Worcestershire Camera Club

Technical Guidelines for Entering Prints

1. Purpose

i. These guidelines are intended to assist you in submitting mounted prints for Club Competitions. They can't guarantee success in those competitions, that is mainly down to your skill as a photographer (!), but they will help you to ensure that the prints that you submit are not let down by poor processing.

ii. They are split into two main sections:

    a. On this page is a summary of the requirements for entering Club Print Competitions for those who are familiar with printing and mounting their images.

    b. The remainder of the document gives more in-depth guidance for those new to these skills.

2. Requirements for Entering Club Print Competitions

i. It is essential for the smooth running of the Print Competitions that authors comply with the following entry requirements. These should be read in conjunction with the appropriate Club Competition rules.

ii. Prints must be mounted, but not framed. The mount size must be either 16 x 20 inches or 40 x 50 cm.

iii. The print must be attached to the mount using good quality adhesive tape. Ideally use specialist tape such as PH7 – 70 Conservation Tape (available from framing materials shops), but any good quality adhesive tape can be used.

Do not use old tape that has partly lost its adhesive properties. Your print may detach from its mount in transit before the competition with the danger that the still slightly sticky tape will adhere to the surface of another print in the collection and do irreparable damage.

iv. For the competition, your print will be identified only by its title. **Your name must not appear on either the front or the back of the mounted print.** You must print the title clearly on the back of the print in such a way that those handling the print will know which is the top.

A good option is to use a sticky label with the title and orientation printed on it either by hand or computer printer. An example is shown below:

▲ Top ▲
Title of Print

Do not use old labels that have partly lost their adhesive properties. They may fall off in transit!

v. You can use a protective backing board on the mounted print, but this is not essential for Club Competitions.

vi. **You must complete an Entry Form.** This can be downloaded from the Internal Competitions page of the Club website. Complete the Form and leave it with your print(s) in the print submission box at a Club meeting. The Entry Form links the title of the print to the author's name and enables it to be identified for the competition. Without both a title on the back of the print and a completed Entry Form your print will not be entered into the competition.

3. More In-depth Guidance on Printing and Mounting Images

3.1. General

i. This section assumes that you are going to both print and mount your own images. For Club Competitions there is no requirement that you do this work yourself. You may decide to have the printing done by a specialist company and mount the prints yourself or also have them mounted by the company. For a small number of prints this will be a more cost effective option compared to buying your own printer, paper, etc. If you want to pursue this option then ask around the Club for recommended specialist printers.

ii. If you are doing your own printing and mounting, this section assumes that you are using an ink jet printer made by one of the major manufacturers such as Canon or Epson.

iii. The following steps are considered below:

    a. Choice of print size

    b. Preparation of the image on the computer prior to printing

    c. Choice of paper and inks

    d. Colour management during printing

    e. Printing practicalities

    f. Mounting your print

3.2. Choice of Print Size

i. The size of print that you produce is determined by:

    a. The size of the mount. With either 20 x 16 inch or 50 x 40 cm mounts the largest print you could use is probably 40 x 32 cm (5:4 aspect ratio). However, you will need a very good original image to print this big and more realistically you are going to be producing prints of 36 x 24 cm (3:2 aspect ratio) or 32 x 24 cm (4:3 aspect ratio) or smaller if you only have access to an A4 printer. Remember that a small print in a large mount can be extremely effective – it is all down to artistic interpretation!

    b. Your printer, which will normally be designed to take A3 or A4 paper. Printers designed for A3 paper are larger and more expensive than A4 printers, but give greater flexibility. A3 printers will also normally take A3+ paper, which is slightly larger than A3 and is readily available; this gives even greater flexibility allowing prints, for example, up to 18 x 12 inches and 40 x 32 cm to be made.

    c. The quality of the image: remember that defects in sharpness, etc. will be more easily visible the larger the printed image!

    d. You are free to use any size of image that you choose within the size constraints of the mount and your printer. However, sticking to a few standard sizes such as 36 x 24cm means that you can buy a small stock of ready cut mounts at lower cost compared to having to have bespoke mounts cut commercially or have the labour of cutting them yourself.

3.3. Preparation of the Image on the Computer Prior to Printing

i. For normal printing, good results can be achieved with your image editing software (e.g. Adobe Photoshop) set to 8bit colour depth and Adobe RGB1998 colour space. For high quality exhibition prints, use of 16bit colour depth and ProPhoto colour space should provide slightly improved prints.

ii. Colour management (and it applies to monochrome images to a lesser extent) is essential at each step in the process from the taking of a digital photograph all the way through to printing it on paper. The point in this process at which you ensure that you are satisfied with the colours in your image is when you view it and, if necessary make any adjustments to it using your image editing software, on your computer monitor.

For this to work correctly it is essential that your computer monitor is calibrated. This requires a monitor calibration unit and one is available within the Club – see the Club notice-board.

It is particularly important to ensure that you are satisfied with the colours in your image when viewed on your monitor because the last step in the process is for your printer to put on paper exactly the same image that was on your monitor. This is the most complicated piece of colour management in the whole process from taking the image to putting it on paper (see section 3.5 below) so if you start off with a faulty image on your monitor, you will struggle to get a good printed copy.

iii. Ensure that the print resolution is adequate. A minimum of 300ppi is generally suitable for high quality prints. However, if you are using an Epson printer, 360ppi is recommended to produce the best results.

iv. Careful sharpening should be applied to your final image just before you print it as the correct amount of sharpening will produce a crisper print; over-sharpening must be avoided as it will be obvious on the final print. Experiment to determine the amount to use.

3.4. Choice of Papers and Inks

i. Own brand ink jet paper can be obtained from the major printer manufacturers such as Canon and Epson. There are also a number of third party specialist paper suppliers such as Fotospeed, Hahnemühle, and Permajet. When new to printing it is advisable to use a well known brand as their websites can provide much helpful information especially on colour management.

ii. Ink jet paper is widely available and is normally sold in metric sizes, A4, A3, A3+, A2, etc. and in packs of typically 10, 25, 50, etc. sheets. Most manufacturers produce roll feed paper for larger users and some produce specialist paper sizes such as panoramic paper.

iii. Ink jet paper is also available in a very wide range of thicknesses and finishes (gloss, semi-gloss, matt, etc.) such that the choice seems daunting at first glance. Trying different papers is also expensive. Most paper manufacturers supply sample packs of A4 size paper, which contain say two sheets of ten different types of paper to enable you to try a variety of papers at low cost.

iv. When new to printing it is advisable to use the printer manufacturer's own brand ink. It is expensive, but at least you know precisely what you are getting. Part of the cost is for the manufacturer to ensure that every cartridge of a particular type is exactly the same as every other so again you know what you are getting.

3.5. Colour Management During Printing

i. This assumes that you are satisfied with the image on your monitor, have resized it, got it to the correct 300/360dpi, sharpened it, etc.

ii. Colour management is controlled by what is called an ICC profile, which needs to be correct for the type of printer, type of ink and type of paper you are using. You need to print with your image editing software set to manage colour handling and with the correct ICC profile set in the software for your printer, ink and paper combination.

iii. When you first install your printer and load the printer driver onto your computer, correct ICC profiles for the printer, printer manufacturer's ink and a range of the printer manufacturer's papers will also be loaded and should be available in your image editing software. These should get you started providing you use the correct paper.

iv. If you use the printer manufacturer's ink, but third party paper, then providing that you have a widely used printer, the paper manufacturer's website may be able to provide you with an ICC profile for the printer, ink and paper combination. The paper manufacturer will almost certainly offer a bespoke profiling service (often free) for your printer, ink and their paper. Look at their website for details.

v. If you use third party ink, then most likely, you will have to create your own ICC profile for the ink and paper combination. These require a printer calibration unit. One is available within the Club – see the Club notice-board.

vi. Even when you use your image editing software to manage colours, you will also have to input some information such as the paper type and print quality (generally set this to the maximum available) into the printer manufacturer's printer driver. Make sure that you always input the same information for the ink and paper combination and that it is precisely the same information that you used if you created your own ICC profile.

vii. If you are printing monochrome prints, that is true grey scale prints with no colour toning, then some printers have a black and white mode built into the printer driver. If this is the case then use it! This tells the printer to only use black or light black, etc. inks for the print – no coloured inks – and so avoids any possibility of colour casts on the print. In this mode you will have to turn off the colour management in your image editing software and allow the printer to manage colours.

viii. If, however, you want to print a monochrome image, but with a single colour tone such as sepia (allowable for the Club monochrome print competitions) then you must print it as if it were a colour image.

3.6. Printing Practicalities

i. Do read the printer manufacturer's instruction manual! This is especially important, for example, if you are using heavyweight papers that need special handling in the printer.

ii. Before you start any print run, you should do a nozzle check to ensure that the print heads are working correctly. Use A4 plain paper – nothing expensive – it only takes a few seconds and will save you from wasting an expensive sheet of ink jet paper. Carefully examine your final prints for any signs of 'banding' which indicates that not all nozzles are working correctly.

iii. Cleanliness is very important. Small specks of dust on the surface of the paper will absorb the ink during printing and if later they brush off then they will leave white spots on the print.

iv. Allow the print to dry for a few hours – 24 hours is ideal – to make an accurate assessment of the quality and more particularly the accuracy of the colours in you print. For Club Print Competitions, the judges view the prints under daylight bulbs of a known colour temperature – ideally you should do the same!

3.7. Mounting Your Print

i. For Club Competitions the mount size must be either 16 x 20 inches or 40 x 50 cm. It is best to use a neutral coloured mount such as white or close to white. Grey and black mounts can be used if you feel that they enhance your images, but coloured mounts should be avoided as the judge may not like your choice of colour!

ii. You can buy mounting board from art shops, framing material shops, etc. and with a mount cutter and care, cut your own mounts. This has two advantages: firstly it is relatively low cost and secondly it gives you total control over the size and position of the aperture you cut to display your image. When cutting the aperture use a mount cutter to provide a neat bevelled frame edge. The finished result should be clean and crisply presented.

iii. Alternatively you can buy ready cut mounts. The larger framing material suppliers use computer controlled cutting machines that can produce a precisely cut mount with a neat bevelled aperture in a few seconds.

The mounts can be made to order from your choice of mounting board and aperture size and position, but are expensive for one off. However, by sticking to a few standard sizes such as a 36 x 24cm aperture, you can buy a small stock of ready cut mounts at a quantity discount, which makes them cost effective.

Note that if you specify, for example a 36 x 24cm aperture, then commercially made mounts will usually come with an aperture 3mm smaller all round (35.4cm x 23.4cm) to allow for errors in centring the print during mounting. Other apertures will be similarly smaller than specified.

iv. You may want the aperture to be central in the mount. However, you may prefer a larger margin on the bottom of the mount to give a more pleasing proportion as shown in the drawing below, but this is a matter of personal choice. If you are buying a stock of ready cut mounts, then you may favour a central aperture so that the mount can be used for both landscape and portrait images.
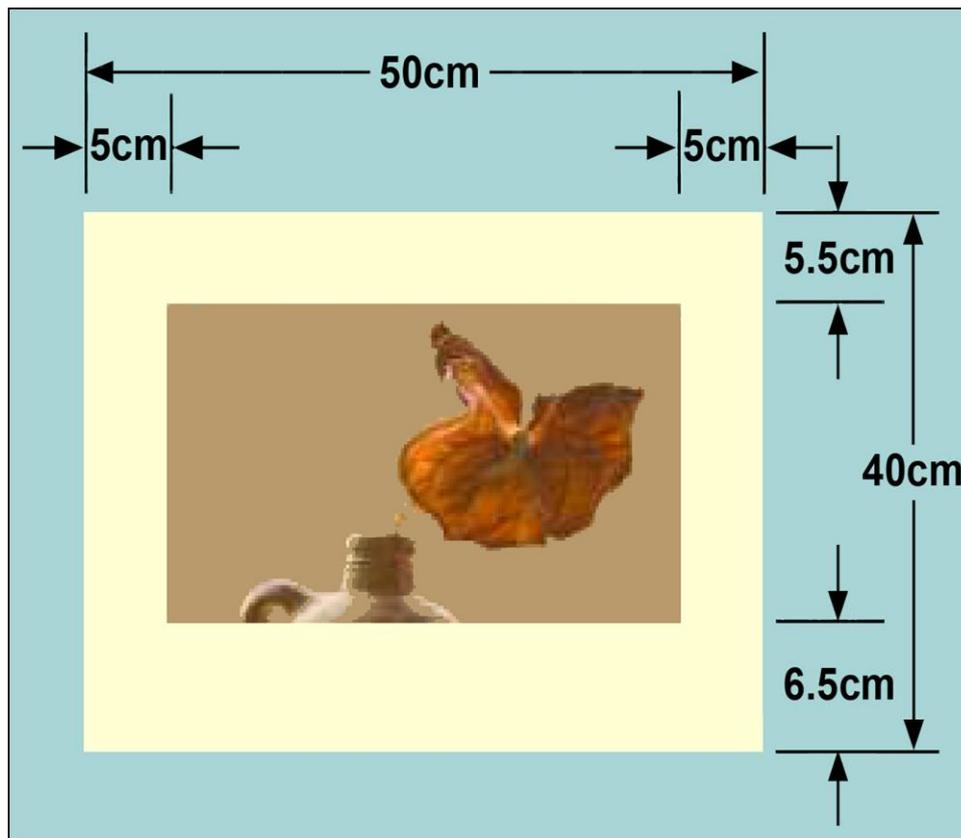
Example of a mount with the print aperture offset to give a larger margin
at the bottom compared to the top