

# CMYK Halftones

Color or Grayscale files can't be used for Screenprinting. Your image must be converted into halftone dots.

## **An easy way to make a halftone image is to use the Color Halftone filter**

The Color Halftone filter simulates the result of using an enlarged halftone screen on the layer. The filter divides the image into rectangles and replaces each rectangle with a circle. The circle size is proportional to the brightness of the rectangle.

1. Start with a CMYK image sized to your finished screenprint size at 300 dpi.
2. Choose Pixelate > Color Halftone from the Filter menu.
3. Enter a value for the maximum radius of a halftone dot, from 4 to 127 pixels. (approximately 60 ppi to 2 ppi) A useful range is 5-8
  - a) Enter a screen-angle value:
  - b) For grayscale images, enter a value only in channel 1, use 22 to avoid moiré patterns with the screen mesh. Values in the other channel text boxes do not affect the filter.
  - c) For color images, use channels 1, 2, 3, and 4, which correspond to CMYK channels (cyan 112, magenta 52, yellow 82, and black 22). These angles avoid moiré patterns with the screen mesh.
4. Now split your channels to make separate CMYK images. Select Channels (under Layers Panel). From the menu ( ≡ ) select Split Channels. Each channel is now a separate grayscale document.

## **A more precise way to make halftones for scenprinting is to convert your image to Bitmap Mode**

1. Start with a CMYK image sized to your finished screenprint size at 300 dpi.
2. Now split your channels to make separate CMYK images. Select Channels and from the menu ( ≡ ) select Split Channels. Each channel is now a separate grayscale document.
3. Change your image mode to Bitmap. Image > Mode > Bitmap. In Resolution box: put in 600 pixels/inch
4. For Method Use: Halftone Screen. Press OK. In the next window enter 45 for Frequency, this is the halftone lpi, then enter the following angles depending on the color of your layer, Cyan 112, Magenta 52, Yellow 82, and black 22.
5. Round or Ellipse shaped dots are recommended for screenprinting. Your file needs to be saved as a .psd to keep the bitmap formatting.
6. Follow this procedure for each separation so that you have 4 bitmap files with the correct corresponding screen angles.

You are now ready to print. Insert transparencies or translucent vellum sheets appropriate to your type of printer into your printer's paper tray and click "Print". You will need to print all 4 bitmap files to make a 4 color image.