

# TIPS TRICKS<sup>AND</sup> HOW TO...

## Scanning Photos and Documents

There are two things to keep in mind when scanning images:  
RESOLUTION and FORMAT.

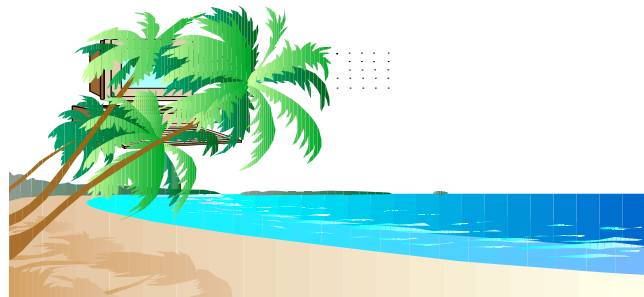
### Resolution

Resolution involves the quality of the image. Specifically, how many dots per inch (dpi) are contained in the photo. More dots per inch means more detail, larger print size, and thus a better quality photo. (This also means a larger file size, more on this below.) How much resolution your photo should have depends on what you want to do with that image once you have scanned it. If your photo will not get shown on anything other than a computer monitor (for example, a web page or a PowerPoint-type presentation), you will not need a high resolution because most monitors cannot show anything higher than 120 dpi. Simply adjust the scan size for how big you want the image to appear. However, if you are planning to print the graphic onto a laser printer of some kind, you will want to scan at a higher resolution, like 300-600 dpi. Remember that if you double your resolution, it gives you 4 times the number of dots and makes the file 4 times bigger. This stresses your computer a lot more, slows it down, and eats up hard drive space.

### Printers

A short word about printers is helpful here. In order to produce many shades of colors, the printer uses many of its dots (usually in a cluster of 4 X 4 or 5 X 5 dots) to make a single dot (or pixel) from your picture. So, if your printer is rated at 600 X 600 dpi, it can only print between 120 and 150 pixels per inch. It is very important to get the best resolution possible in your printer.

So, unless you are enlarging your photo, it doesn't make sense to scan over 300 or 600 dpi.



### Format

File size is often an issue. If you are sending images over the web, you want to keep file size to a minimum. However, if you are going to print a graphic on a printer, you would be more concerned with quality than file size. To further confuse the situation, different software programs often use different formats when working with images. For example, Microsoft products tend to use the bitmap or BMP, format in their programs. Adobe products are more flexible, handling jpeg, bitmap, gif, and so on. To handle these situations, images can be saved in various file formats. The main purpose of having various formats is to add some kind of compression to keep file sizes to a minimum yet maintain the quality of the image. Some of these formats are: jpeg, gif, tiff, and bitmap.

## Bitmap Images

This is a Microsoft format used mainly within Microsoft software. If you plan on using an image in a Microsoft program, save it as a bitmap with the .bmp extension. Bitmaps use no compression so they are the largest file type but there is absolute image clarity.

## JPEG Images

Jpeg images are the standard among most software packages. They offer the best of both worlds: compression AND image quality. Some of the uses for jpeg images include large photographs on the web and sharing images among software. When saving a jpeg, you can set the amount of compression keeping in mind that the higher the compression, the smaller the file but the worse the image looks when viewed.



## GIF Images

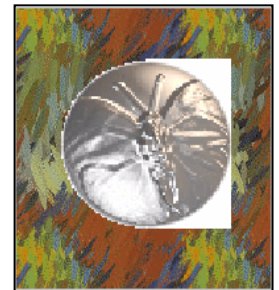
Gifs offer compression and quality, but not as much compression as the jpeg format. Gif images allow you to have transparent backgrounds surrounding your image, buttons on a web page, for example. They are also limited to 256 colors and are best suited for graphics, not photos.

You can also have animated gif images, a series of images arranged to give the illusion of motion.

## TIFF Images

This format is another standard among software packages. It offers very little compression, but maintains total quality of the original image. Tiffs are typically used to save an image for manipulating later, to maintain maximum quality, or when the image will be used for publication.

Here is an example of how transparency works. This round button was made on a white square background. The left half was made transparent and so the leaf background shows through but on the right, it doesn't.



## Scanning Basics

1. Place the photo face down on the scanning surface and close the lid.
2. In your scanning software, select the 'Preview' button.
3. The software will scan the image and give you a preview of what it looks like. Adjust the cropping bars, set the output size of the image, and select the dpi.
4. Select the 'Scan' or 'Final' button to scan the image.
5. Choose 'Save As' under the 'File' drop-down menu. Remember to select the desired file format.

# FACT