

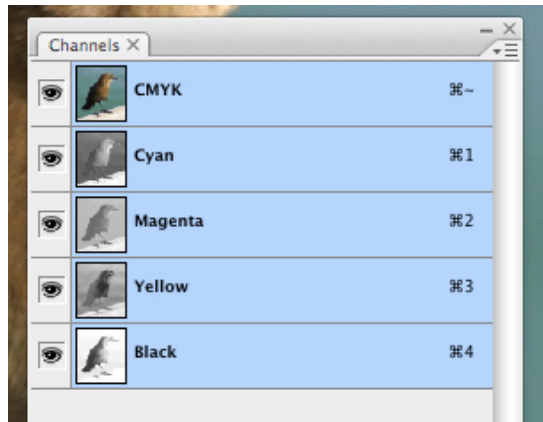
# CMYK COLOR SEPARATIONS IN PHOTOSHOP FOR SCREEN-PRINTING

PROFESSOR: JAMES BAILEY

1. Launch Photoshop.
2. Open your image. (Size it to what you want your print to be).
3. MB>IMAGE>MODE>CMYK Color

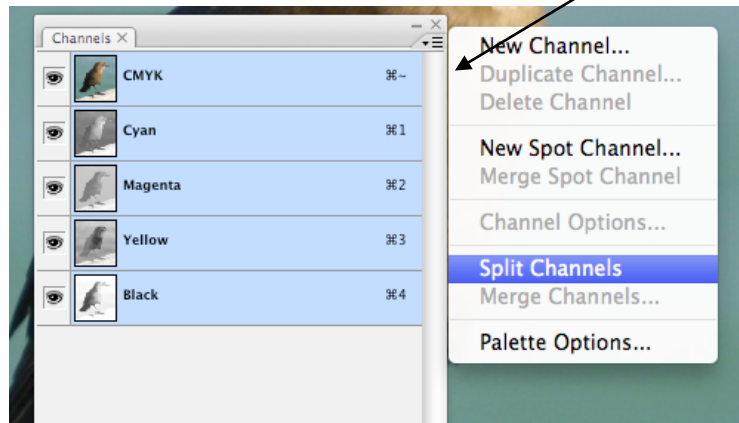
You will then see our image has been broken down into five channels of color. Each channel contains a certain percentage of color to create the colors in the final work.

4. MB>Window>Channels

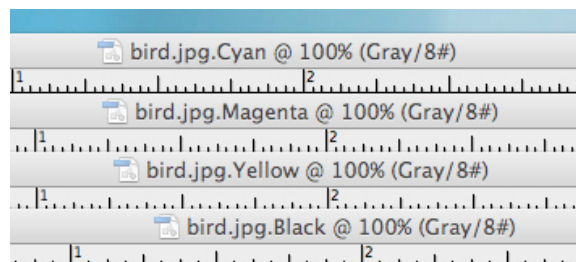


5. Save your file.

7. Open the flyout menu> Split Channels



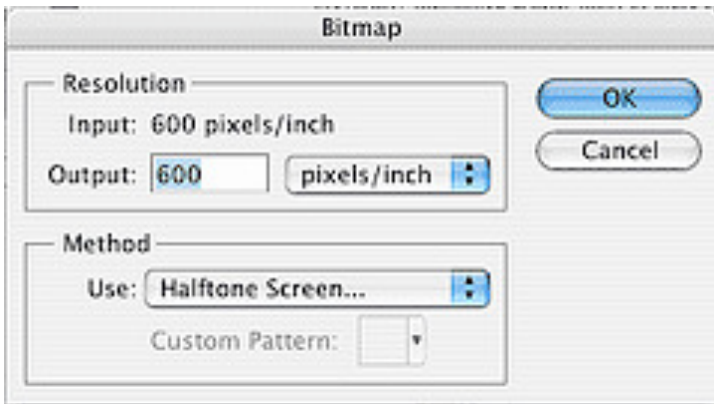
You will now see the four individual plates. Each file open is named after the original file and has the color name appended to the filename. (These Might appear at the top of your screen above the ruler guide & below the menu bar, and may look like Title\_Cyan@100% Gray; Title\_Magenta@ 100% Gray and so on.



Now we will convert each of these files to a black and white halftone.

8. Click on the first Channel and go to: For example Black. (You should see just a black and white image).

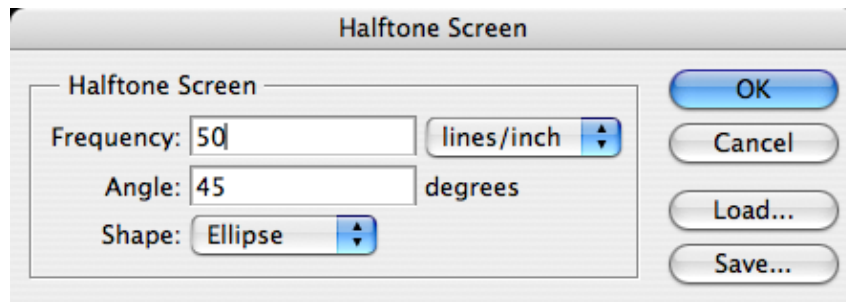
9. MB>Image>Mode>Bitmap



Type in 600 pixels/inch in the output box.  
Method is Halftone Screen. And click OK.

Next we are presented with our halftone settings.

10. For the Frequency box it's **(Mesh count divided by 4)**  
I.e. A screen with a mesh count of 200 would use a 50 LPI. So 50 would be the frequency.



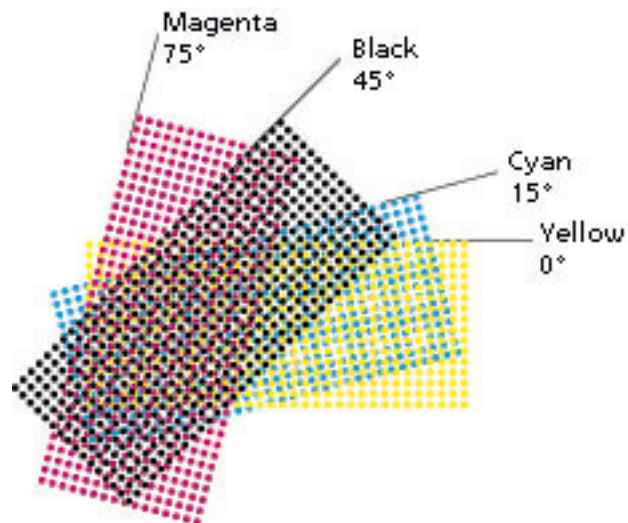
11. Next type in the Angle: (In this case for Black the angle will be 45 degrees).

**Cyan = 15**

**Magenta = 75**

**Yellow = 0**

**Black = 45**



12. Shape is Ellipse

13. Then save file as Black.

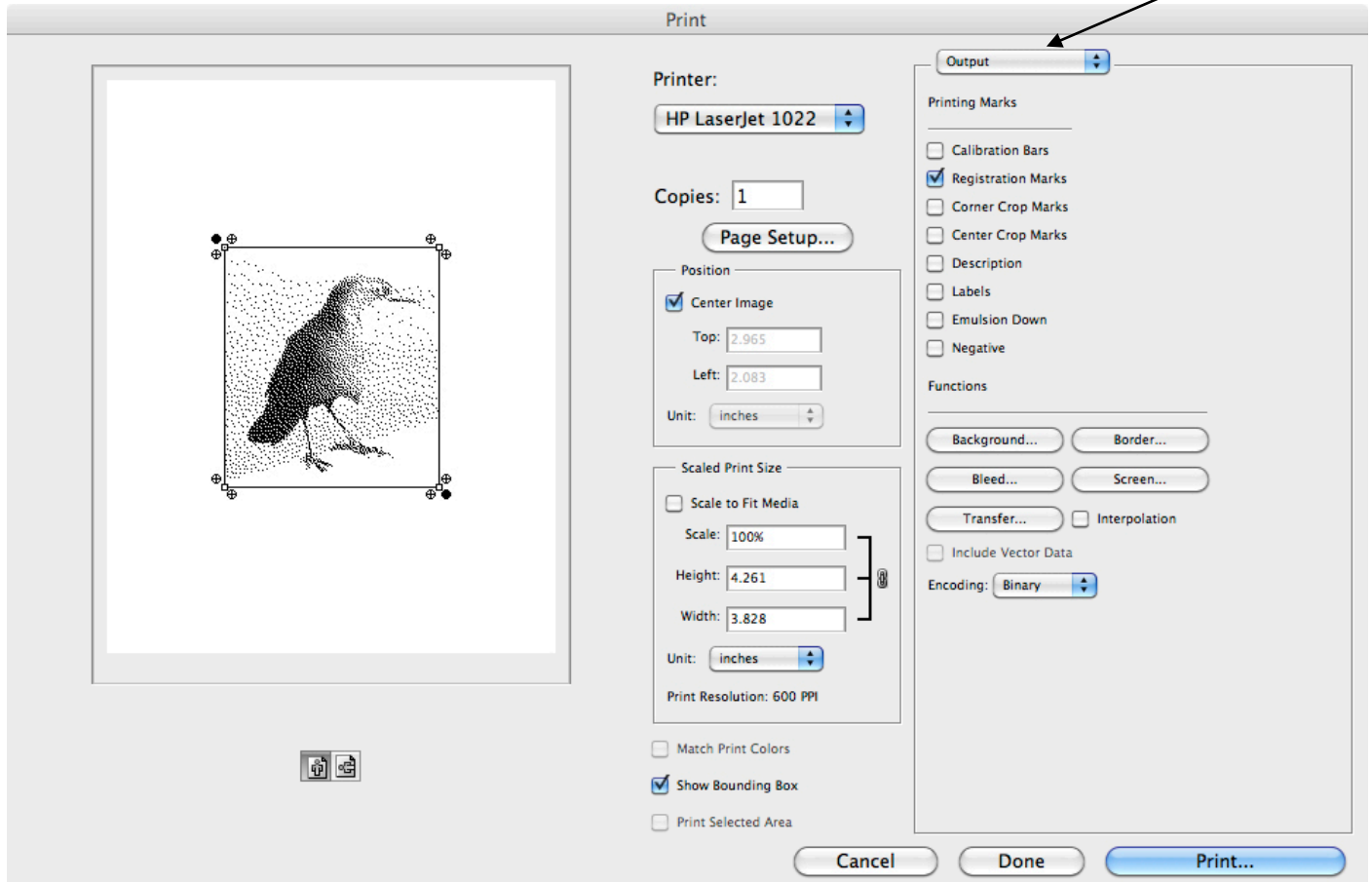
CMYK Separations\_Prof. Bailey.docx

13a. Then click on the next channel and repeat for all remaining channels.

You are now ready to print.

14. Go to MB>File>Print with Preview (or Apple P key)

15. Click on “Color Management” at top: Click on Registration Marks and then click print.



The registration marks you've set up will print, so use 1 or 2 sheets of paper to proof on, to line up your image with your pin registration. Then put a piece of scotch tape over each registration mark on the underside of the screen to prevent the registration marks from printing on the rest of your edition.

### IMPORTANT NOTE WHEN PRINTING:

Typically, the order of printing is: start 1- Yellow, 2-Magenta, 3-Cyan, and finally 4-Black. (YMCK)

The process colors are semi-transparent, which allows them to intermix to create the other various colors.

Therefore, when printing, it is important to print each color using a **SINGLE PRINT STROKE**, (do not double pull the print stroke or this will alter the result, by essentially putting down two layers of the same color, thus making that color more opaque.)