

ICC Profile Instructions

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Introduction To ICC Profiles

What Is an ICC Profile?

An ICC Profile is a set of computer data that when installed will hold information on the range of colours that a device such as a Printer or a Monitor can utilise. For example a monitor can display a wider colour range than a printer can print, the ICC Profile will reflect this.

What will an ICC Profile do for me?

If you are using an Epson printer, Epson Ink and Epson paper, then the default Profile will be fine. If like most people you change one or more of these variables then the default becomes incorrect. By using an ICC Profile for your particular Printer, Ink and Paper combination then you will print the correct colours because the profile is telling the printer how it needs to alter its ink usage to achieve a perfect print.

What If I don't use a profile?

If you don't use an ICC Profile then you will find that the results you have coming out of your Printer aren't what you were expecting. The degree as to how far out your printed image is will be most apparent in the shadow detail.

What is the difference between a Generic Profile and a Bespoke Profile?

A Generic profile is a profile made for a particular Printer, Ink and Paper combination, however it will have been made on somebody else's printer. A Bespoke profile would be particular to the printer you are using, this service is indeed offered by PermaJet and is the most accurate way to create a profile. However, a generic profile is a free way to put yourself within inches of perfection and is immeasurably better than using no ICC Profile.

What about my monitor?

By using an ICC Profile you have colour managed your printer. In order to find the same colours coming from your printer appearing on your screen, then it is necessary to create a profile for your monitor. Monitor calibration is done through using a piece of hardware that have in recent years become very affordable, please visit www.theimagingwarehouse.com for more details.

The Way ICC Profiles are Named

We at PermaJet label all of our Generic profiles in the following way:

NOTE: Profiles may appear in Upper Or Lower case, the profile version may be designated by either a # symbol or a V, this will have no bearing on your output.

| Manufacturer | Ink Set | Printer | Ink Variation | Paper | Media Setting | Profile Version |
|--------------|---------|---------|---------------|-------|---------------|-----------------|
| APJ | KC | 2400 | PK | Gloss | PGPP | #1 |

Example: APJ_KC2400PK_Gloss_PGPP_#1

or

apj_kc2400pk_gloss_pgpp_v1

If you have a bespoke profile made, it will be labelled like this:

| Manufacturer | Customer Name | Ink Set | Printer | Ink Variation | Paper | Media Setting | Profile |
|--------------|---------------|---------|---------|---------------|-------|---------------|---------|
| APJ | A N Other | KC | 2400 | PK | Gloss | PGPP | #CP |

Example: APJ_ANOther_KC2400PK_Gloss_PGPP_#CP

Manufacturer: APJ refers to PermaJet, when locating profiles in Photoshop, they are listed alphabetically, as such all you PermaJet profiles will be together and towards the top of the list.

Ink Set: Is an abbreviation of the Ink Set, e.g. KC refers to PermaJet K-Chrome Ink. Where the profile is made for original ink cartridges, the abbreviation will be OEM rather than the specific manufacturer Ink Set name.

Printer: This will usually be a slight abbreviation, e.g. "Epson Stylus Photo R2400" will be referred to as "2400".

Ink Variation: Where there is a choice of different inks within an Ink Set to load into your Printer, this will specify which one the profile has been made for, e.g. "PK" refers to Photo Black and "MK" refers to Matt Black. Please note, there wont always be a choice for Ink Variation.

Paper: This will refer to the PermaJet paper you are using. These abbreviations will not always be the same as profile names are limited in characters, however they should be obvious.

Media Setting: This is the media setting the profile has been made for, you MUST select the same media setting in your printer properties. These will be an abbreviation of the media setting and should always be easily apparent, e.g. WCRW refers to "Watercolour Paper Radiant White".

Profile Version: Will be largely irrelevant to you, you will probably only need this if you are in contact with our technical department and are experiencing technical difficulties.

PLEASE NOTE: Although all abbreviations should be apparent, if you are unsure please call or email our technical department.

Installation of ICC Profiles

Once profiles are downloaded and saved onto the desktop, you will have to copy/install it into the correct location so that all your ICC aware software can pick the profile up.

PC users: Right click on the profile then left click on Install Profile.

Depending on which Operating System is in use the profile will now reside in one of the following folders;

PC: Windows XP/2000 - C:/windows/system32/spool/driver/color

Win 9x - C:/windows/system/color

Windows NT - C:/winNT/system32/color

Mac users: Drag and drop the profiles into the correct folder. (see below for the path leading to the different OS folders).

Mac: OS 8-9x - System Folder > Color Sync Folder

OS X - HD > User > Library > ColorSync > Profiles

Note: Photoshop® will need to be restarted if it was open when profiles were installed.

Use of ICC Profiles

To use your ICC Profile, you will need to follow some simple steps within Photoshop and your Printer settings.

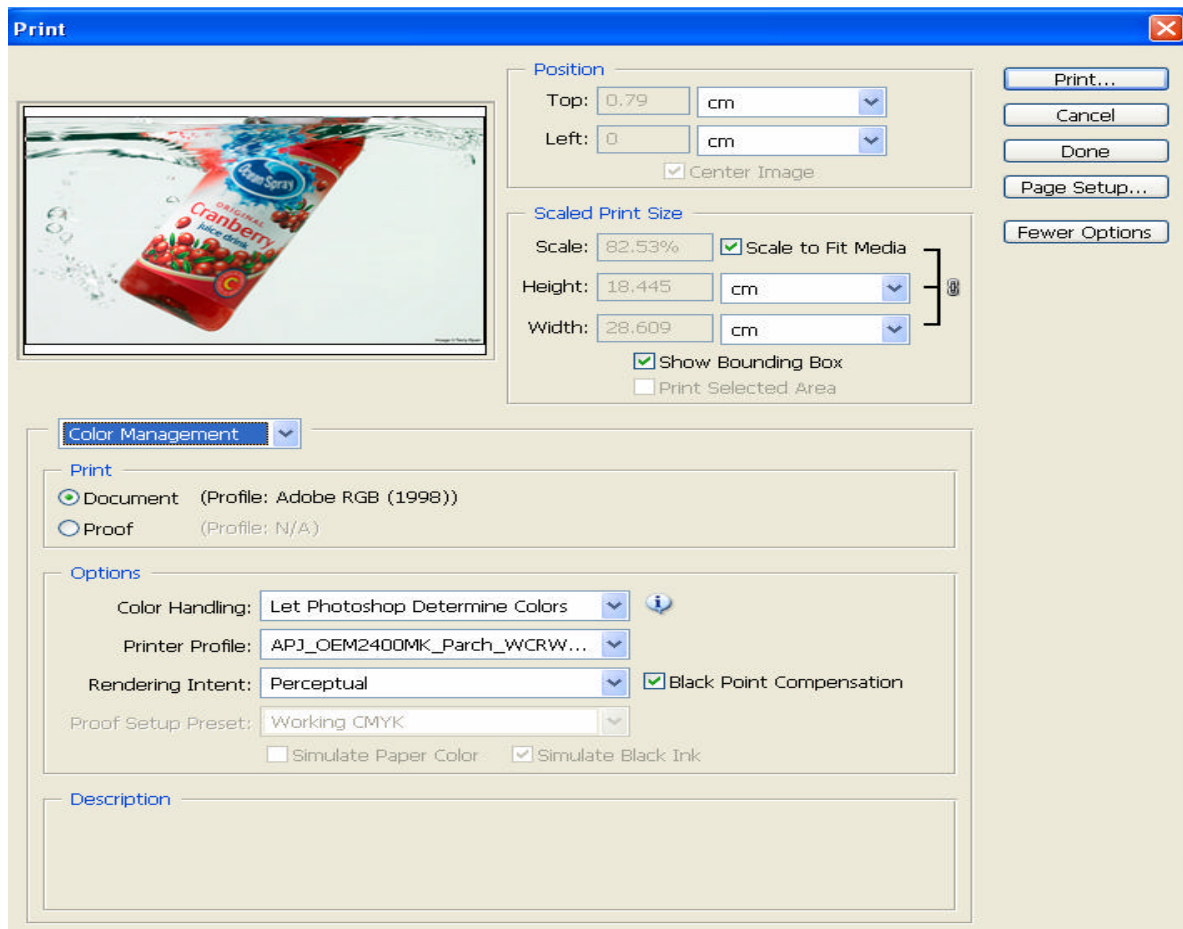
With an image loaded, go to the **FILE** menu and select **PRINT WITH PREVIEW**.

This will launch a new window that will vary slightly depending on your version of Photoshop.

PC, Photoshop

Select the **Colour Management** box just below the preview Image.

Set the **Source Space** to **Document**. This should state the current working colour space for your image.



Select the **Colour Handling** to **Let Photoshop Determine Colours**

In the **Printer Profile** drop-down, select the profile that you want to use. This profile should match the ink and paper that you are using.

Select the **Rendering Intent**, with **Perceptual** recommended as the best option for photographic images for good saturation and shadow detail. Out of gamut colours are remapped broadly to printable colours in order to keep the overall colour and contrast.

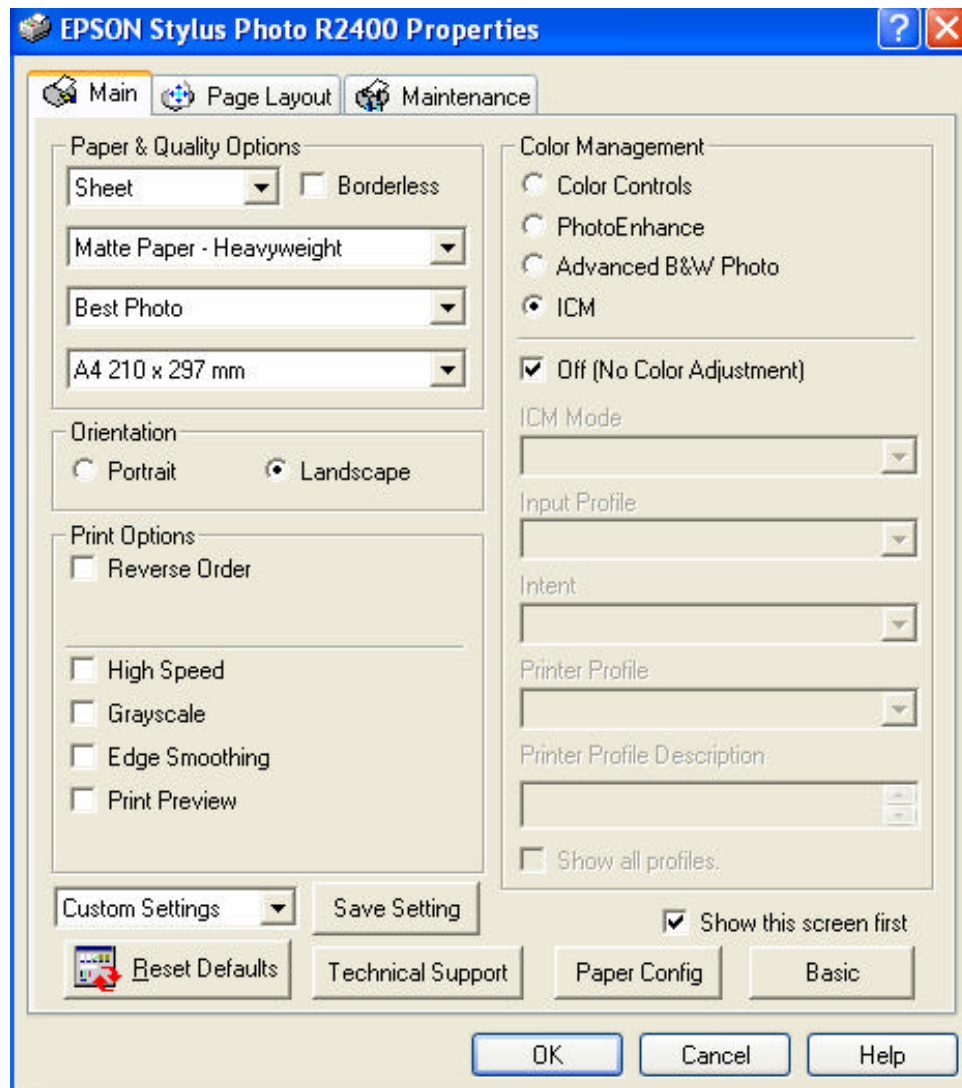
N.B. **Relative Colorimetric** is used more for proofing printers. It is the most accurate option for in gamut colours, but out of gamut colours are more compressed in their remapping to printable colours.

Tick **Black Point Compensation**, and click Print

Click on the **Properties** tab next to your selected printer.

Check the **Main** tab on your printer properties and select the **advanced** button.

This screen will look slightly different depending on which Epson printer you are using; the theory is exactly the same though.



Change the **Media Type** to the type that was used to create the profile (present in the profile name).

Change the **Print Quality** to the type used when creating the profile, any generic profiles created by PermaJet will use **1440dpi** as a standard, this is the equivalent of **Best Photo** on some Epson printer models.

Make sure available options on the left from **High Speed** to **Print Preview** are NOT ticked. The **Gloss** option (R800/R1800), can be ticked if desired.

The **ICM** Colour Management needs to be selected and switched off, if you fail to do this the printer will also colour manage your image and you will usually see a magenta cast.

Double check that the paper size, source and orientation is correct and you are ready to click on **OK** and then **Print**.

Mac, Photoshop

If it is not already selected, check the box **Show More Options**.

Select **Colour Management**.

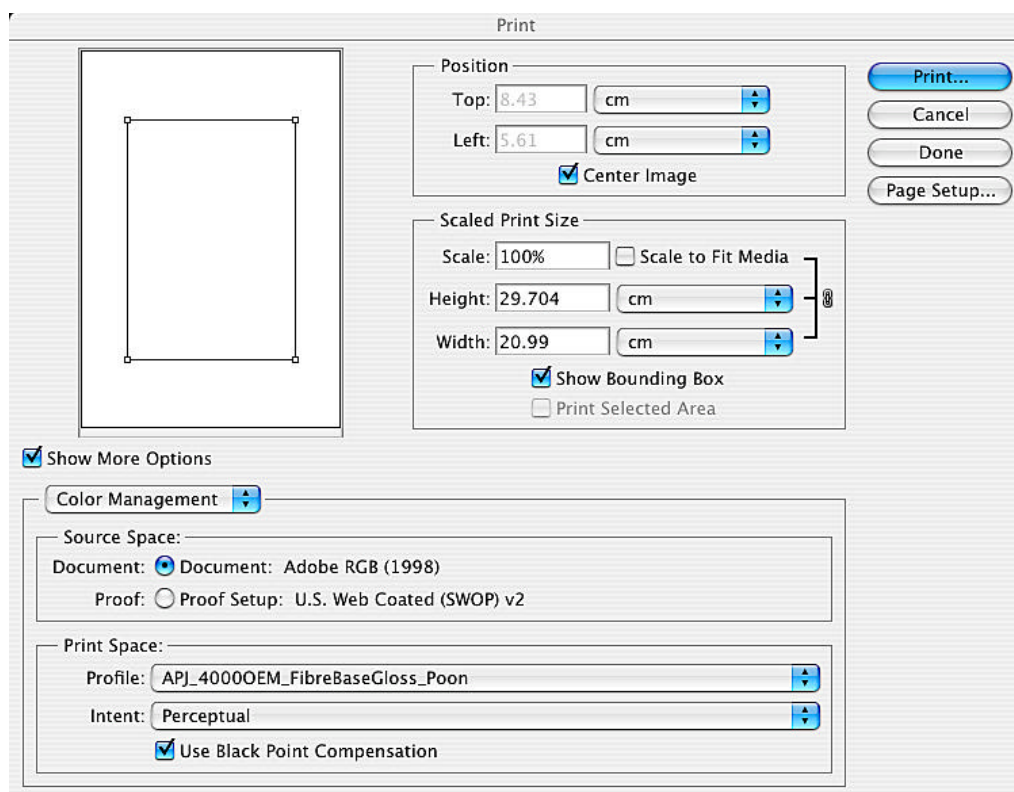
In **Source Space**, check the **Document** option.

Select your ICC Profile from **Print Space**

Select the **Rendering Intent**, with **Perceptual** recommended as the best option for photographic images for good saturation and shadow detail. Out of gamut colours are remapped broadly to printable colours in order to keep the overall colour and contrast.

Relative Colorimetric is used more for proofing printers. It is the most accurate option for in gamut colours, but out of gamut colours are more compressed in their remapping to printable colours.

Tick **Black Point Compensation**, and click **Print**.



Select **Print**

Select your printer you wish to use

If you haven't been through this process before and saved the settings previously then ignore the box which reads **Presets Standard**

Click on **Copies and Pages**, locate and select **Print Settings**

In this window select the media type as outlined in the name of the profile.

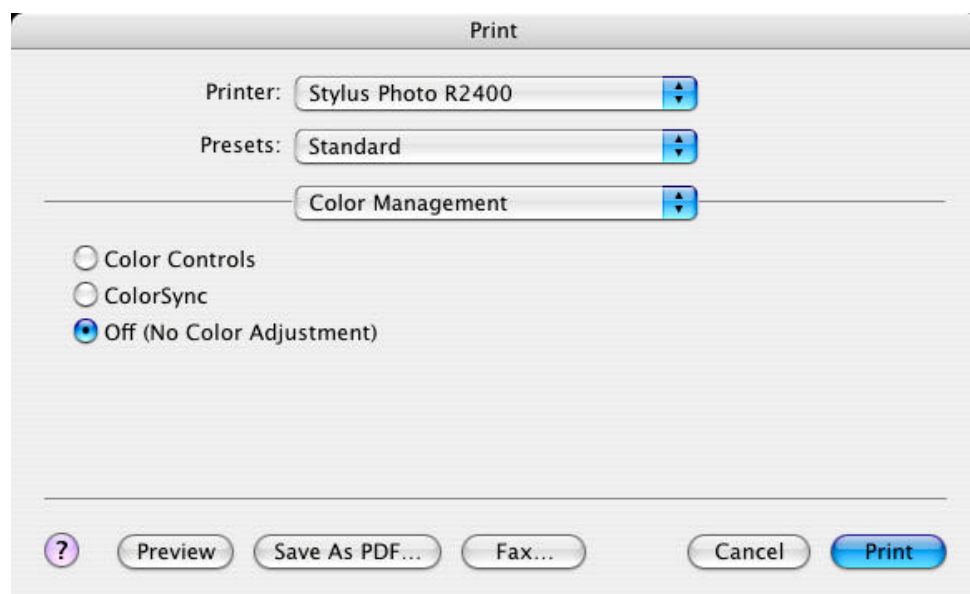
In the **Mode** section, select **Advanced**

Select Print Quality as **Best Photo** (1440dpi)

Disable **High Speed**



Go back to the Box (now reading) **Print Settings**, open the drop down and this time select **Colour Management**.



In **Colour Management** select **Off (no colour adjustment)**

Now you're ready to print, either save the settings (will be selectable from the start in future) or click **Print**.