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FineArt Printing Manual

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ABOUT THIS MANUAL

The objective of this manual is to provide basic knowledge of FineArt Printing to Photographers, Artists , and Photography enthusiasts making FineArt Prints from inkjet printers. Although we will touch on some technical information on colours, tone reproduction, and printing technologies. The manuals intention is to make FineArt Printing fun and easy to do.

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ILFORD FINEART PRINTING

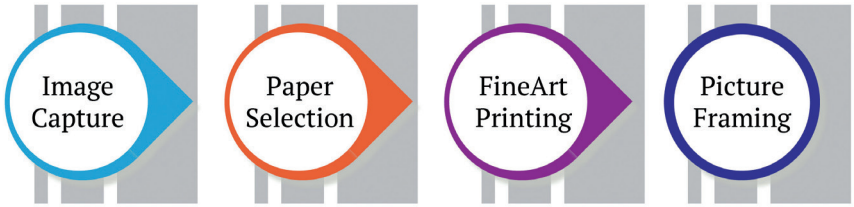
A brief definition of Digital FineArt Printing

The term Digital FineArt Prints is often used by artists, galleries, and FineArt printers to produce high quality inkjet printing. Technology continues to improve, nowadays photographers and artists can have more choice in how they produce FineArt prints with the advanced inkjet printing technology, and sometimes artists and photographers will use the term Giclée to separate themselves from other commerical and domestic users of inkjet printers.

Since photographic art is no longer limited in its technology. Silver halide base printing, which is developed from negative or positive files, is now outdated by the Digital FineArt Print. Printing digitally has also become a more economical with its print-on-demand capability. Photographers and artists are not limited to a single type of paper or need for a large supply of paper to create their art prints.

Heavyweight FineArt paper with their wide choice of surface textures and finishings are available and the final aesthetics can be enhanced.

FineArt Printing is not only creating a print, There are four components to consider when we create a true FineArt Print. These components are 1) Image Capture, 2) Paper Selection, 3) FineArt Printing, 4) Picture Framing. We will cover the related topics and tips in this manual later.



Four major components for FineArt Printing

The Basic Devices & Condition for the Digital FineArt Printing

FineArt printing, which uses a high quality digital inkjet printer is capable of producing a quality of equal or higher value than that of traditional silver-halide or chromogenic print, and clearly surpasses the quality of commercial offset printing. FineArt printing achieves this higher quality through superior colour and tone reproductions than that of the conventional commercial offset printing.

Lighting for viewing

The quality of the light used for viewing is also important. It affects the colour of the FineArt print greatly. Good quality lighting with high *CRI will allow you to see a truer color match to the artist or photographers intention.

Soft Proofing setup with standard illuminant

The printing device

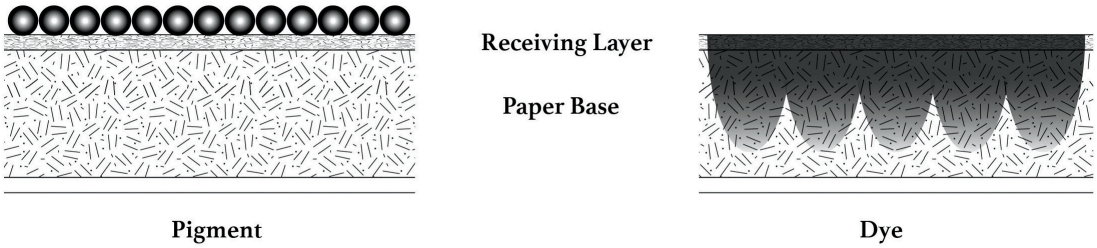
Nowadays inkjet printers are becoming very affordable. There are few requirements to meet to quality as a FineArt Inkjet printer. (We will use two of the most common brands in the printing workflow as examples)

- Very high image quality (see Image Quality in later part of the manual)
- Large Colour Gamut
- Print permanence is essential.
- Multiple black inks for optimal bland and white tone transition.
- Large print size with reasonable high speed

Inks

The common Inks for Digital FineArt Printing include dye-based and pigment-based types.

Dye-based inks can produce more colour, and provide larger colour gamut compared to the pigment-based ink. In general dyes are dissolved in the liquid phase, and have less resistance to colour fading when exposed to light. In contrast, pigment-based ink have more resistance to colour fading, but the colour gamut is relatively smaller than the day-based ink printer.. The manufacturers of pigment-based inkjet printers try to expand the gamut by adding colours beyond the CMYK sets. Light grey, light cyan and light magenta are often used. As of writing, the red, orange, purple have been introduced in the latest printer models.



Pigment base inks vs. Dye base inks

Another major difference between pigment inks and dye inks is where the ink is printed on the receiving layer of paper. The pigment inks are tend to sit on top of the surface, in contrast the dye inks are penatrated into the receiving layer as well as the paper subrate.

Paper from ILFORD

Established in 1879, ILFORD is one of the oldest photographic brands in the industry. With a history that spans over 135 years, ILFORD has been synonymous with professional quality, form traditional analogue files and paper to providing inkjet paper for today's photo quality printers. Today, ILFORD continues to work with leading manufacturers around the world to develop and produce the latest range of inkjet photo papers for the ILFORD GALERIE and ILFORD OMNIJET brands.

ILFORD Professional Inkjet Paper

Today, ILFORD remains one of the leading brands of inkjet photo paper for the professional marketplace under that ILFORD GALERIE brand. In addition to the superior quality of GALERIE PRESTIGE Smooth Pearl, the 310gsm GALERIE PRESTIGE Gold Fibre Gloss has won the TIPA Award in 2016 as the "Best inkjet photo paper". The range remains the photo paper of choice for many professional photographers throughout the world. For more ILFORD paper information, please refer to the paper section within this manual.

Types of Paper and their finishing

There are many types of paper available and sometimes it is not easy to distinguish them by name. However, if we categorize them based on their surface texture and/or printable sides, it becomes very easy to select the paper types suitable to our photos. Below is a list of categories and we will go into more detail at the end of the manual.

FINEART BARYTA - Baryta paper has the unique look of traditional silver halide prints, excellent for portrait FineArt reproductions and exhibitions.

FINEART MATT - FineArt Matt papers characteristic make it suitable for wide, dynamic range of imagery. It's deep black can achieve extremely high Dmax values, make it suitable for Architecture photography and Studio Colour and Black & White portraiture.

CANVAS - A museum quality 'painterly look' that can produce great contrast and tonal range with vivid colour reproduction. Suitable for wide variety of images, excellent for interior display and large sized pictures.

PHOTO PAPER - Perfect for every type of Professional photographic image from Landscape, portrait, to wildlife. Wide colour gamut, optically clear for colour and monochrome.

DUO - Double-sided paper, excellent choice for professional quality photo albums, portfolios and display prints.

Choosing the right paper for different images

Paper Selection and usage

We have covered the fundamentals of most common inks and paper types for FineArt Printing. We will now look at choosing the right paper for your image. There is no restriction on what kind of image one should print on which type of paper.

Paper selection is entirely up to our creative process.

Individual artists and photographers always have their own preferences. Some might favor one type, while others prefer another. For example, one might think a metallic subject matter, like an automobile, will appear less stunning if its printed on Canvas, whereas Photo paper might allow for the optimal visual impression. Likewise, one might think the Baryta paper to be more suitable for portraiture due to its similarity to a traditional silver-halide print. The best thing to do, is try as many paper types as you can. You will quickly learn their characteristics and find your own favorite paper for every image you captured.

HINTS AND TIPS FOR HANDLING FINEART PRINTS

Image Permanence and Prints Handling

An inkjet image comprises of the media with a receiving layer that forms a platform for the ink. It is important to understand that both ink and media influence permanence.

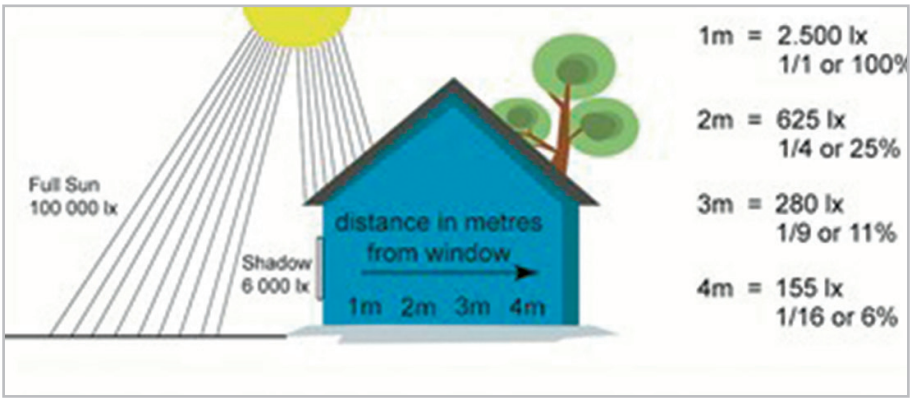
Some papers take longer to dry than others, or its colours take longer to stablize. It is always a good idea to wait if you intend to frame the print.

There are a number of elements and conditions that can affect the life of an inkjet print. Be aware of other environmental factors that may affect the print. Such as light (UV), temperature or heat, humidity and pollutants and contaminants in the air or from contact material, such as Ozone and Nitrogen Oxide have been found to be most detrimental to the colourants and to the paper. Finished prints should be interleaved and stored carefully to prevent scratching. FineArt ink and print surfaces are more delicate than conventional RC inkjet prints and should be handle with care.

The lifespan of the image is very dependent on the inks and media used as well as exposure to light. The following are recommendations to protect prints agains permature fading.

- Frame the images behind glass, (leaving a space between the image and the glass).
- Using low light conditions for display, keep them away from direct sunlight and not too close to a window and avoid direct Sun.

Controlling the environment well is only part of the equation for image permanence. You need a photo paper that



Pigment base inks vs. Dye base inks

offers superior longevity. Over time, the imaging experts at ILFORD in Switzerland have been able to engineer inkjet paper coatings that offer image stability rarely seen in inkjet photo printing. One of the examples is the ILFORD GALERIE Prestige Gold Fibre Silk, which boasts a Wihelm Imaging Resarch permanence rating of over 200 years. As experts in the imaging field for decades, ILFORD is dedicated in helping photographers make sure that every FineArt print is well protected against the environmental factors mentioned previously. ILFORD introduced the GALERIE FineArt Printing Solutions to help artists and photographers to protect their FineArt prints efficiently.

ILFORD FINEART PRINTING SOLUTIONS

GALERIE FineArt Printing Solutions offer photographers a range of products specifically designed to protect, enhance and display FineArt and canvas prints as well as the ability to create truly custom-made prints.

The range includes products that are designed to protect FineArt and canvas products from the elements without compromising the original colour, tint, or feel of the print. Creating a custom look and feel to any commercially available, traditional FineArt paper can now be achieved using ILFORD GALERIE Creative Emulsion.

ILFORD Galerie Canvas Protect

GALERIE Canvas Protect is a water-based liquid solution that has been designed to protect and enhance images printed on GALERIE Prestige canvas as well as other inkjet canvas available in the market.

Applying Canvas Protect to your print will protect it from cracking when folded around the frame and the product will not affect the original tint, colour or texture of the print.

Key Benefits

- Protect and enhance your canvas prints
- Maintains original tint, colour and texture of the original print
- Prevents the print from cracking when folded around a frame
- Available in Glossy, Semi-Matt and Matt finishes
- It is possible to mix the finishes to create a custom look
- Easy to apply

ILFORD Galerie FineArt Protect

GALERIE FineArt Protect is a liquid solution designed to protect images printed on GALERIE FineArt media as well as other FineArt papers available in the market.

Key Benefits

- Protects print against UV light
- Improves scratch resistance
- Maintains original tint, texture and colour of the image
- Easy to apply
- Non-hazardous

ILFORD Galerie Emulsion

GALERIE Creative Emulsion offers FineArt photographers and printers the opportunity to create a truly unique looking print on their paper of choice.

With the option of Blend A and Blend B, the Creative Emulsion can be combined to tailor the final sharpness, or density to create a truly unique finish to the image.

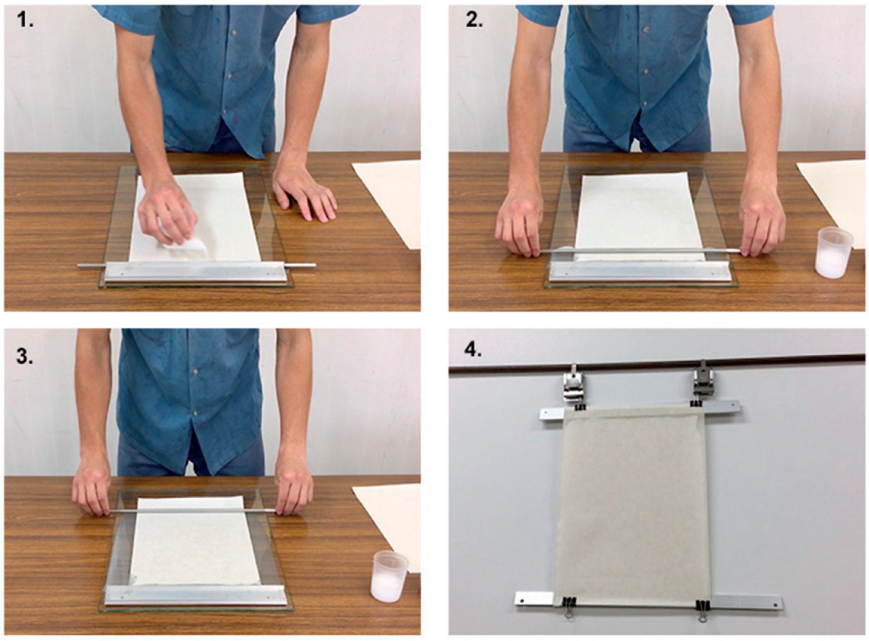
The water-based inkjet receiving layer can be applied, using the Creative Emulsion Coating Bar, to a wide range of uncoated paper including FineArt, cotton, washi, bamboo or rice paper to create a custom look and feel to the final image.

Key Benefits

- Create a unique look and feel to a print
- Offers good density and sharpness without affecting the texture of the paper
- Water-based coating solution which can be applied to a range of FineArt paper
- Emulsion A can be blended with Emulsion B to create a custom look and feel
- Easy to apply

Steps to apply ILFORD Galerie Creative Emulsion

1. Slowly pour the Creative Emulsion along the top of the FineArt paper, make sure the emulsion covers the edges on each side.
2. Place the coating bar on the emulsion, slowly move from the top to the bottom of the paper.
3. Repeat a few times as necessary.
4. Hang the coated paper up for drying.



Apply ILFORD Galerie Creative Emulsion

ILFORD Galerie FineArt Archiva Tape

LFORD GALERIE FineArt Archiva is designed specifically for mounting FineArt prints particularly the ILFORD GALERIE heavy weight FineArt and canvas papers. The FineArt Archiva is a very thin fibre paper that is coated on both sides with an acid-free, pH-neutral, water-based adhesive perfect for bonding heavy weight papers together.

The product can be used in a wide range of applications including restoration, framing, bookbinding, Giclee prints as well as archiving and can be used with a wide range of FineArt and canvas prints.

ILFORD GALERIE FineArt Archiva is available as a tape (1,9cm x 30m) or as a mount for larger areas (127,0cm x 30,5m).

PRESENTATION OPTIONS

ILFORD Portfolio

The GALERIE FineArt Album range includes everything needed to create a professional album or portfolio. The solution includes the choice of the best selling GALERIE Prestige Media, pre-cut and creased as well as pre-punched so each page fits perfectly into the album.

ILFORD Galerie FineArt Album

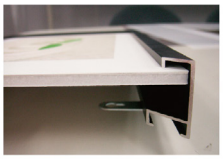
Framing a Print

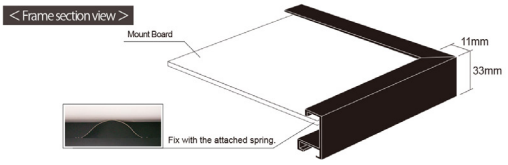
ILFORD Galerie Frame

The GALERIE Frames and GALERIE FineArt Album range offer photographers a professional solution to display both portfolios and prints. The range of GALERIE frames are very easy to assemble and are available in a variety of finishes and sizes.

Classic Square

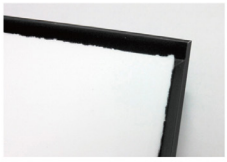
"GALERIE FRAME Classic Square" is an aluminum frame for exhibition. A simple design with a frame width of 11 mm, this is a standard frame that suits any work. It is appropriate for mounted prints up to 21mm thickness.

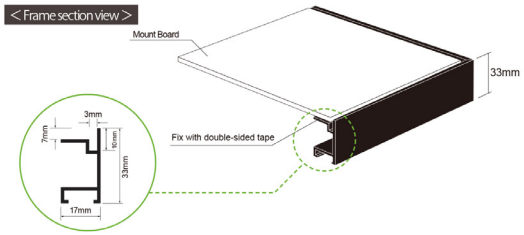




Shadow Gap

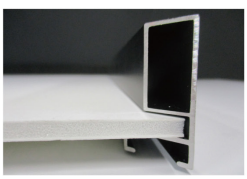
"GALERIE FRAME Shadow Gap" is a frame incorporating the popular Shadow Gap style in Europe and the United States. Space is provided between the border of the frame and the print, so that the print appears as if it is floating. It is suitable for mounted prints up to 5mm thickness.

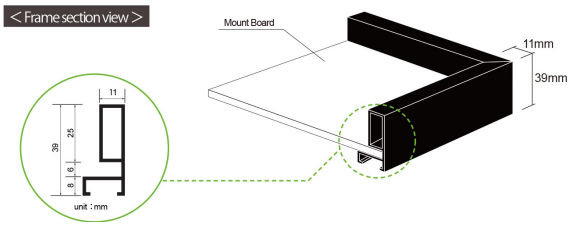




Floating

"Gallery frame floating" has become a frame that can give a three-dimensional feeling while taking advantage of the point which extruded the whole image of the work. It is suitable for shadow-gap and floating panel framing as well as for canvas wraps





ILFORD Certified Printing Partners

There are many FineArt Printers available but only few can truly deliver the highest quality standard for FineArt Printing. ILFORD introduce the "ILFORD Certified Printing Partners" to help you quickly find the qualified printers worldwide.

There are a high level of requirements needed to become one of the ILFORD Certified Printers and each printer needs to go through a tight control audition to become one. The print partners not only need to show they have indepth knowledge and excellent technique to produce FineArt Prints, they also need to demonstrate they can master the latest Colour Management technology for both coloured and B&W images.

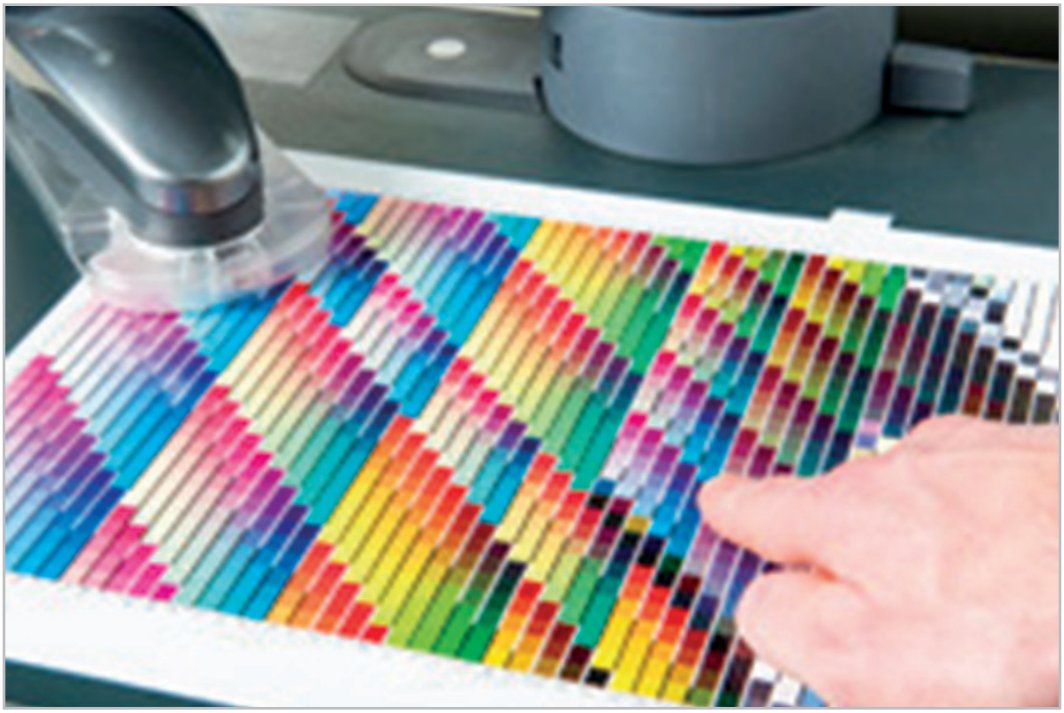
Colour Matching & Colour Management

The colour management major objectives are 1) ensure repeatable quality, 2) predictable colour, 3) reproduce colours and tones from input to output with minimum differences.

To ensure the printing result is repeatable all the time, printer calibration is required. The first step is to carry out a printer linearization. Linearization is a method for approximating the output to a function at given tone percent value.

In the past, printing equipment required frequent calibration or linearization to ensure consistency colour and tones reproduction. With today's digital inkjet technology, print output is rather stable and only minimum maintenance is required. If your colour workflow is in RGB mode, the printer driver provided by the manufacturer will give you fairly stable and repeatable results.

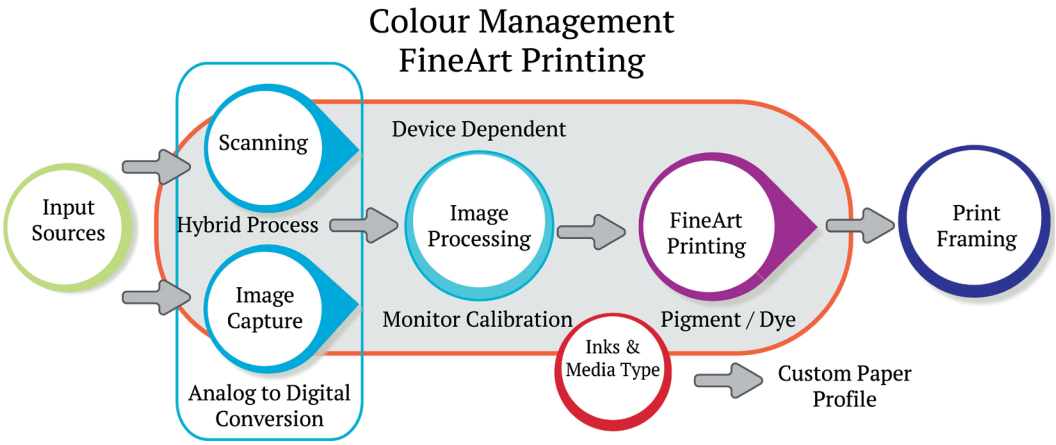
The second objective is to obtain the predictable result from the inkjet printer, profiles will play an important role. The ICC profile describes the colour range the printer can produce on a given substrate (paper).



The last objective is to be able to reproduce colours and tones that match to the input device colour. For example, we would like to see the colours on our print match to the digital files displayed on our computer. To achieve colours that are reproduced accurately, we will need a PCS (Profile Connecting Space) and CMM (Colour Management Module) to do the colour conversion in the Operating System.

ColourSync and ICM

Apple's ColourSync and Microsoft's ICM are the technologies that provide colour management service as part of Macintosh and Windows operation Systems respectively.

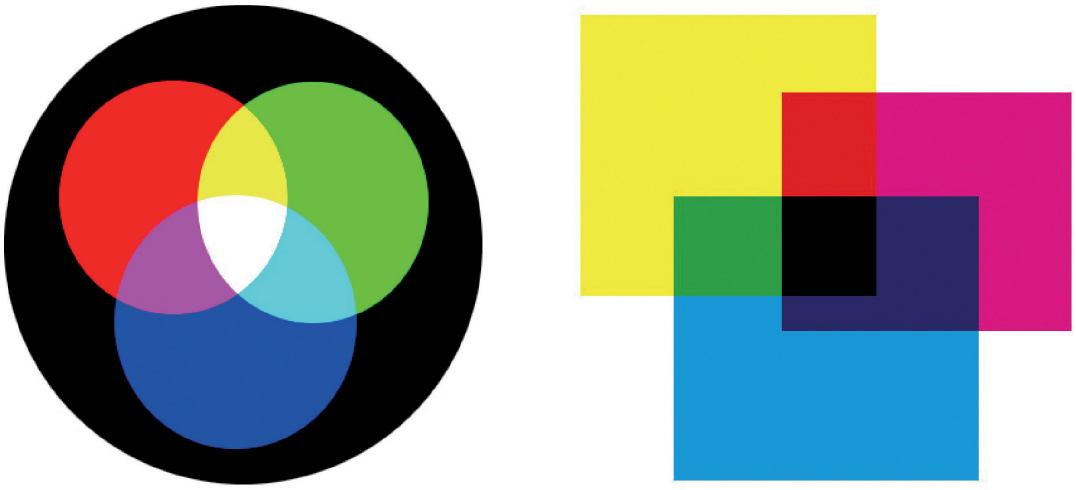


Colour Management for FineArt Printing

PRACTICAL COLOUR MANAGEMENT FOR FINEART PRINTING

Understanding Different Colour modes of your image source

We will not go into details to discuss the colour modes in this manual. If you are interested in reading different colour space you can find a recommended reading list at the end of this manual. However, we will still need to know what to use when we want to print a high quality FineArt Print.



RGB and CMYK image modes

RGB Colour mode images

RGB mode image is commonly used in producing FineArt Prints. It is because the inkjet printer driver is written to work best with RGB images. The driver technologies are designed to interpret the RGB values on each pixel in the image, through the Colour Look Up Table (LUT) to perform a Colour Separation printed with mulitple inks out of the printer.

Colour Separation by Colour Lookup Table

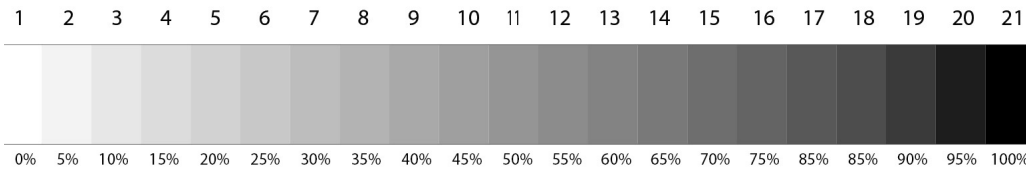
Digital images are mainly captured by digital camera, and the image sensors in digital cameras are RGB devices. That means the colour mode of the captured image is RGB in nature. Using an inkjet printer to print RGB FineArt Image becomes a straight forward choice. In this manual, we will use the RGB colour mode images to print the FineArt Prints.

CMYK Colour mode images

We all know images can be converted to CMYK Colour mode, but we prefer not to use CMYK images for FineArt Printing. When should the CMYK colour mode be used? It mainly should be used for publication, like when printing this manual, because print presses are using process ink set. Normally the RGB to CMYK conversion takes place at the end before sending to the publishers for printing.

Grey scale mode images

You can use 8-bit and 16-bit greyscale mode image for FineArt Printing. However, the print driver look up table will also perform a Colour Separation to drive the printer using multiple inks for printing.



Greyscale Step Wedge

Continuous Tone Grayscale

Understanding Colour Management

As we've previously pointed out, the objectives using colour management are 1) ensure repeatable quality, 2) predictable colour, 3) reproduce colours and tones from input to output with minimum differences.

There are four basic components are used in ICC-based colour management system.

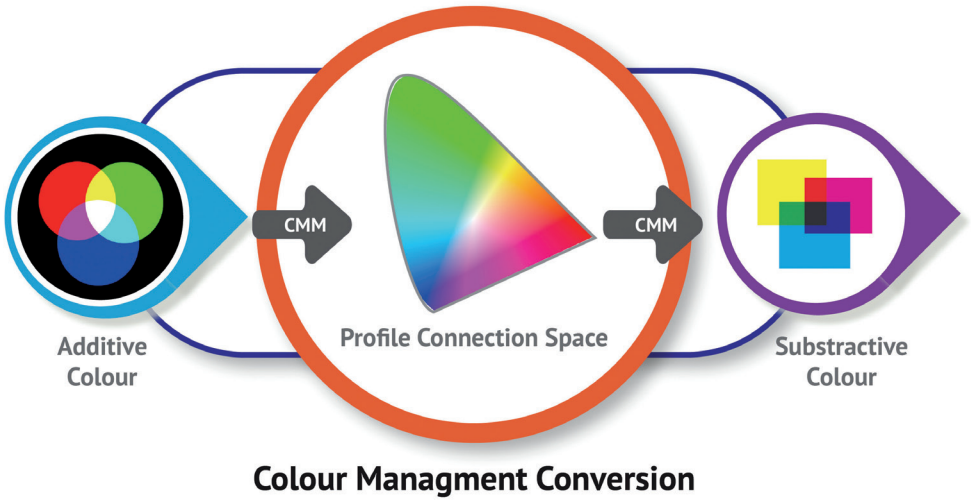
PCS – The profile connection space, provides common space for various devices to communicate (matching) colour using unambiguous values (CIE XYZ or CIE LAB).

PROFILE – A profile describes the relationship between a device's colour control signals and the actual colour that those signals produce.

CMM – The Colour Management Module is a software to calculate Colour data when converted from one colour space to another colour space (e.g. Camera to Printer)

RENDERING INTENTS – There are four different rendering intents that take care of the "out-of-gamut" colours between the source (image captured) and the ouput (inkjet printer). The way they handle color mapping between two gamuts are very different, we will explain that later in the print setting section.

Below is one of the examples of colour conversion, it can be thought of as a RGB colour image that is sent to a CMYK printer. The additive colour values of the image will be calculated and converted to CIE LAB for colour mapping using a suitable rendering intent, these calculated data will then be converted to related subtractive colour values of the printing output device.

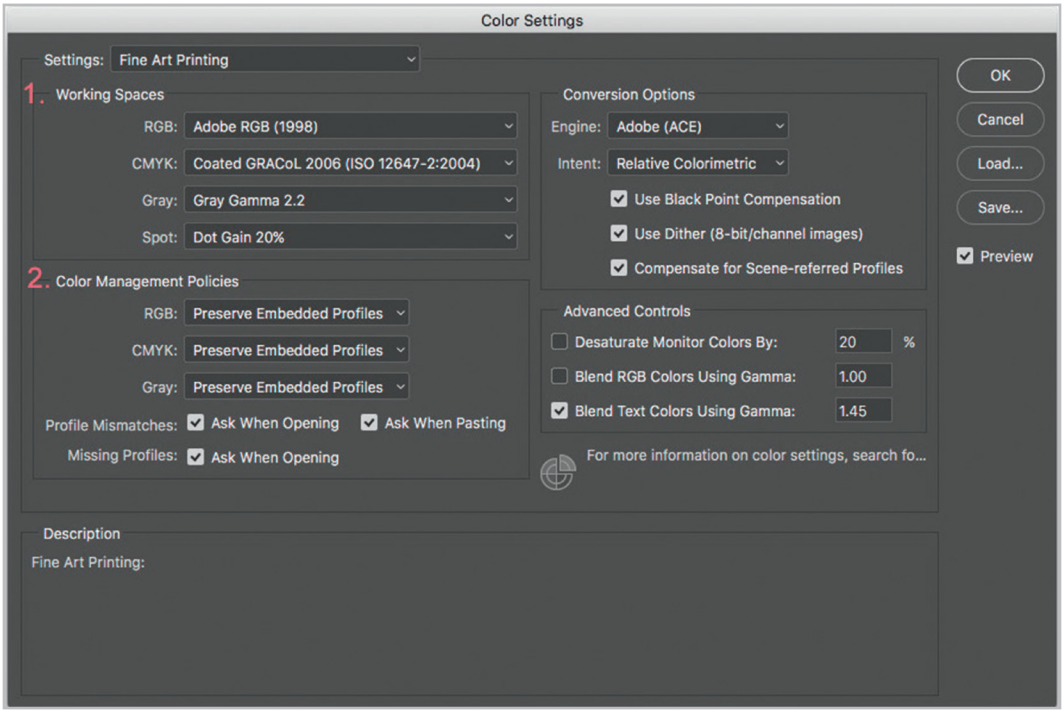


Colour Conversion with PCS

Colour Management and Simple Usage of ICC Profiles in PS

Every photographer using ILFORD products are very serious about their work. When they want to expand their creativity, the Adobe Photoshop is still the most popular desktop application for photographers to process their images. Before we actually show you the printing in step-by-step, there are few things we need to set properly in the application. Otherwise you will see some unpredictable results and you probably do not want that.

The first thing for us to setup before we open an image in Photoshop is the Photoshop Colour Settings. You can find it out the Colour Settings dialog box from "Edit > Color Settings" in Photoshop. The Colour Settings lets you set your default working spaces for RGB, CMYK, Greyscale, and Spot colours, and set Colour Management Policies, which dictate how Photoshop handle embedded profiles in images.



Photoshop Colour Settings

1. Working Spaces

RGB Working Spaces

In this manual we focus on RGB and Greyscale images for FineArt Printing, we will simplify the CMYK and Spot colour spaces for now.

Some of you might find sRGB was set as default RGB space, which was developed by Hewlett-Packard and Microsoft to represent the "average" monitor. Nowadays most of the photographers have monitors better than sRGB, it is recommended to use Adobe RGB(1998). Using Adobe RGB as a working space not only because of a large colour gamut nature, it use gamma 2.2, which is perceptually uniform, for on tone screen display and its equal value of R, G, B always produce a neutral.

CMYK Working Spaces

If your sending your work to a commercial printers, you might need to convert your images from RGB to CMYK in the last minute. Consult the commerical printer inhouse prepress expert, they should be able to let you know which standard they are using if they color manage their workflow.

Greyscale

Greyscale profile contains tone production information only, and it does not contain information about the color of the blank and white point. Unless you are still using the Legacy Macintosh computer monitor with default gamma 1.8. Setting the Grayscan to gamma 2.2 would be a better choice. The gamma setting of your monitor defines the brightness of your midtone, and gamma 2.2 is perceptually uniform.

Spot

Similar to Greyscale profile, the Spot profile contains no information about actual colour of the ink and substrate. However, it only allow you to specify dot gains which is designed for printing.

Colour Management Policies

Color Management Policies control how Photoshop handles embedded profiles in images. It is safer to check all "Ask When Opening" boxes, and select "Preserve Embedded Profile" to take full control of colour conversions.

FINEART PRINTING USING PHOTOSHOP

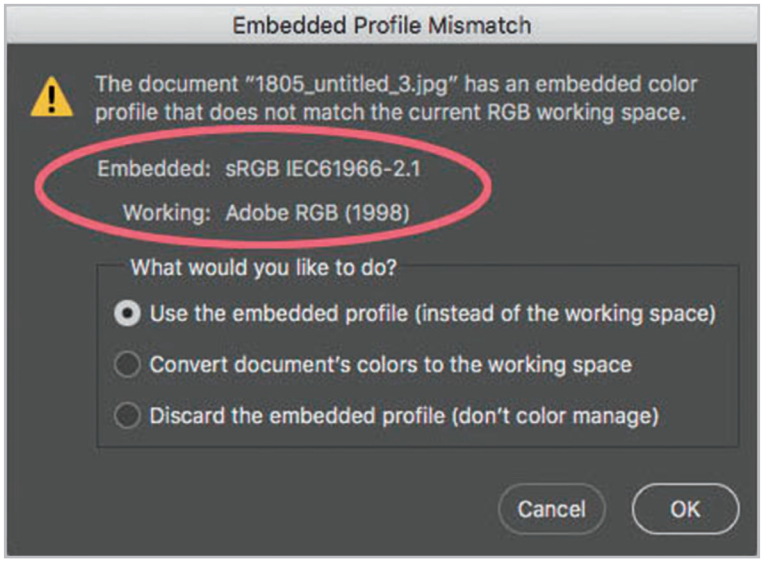
With the introduction of Photoshop and inkjet printing technology advancing, more and more photographers are discovering how the digital darkroom is more controllable and predictable than the conventional process. In here we will provide some tips when printing direct from Photoshop.

How Colour Working Spaces settings affect FineArt Printing

Here we provide two of the most common scenarios when we open an image in Photoshop after we have set the Colour Management Polices above.

Profile Mismatch

Since we checked the "Ask When opening" boxes in the Colour Management Policies, when we open a document it has its own embedded profile which is not the same as our current working space. The "Embedded Profile Mismatch" will appear to remind us what we have told Photoshop to do.



Profile Mismatch dialog box

Use the embedded profile when Embedded Profile Mismatch

Follow "Use the embedded profile (instead of the working space) will let us use the embedded profile instead of our working space, it makes sure Photoshop doesn't do colour conversions when you don't want it to. You will see how it looked like when the image last saved. However, we need to make sure we will not start editing an image in that embedded colour space that might not be appropiate for further editing.

Convert document to the working space when Embedded Profile Mismatch

When we choose "Convert document's colors to the working space", it tells photoshop to maintain the look as close as possible to the embedded profile / working space. The pixel values will be changed after the conversion.

Discard the embedded profile (don't color manage) when Embedded Profile Mismatch

When we choose "Discard the embedded profile (don't color manage)", the discard the embedded profile is easy to understand, it tells photoshop to remove the embedded profile, treat the file as an untagged image. What is misleading is the words inside the bracket (don't color manage). There is really no way to not colour manage the document. The numbers will be preserved, but our working space profile (Adobe RGB in our case) will be use to display the document, and the colours will look different from when the image was last saved.

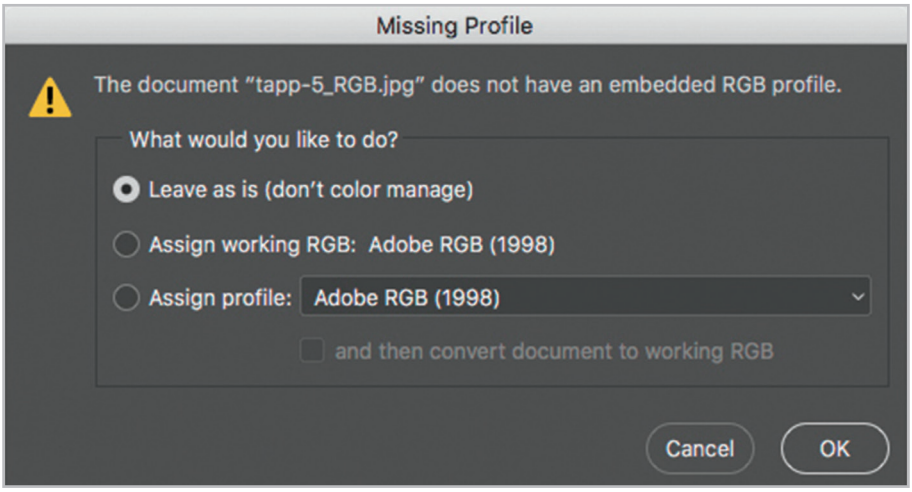
Tip

What happen when the embedded profile is discarded?

When document is saved, it will not be tagged with a profile.
And you will receive a missing profile when the image is reopen.

Missing Profile

When opening a document that is not tagged (no embedded profile), the "Missing Profile" dialog box will appear instead.



Missing Profile dialog box

Leave as is (don't color manage) when missing profile

The first option we see is "Leave as is (don't color manage)", which is similar to discard profile when Profiles are mismatched. We previously pointed out there is really no way to not colour manage the document in Photoshop, it will assign the working space profile to the image also. The numbers in the file are preserved, but our working space profile (Adobe RGB in our case) will be use to display the document, and interpreted according to the current workspace.

Tip

What happens when profile is missing and leave as is?

When document is saved, it will not be tagged with a profile.
And you will receive a missing profile when the image is reopen.

Assign working RGB when missing profile

Similar to the "Leave as is (don't color manage)" option. The "Assign working RGB" tags the document with the current working space profile. The numbers in the file are preserved, but our working space profile (Adobe RGB in our case) will be used to display the document, and interpreted according to the current workspace. However, there is one major differens, a profile will be kept when saved.

Assign profile when missing profile

The last option is to let you tag the document with any profile other than the working space profile. The numbers are interpreted according to the profile you choose, but values remain unchanged.

Tip

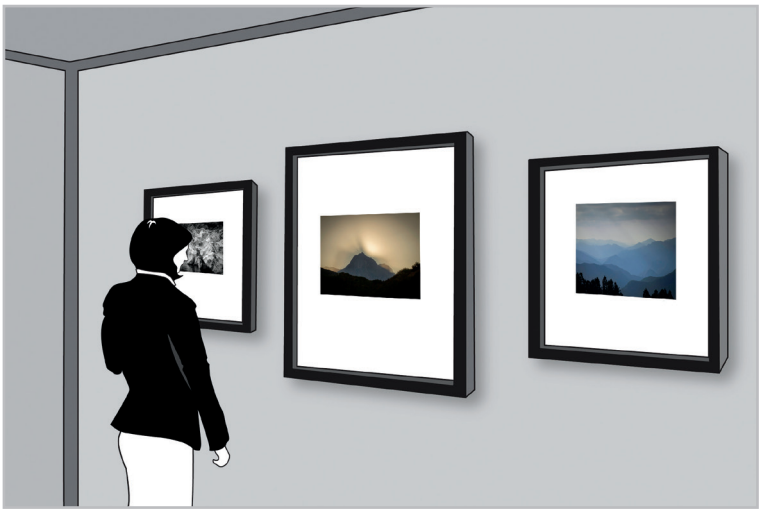
What happens to an assigned profile, when a profile is missing?

When the document is saved, the assigned profile will be embedded and you will receive profile mismatch if the embedded one is different from your working space profile.

IMAGE QUALITY

Optimum Resolution for FineArt Prints

A typical image resolution for FineArt Printing does not need to go higher than 240 pixel-per-inch. The print with this resolution is adequate to view in a distance similar to arms length. This viewing distance is similar to the distance you view on a 24" monitor, and remember your monitor resolution is at 72 pixel-per-inch only. For a 12 MP (4,000 x 3,000 pixels) image it is very acceptable, you will not detect individual pixel on the screen. If you view 100% of this 12MP image, on a 56" x 42" screen at somewhere between 3 to 4 feet distance, you will not detect any image quality degradation either.



Viewing FineArt Prints

How many ppi do you really need for FineArt Printing

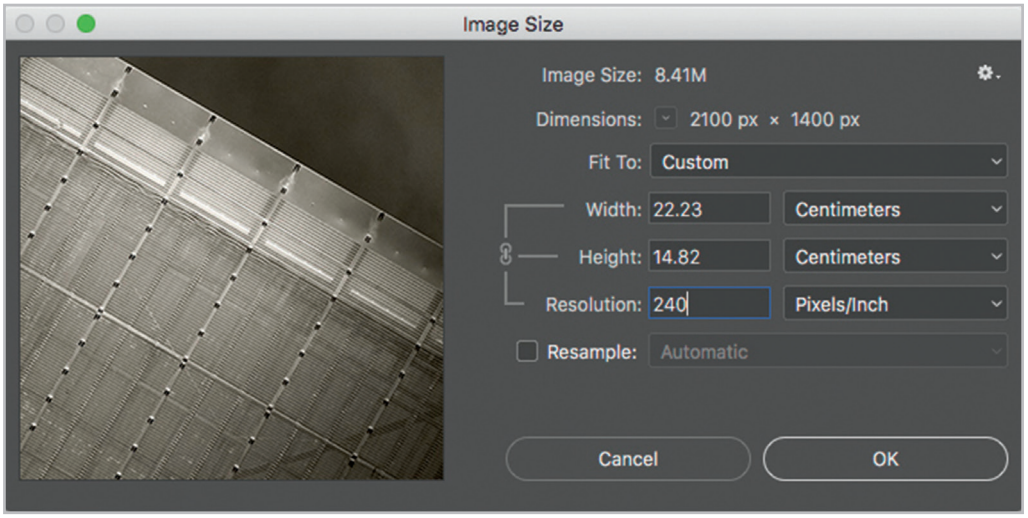
However, your FineArt Print dimension will depends on your image size. Here is an example to help you obtain the final printed dimension. Taking the same 12MP image as a FineArt print, print at 240ppi, your FineArt Print dimension will become 16.8" x 12.6", which is similar to a A3+ paper size, and your viewing distance is about 1.25 feet.

If your viewing distance is double (2.5 feet), you can lower the ppi and print the same image on larger paper without seeing pixels on the print. The paper dimension will become 33.6" x 25.2"

BASIC PRINTING WORKFLOW

Image resolution re-confirmation

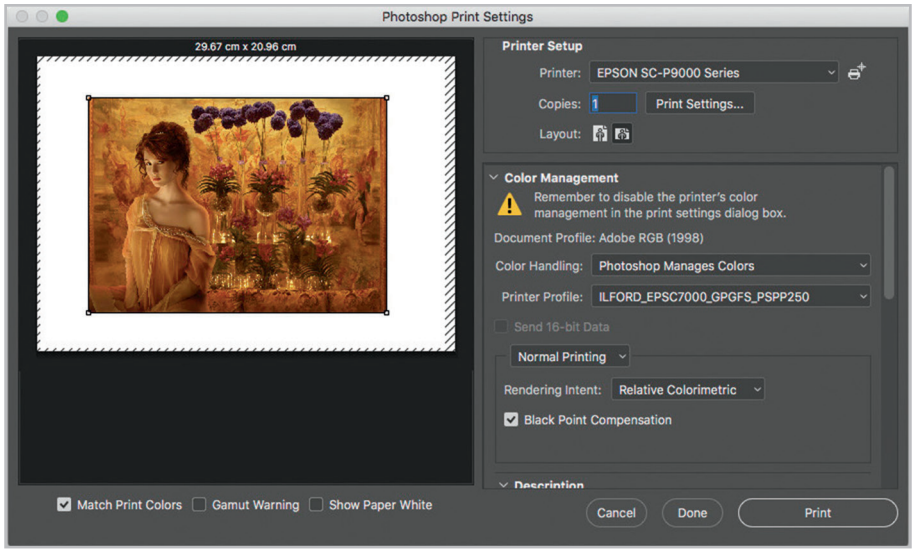
The first thing we need to do, is to reconfirm whether the resolution and printed dimension of our image is correct. It is a good practice to do so. Not only can this help us to double check if the resolution of the image is suitable for FineArt Printing, it also can help us to avoid printing unnecessary copies due to incorrect sizes for the paper we use.



©Ian van der Wolde Image resolution for FineArt Printing

Photoshop Print Settings - The Epson Print workflow

After the resolution and picture size is confirmed, we can go ahead to select "Print..." by keyboard shortcut " P" or select from the drop down menu by clicking File > Print... (Ctrl+P in Windows). The Photoshop Print Settings dialog box will be displayed.



©Parish Kohanim Photoshop Print Settings dialog box

The two most important settings that will affect the FineArt Prints are the "Printer Setup" box and "Colour Management" box. We assumed you have already added your printer(s) to your system. If not, please follow the operation manual that comes with your printer, add your printing device via the System Preferences (or Control Panel in Windows platform).

The "Printer Setup" box let you select the printer you want to use, number of copies and portrait / landscape layout

for your FineArt Print. We will go into Print Setting in detail later.

The Colour Management box allows you to either use Photoshop to manage the colour during printing, or use the software driver that comes with your Printer to manage the colour during printing. In here you will need to decide what Rendering Intent to use. We are going to explain the four Rendering Intents and the Black Point Compensation in great details later. In most of the cases, you do not want to un-check the Black Point Compensation.

~ We will select "Photoshop Manages Colours" Colour Management Handling here for now, and the select a related printer profle based on the FineArt Paper we are going to use.

You normally do not need to change the default setting of Position and Size, unless you would like to overide the default at the end. It is always nice to leave some white margin around the image area, it is convenient for picture framing.

Printer Setup and Print Settings...

Next we can click "Print Settings..." button under the Printer Setup to see more options, like paper size, media types and print quality etc. We are now going to explain the options you will need to use, one by one. At the end we will come back to share tips on using "Presets" to save you time for printing the same paper size, and on same media.

The Print Box

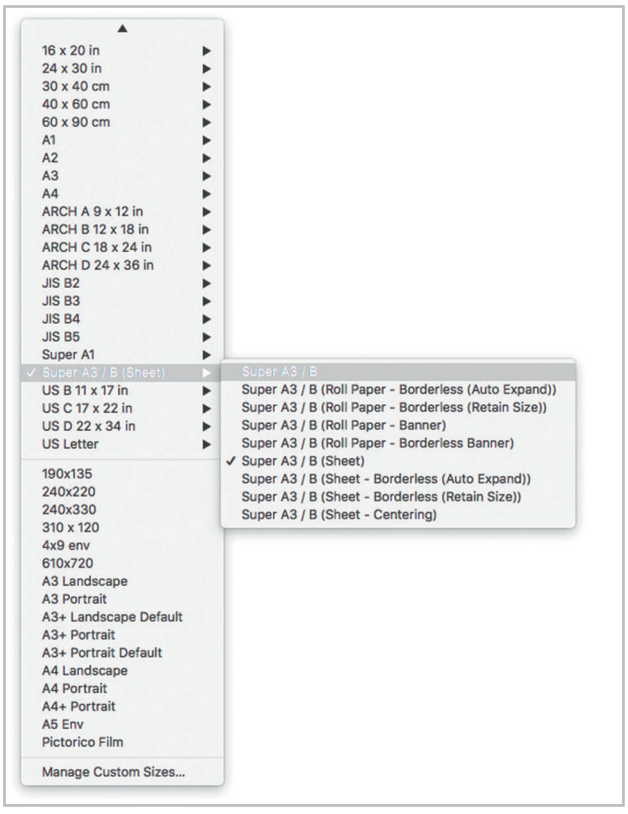
After you hit the "Print Settings..." button, the "Print" box will show up. We will skip the preset for now. The next thing for you to select is the "Paper Size". The list of paper sizes might be different depending on the printer model and driver you installed and selected to use. What really matters is that you should avoid selecting Roll media if you are intent to fit Sheet media into the printer, otherwise the printer will give you a warning that the wrong paper media is loaded.

Tip

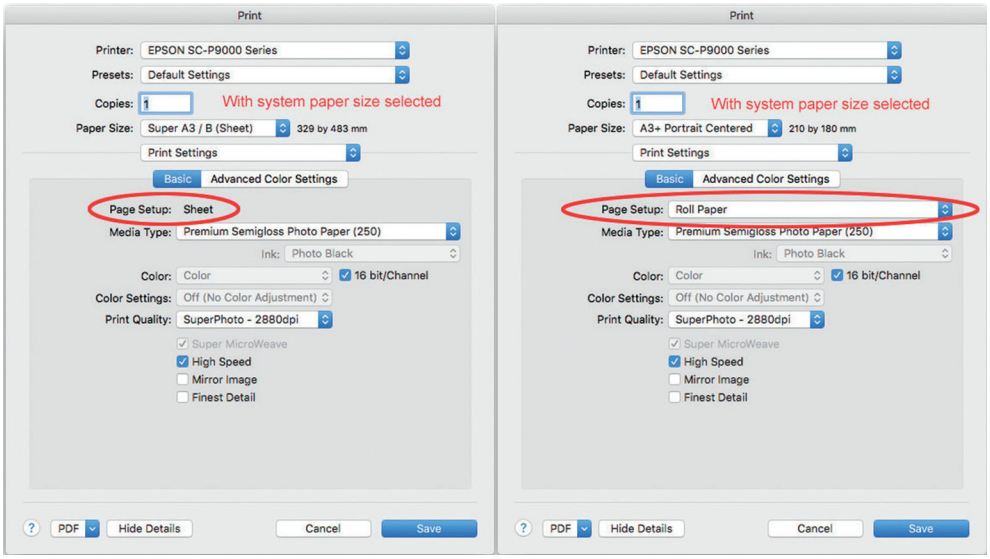
Why do paper sizes sometimes disappear?

The list of paper sizes might be different depending on the printer model and driver you installed and selected to use. For example, Epson 9900 series will show more sizes in the list compare to P800 series, that is because the Pro 9900 can print up to A0 in width, and the P800 series can only up to A2 in width. Don't be panic when you see some sizes disappear on the list, you might have just selected a different printer to use.

If you select one of the system sizes from the list, the Roll / Sheet will be locked (grey out) and it will not allow you to make further change from one to the other later, unless it is one of the custom paper sizes created by yourself.



Paper sizes



Paper source selection

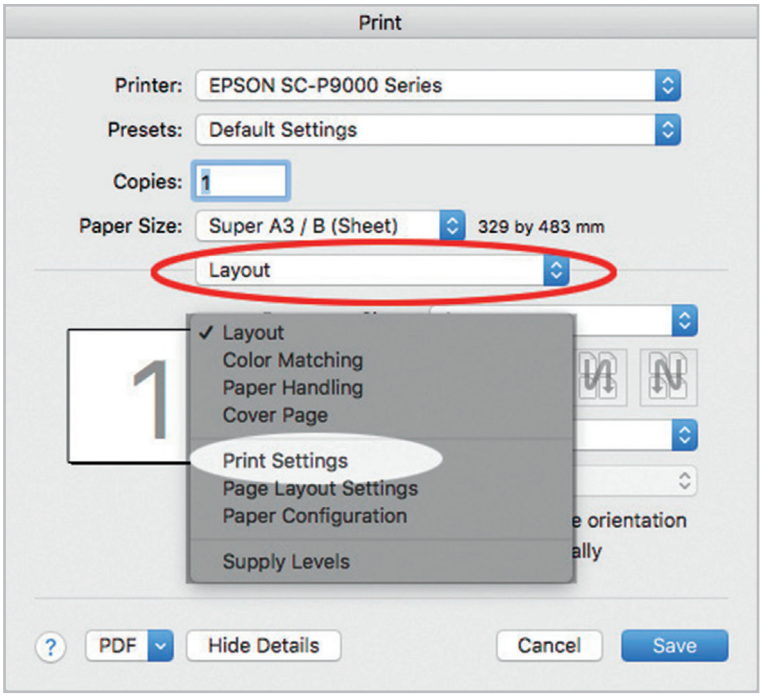
Tip

How to resolve "PAPER SETTING ERROR" is?

Recall in the previous section, the "Paper Setup" for roll / sheet options is depends on which kind of paper size was selected. If you selected one of the system sizes, instead of a custom size. You are not allow to make further changes in the Paper Setup box between roll/sheet (not displayed as dropdown but greyed out). If you manually fed a FineArt Paper sheet into the printer but the system paper size is allocated as a roll. The printer will prompt as a load Paper Setting Error and display "CHECK THE PAPER SOURCE IN THE DRIVER SETTING AND LOAD PAPER CORRECTLY".

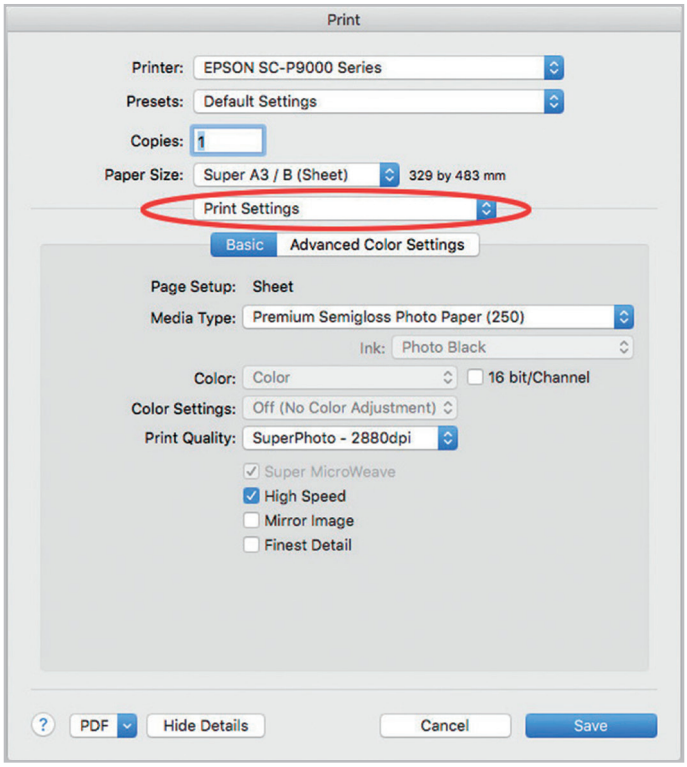
Drop Down Options – Further Print Settings

There is a drop down box to let you make changes on Layout, Colour Matching, Paper Handling, Cover Page, Print Settings (Yes, another print settings, and we will call it "Further Print Settings" from here), Page Layout Settings, Paper Configuration etc. In here we will only go into the Print Settings because it will affect the printing result the most.



Print Setting

Further Print Settings



Further Print Settings

Once you select Print Settings from the drop down box, the Print window will give you additional choices, for example 1) Media Type, Ink, Colour, 16bits/Channel check box, Colour Settings, and Print Quality.

Media Type

The media type let you select the suitable substrate for printing. Different paper thickness and surface texture behave differently, depends on the Media Type selected, The printer driver program will give suitable amount of ink for that particular paper. That works similar to the linearization in Colour Management System.

In most cases, you should be able to find the media type which share the similar names of the common FineArt Paper media. The table below can help you determine which media type to use for every ILFORD GALERIE paper.

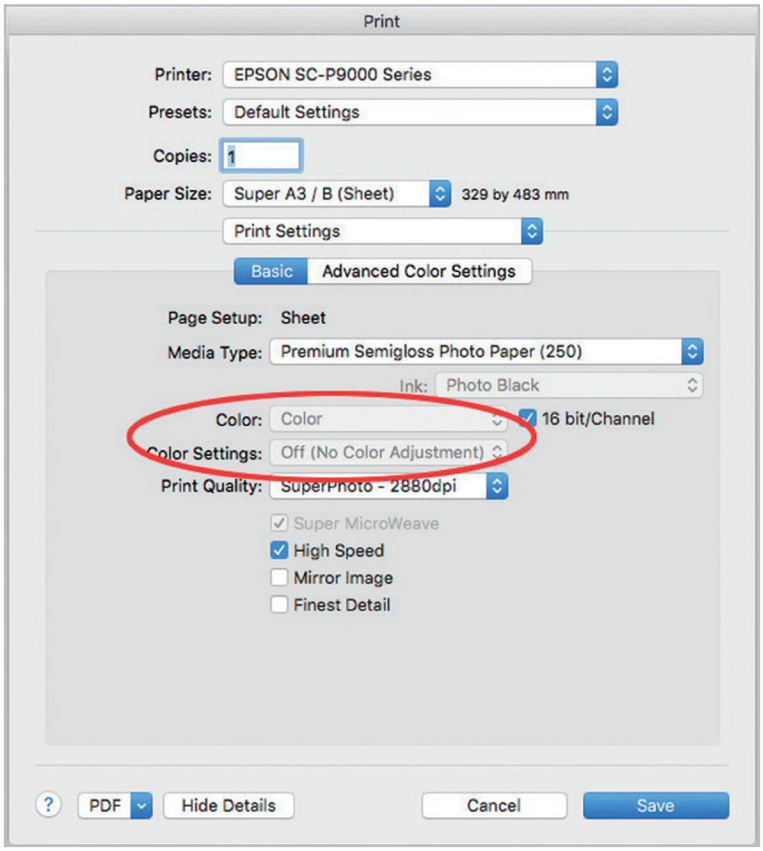
Paper Name	Media Type
Gold Fibre Silk	Premium Semigloss Photo Paper
Gold Fibre Gloss	Premium Glossy Photo Paper
Gold Fibre Pearl	Premium Semigloss Photo Paper
Smooth Cotton Rag	UltraSmooth FineArt Paper
Texture Cotton Rag	UltraSmooth FineArt Paper
Cotton Artist Textured	UltraSmooth FineArt Paper
Smooth Cotton Sonora	Archival Matte Paper
Matt Cotton Medina	Archival Matte Paper
FineArt Smooth	UltraSmooth FineArt Paper
FineArt Smooth Pearl	Premium Semigloss Photo Paper
FineArt Textured Silk	UltraSmooth FineArt Paper
Washi Torinoko	UltraSmooth FineArt Paper
Tesuki-Washi EchiZen	UltraSmooth FineArt Paper
FineArt Canvas Galicia	UltraSmooth FineArt Paper

Paper Name	Media Type
Canvas Natual	UltraSmooth FineArt Paper
Smooth Pearl	Premium Glossy Photo Paper
Smooth Gloss	Premium Glossy Photo Paper
Raster Silk	Premium Semigloss Photo Paper
Metallic Gloss	Premium Glossy Photo Paper
Crystal Gloss	Premium Glossy Photo Paper
Mono Silk Warmtone	Premium Semigloss Photo Paper
Satin Photo	Premium Semigloss Photo Paper
Glossy Photo	Premium Glossy Photo Paper
Semigloss Duo	Premium Semigloss Photo Paper
Lustre Photo Duo	Premium Semigloss Photo Paper
Heavyweight Duo Matt	Archival Matte Paper
Premium Matt Duo	Enhanced Matte Paper

* The notation of the media type depends on the area where you use the printer.

Colour and Colour Settings

In the Print window, you will notice the Colour and Colour Settings are dimmed out, and it will not allow you to make changes. This is normal because we allow Photoshop to handle colour management for us.



Colour Management by Photoshop

Print Quality

Print Quality lets you select the printing resolution – ink Droplet Per Inch (DPI). The higher the number, the finer the ink droplet that lays on the paper, but more ink will have to be used to achieve Super Photo quality. When the High Speed option is checked, the printer will switch to "Bi-directional" printing mode to reduce printing time.

Tip

Profile and Print Quality relation

If you need to create a custom profile for your FineArt Paper, it is important to make note on the Print Quality DPI when you print the profile color chart. The same Print Quality DPI should be used for your FineArt Printing later.

FURTHER PREPARATIONS FOR PRINTING

Layout and margin confirmation

It is always recommended to leave some margin for your FineArt Prints, make sure it gives you enough room for putting acid free tape or attaching paper hinges to the back of the photo and mount with a window mat. In that case you might want to print the image as centered as possible. The print windows gives you a preview to make sure your margin is correct before you hit the print button.

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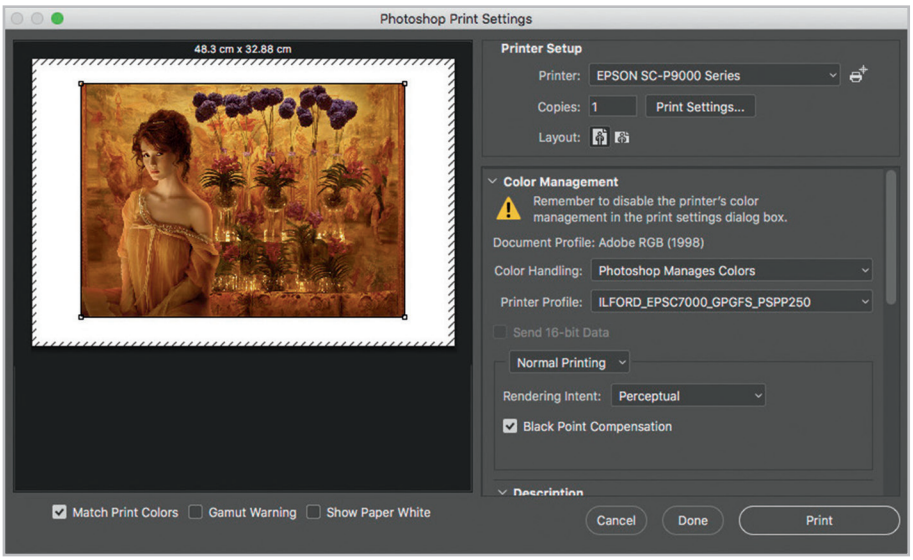
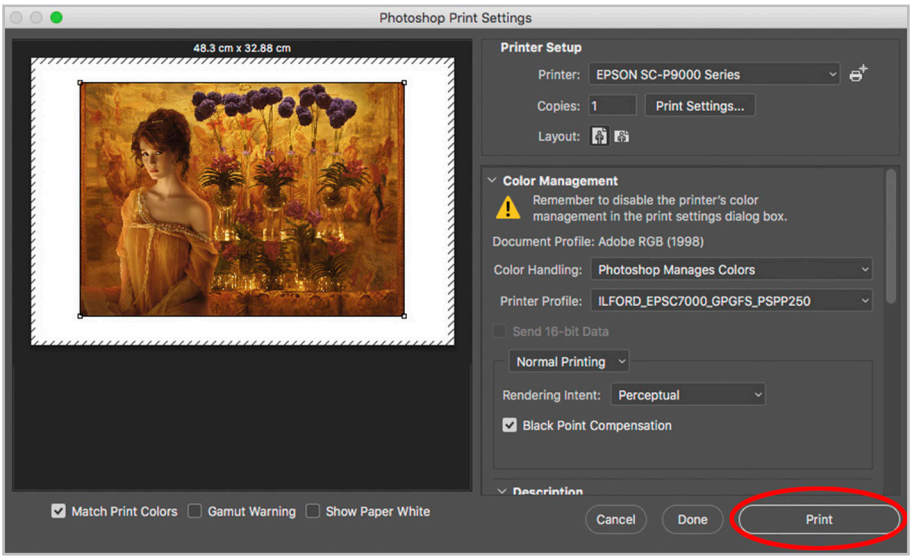


©Parish Kohanim Paper Margin settings

Print the picture

After the margin is checked and confirmed, you can hit the "Print" Button to print the photo.



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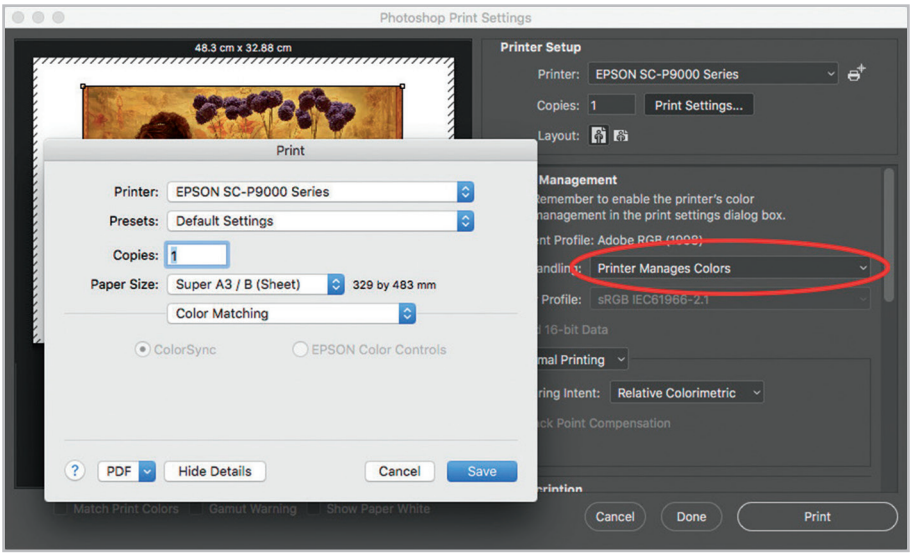
Printing

COLOUR MANAGEMENT OPTIONS

In this section we will provide some tips on printing Colour images, Black and White images in RGB mode, and Greyscale images.

1. Photoshop Manages Colours

In OSX, Photoshop and ColorSync work hand in hand. When Photoshop Manages Colours is selected, you have access to all the profiles in the system. The options under Colour Matching will become greyed out and fully handled by ColorSync.

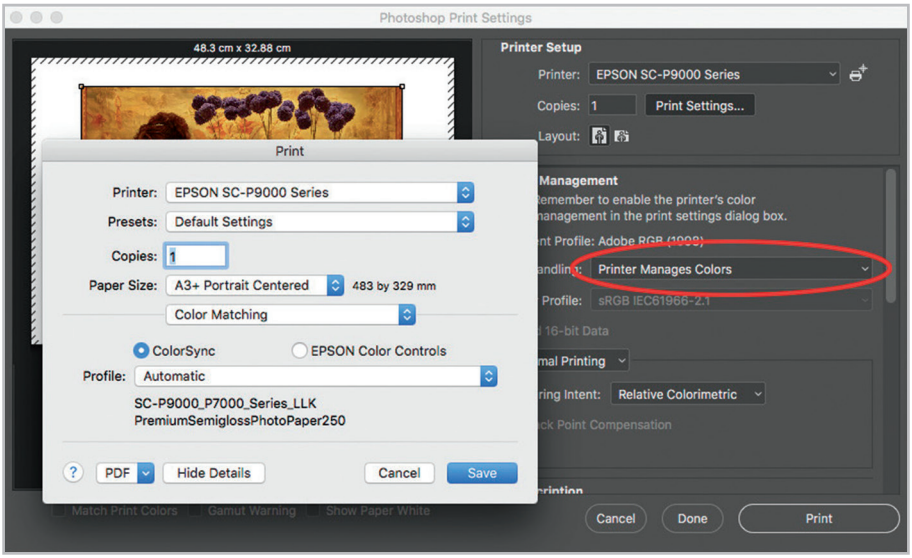


Photoshop Manages Colours

2. Printer Manages Colours

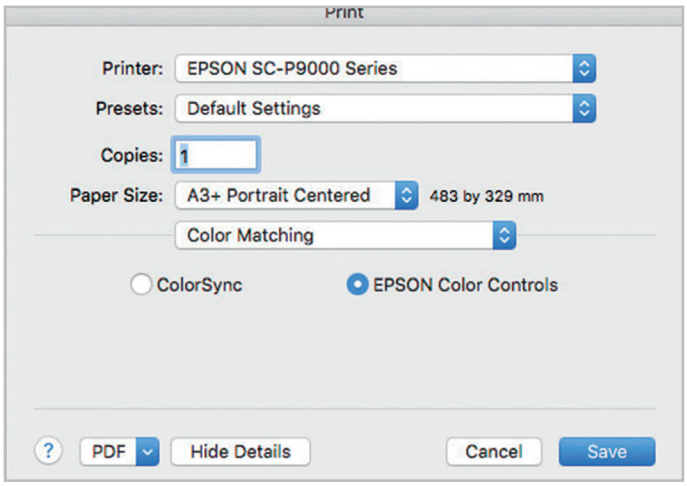
Another option in Colour Management is to let the printer Manage Colours. The options under Color Matching is no longer greyed out. You can select either using ColorSync, for EPSON Color Controls for Color Matching.

Under the ColorSync option, the driver will point to the ICCProfiles folder inside the Printers folder under Library. This profile folder sits inside your system library. It contains only the Epson profiles, and is located outside the system ColorSync main folder. You will not be able to see other profiles from ColorSync in the dropdown list. In other words, you do not have the option to apply other profiles except those that come with the printer itself.



Printer Manages Colours

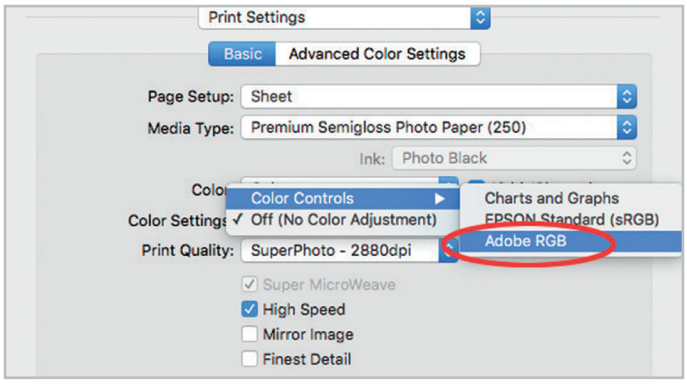
Unless you know what you are doing, it is not recommended to select the "EPSON Color Controls" option. This option is for advance users to adjust colours.



Epson Colour Controls

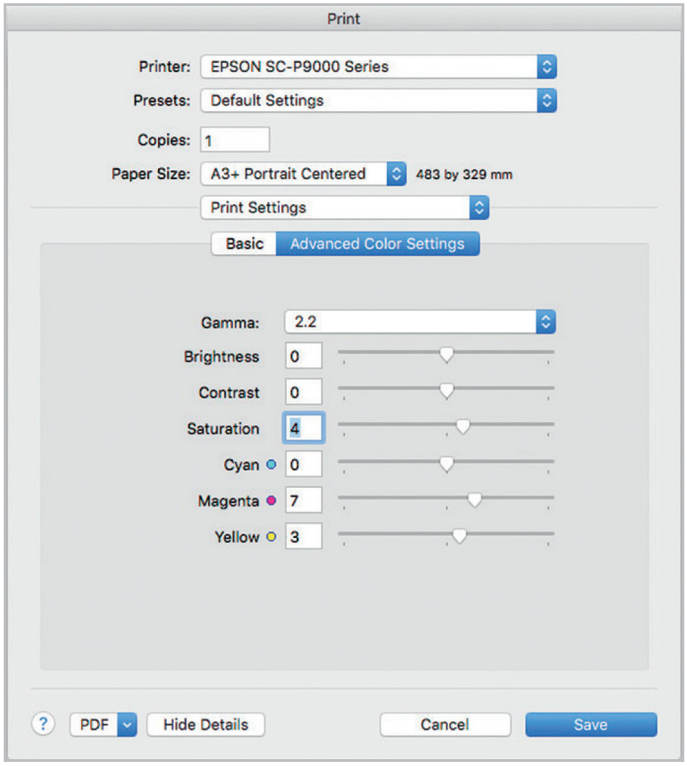
After choosing this option, you will find the Colour and Colour Settings under the Basic tab in Print Setting no longer dimmed out. If you stay with the "Basic" tab, the Colour drop down options only give you limited choices between Chart and Graphics, EPSON Standard (sRGB), and AdobeRGB from the Basic . You will have more profiles to select for 1) Photoshop Manages Colours.

However, if you need to adjust Gamma, Brightness, Contrast, Saturation and Cyan, Magenta, and Yellow colours for your print, the Advanced Colour Settings tab will give you more control.



Printer Colour Controls Adobe RGB

To utilize these settings, you can try to select the "Adobe RGB" from the Colour Controls drop down menu. The reason to choose Adobe RGB is because we know the Adobe RGB is grey-balanced, it's equal values of R, G, and B always produce a neutral grey. After you selected the Adobe RGB, you can select the "Advanced Colour Settings" tab to fine tune the image colours.

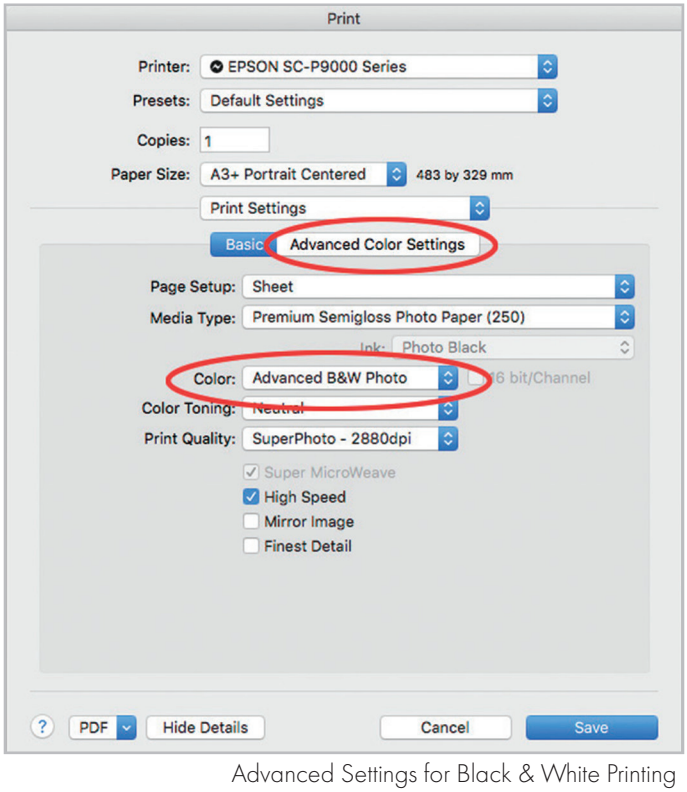


Printer Driver Advanced Colour Settings

3. Printing Black&White Photos with Advanced Colour Settings

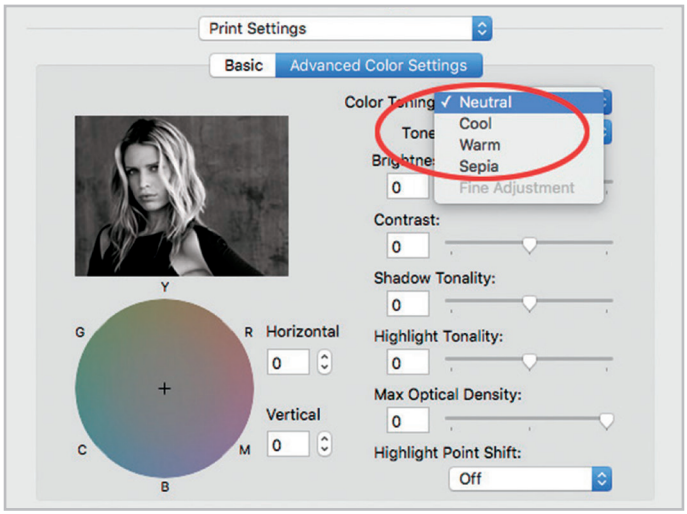
Printing Black-and-White Photo has different story. When you select these three:

- Printer Manage Colour
- EPSON Colour Control under Colour Matching
- Advanced B&W Photo from "Color" under Basic tab in Print Settings (see image)



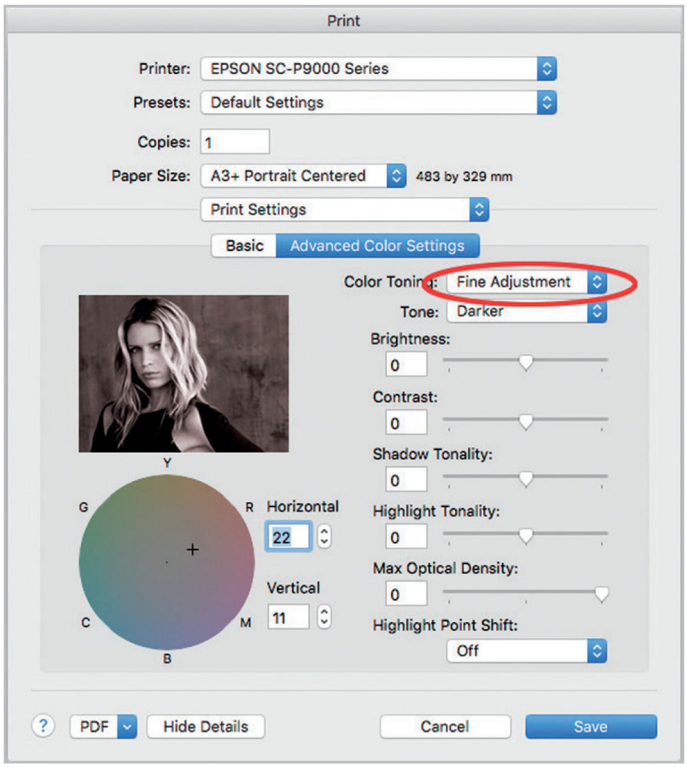
Advanced Settings for Black & White Printing

This Advanced Blank and White Photo comes with four colour toning presets: Neutral, Cool, Warm, Sepia and you can apply them to your B&W photo by selecting a preset from drop down box. You can preview the colour toning simulation using the default image. If you are happy with one of these presets, you can save and return to the Photoshop print window to print the picture.



Colour Toning

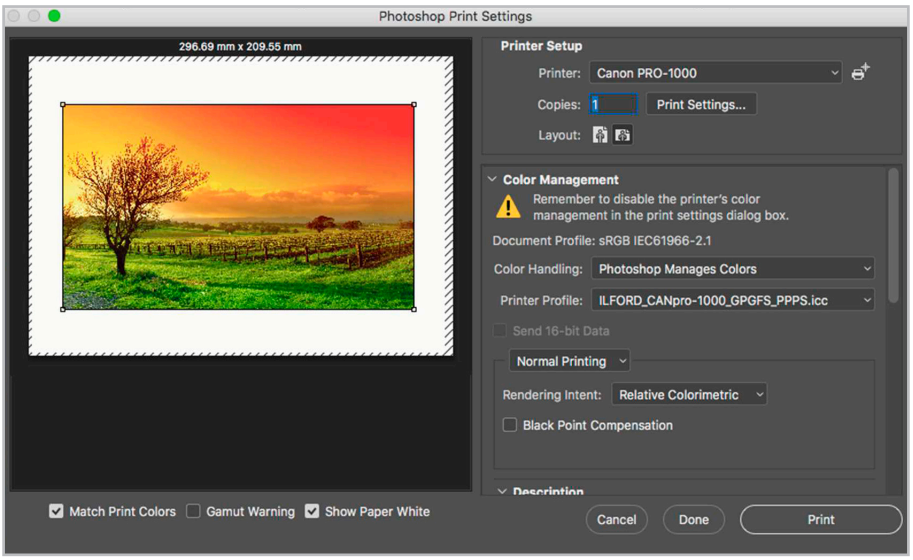
If you are not happy with the four toning presets, you can make further changes with other parameters, that will trigger the "Fine Adjustment" and you have more freedom on tweaking colour tones on your Black-and-White photo.



Fine Adjustment for Black and White Colour Toning

Photoshop Print Settings - The Canon Print workflow

After the resolution and picture size is confirmed, we can go ahead to select "Print..." by keyboard shortcut " P" or select from the drop down menu by clicking File > Print... (Ctrl+P in Windows). The Photoshop Print Settings dialog box will be displayed.



Photoshop Print Settings dialog box

The two most important settings that will affect the FineArt Prints are the "Printer Setup" box and "Colour Management" box. We assumed you have already added your printer(s) to your system. If not, please follow the operation manual that comes with your printer, add your printing device via the System Preferences (or Control Panel in Windows platform).

The "Printer Setup" box let you select the printer you want to use, number of copies and portrait / landscape layout for your FineArt Print. We will go into Print Setting in detail later.

The Colour Management box allows you to either use Photoshop to manage the colour during printing or use the software driver that comes with your Printer to manage the colour during printing. In here you will need to decide what Rendering Intent to use. We are going to explain the four Rendering Intents and the Black Point Compensation in great details later. In the cases of Canon workflow, Please be sure to uncheck the Black Point Compensation.

Printer profile for Canon Pro Series is made on the premise that the Black Point Compensation is turned off, and if this is checked, the dark area may be printed brighter than necessary.

We will select "Photoshop Manages Colours" Colour Management Handling here for now, and the select a related printer profile based on the FineArt Paper we are going to use.

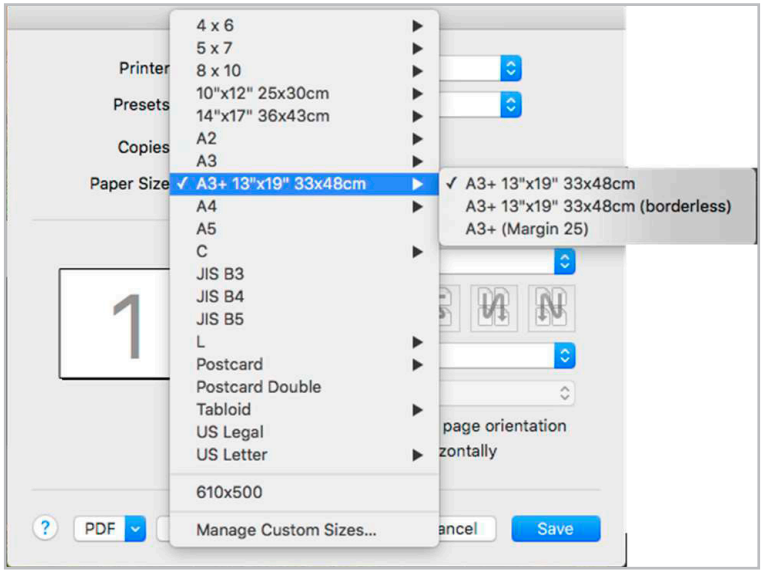
You normally do not need to change the default setting of Position and Size, unless you would like to overide the default at the end. It is always nice to leave some white margin around the image area, it is convenient for picture framing.

Printer Setup and Print Settings

Next we can click "Print Settings..." button under the Printer Setup to see more options, like paper size, media types and print quality etc. We are now going to explain the options you will need to use, one by one. At the end we will come back to share tips on using "Presets" to save you time for printing the same paper size, and on same media.

The Print Box

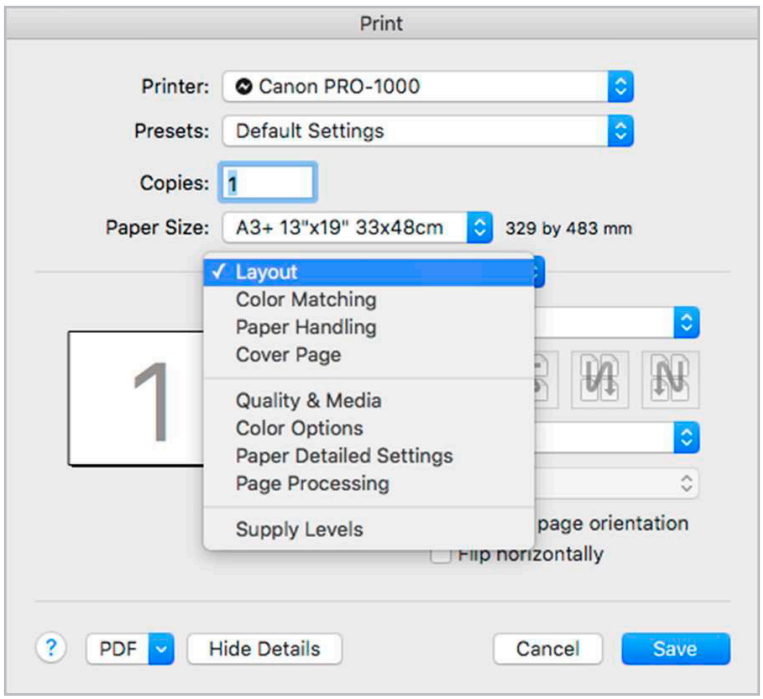
After you hit the "Print Settings..." button, the "Print" box will show up. We will skip the preset for now. The next thing for you to select is the "Paper Size". The list of paper sizes might be different depending on the printer model and driver you installed and selected to use. What really matters is that you should avoid selecting Roll media if you are intent to fit Sheet media into the printer, otherwise the printer will give you a warning that the wrong paper media is loaded.



Paper size

Drop Down Options – Further Print Settings

There is a drop down box to let you make changes on Layout, Colour Matching, Paper Handling, Cover Page, Quality & Media (Yes, another print settings, and we will call it "Further Print Settings" from here), Color Options, Paper Detailed Setting, Page Processing, Supply Level. The Quality & Media, the Color Options and the Paper Detailed Setting are important settings affecting print results.

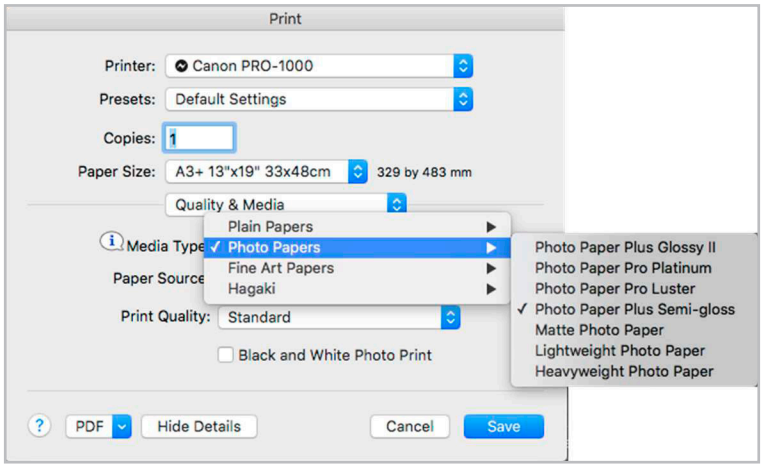


Further Print Settings

Once you select Quality & Setting from the drop down box, the Print window will give you additional choices, for example Media Type, Paper Source, and Print Quality.

Media Type

The media type let you select the suitable substrate for printing. Different paper thickness and surface texture behave differently, depends on the Media Type selected, The printer driver program will give suitable amount of ink for that particular paper. That works similar to the linearization in Colour Management System.



In most cases, you should be able to find the media type which share the similar names of the common FineArt Paper media. The table below can help you determine which media type to use for every ILFORD GALERIE paper.

Paper Name	Media Type
Gold Fibre Silk	Photo Paper Plus Semi-gloss
Gold Fibre Gloss	Photo Paper Pro Platinum
Gold Fibre Pearl	Photo Paper Pro Platinum
Smooth Cotton Rag	Highest Density FineArt Paper
Texture Cotton Rag	Highest Density FineArt Paper
Cotton Artist Textured	Highest Density FineArt Paper
Smooth Cotton Sonora	FineArt-Photo
Matt Cotton Medina	FineArt-Photo
FineArt Smooth	Highest Density FineArt Paper
FineArt Smooth Pearl	Photo Paper Pro Platinum
FineArt Textured Silk	Highest Density FineArt Paper
Washi Torinoko	Japanese Paper Washi
Tesuki-Washi EchiZen	Japanese Paper Washi
FineArt Canvas Galicia	Canvas Galicia Canvas

Paper Name	Media Type
Canvas Natual	Canvas Natual Canvas
Smooth Pearl	Photo Paper Pro Platinum
Smooth Gloss	Photo Paper Pro Platinum
Raster Silk	Photo Paper Pro Platinum
Metallic Gloss	Photo Paper Pro Platinum
Crystal Gloss	Photo Paper Pro Platinum
Mono Silk Warmtone	Photo Paper Plus Semi-gloss
Satin Photo	Photo Paper Pro Platinum
Glossy Photo	Photo Paper Pro Platinum
Semigloss Duo	Photo Paper Pro Platinum
Lustre Photo Duo	Photo Paper Pro Platinum
Heavyweight Duo Matt	Photo paper Pro Premium Matte
Premium Matt Duo	Photo paper Pro Premium Matte

Paper Source

In the Print window, you will select paper source, the Manual Tray or the Rear Tray, that matches the paper you use. You select paper tray according to the following weight/thickness ranges at Paper Soyrce.

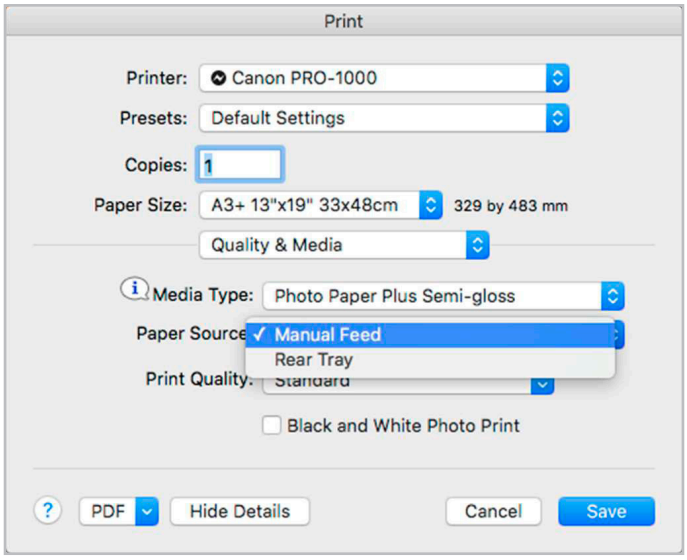
Manual Tray

Specialty paper: Up to 107 lb (400 g /m2) / from 4 to 27.6 mil (0.1 to 0.7 mm)

Rear Tray

Plain paper: From 17 to 28 lb (64 to 105 g /m2)

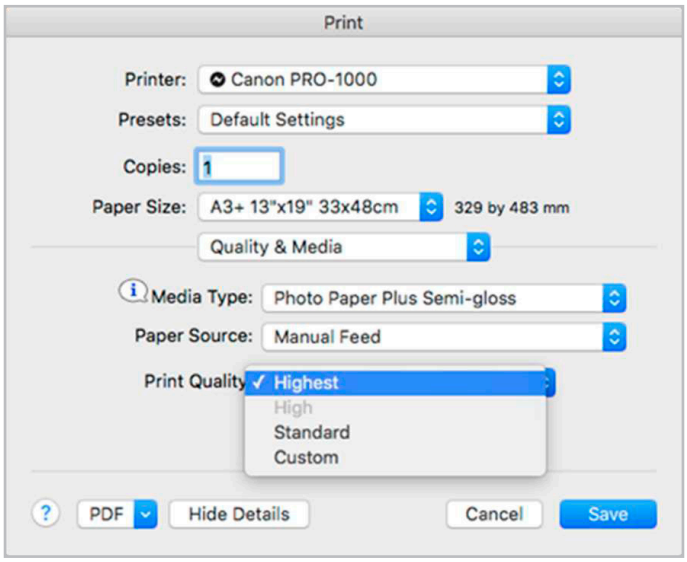
Specialty paper: Up to 80 lb (300 g /m2) / from 4 to 11.8 mil (0.1 to 0.3 mm)



Print Quality

Print Quality lets you select the one that is closest to the original document type and the purpose, Highest, High, Standard and Custom. Certain print quality levels cannot be selected depending on the settings of Media Type.

If you need to create a custom profile for your FineArt Paper, it is important to make note on the Print Quality when you print the profile color chart. The same Print Quality should be used for your FineArt Printing later.

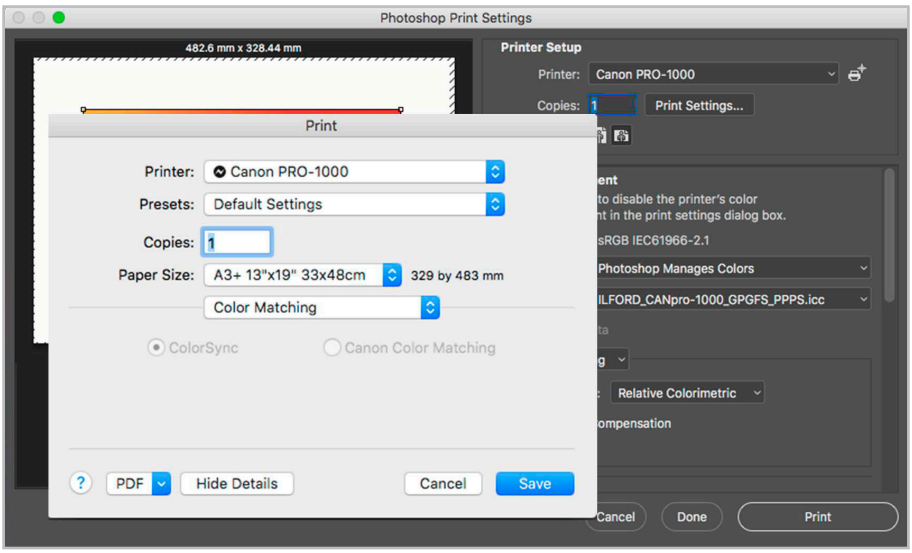


COLOUR MANAGEMENT OPTIONS

In this section we will provide some tips on printing Colour images, Black and White images in RGB mode, and Greyscale images.

1. Photoshop Manages Colours

In OSX, Photoshop and ColorSync work hand in hand. When Photoshop Manages Colours is selected, you have access to all the profiles in the system. The options under Colour Matching will become greyed out and fully handled by ColorSync.

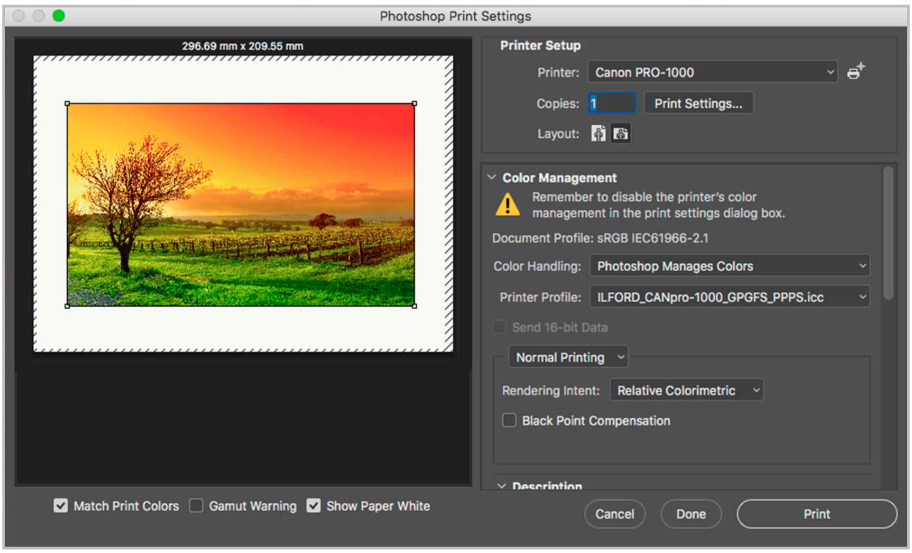


Photoshop Manages Colours

2. Printer Manages Colours

Another option in Colour Management is to let the printer Manage Colours. The options under Color Matching is no longer greyed out. You can select either using ColorSync or Canon Color Matching for Color Matching.

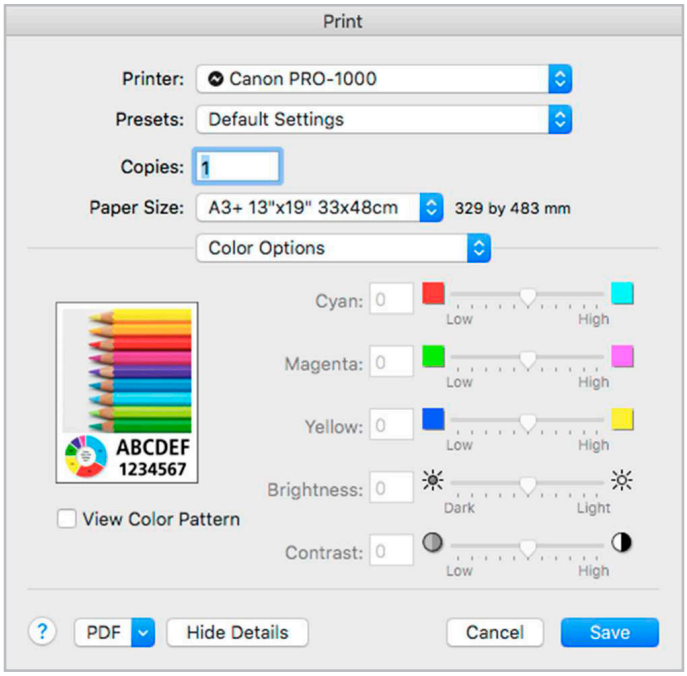
Under the ColorSync option, the driver will point to the ICC Profiles folder inside the Printers folder under Library. This profile folder sits inside your system library. It contains only the Canon profiles, and is located outside the system ColorSync main folder. You will not be able to see other profiles from ColorSync in the dropdown list. In other words, you do not have the option to apply other profiles except those that come with the printer itself.



Printer Manages Colours

Unless you know what you are doing, it is not recommended to select the "Canon Color Matching" option. This option is for advance users to adjust colours.

However, if you need to adjust Brightness, Contrast and Cyan, Magenta, and Yellow colours for your print, the Color Options tab will give you more control.

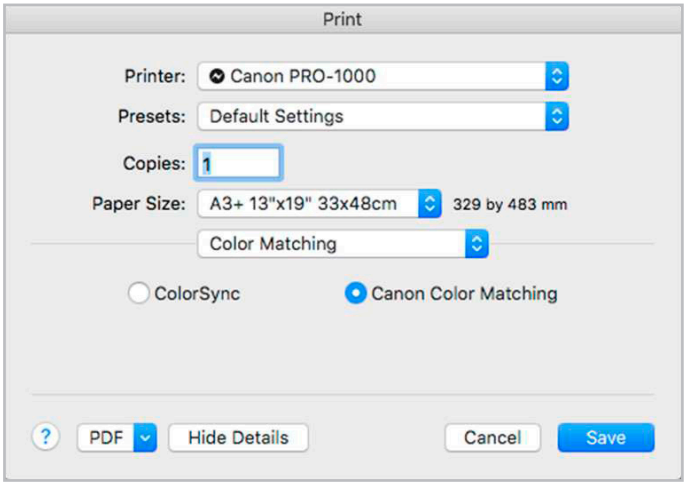


Color Options

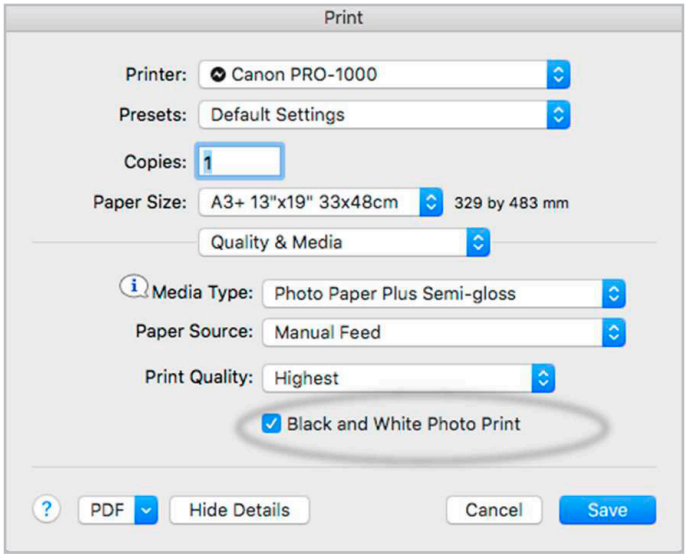
3. Printing Black-and-White Photos with Color Options

Printing Black-and-White Photo has different story. When you select these three:

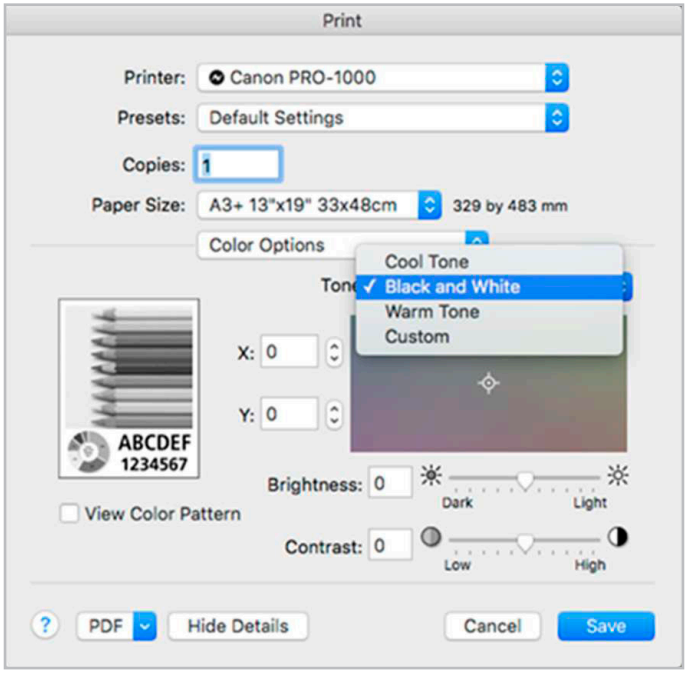
- Printer Manage Colour
- Canon Color Matching under Colour Matching (see image)



- You check Black and White Photo Print under Quality & Media (see image)



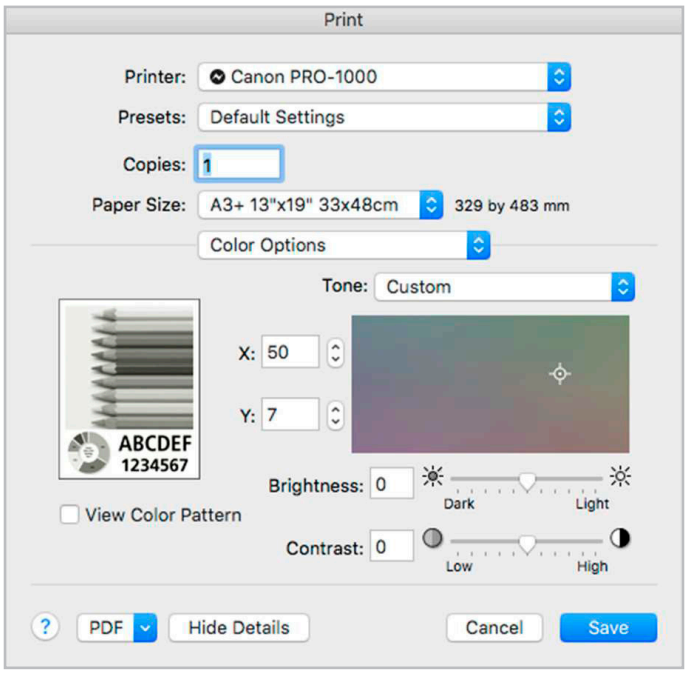
This Color Options for Blank and White Photo Print comes with three colour toning presets: Black and White (Neutral), Cool, Warm at Color Options tab. You can apply them to your B&W photo by selecting a preset from drop down box.



Color Option for Tone

If you are happy with one of these presets, you can save and return to the Photoshop print window to print the picture.

If you are not happy with the three toning presets, you can make further changes with other parameters, that will trigger the "Custom" and you have more freedom on tweaking colour tones on your Black-and-White photo.

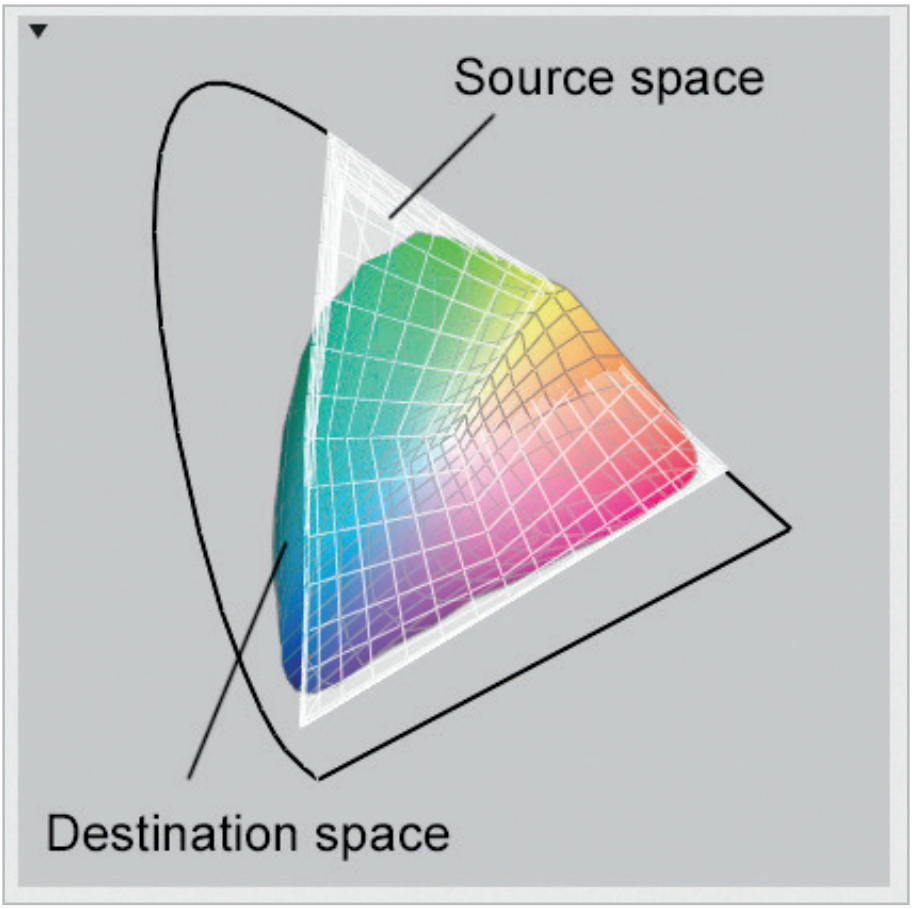


Custom for Black and White Colour Toni

COLOUR MANAGEMENT EXTRA FOR FINEART PRINTING

Handle out of-gamut colours

Each device has a fixed range of colour that can reproduce. The colours a device can reproduce is called the colour gamut. Let take an example of sending an image document (source) to a printer (destination) to print. The colours present in the image document (source space) that aren't reproducible by the printer (in destination spaee) are called out-of-gamut.



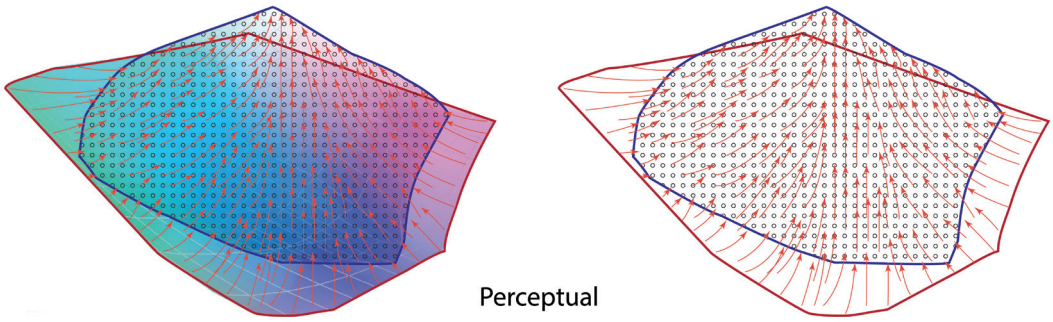
Colour gamuts

Handle out-of-gamut colours methods

Rendering Intents

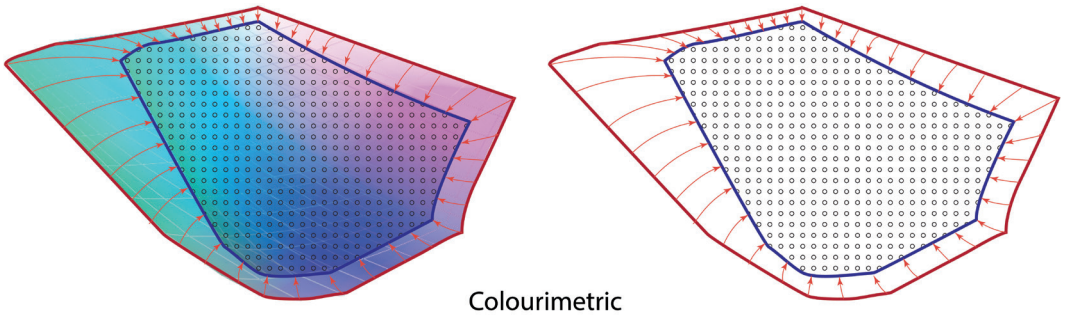
The ICC profile specification includes four different ways for handling out-of-gamut colours.

- Perceptual rendering tries to compress the source gamut into the destination gamut, the overall colour relations are preserved.
- Saturation tries to produce vivid colours, by converting saturated colours in the source to saturated colours in the destination.
- Relative Colourimetric reproduce all the in-gamut colours, and clips out-of-gamut colours to the closest reproducible hue. It maps white in the source to white in the destination.
- Absolute Colourimetric reproduces colours similar to Relative Colourimetirc, however, it doesn't map source white to destination white.



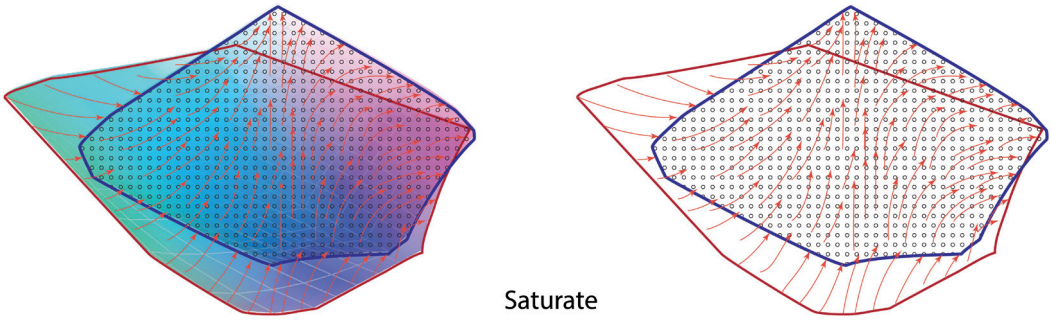
Perceptual

Perceptual Rendering Intent



Colourimetric

Colourietric Rendering Intent



Saturate

Saturate Rendering Intent

Black Point Compensation

The black point compensation maps the black of the source to the black of the destination, the objective is to make sure the entire dynamic range of the output device (printer here) is used. It is recommended to set it on all the time.

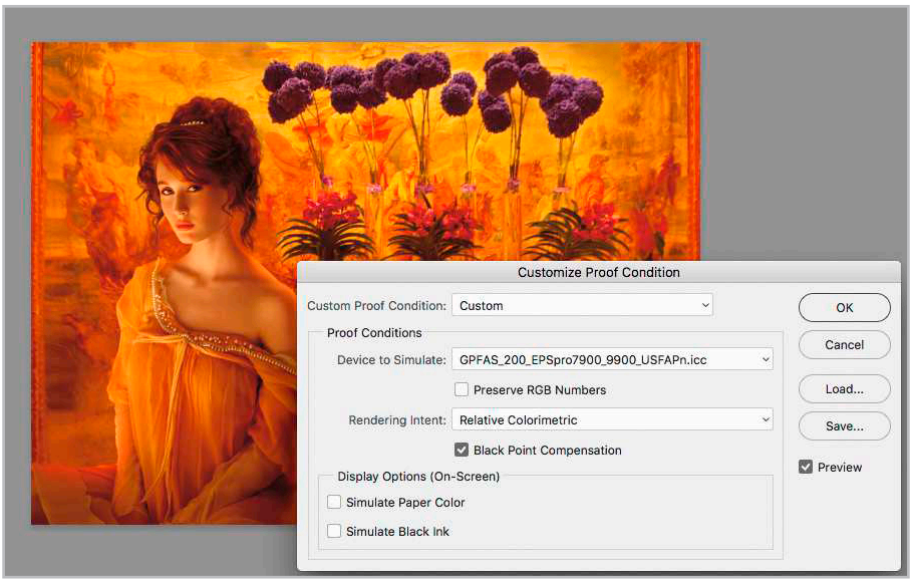
Inkjet / Output Profiles

Inkjet profiles are known as output profiles, they help the colour management system produce the correct numbers to represent colour on the printer. It also can help the colour management system to proof the colours on your display. This enables you to preview how your printer will reproduce the colour before you print it.

WYSIWYG monitor softproofing

Softproofing is one of the great features colour management provide, it allows you to predict the print result before actully send the image to the printer.

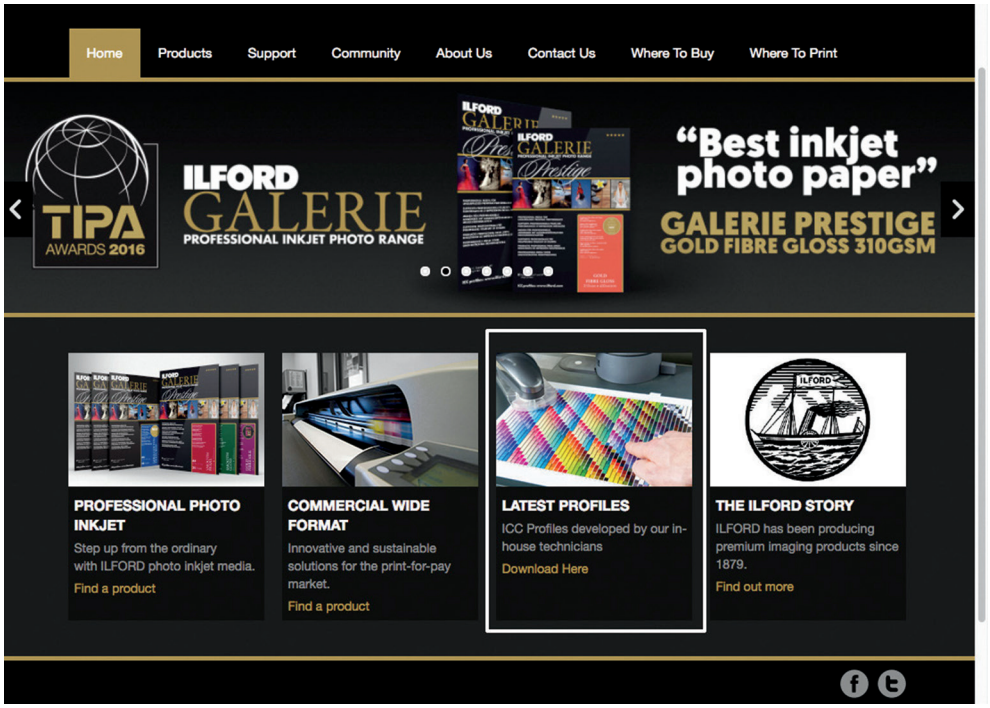
If you want to preview the FineArt Printing result on your monitor before sending the image to your printer, Photoshop can let you select Proof Colour from the view menu. To perform a softproofing preview, you need an output profile for your printer and paper installed in your system, and configure it in Photoshop Proof Setup box.

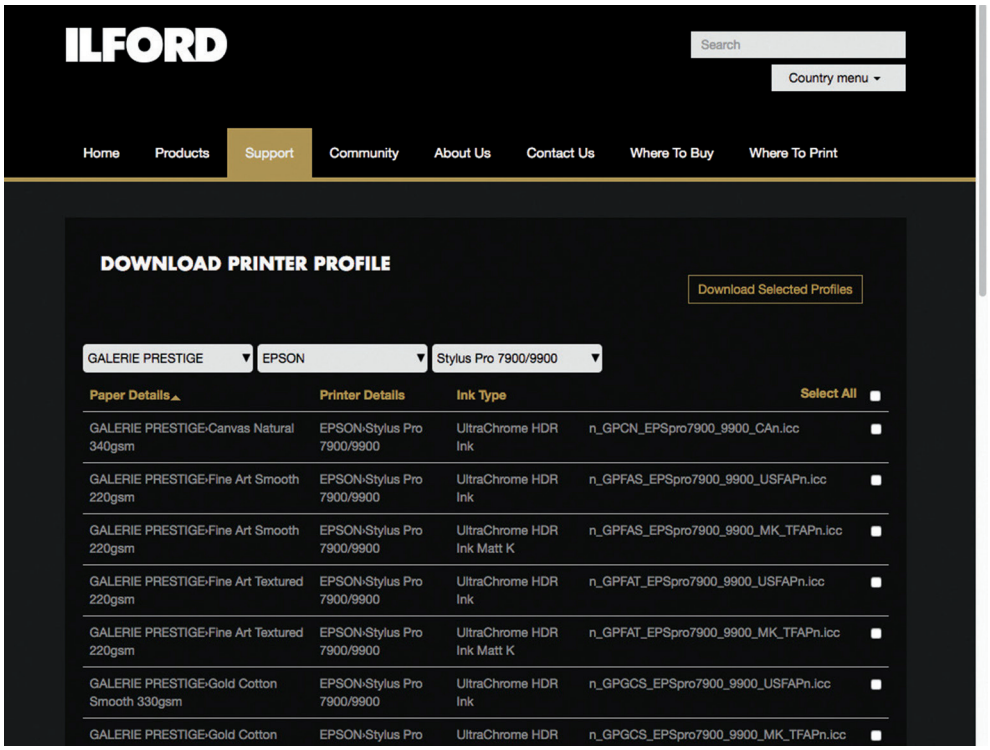


©Parish Kohanim Softproofing Preview

Obtaining ILFORD FineArt ICC profile

To softproof the image correctly on your monitor, the colour management system needs accurate profiles. You can find the ILFORD GALERIE profiles at ILFORD website. Please visit the Latest Profiles page at http://ilford.com/. The page contains the profiles using the most popular inkjet printers on the market.





Custom Output Profiling

In case you did not find your printer model from the website and you have a spectrophotometer available, you can create a printer custom profile of your own. If you don't have a measuring instrument and you are serious about building output profiles, there are many profiling package on the market that are becoming more affordable. Hand-held reflective spectrophotomenters include ColorMunki, i1Pro are two of the most commonly used and affordable devices on the market. These two instruments offer a unique measuring capability using strip scanning mode by dragging the instruments over a row of colour patches on their colour targets.

Colour Measurement with ColorMunki Spectrophotometer

Colour Measurement with i1Pro2 Spectrophotometer

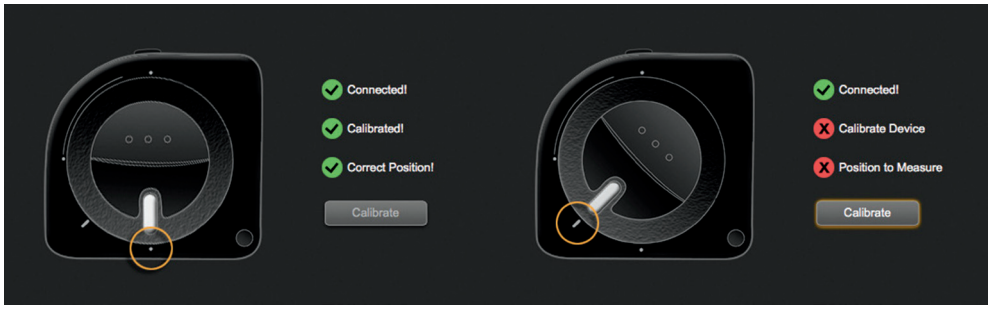
Profiling RGB Inkjet Printers

Technically speaking, there is no RGB inkjet printer, since they all use cyan, magenta, yellow and black inks. Sometimes the professional grade inkjet printers will incorporate additional inks to expand the colour gamut and improve highlight detail on the image, for example "light" version of cyan, magenta and black, or even orange, green and purple inks. These inkjet printers require RGB signals as their input, are classified as RGB printers and we can treat them as RGB devices for profile creation.

Profiling tools like these instruments usually require very few or, sometimes no parameters, to set for RGB output profile. It is recommended to start by building a custom profile at the default settings. As previously mentioned, inkjet printers are very repeatable and stable, the printer driver will help you to manage and control the amount of inks output from the printer by selecting the correct media type.

Instrument Calibration before measurment

Calibration allows us to set a baseline for the instrument and make sure that the baseline is maintained over time. It is always a good practice to perform self-calibration before taking any measurement. Now the profiling software will force users to go through a calibration before going to the measuring step.



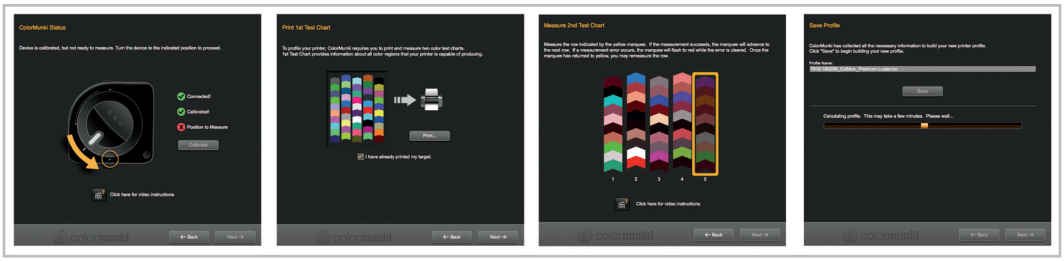
Instrument Calibration

A Profiling Package and procedures

It is very common for a spectorphotometer to be combined with a profiling software package – a profiler. These software packages like ColorMunki Photo and i1Pro Basic work by comparing known reference data with measurement data obtain by measuring the target printed by your inkjet printer. After the measurement, data is fed to the profiler to create an output device profile. It might sound a little complicated, but the software package interface will guide you step-by-step.

It is impossible to include all profiling packages in this manual. In here we will provide the four major steps that we generally find in the profiling packages:

- Instrument Calibration – to set the baseline and make the instrument behave consistently.
- Print target – provide the profiling tool with a sample of the printer's behavior to build an accurate profile.
- Take measurement – collect colour data
- Profile Creation - compare the collected data to the reference data and create an output profile.



Custom Profile creation steps

IMAGE EVALUATION & PRESENTING FINEART PRINTS

When presenting a print in large size, framed images can have maximum impact on the client. Paper thickness gives you the opportunity to make a powerful impression with your print. You will feel there is a big difference when you hold the heavy weighted print in your hand, compared to the normal RC photographic paper. Always look for a paper that yields a high dynamic range. The wider the dynamic range, the greater the range of luminance will be between highlight and shadow areas of you prints.

Knowing Papers for FineArt Printing
The ILFORD GALERIE Professional Inkjet Range

FineArt Baryta

Gold Fibre Silk (310gsm)

ILFORD GALERIE Prestige Gold Fibre Silk features an inkjet layer coated directly onto a true baryta (barium sulphate) layer and fibre base to produce images with exceptional gamut for vivid colour reproduction as well as creamy whites and velvety blacks for the unique look of traditional silver halide photo prints.

©James Simmons

Gold Fibre Gloss (310gsm)– a TIPA award winning best inkjet photo paper

ILFORD GALERIE Prestige Gold Fibre Gloss made expressly to match the look and feel of traditional fibre-based darkroom paper, the product offers an ideal surface and look for black and white images as well as reproducing a wide gamut for colour images. The paper is made with 100% cotton rag and no optical brighteners, has a crisp white and deep black response.

©Seth Resnick

Gold Fibre Pearl (290gsm)

Subtle greyscale gradation, long-term durability, certified ageing resistance, deep, rich blacks and a unique haptic have made baryta papers the preferred media of photographers in the genre of classical modernism. Manufactured exclusively from cellulose fibres, ILFORD GALERIE Gold Fibre Pearl has a smooth, satin finish and a subtle warm colouring that is reminiscent of traditional baryta paper, but simultaneously offers all the advantages of contemporary inkjet media.

©Vicky Papas

FineArt Cotton

Smooth Cotton Rag (310gsm)

ILFORD GALERIE Prestige Smooth Cotton Rag paper leads the way for professional FineArt printing. This mould made, 100% cotton rag paper has been crafted specifically to meet the needs of FineArt photographers who want the confidence that the media they use will deliver accurate and dynamic results time after time.

©Steve Scalone

Textured Cotton Rag (310gsm)

ILFORD GALERIE Prestige Textured Cotton Rag paper leads the way for professional FineArt printing. This mould made, 100% cotton rag paper has been crafted specifically to meet the needs of FineArt photographers who want the confidence that the media they use will deliver accurate and dynamic results time after time.

©James Simmons

Cotton Artist Textured (310gsm)

ILFORD GALERIE Prestige Cotton Artist Textured shows a strong watercolour textured surface and is suitable for fine-art reproduction. This 100% cotton rag base paper is free of optical brighteners and has a mould made.

©James Simmons

Smooth Cotton Sonora (320gsm)

The ILFORD GALERIE Smooth Cotton Sonora - manufactured exclusively from cotton fibres - lends images a particularly intensive impression due to its lightly structured surface. The pleasant, soft haptic and the natural white colouring of the paper correspond to that of traditional art print paper. It is predestined to produce dramatic art prints, reproductions, artistic photos, exhibition prints, posters, exclusive invitations and interior decorations in colour or in black and white.

Matt Cotton Medina (320gsm)

The ILFORD GALERIE Matt Cotton Medina is made exclusively from cotton fibres and thanks to its special coating has a smooth velvety touch. The highly homogeneous surface of this paper ensures extreme strength and durability. The natural white colouring of the paper is like that of traditional artist paper. This makes it the ideal media for art prints, reproductions, artistic photos, posters, exclusive invitations and for interior decoration.

Smooth Cotton Sonora

©Alan Shapiro

Matt Cotton Medina

©Seth Resnick

FineArt Matt

FineArt Smooth (200gsm)

ILFORD GALERIE Prestige FineArt Smooth offers a cellulose alternative capable of delivering stunning contrast and sharpness with a large Colour gamut. It is also perfect for black and white reproduction as well as FineArt, photography and portraiture.

FineArt Smooth Pearl (270gsm)

ILFORD GALERIE Prestige FineArt Smooth Pearl offers a cellulose alternative capable of delivering stunning contrast and sharpness with a large color gamut. It is also very qualified for black and white reproduction.

FineArt Smooth

©Steve Scalone

FineArt Smooth Pearl

©Steve Scalone

FineArt Textured Silk (270gsm)

ILFORD GALERIE Prestige FineArt Textured Silk offers a 25% cotton and 75% cellulose alternative capable of delivering stunning contrast and sharpness with a large color gamut. It is also very qualified for black and white reproduction.

©James Simmons

FineArt Washi

Washi Torinoko (110gsm)

ILFORD GALERIE Prestige Washi Torinoko is a FineArt paper with a traditional, Washi, Japanese base and a fine textured surface. The base, exclusively produced for ILFORD, is manufactured using a specialized Japanese Tanmo machine which produces a paper so refined it looks handmade.

©Ian van der Wolde

Tesuki-Wash EchiZen (110gsm)

ILFORD GALERIE Prestige Tesuki-Washi EchiZen is true handmade Japanese Washi based

FineArt paper. The Echizen area, which produces base paper, has a washi history in 1500 years. The washi is carefully produced handmade and one by one it is valued by many artists

for its Quality and usage for their art work. Tesuki-Washi EchiZen can perform brilliant inkjet printing with a natural handmade texture, by ILFORD's original coating.

A1+ and A3+ size has deckle edges on all four sides.

©James Simmons

FineArt Canvas

FineArt Canvas Galicia (450gsm)

ILFORD GALERIE Prestige FineArt Canvas Galicia is a cotton/polyester blend designed to deliver the best in professional photographic digital prints. It is a robust stretchable canvas with a high resistance to cracking and superior framing performance.

©James Simmons

Canvas Natural (340gsm)

ILFORD GALERIE Prestige Canvas Natural is a cotton / polyester blend canvas with a matt surface and natural tint. With no added optical brightening agents in the coating layer, this canvas offers stunning colour reproduction thanks to a wide colour gamut that enhances rich colours and provides deep, dense blacks.

©Eddie Horstman

Fine Photo

Smooth Pearl (310gsm)

ILFORD GALERIE Prestige Smooth Pearl is the professional's choice for producing stunning images with superb clarity, excellent sharpness and a wide colour gamut. This paper features an optically clear coating layer which is exclusive to ILFORD.

©Eddie Horstman

Smooth Gloss (310gsm)

ILFORD GALERIE Prestige Smooth gloss is the professional's choice for producing stunning images with superb clarity, excellent sharpness and a wide colour gamut. The paper features an optically clear coating layer which is exlusive to ILFORD.

©James Simmons

Raster Silk (290gsm)

ILFORD GALERIE Prestige Raster Silk offers photographers a resin coated paper with a defined structure giving the final image a creative edge. The product has a natural base tint that gives great contrast and tonal range along with a broad colour gamut.

©James Simmons

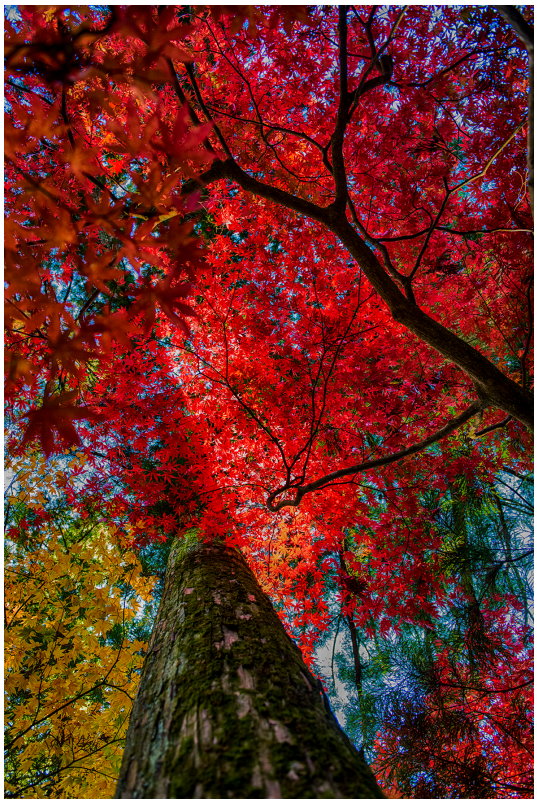
Metallic Gloss (260gsm)

ILFORD GALERIE Prestige Metallic Gloss offers photographers the ability to print images with a true 'wow' factor. The iridium finish gives every image a three-dimensional look ensuring that each print truly comes to life. The resin coated paper is 260gsm and is suitable for creating display and exhibition prints or alternative prints can be added to photo albums or portfolio work to create additional impact.

©James Simmons

Crystal Gloss (290gsm)

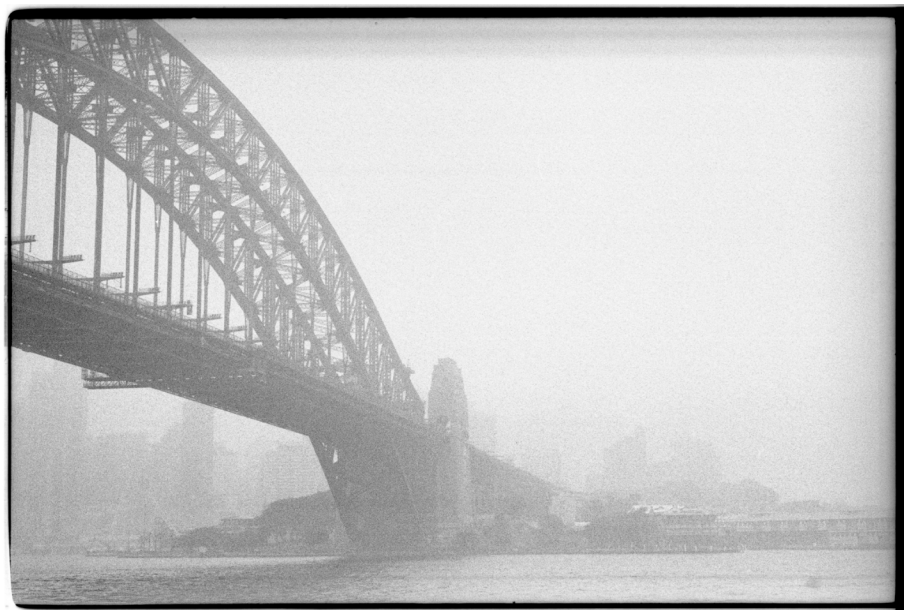
The ILFORD GALERIE Crystal Gloss lends pictures a fascinating pearlescent sheen, flawless gloss and unique depth. Thanks to an excellent high resolution, prints display perfect sharpness. It is perfect for images showing shiny fabrics, metals, glass, jewellery and people.



©Seth Resnick

Mono Silk Warmtone (250gsm)

ILFORD GALERIE Prestige Mono Silk Warmtone is a 250gsm resin coated photo paper with no added optical brighteners. The warm base tint gives deep blacks and warm whites. The product has been developed specifically for photographers that are passionate about black and white photography.



©James Simmons

SATIN photo (260gsm)

ILFORD GALERIE Prestige lustre 260gsm is a heavy weight, high quality inkjet photo paper offering accurate reproductive qualities, extended longevity and robust surface for exceptional yet durable prints. The lustre surface is perfect for every type of image genre from stunning portraits and scenic landscapes to wildlife and monochrome.

©Seth Resnick

Glossy Photo (260gsm)

ILFORD GALERIE Prestige Gloss 260gsm is a heavy weight, high quality inkjet photo paper offering accurate reproductive qualities, extended longevity and a robust surface for exceptional yet durable prints. The gloss surface is perfect for every type of image genre from stunning portraits and scenic landscapes to wildlife and monochrome.

©Seth Resnick

Fine Photo Duo

Semigloss Duo (250gsm)

ILFORD GALERIE Prestige Semigloss DUO is a true double-sided resin coated media with a professional semigloss finish. The paper has a natural photographic white tint to produce prints with superb colour gamut, perfect for skin tones.

©Ian van der Wolde

Lustre Photo Duo (330gsm)

The ILFORD GALERIE Lustre Photo Duo is perfect for rendered colours, outstanding details and extreme resistance to dirt and fingerprints. This paper is printable on both sides and offers particularly creative options for personal albums and photo books, professional portfolios and high quality booklets. With neutral, bright white colouring it boasts optimum contrast, high maximum densities and deep, rich blacks. It offers considerably superior flatness compared to conventional double-sided papers on the market and possesses high opacity and stiffness.

©Alan Shapiro

Heavyweight Duo Matt (310gsm)

ILFORD GALERIE Prestige Heavyweight Duo Matt is a double-sided paper with a smooth bright white finish. The 310gsm product is a true heavyweight and with 99.9% opacity it is perfect for professional quality photo albums, portfolios and display prints.

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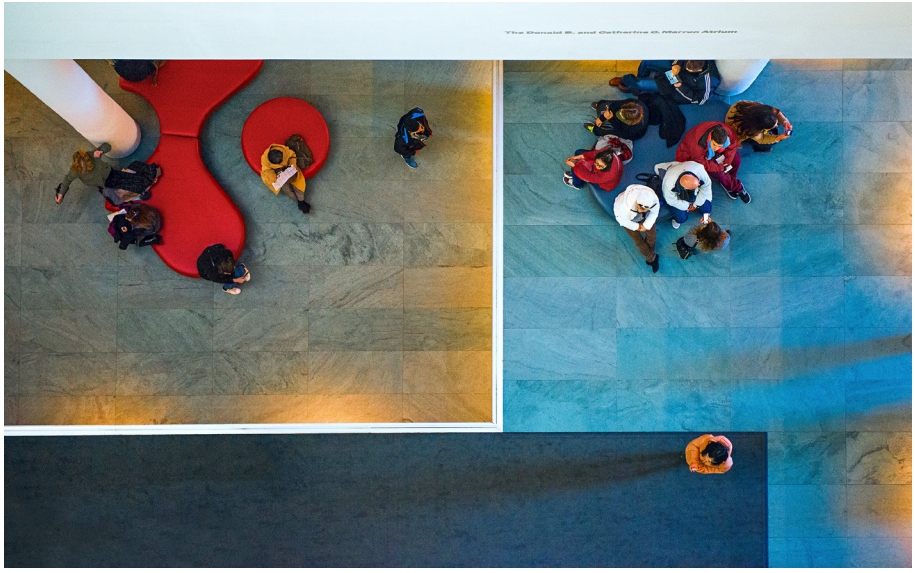
Premium Matt Duo (200gsm)

ILFORD GALERIE Prestige Premium Matt Duo is a double-sided paper with a smooth bright white finish. The 200gsm product is a true heavyweight and with 98% opacity it is perfect for professional quality photo albums, portfolios and display prints.



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ABOUT THE WRITER

Bryan Tong has global experience working in America & Asia. His clients range from large corporation to a sole proprietorship. He uses his diversified skillsets including imaging and colour management system, to help companies by examining their end to end work process and collaborating with different groups to achieve their manufacturing colour goals.

He received a BSc in Photographic & Electronic Imaging Science in University of Westminster in London, Master of Research in Computer Graphics and Image Processing in University College London. He has contributed several

papers and articles related to imaging science and colour management system in England and Hong Kong. His other areas of interests include Fine Art, alternative photography, sensitometery & Fourier optics.

During 2012 he started his own business to provide independent print consultation and colour management firm based in Hong Kong & China. Bryan's up coming projects are promoting Fine Art Photo and print making culture in Asia. Exchange information on alternative photography with passionate artists and photographers.

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