer and graphics production specialists for specific questions.**