

Background, Overview and Support

The purpose of this document is to outline what is required to get your images ready for printing. Originally it was intended for use when using printing service firms like ProAm (http://www.proamimaging.com/) or DS Colour Labs (http://dscolourlabs.co.uk/), but the process is equally applicable when doing this yourself at home using your own printer.

The contents of this are based upon my experience and maybe over time others will update, correct and add advice. There are various steps and stages you'll need to take and I've tried to outline these here, hopefully not too onerous.

Some advice/support. When I started printing my images I was put off by what I saw as the challenge of preparing and sending images to professional printers what with the costs associated with High Street printers. I would say I'm glad I persevered because in the end it wasn't that difficult and the results were better than I had expected. It's very rewarding seeing your images printed and mounted and potentially hanging on the wall for you and others to admire. So give it a try.



Steps to Follow

There are a number of steps you'll need to follow to ensure you get the best out of your printed image:

- Calibrate your Monitor
- Choose the size you want to print your image when mounted
- Prepare your image for printing and print it
- Mount your image

Calibrate Your Monitor

This is an important step and is covered in a separate guide, but needless to say unless your monitor is calibrated correctly you'll find it difficult to get your image printed correctly. The club has a number of monitor calibration devices: a Spider and a i1Profile. Calibration is a straightforward process but it is worth stressing that it pays to check the calibration of your monitor if it hasn't been done for a while.

Choose the Size of Your Image

A couple of things to think about when printing:

- Mount Size
- Print Size
- Opening on the mount for the image

Mount Size

The standard <u>mount</u> size for competitions used in the club and that used by the L&CPU¹ is 50cm * 40cm and is a standard across the PAGB and readily available from mount suppliers, although you can buy bigger and trim down.

Print Size

So once you have your mount you need to decide how 'big' your image will sit within the mount. This will depend on a number of factors, for example if you have a wide landscape image, but also on personal preference. However the way the image is presented within the mount will have an impact upon how judges view and mark your image. An image will suffer if it is not presented properly. If an image is too small it may well suffer, equally an image which is too large with a very small mount border looks wrong and can therefore also suffer. I've no hard and fast rules for this, but if your image looks right you'll probably be ok.

Anyway, why do I mention this, simply this, when you get your image printed you'll need to select the paper size you want your image printed on. Print service companies have a large selection of paper sizes, DS Colour Labs have about 50 different sizes, however not all are applicable for club competitions.

¹ Lancashire & Cheshire Photographic Union, part of the PAGB



Mount Opening for the Image

Having decided your print size you'll need to mount it within the opening on the mount. There are a couple of things to think about when doing this. The obvious one is make sure your print (size) is bigger than the opening as you'll need some overlap to fix your image to the mount otherwise it will be very tricky to attach it. So give yourself a border around your image. Most printers give you a couple of millimetres when they print your image. Secondly you need to decide whether you want mounts with pre-cut openings as opposed to having to cut your own. Both have pros and cons

	Pros	Cons
Pre-Cut	You don't have to cut the opening	They're a fixed size so you may end up having to
		compromise your image's size after printing.
Own-Cut	It is often a better fit for your image and	You need to be able cut out the opening for the size
	you have more control over the	of your image which needs cutters and a few
	presentation	practice runs.

With Pre-Cut openings the standard size is usually A4 but provided you order enough you can order mounts with openings to your own dimensions. Some members are happy with pre-cut mounts, personally I prefer having more control over how my images are mounted.

Preparing Your Image for Printing

Whether you are printing your image at home or sending it off to a professional printers, the process is pretty much the same and outlined below, but there are some points to think about:

- Do you have a good enough printer to be able to match what you see on your monitor?
- Can your printer produce the range of greys in your image for B&W images?
- Do you want images bigger than A4, i.e. do you want A3 prints?
- How much will it cost?

If your printer only has a few, or even just one ink cartridge, it is unlikely to produce good results, but I could be wrong. I have 6 separate ink cartridges on my A4 Epson Photoprinter, but only 1 black cartridge. It's OK (good) for colour but I have wasted a lot of time trying to get acceptable B&W images across different papers, some are good, some have a colour tinge which can be corrected to a degree, some were truly awful. But quite often I want images which are bigger than A4. Trying to produce competition quality images has sucked the ink out of my cartridges and since it is the cost of the ink which hurts I more often than not go for a professional printer.

Costs

As a guide only, so don't hold me to this, the cost of using professional printers, such as DS Colour Labs and ProAm, unless you're doing very specialised printing on specialised papers, is very cost -effective. A typical colour A3 print may cost as little as 90p (as of Sept 2017). The bulk of the cost is usually in the postage and depending what option you choose is no more expensive than that of a normal parcel delivery, for next day delivery it can be about £10. So the advice is prepare and print a few together.

So unless you're able to, want to and can pay for a good quality photograph printer and are equally happy to pay for the ink I would say using professional printers is a very good option. Remember also for your own home colour printer you need to keep using it otherwise you may find that the ink cartridges 'dry' up.



Profiling and Printing

OK, this is the easy part. By now you will have finished editing your image, ensured your image looks great using your calibrated monitor and ready to print. Preparing an image for printing is essentially making sure you've got the correct print profile to used.

Print profiles ensure that when your image is printed it matches both the characteristic of the paper (matt, lustre, glossy) on which you want your image printed as well as the physical printer which will be used. These profiles are available from paper and printer manufacturers or the professional printers you've decided to use. All you have to do is 'convert' your image to use the correct one. It's essentially 3 clicks in say Photoshop to do this.... but (there is always one) there is one thing you have to do first to make sure your image is going to fit onto the paper when printed! Size your image, more below...

But the steps for preparing printing are²:

- Download the correct profile
- Note the resolution required by the printers
- Size your image for printing
- Convert your image to the downloaded profile
- Save your image as a jpg
- upload your image to the printers
- submit your request
- wait for the print to arrive
- Mount, stand back and receive the plaudits from the onlookers

Download and Install the Required Profile

Profiles are simple data files which can be downloaded from the printer or paper manufacturers, or professional printers' web site. They are usually found under their support or technical support area. There will usually be a number of profiles, one for each type of paper you may use. They are easy to download, usually simply by clicking on them then you may be asked a) whether you want to download them and b) where to save them, if you get given these options.

In the example below I will use DS Colour Labs profiles, this is a screen shot from their web site:

DOWNLOAD PAPER PROFILES BELOW Click on the name of the paper profile to launch the download or click on the Tech Spec button for more information on the papers.						
Fuji 570 DPII Pro Lustre Paper Tech Spec Sheet	Fuji 570 C/A Glossy Paper Tech Spec Sheet					
Fujicolor C/A Professional Velvet Paper Tech Spec Sheet	Fujicolor C/A Digital Pearl Metallic Paper Tech Spec Sheet					
Kodak Professional Endura Metallic Paper Tech Spec Sheet	Please Note: Paper Profiles are not required for Fine Art Prints, Photo Gifts or Wall Products as we add the profile at our end as we print them.					

Figure 1 : DS Colour Labs Profiles

Select the correct profile you want, click on it and it will be downloaded. Normally on a Windows PC this will have been saved to the **Downloads** folder:

² I'm assuming here we're using a professional printers such as DS Colour Labs



DC-Colour-labs-Frontier-Glossy.icc	10/03/2016 12:21	ICC Profile	1,425 KB	
A DC-Colour-labs-Frontier-Lustre.icc	10/03/2016 12:11	ICC Profile	1,425 KB	

Figure 2: DS Colour Labs Profiles in Downloads Folder

Once the profile has been downloaded you can either hover the cursor over file, use the right hand mouse button (it's the context menu for those who understand such stuff, or if you've set up your mouse as a leftie, it may be the left hand mouse button):

		Nume		Datemounica	1)00	SILC
			Colour-labs-Frontier-Glossy.icc	10/03/2016 12:21	ICC Profile	1,425 KE
2	Install Profile Edit with Notepad++ Scan DC-Colour-labs-Frontier-Glossy.icc Shred using AVG		Colour-labs-Frontier-Lustre.icc	29/03/2017 11:24	ICC Profile	1,425 KI
÷	Move to Dropbox					
	Open with					
0	Share with Scan with Malwarebytes Anti-Malware Restore previous versions	•				
	Send to	•				
	Cut Copy					
	Create shortcut Delete Rename					
	Properties					

Figure 3: Install Profile

If you don't get given the option to install the profile you can simply copy the file to the correct location. Installing the profile doesn't actually run anything, it simply copies it to the required location.

Under Windows this will be something like: C:\Windows\System32\spool\drivers\color, for Mac users there will be a similar location, for Linux users something like: ./usr/share/color/icc. Depending upon the OS which you're using and its version this location may be slightly different. A good way to find the correct location on your own machine is to search for .icc files. There are also many good links on the web to tell you where to locate your profiles.

If you had Photoshop or Lightroom open prior to the installation you'll need to exit and restart the application for the profile to show up.

Print Resolution

One important parameter to note when preparing images for printing is the print resolution, typically Dots Per Inch (dpi) which the printers require your image to be set to. This information can be found on the printer's web site, but 300 dpi is a typical value. You use this value when resizing your image using either of the 2 methods detailed below.

Sizing Your Image

The purpose of this step is to ensure that when your image is printed it fits onto the paper and is not clipped. There are 2 ways I know of achieving this: the original approach as detailed on the club's web site or a slightly newer approach which I've nicked from DS Colour Labs. I won't cover the original approach as this is already on the web site.

In the new approach this uses the clipping tool in Photoshop and works by allowing you to resize an image. It does however mean you'll need to use Photoshop, but the same may be achievable in Lightroom as part of the export process. But here is the Photoshop version.



Looking at the image below I've decided I want to print this out as a 10 x 8 inch. Because it's very wide when I apply the crop tool it's not going to cover the image



Figure 4 : Original Image

A word of advice. Typically when preparing images for printing and because we are changing the size and resolution of an image I don't want to mess with the original, so once I've finished editing the original I **duplicate** the image using the **Edit>Duplicate** menu option and save the original before I start changing the copy. This way if I mess up the copy the original is still safe. Normally once I've finished modifying the duplicate I discard it.

So below I've selected the crop tool in Photoshop:



Figure 5: Original Image with Cropping Boundaries



If you notice (zoom in on the top LHS, but also see below) I have selected the Cropping Tool using the W x H x Resolution option:



Figure 6 Cropping Tool Options

Some things to notice here. I have specified both the paper size (H x W) and also resolution (300 dpi). The latter is important as it is the value which the printers will have specified as needing setting for the print resolution.

Back on the image (above) you will notice that the crop is too small to contain the whole image. The answer to this is resize the image by dragging the anchors (?) on the crop's borders (either the corners, the sides or at the top and bottom) to increase the 'size' of the image.



Figure 7: Resized Image

You'll notice that the size parameters haven't changed, but you've got a border (white in this case). This is because the image has to be resized to your specified dimensions. This is good because you'll need a border when it comes to mounting the image. If you want to change the colour of the border you can do this by simply swapping the background and foreground colour in Photoshop or selecting your own background colour as standard.

Once you're happy just commit the crop and the image will retain the 10 x 8 in dimensions in this example. So that's the first step.

This same technique can be used when preparing images for digital (DPI) display, but rather than specifying a paper print size you can specify a pixel size, for example 1400px x 1050px.



Convert Image To Profile

This step is where you're actually applying the required print profile to you image. It is very straightforward. Select **Edit>Convert to Profile** from the main menu and you should be presented with the **Convert to Profile** window.

convert to Profile OK Source Space OK Profile: OK Destination Space Cancel Profile: OK Convert to C Gan 15% Cancel Dot Gan 15% OK Convert to C Gan 15% OK Dot Gan 25% OK Dot Gan 25% OK Drive: Dot C Gan 25% OK Drive: Dot C Gan 25% OK Drive: OK C Gan 25%	
Acer S240HLLm Acer S240HLLm Acer, Montor, J., Profie, Joez, 2016.km Acer, Montor, J., Profie, Joez, 2016.cm, km avdav.icm avdav.icm avdav.icm avdav.icm avdav.icm avdav.icm avdav.icm avdav.icm bala.cm Default, Montor, J., prok.m Default, Montor, J., prok.m Defaul	
EPSON PAL/SECAM EPSON SMPTE-C EPSON sRGB EPSON Style Photo RX700 EPSON Styles Photo RX700 EPSON Styles Photo RX700 FULDP2_ProAm.xtm Generic PhiP Montor-1 Generic PhiP Montor-1 Generic PhiP Montor-1 HDTV (Rec. 709) Non Vipriforite 4.0.0.3000 PAL/SECAM	

Figure 8 : Convert to Profile

On the **Destination Source** field, from the dropdown list select the profile you want to use, in our case it is **DS Colour Labs Frontier Lustre**. This should match or at least be very similar to the name of the profile file you downloaded, although the name can be subtly different, but the type (Lustre, Gloss, ..) and printer's name (DS Colour) are usually quite close.

Having selected the profile there's no need to change anything else, simply click **OK** and your image will have been 'converted' to the required profile.

If you want to see the impact of the conversion and whether anything has gone slightly awry you can do this by using the equivalent of a soft proof check by selecting **View>Proof Setup>Custom** and on the **Device to Simulate** field chose the profile you used previously. You don't need to change anything else. If there are any glaring issues they should be seen by clicking preview on and off. Hopefully though since your screen has been calibrated there shouldn't be any.

Save your Image as a JPG

Now your image has been converted you need to save the image as jpg ready for sending to the printers. This is straightforward select **File>Save As** and in the Save As file box select JPEG (*.JPG, *.JPEG, *.JPE). Prior to the file being saved you will be prompted for some JPEG Options.



Figure 9: JPEG Options

Select the maximum quality and press OK.

So now your file is ready for sending off to the printers.

Send your Image to the Printers

Different printers have different processes for uploading images, some make you place files in a particular folder inside a zip file and upload the zip file, others allow you to simply upload each file under the appropriate file size. Whichever method is required the printer will have this covered under their instructions or FAQs section.