Printed resolution and screen resolution

This is one of the most important factors when using images, whether they are for a poster or a screen-based presentation. Photoshop is the best software to use because it gives you control over what you are doing. If you have the wrong resolution settings it can cause problems with your final printout or with your screen based presentation. To always have the correct resolution double-check the resolution setting when you scan or take digital photographs.

If you have an image document that you need to print the image resolution (dpi - dots per inch) must be 240-300 dpi, for a web image or an image that will only be displayed on a monitor it must be 72 dpi. Even if an image looks perfect on screen it doesn’t mean that it will print perfectly. If the resolution is too low it will print very blurry, if the resolution is too high for a screen-based presentation it will take a long time to download.

If you need to change the resolution of an image after it has been scanned/photographed, aside from doing it again, there are two methods. Goto > Image > Image Size > Resolution. Always look at the measurements under Document Size, unless you are building a web site you shouldn’t need to change the Pixel Dimensions.

1. Image 1. The Width, Height, and Resolution fields are linked. This means that if you make a change to any one of them the other two will change proportionally. If you make your image larger the resolution will decrease - a printed image would become more blurry, if you make the image smaller the resolution will increase - a printed image would become sharper. To link these fields make sure that the Resample Image box is unchecked. This is the recommended method for resolution changes.

2. Image 2. Only the Width and Height fields are linked. This means that when you change one the other will change proportionally. The resolution field is independant of the other two, when you change the resolution the W & H remain unaffected. This may seem like an easier fix to get the exact dpi that you want, but be careful the resolution of the image is formed when you make your original scan or take a digital photograph, even if you were to change the resolution the stored data will always be the original scan/photo size. Image 1 is a much more professional and exact way to change the quality of your image.

Another example where resolution is important is if you have an image that you want to paste into another document. Make sure the image that you select has the same resolution as the document you are pasting into. To check this > Image > Image Size > Resolution.

If you need any more information to help you decide what resolution is best to use please speak to Charlotte Oelerich: 514-0679, or email oelerichc@vision.ucsf.edu.