

Mono Prints to Hang For

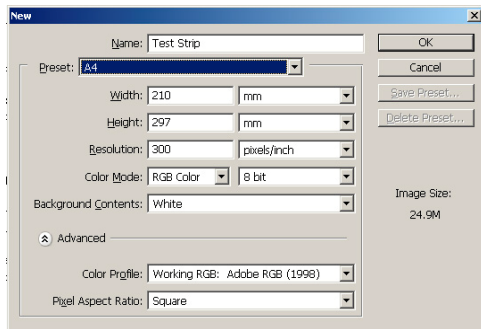
Once you have worked through the process of scanning your neg, converting your digital file into a great mono image, you need to output it. Don't just keep it on your computer, let the world see what you can produce. This guide is split into 3 sections; monochrome printing with a colour inkset, black only printing and printing with a monochrome inkset such as VT Blax, with a quick synopsis for each type.

Colour Inkset Printing

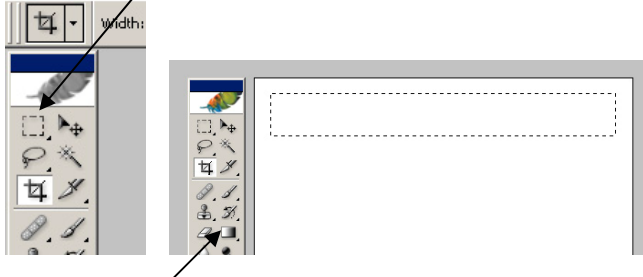
Most people start printing their monochrome images using the both the black and colour cartridges, and the majority are disappointed because there is a colour cast. The main reason for this is because the neutral position of the inks varies depending on the paper being printed upon.

Don't be too disheartened though, the colour cast can be cured by printing test strips and making corrections in the print driver. Test strips were used in the darkroom when a colour cast was apparent and needed to be corrected – same applies in the digital darkroom. The following 9 steps will show you how to create and print a test strip and how to correct any colour cast encountered.

First create a new page **File>New**, select **A4** from the **Preset** dropdown menu and make sure the image resolution is **300 dpi**.



Select the rectangular marquee tool and drag a rectangle across the full width of the page.



Select the gradient tool; if the gradient tool is not visible on the toolbar right click on the paint bucket and select the gradient tool.

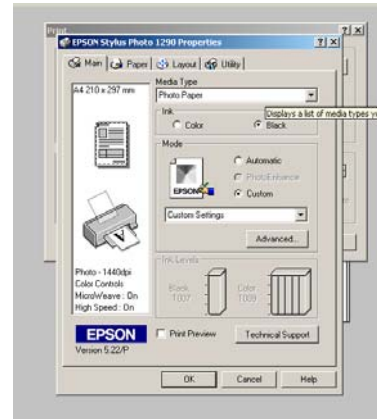
With the gradient tool selected, drag a line from left to right inside the rectangle and release the mouse button. The box will fill with a smooth gradient.



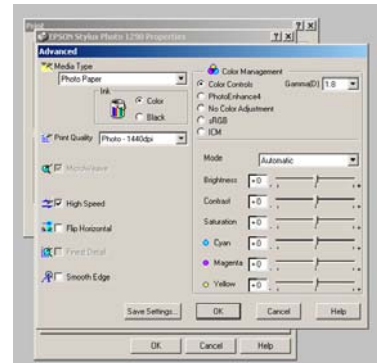
We will now make this into a 21-step wedge by posterising, or creating steps, in the image. **Image>Adjustments>Posterise** and select **21**. The smooth ramp will now become 21 steps of 5% shading in each step.



Print this image on the paper you normally use, but with the 'Black' ink setting usually found under 'Printer Properties'. This gives a neutral print to judge casts against.



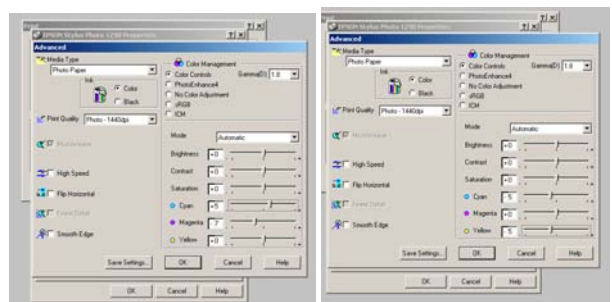
Now print the same image on a new piece of paper, but with the ink setting showing **Colour**. Select **Advanced...** and set all the sliders to zero. The **Media Type** settings are based on the paper manufacturer's recommendations.



To correct a cast, move the sliders to add or subtract ink from each ink position to counter the colour shift.

If the print has a magenta cast, move the magenta slider to the left and the cyan slider to the right (left image), and if the print has a green cast move both the cyan and yellow sliders to the left (right image). The amount of correction will vary, and you will need to experiment; this can be frustrating.

However, the correction will be the same for any B&W image on that paper, you just need to dial in the correction before printing.



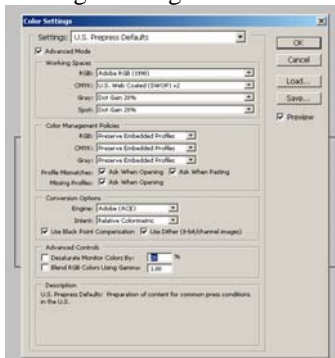
Black Only Printing

The next method of printing monochrome images is 'Black Only', whereby the colour ink cartridge is completely bypassed and only the black cartridge is used. This is a great way to learn black and white printing because there are no print calibrations or corrections required, it uses less ink and is therefore cheaper and you can print true B&W and carry on printing colour from the same printer.

Since Black Only printing doesn't use grey or colour inks, it gets its tonal gradation by varying the size, spacing and dithering patterns of the dots, all of which are black. With a loupe you can clearly see the individual dots, especially in the higher values where they are farther apart, but with a naked eye you would be hard pushed to notice them. Below is a 100% crop from a 1440 dpi print.



If you want to print Black Only, the image should be in Greyscale. If you aren't working in Greyscale, convert your image by selecting it from **Image>Mode>Grayscale**. You are now in Greyscale but you need to make sure the settings are correct to get the right amount of ink printed.



Within **Edit>Colour Settings** select **20% Dot Gain** in the **Gray** dropdown, and Click **OK**. This means that any images worked on in Greyscale will have the 20% Dot Gain profile added and they will print with an average grey.

When you print the file make sure the printer driver ink position is set to **'Black'** and you have set the correct dpi. There is negligible difference between 1440 and 2880 dpi and so if you are happy with slightly grainier images, a faster print time and saving yourself some ink, print at 1440ppi rather than 2880dpi.

Monochrome Inkset Printing

(Permajet VT Blax and Lyson Small Gamut & Quadtone)

These specialist inks give the serious black and white inkjet printer the full range of tones from sepia and warm to cool. When printing neutrally toned prints there are no colour casts and all prints have no apparent grain.

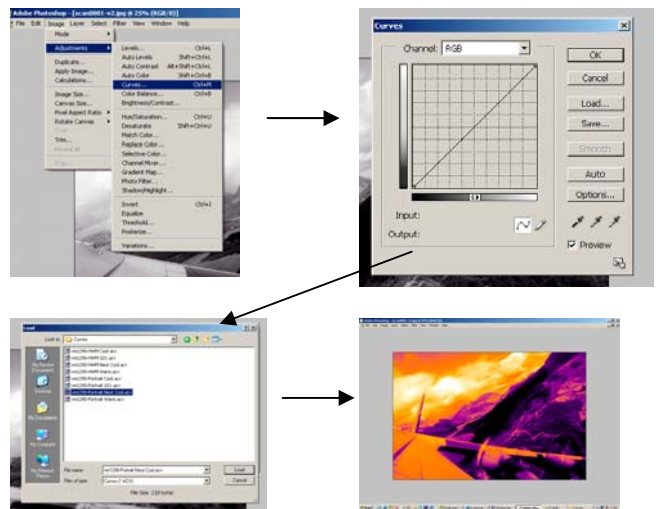
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However, this comes at a cost – you have to dedicate a printer to B&W printing as they require special cartridges which contain grey rather than colour inks. You can buy these



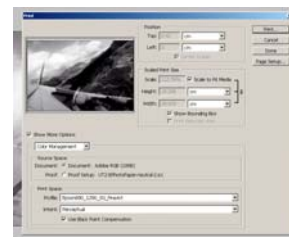
cartridges from Permajet and Lyson and they both recommend buying cleaning cartridges too, to ensure that no residual ink remains in the head which may cause a blockage. If you don't like the B&W inkset, you can quickly revert back to your original Epson colour cartridges following a quick head clean.

The Permajet VT Blax and Mono Pro 1290 and Lyson Quadtone Systems work by substituting the colour inks with shades of grey and using curves within Photoshop to control the 'colours' laid down.



This results in strange colours being displayed, but don't worry the prints will be B&W! The driver interprets the tones correctly and prints the correct 'colour' of grey ink. Do not save the file with the curve applied because if you want to print on another type of paper or want a different tone, a new curve is required and you will not be able to apply the new curve.

The Lyson Small Gamut system is slightly different and uses destaturated colour inks and ICC printer profiles to control the toning of the image. The profile shown here is for Lyson Small Gamut Ink on their Fine Art paper. If there isn't a profile for your paper you will need to choose one which is close or get a custom profile made costing approximately £25 per paper from a professional paper profiler.



As you can see, it is very easy to get great monochrome prints from your inkjet printer, especially if you go down the 'Black Only' route. However, if you want to get high quality toned prints that will last a long time up to 75 years, try the monochrome inksets from Lyson or Permajet.