

# Digital Photography: *Printing A Picture*

Producing a digital print can seem quite daunting at first but this guide is written to take you through some basic steps. There is some detail in a place or two but a careful reading should be enough to get you started. This guide is centred on using **Photoshop Elements (PSE 2)** to just produce a straightforward print.

## 1.1 Select the picture

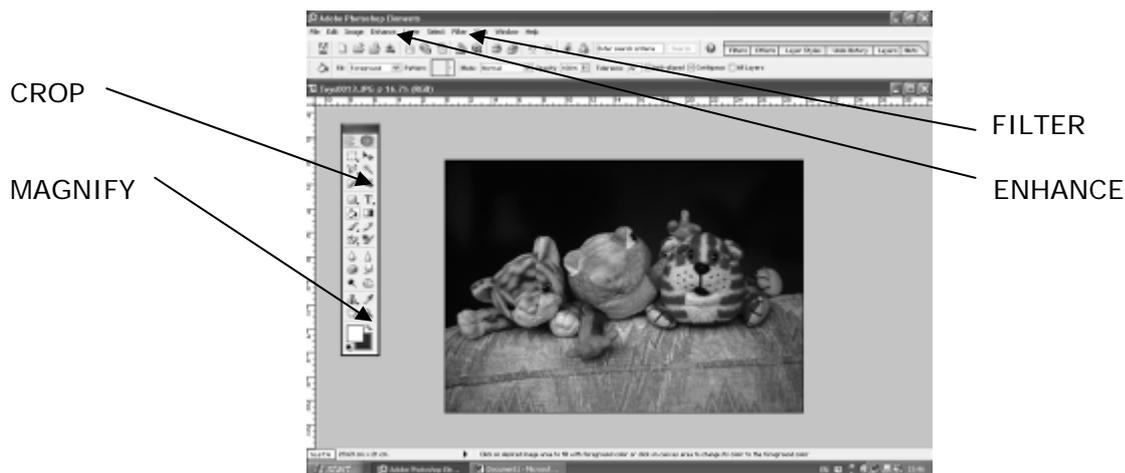
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Windows XP has an excellent browser for pictures, just click on a file and you can view the pictures as thumbnails or filmstrip or a slideshow. So look through your pictures before you open PSE 2. Deleting or moving pictures is easier to do now than in PSE 2 Browser. It will not display RAW images.

- Launch PSE2
- Select your picture either by FILE>OPEN..... or FILE>BROWSE.....
- Double click on image or file name to load

## 1.2 View Picture

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- Click on the full frame button on the top right of the picture so that it overlays everything else.
- Click on the MAGNIFYING GLASS TOOL (Bottom right of Tools Palette). The second row of the toolbar at the top of the screen will now have changed and you can find FIT ON SCREEN. Click on it and your picture will become as big as it can be.

The least you will want to do with your picture to prepare it for printing is to **CROP** then **ENHANCE**, probably **SHARPEN** and finally to resize and **PRINT**

## 1.3 Crop

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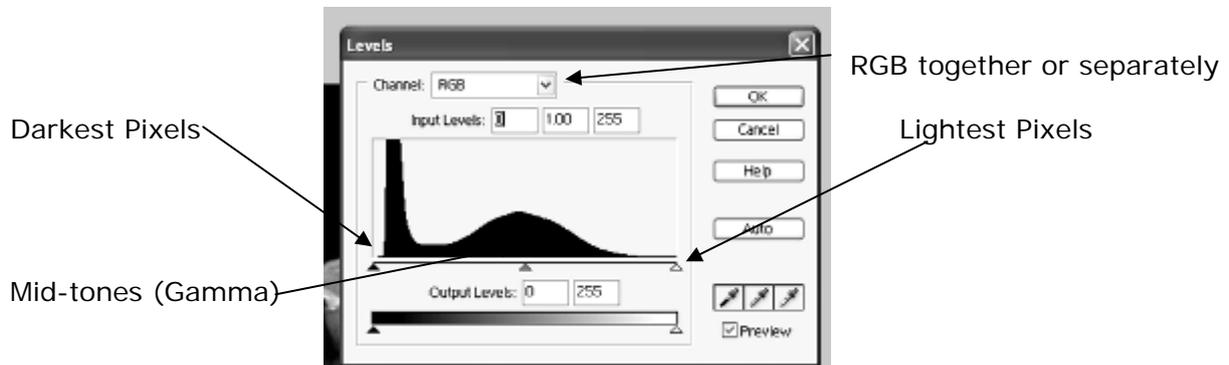
Select the **CROP TOOL** ( ) from the **TOOLS PALETTE**. If you want particular proportions (7 x 5in 6 x 4 in, A4, whatever) you can type them into the two little boxes which have now appeared on the second line of the top tool bar. Remember the units or it will assume the default units already set. Set it at 300pixels/inch too. You will learn by experience how to avoid over-enlargement (see later).

Now place your CROP TOOL over the picture and click and drag out the frame until you are satisfied with the composition. You can correct a slanted picture by going to a corner, you will see a double headed curve appear and you can now twist the picture.

- Right mouse click to select or cancel

## 1.4 Enhance

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The most powerful picture improving feature of the programme is **LEVELS** it can be used to adjust the contrast, tonal range and colour of the picture. LEVELS is found in ENHANCE>ADJUST BRIGHTNESS/CONTRAST >LEVELS, but just try ENHANCE>AUTO LEVELS (or SHIFT/CONTROL/L), first. If you are happy with the results, fine. If nothing appears to happen then your picture is probably correctly exposed, with a nice balance of colours and contrast – well done! Leave it!

Manual adjustment of levels is quite quick to do in a lot of cases. ENHANCE>ADJUST BRIGHTNESS/CONTRAST>LEVELS (or CONTROL L) will bring up the Levels dialogue box. The histogram shows the number of pixels which have a brightness ranging from blackest black (left of horizontal scale) to whitest white (right of scale). In the example shown there is hardly any really bright areas and look at the effect of that dark background – a great tall peak at the black end of the histogram – yet there are no true blacks!

If your picture lacks contrast there may be no or few bars at the extreme left and right so move the left and right tabs in towards the centre, just to where the histogram starts in each case. You are effectively spreading the range of brightness in the picture.

Underexposure can also be improved by moving the middle tab (gamma) – with this one you can get back to where you started (if you think you are going wrong) by watching the number above in the box, 1.0 displayed there is back at the start.

Colours may also be adjusted by selecting the RED, GREEN and BLUE channel histograms separately.

**TAKING TIP:** *Digital cameras easily overexpose the brightest part of the picture. You cannot easily correct this afterwards so consider setting the camera to underexpose a bit.*

## 1.5 Sharpen

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Sharpening will improve even an out-of-focus picture but it is not the same as getting a sharp image in the first place. **TAKING TIPS:** *To ensure a sharp picture always keep the camera very steady and release the shutter very gently. Watch out for the camera selecting a slow shutter speed (1/30 sec may be too slow). All these errors will cause "camera shake" – a main destroyer of good images.*

When PSE 2 applies sharpening it is just altering local contrast of the pixels and overdoing it introduces terrible artefacts like halos round edges of buildings against the sky etc. Also watch out for big plain areas getting very "grainy", peoples faces too will look very craggy if you overdo it.

There are several sharpening features under FILTER>SHARPEN but ONLY use **UNSHARP MASK**.

Select FILTER>SHARPEN>UNSHARP MASK. There are three settings. Make sure **PREVIEW** is checked (ticked). If your monitor is small or fairly low resolution you will do well to select ACTUAL PIXELS or 100% enlargement first too.

Try **AMOUNT** – less than 100%, **RADIUS** 0.8 to 1.0 and leave **THRESHOLD** on ZERO. Sliding the AMOUNT up and down and looking at the picture will help you decide. Remember that the print will reveal more detail than your monitor and any signs of haloes or fringing will look far worse on the print. Don't overdo it!

With an unsharp picture (if you must print it!) you can go up to 4.0 on radius and a bit over 100% on AMOUNT.



## 1.6 Printing

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People experience more problems with this than anything else. Often the fault lies in choice of **ink and paper**. To start with always use the printer manufacturers inks – and their paper too! I presently use Jessops 260gsm Glossy paper with my Epson printer. If you want to save money on ink, buy a second printer to use cheap compatible inks for printing text etc and stick to the manufacturers inks in your photo printer. Next, make sure you know how to **set your printer** for the particular paper you are using. Always use 1440dpi for enlargements – 2880dpi is only very slightly better and takes ages on an Epson. Insert the paper with the correct side up too!

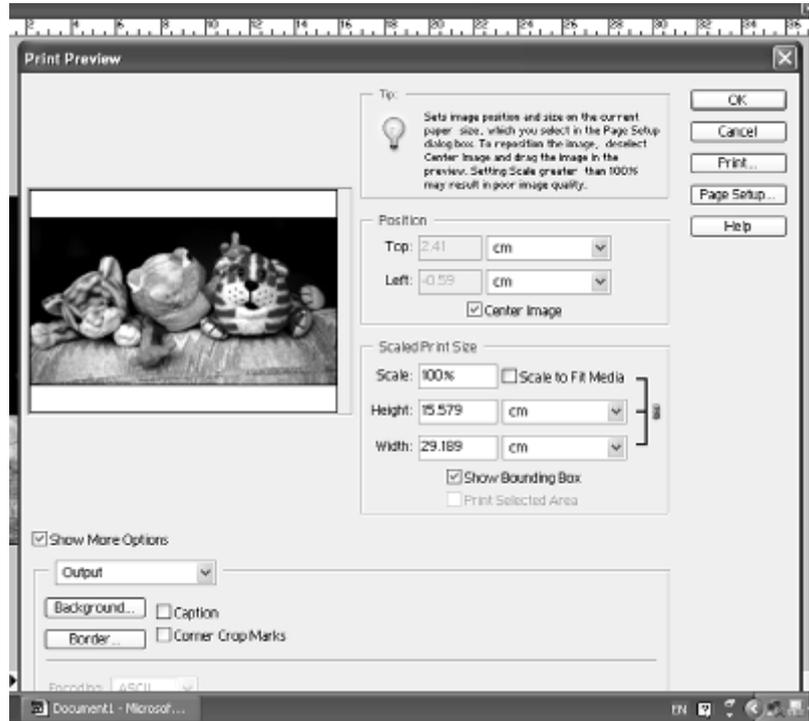
**Colour matching** is a really big subject – beyond consideration in an introduction like this. You will never be able to precisely match in the print what you see on your monitor – the range of contrast is far greater on the monitor and the way the colours are displayed is completely different, but you can get it near enough for a satisfying print. For many subjects it is less critical anyway.

If you set the crop tool for a certain size of picture you are now ready to print it or file it away.

**TECHNICAL NOTE:** You can change picture size with IMAGE>RESIZE>IMAGE SIZE and then making sure the **resampling** box is **unchecked** to stop the program from inserting extra pixels (if you are enlarging) and degrading the image. If you change the dimensions make sure the pixels/inch does not go below 150ppi. 150 to 300 is OK. More than 300 is regarded by most as unnecessary (though some say 360). You only have a certain number of pixels in your picture and making the picture bigger will make the pixels bigger, at some point (< 150) they will show and ruin the picture. If you force more pixels the computer can only invent them and this also degrades the image. A 10" x 8" print from a typical "compact" digital camera requires 10x150 pixels by 8x150 pixels

= 1500 x 1200 = 1,800,000 – so is on the limit for a 2 Megapixel camera. Always use the highest quality JPEG setting on your camera and the biggest picture size if you want to make the largest prints from it.

To **PRINT** go to FILE>PRINT PREVIEW and then look how your picture fits on A4 (if you want another paper size go to FILE>PAGE SETUP first). Photoshop always puts your picture in the centre of the page at first and this is OK if it is big enough, but otherwise select SCALE TO FIT MEDIA. If you want to get two pictures or more on a sheet, uncheck CENTRE and move the image (this does not work until you have SCALE TO FIT MEDIA unchecked). You may want to CANCEL the print preview and go back to the image to turn it through 90 degrees using IMAGE>ROTATE, then go back to FILE>PRINT PREVIEW again.



When you are happy about the size select PRINT to open up your printer dialogue box – how this works depends on your printer but make sure you are maximising the settings, getting the best quality you can for the paper you are using.

Getting the colours right can be a frustrating task but I have found that using genuine materials the colour cast etc is minimal. If you are uncertain about the settings being right select a smaller size (say, 25%) in the PRINT PREVIEW and move the image to one side of the paper and do a small test print first.

The cheapest way to view your pictures is on the monitor as a “slide show” or make them up into an AV show with Pictures-to-Exe or something similar. If you want 6x4 or 7x5 prints to hand around then burn them as jpegs or tiffs onto a CD and take them into Jessops; 50 6x4s are £5 and 50 7x5s are £7, colour is excellent and they will not fade like some inkjets do. You will also save yourself hours of printing time!

Happy snapping!

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For **Crewe Photographic Society**  
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