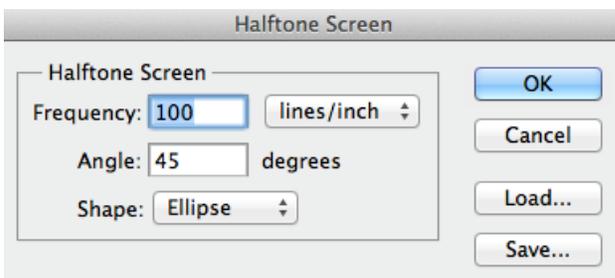
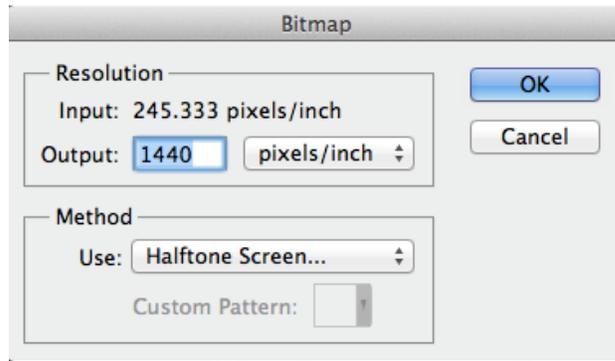


Making Halftone negatives



First convert your document to a bitmap file. When printing on an Epson choose 1440 dpi. When printing to a laser printer choose 1200 dpi. When you get the Option window choose Method -> Halftone Screen. Now choose your halftone screen frequency, which may be around 100 lpi for commercial printing, or for an art project. To reduce the likelihood of a moire pattern, it is best to specify different screen angles for each color. Traditionally these were set at 45° for Cyan, 75° for Magenta, 90° for Yellow and 105° for Black. Notice the darker colors are 30° from each other and yellow

is set halfway between Magenta and Black. If you're outputting a duo or tri tone set each 30° from each other. For dot shape, the ellipse halftone dot is often recommended for screen-printing.

The following are from <http://www.kevinhaas.com>

Creating a Halftone Bitmap

1. You will need a grayscale file that is at least 150ppi at the size you will print it. This information can be checked by going to Image > Image Size... in Photoshop.

2. Convert the image into a Bitmap: Go to Image > Mode > Bitmap. Set your Output Resolution to 720 and Method to 'Halftone'. The Output Resolution should be your lpi x 16, and evenly divisible by your printer's maximum output resolution. For example, a 35lpi halftone needs an Output Resolution of at least 560, but 720 is the next higher resolution that is the inkjet printer's resolution of 1440 evenly divided by 2.

3. Print your file and expose your film to your screen.

It is best to use a transparency film made for inkjet printers and screenprinting films. The best printer media setting to use for these films is 'Premium Glossy Photo Paper' on Epson printers. This will assure the maximum density of black, and a printing resolution of 1440dpi.

Getting more from Threshold

The Threshold setting in Photoshop is an easy way to create a high contrast

black and white image to use for screenprinting. But you will often lose more information than you would like with this option. To pull more out of images with Threshold, create a Threshold adjustment layer, and then use the dodge and burn tools on the image layer to bring back more information. The dodge tool will help bring back details in the black areas, and the burn tool will help add details in the blasted out white areas.

Posterizations in Photoshop

You can make posterizations in Photoshop at the click of a button, but to get them set up properly for screen printing takes a few more clicks. Posterizations work best with grayscale files, and can be used to print the file in several grays or colors to extend the tonal range of the image. Once your grayscale image is ready, complete the following steps. When you set the number of levels, remember that one of them is the white of the paper, provided that there is white in the image. This means that typically you will have one more level than the number of colors you want to print.

1. Adjust the levels of your file to assure good contrast in your file. Go to Image > Adjustments > Auto Levels.
2. To posterize your image, go to Image > Adjustments > Posterize...
3. Save your file as 'myimage-POSTER.psd' (or anything that you can remember later), to keep your original file unchanged. Now that the image has been broken down into several values, you will need to 'extract' each one to create a film to expose your screen with.
4. Go to MB>Image>Adjust>Threshold. The space between the lines will indicate a particular color with the darkest on the left and lighter colors on the right. Move the slider under your first color to be printed on the right and click OK. Print the image.
5. Go to MB>Edit>Undo Threshold or use the history palette (MB>Window>History Palette) to return to the index color version of your file. Repeat the Image>Threshold function to isolate the next color for printing. Keep repeating these steps until all of your films are printed.

Typical Halftone Screen Angles for Screenprinting

Black/Key Color: 22.5

Magenta/Medium Value Color: 52.5

Yellow/Lightest or very light colors: 82.5

Cyan/Medium Value Color: 112.5

These angles are different from offset printing screen angles, since with screenprinting the angles 0°, 90°, and 45° must be avoided since they will typically conflict with the screen mesh. 22.5° will usually work since it is halfway between 0° and 45°.