

Printing Halftone Films Without A RIP

For those without a RIP, this method does a good job of applying a halftone screen within Photoshop for film output.

It's also a great safety net in the event of software problems or a new printer not being compatible with your software RIP.

By no means are these intended to replace the use of an actual software RIP program.

Output Halftones No RIP Info
Darken Single Channel No RIP
25 Line Halftone RUN
30 Line Halftone RUN
35 Line Halftone RUN
40 Line Halftone RUN
45 Line Halftone RUN
50 Line Halftone RUN
55 Line Halftone RUN
60 Line Halftone RUN

General Guidelines:

Once satisfied with the color separation, delete the RGB and shirt background channels leaving only the color channels required for film output and "SAVE IT".

A color separation with a maximum of 10 colors can be processed. The speed, age and condition of your computer has a great effect on how slowly or quickly the conversion process runs which can take as long as 3 minutes or as quickly as 30 seconds.

Even if your separation is only 2, 3 or 4 colors, these functions will assume the file contains 10 colors and cycle through. Once complete however, the channels panel will only contain the intended number of colors with no additional channels.



Do not attempt to resize the document following conversion as it will result in unacceptable output quality. Make sure the separation is the correct final dimensions prior to running the convert to halftone action!

To get an idea of how the image will actually print, zoom "out" on screen with all channels visible (make it smaller) to the first magnification level that appears normal.

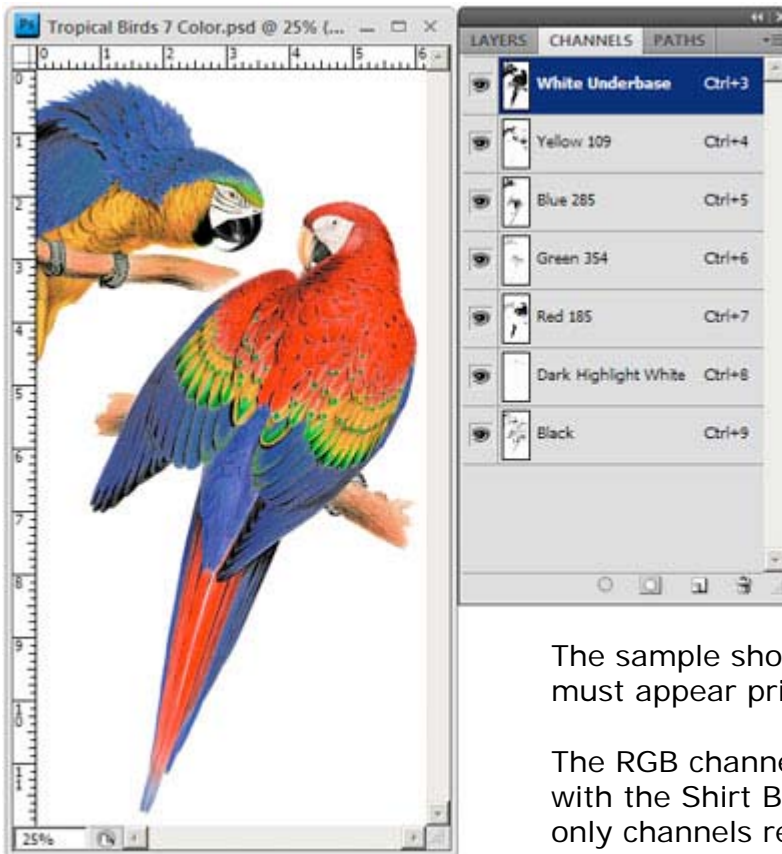
The resulting output is a multichannel bitmap file with an integrated screen angle, LPI and dot shape applied to all channels. **Do not attempt to set any screen angles or LPI settings prior to output. Just print out each channel to film using default settings.**

All converted channels retain their original color, names, etc. to allow normal preview and output. The final converted image is a single multichannel file with all color data and channel names intact.

Channels can not be adjusted (darkened - lightened) once converted to halftones.

If additional new channels named Cyan, Magenta and Yellow are included once the process is complete, this indicates the RGB Channels were not removed prior to running. Simply delete them.

Image Prior To Halftone Conversion

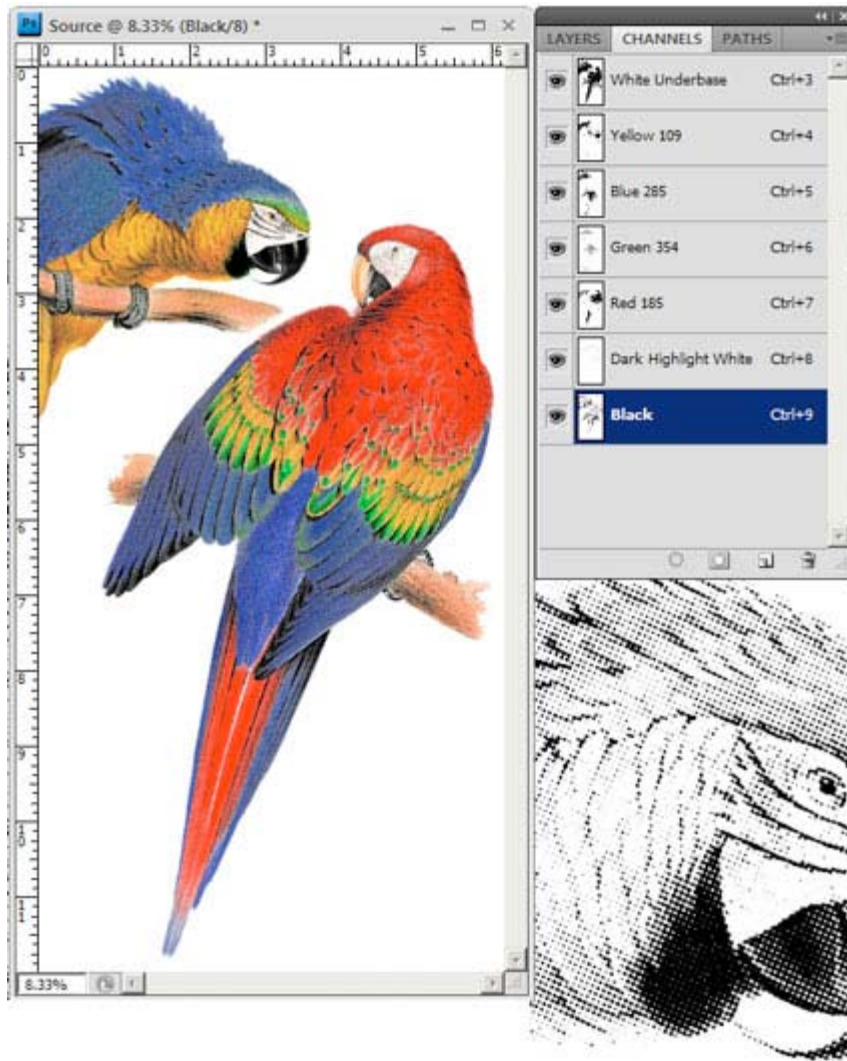


The sample shown is how the separation must appear prior to halftone conversion.

The RGB channels have been deleted along with the Shirt Background channel. The only channels remaining are those needed for film output,

This Area Intentionally Left Blank

Converted File - Each Channel Is Now A Halftone



Once all on-screen activity stops and the contents of the channels panel displays only the colors in the separation, the process is complete.

The converted file has been named "Source" which can be changed by the end user.

No RGB channels are required since this type of separation can be printed directly from any version of Photoshop using the default output settings.

Magnified portion of Black Channel to reveal halftone conversion.

The converted separation above is a multichannel file with color information and channel color names intact.

Its worth repeating that since each channel is now a bitmap, any adjustments such as Curves or Levels have no effect. And since its a bitmap with embedded attributes such as line screen, angle, etc., it can not be resized. The resolution has also been increased to 600 dpi.

Using the above converted 50 LPI halftone as an example, we zoomed "out" to 8.33% or 12.5% to get an idea how the file will perform on press.

Higher magnification previews, 25%, 50%, etc., will render a preview that's far too light due to many reasons. In fact, zooming in will lead most to believe there's not enough ink within the channels and that dots are going to print exactly on top of other dots when this is simply not the case.



At this point, custom register marks can be added to the converted separation prior to output.

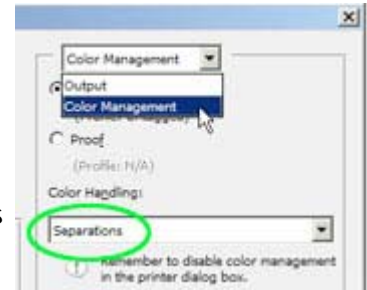
Printing A Separation Converted To Halftones Using Photoshop Older Photoshop Versions • CS1-CS2-CS3-CS4-CS5

When outputting to film, do not attempt to specify a frequency, screen angle or dot shape as that information is already embedded within the file. Just output as you would line artwork at default printer resolution.

When printing the separations from Photoshop, make sure all channels are turned on with the “Eye” visible next to each.

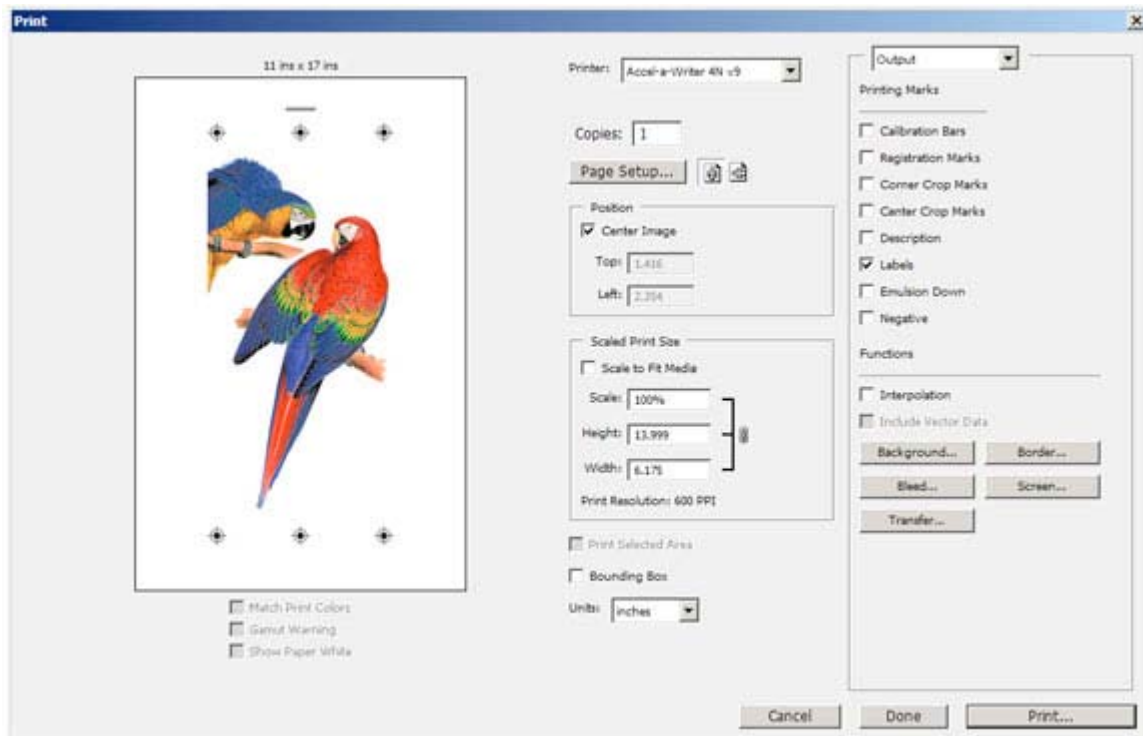
Next choose Print
(or in Photoshop versions CS1-CS2 “Print With Preview”).

Select Color Management and make certain “Separations” is selected.

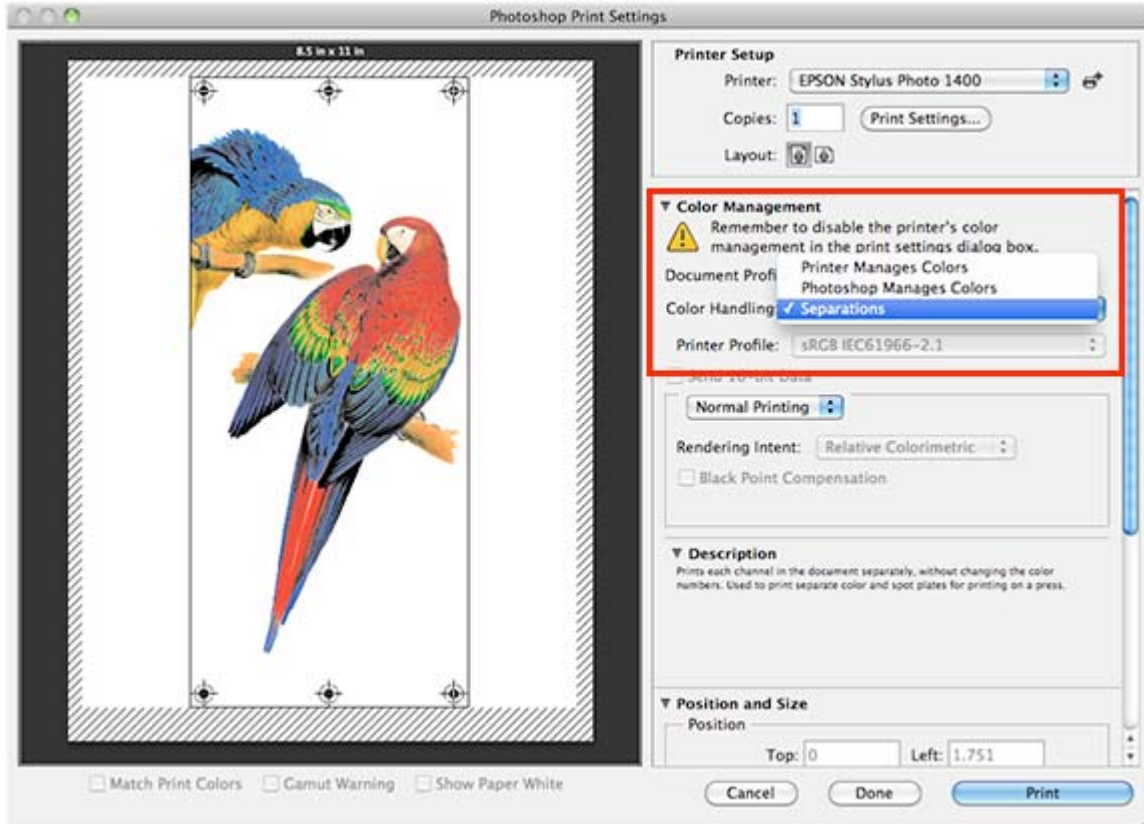


If Separations is not selected, the films will not print.

Next select Output within the print dialog box and check “Labels” so each film is marked with the appropriate ink color name and verify the correct printer and page size is selected. At this point there’s no other settings or adjustments to make, just click Print and each channel will image to film.



Printing A Separation Converted To Halftones Using Photoshop Newer Photoshop Versions • CS6 - Creative Cloud



Above is a screen shot of the CS6 print window.

Printing a separation converted to halftones using Photoshop CS6 or higher is the same as with older versions although Adobe has changed the appearance of the Print screen. The primary thing that must be done is to select "Separations" within Color Management.

So after selecting your designated printer, page size, etc., the Color Management section is directly under it. Make sure to select Separations.

Scrolling further down within the Print window is where you'll find other print options such as Labels, Register Marks, etc.

Once satisfied with the settings, just click Print and each channel will image to film.