

Bits and pieces

Here we discuss things that apply to more than just one of the Adobe Creative Suite applications, or were not covered in the lessons and exercises, or where I feel you need further practice.

1 Colour

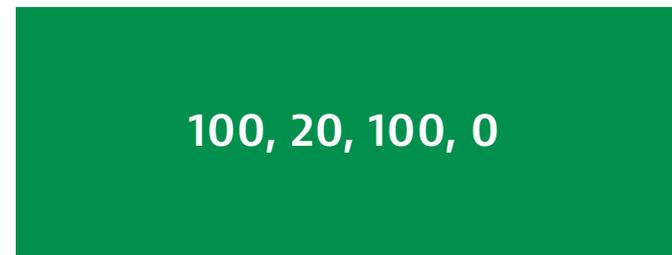
The rendering of colour, on various media and devices, is a sophisticated topic and not dealt with here in detail.

For **PRINT** one uses four colours to create all colours — think of pigments: **CMYK** (“K” stands for “Key” meaning Black so as not to be confused with Blue “B” in RGB.).



For example, the darkish green colour on the right is C 100%, M 20%, Y 100%, K 0%.

For projected **LIGHT**, as in computer/phone monitors hence the internet too, one uses **RGB**.



The same colour can look different when seen on different monitors, or printed on different printers, because a device rendering of colour is often imprecise. Graphic professionals use special hardware to colour calibrate their monitors and printers! This is further complicated by something called a colour “gamut” and device colour profile — which is to do with how much detail one can see at the extremes and how colours are mapped.

For offset printing, use CMYK, and a printing company will tell you what PDF print settings (including colour profile) are required. **For web and other electronic media** use RGB.

To switch between colour spaces (CMYK or RGB), in Photoshop you go » [Image » Mode](#).

For print, one *sometimes* uses special (generally non CMYK) colours. For a business card one might want to use two colour printing, for example a particular red and a particular cool grey, and for this you stipulate colour based on a PANTONE colour set. More about this later.

2 Sizing and saving images for web

Download the resources file from iscom.millner.fr/down/bits-and-pieces.zip and open "and.jpg" in Photoshop.

1. Go » **Image** » **Image Size...**, click "Resample", and make sure that the units are "Pixels".
2. We are now going to make this image 1200px wide for use on a website.
So make the width 1200 pixels and set Resample to "Bicubic Sharper" for reduction. Click OK.
The image is now smaller.
3. We are now going to reduce the file size (hence quality) for web, because web pages download faster when the images are smaller.
Go » **File** » **Export** » **Save For Web (Legacy)...**, and
 - choose JPEG as the format (second item top right)
 - choose sRGB as the colour space for web
 - choose "2-up" top left, so that you can see the original image alongside the reduced image.
 - (Do not worry that this is "legacy": it remains a much used way to do this.)
4. Move the quality setting to zero, and look at the quality difference (look at the bow-tie, collar and "And?" writing).
5. Now keep increasing the quality setting until you just cannot see a difference. Then add another 10%.
6. Look at the difference in file size (under the image) between the original and the web optimised image. The web images is much-much lighter, but one cannot tell the quality difference. Cool!
7. Click "Save" to save this new image.



Aside: people often want to slightly over-sharpen an image when preparing for web, and this is considered good practice, so try the following on the original (reduced size but not reduced quality image). Go » **Filter** » **Sharpen** » **Unsharp Mask...**, and set Amount to 40% and Radius to 1.0, and click and un-click Preview to see the difference.

(Image sharpening is an interesting and complex subject: look at » **Filter** » **Sharpen** » **Smart Sharpen...**, which has many more parameters.)

3 Sizing images for print

This is very important, and not altogether intuitive.

In offset and digital printing (that is for “usual” paper printing like in business cards, brochures, posters, books...), one talks of “DPI” for image size requirement.

DPI means “dots-per-inch”. A typical requirement is 300 dpi which is about 120 dots (pixels) per centimetre. 120 pixels per centimetre is a good rule-of-thumb for print.

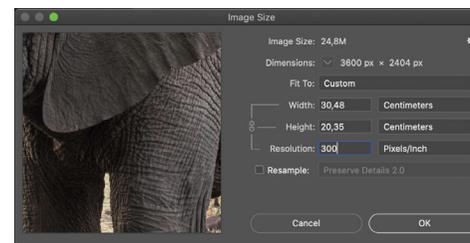
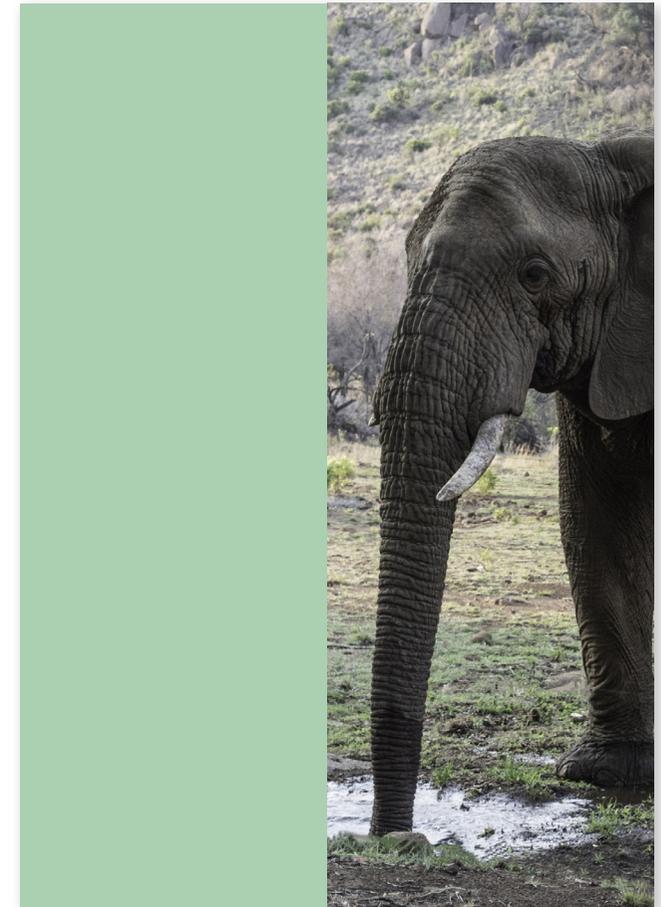
So how does one know if one’s image is large enough such that you have at least 300 dpi?

First of all one can calculate: an image 3000px wide would be okay in print if about $3000/120$ wide = 25cm.

But here is a method:

1. Open elephant.jpg in Photoshop.
Go » **Image » Image size**, and set resolution to 300 Pixels/inch as shown (“Re-sample” must be unchecked). Save the file.
2. Create an A4 portrait document in InDesign, and place the elephant and green background as shown here.
3. Double-click on the elephant image to show the image frame (the brown frame), and note that the recorded size is much more than 100% (160% in this example). One can usually safely go up to 120%, but more than this becomes potentially “dangerous”.

So in this example we have a problem: the image is not large enough for how we want to use it, so either find another image, try grow the image to some extent in Photoshop, or try another design.



Useful tip

Another way to check for image size is to open the InDesign “Links” panel and in the Links Panel Options tick the “Effective PPI” options. When clicking on an image the effective PPI (PPI means the same as DPI) should not be much less than 300.

4 Creating a mockup using a Photoshop PSD template

A very good way to show off a new logo (or an old one), or a poster, flyer whatever, is to mock it up in a real situation using a pre-made Photoshop PSD template. So, for example, if you wanted to show what your logo would look like when printed on a mug, you can google something like “free mug PSD Photoshop mockup template”.

Exercise

Open in Photoshop the file (from the downloaded resources) “mockup-mug.psd”, then...

1. Double click the layer entitled “Your Design Goes Here”, and the layer opens in a separate Photoshop workspace, showing just a mockup graphic.
2. Make this layer invisible by clicking on the eye on the left site of the layer on the Layers Panel.
3. Add a new blank layer by clicking on the “Create new layer” icon at the bottom of the layers panel.
4. Open in Illustrator your “Hello+” logo you made recently, and copy it to your clipboard (» [Edit](#) » [Copy](#)).
5. Go back to the blank layer in Photoshop and paste (» [Edit](#) » [Paste](#)), then resize as appropriate, and go Enter.
6. Save just this separate object workspace (go » [File](#) » [Save](#)).
7. Now return to the Photoshop workspace that displays the full mug, and note that your logo is displayed.

Cool?

Different PDS mockup templates might be a little different it its application, but I’m sure you can work it out.

I have prepared a small collection of PSD mockups at millnerdesign.com/stuff/x-mockups.zip: a wall, stationary set, A4 page, cap and street billboard. For the company-logo-on-wall, the mockup uses transparency as the base of the wall and fill as the raised content.

Important

A PSD file is normally very big (very heavy). If you want to save as a JPG, you need to first flatten the image. Go » [Layer](#) » [Flatten Image](#). Then go » [File](#) » [Save As](#), and select JPG as the format.

Save your work here as a JPG.



5 Practice the pen tool; get and use a PANTONE account

1. Using say your smartphone, photograph your neighbour's face and neck in profile.
2. Import the image into Illustrator.
3. Create a new layer and create a profile shape by tracing with the pen tool.
4. When finished (when you have the profile traced), delete the photo to leave just the profile.
5. Make the fill colour PANTONE Warm Gray 11 U ("U" means uncoated)...

To get the PANTONE colour palette...

First you need to have (only once) loaded PANTONE Connect so see the orange box here right.

Once you have a PANTONE Connect Premium account go » [Windows](#) » [Extension](#) » [Pantone Connect](#).

Then use the search window to search for "warm gray 11 U" and the rest is obvious (roll over the colour rectangle and click on the three dots...).

6. Save your work.
7. Then create a new Illustrator file 240px × 240px, and paste this profile.
8. Resize the profile image as appropriate.
9. Then save as a 240px × 240px PNG file.
10. Show me!

To get your free PANTONE Connect Premium account

- From either InDesign, Illustrator or Photoshop...
Go » [Window](#) » [Find Extensions on Exchange](#)
- On the exchange, find Pantone Connect and install it
- Go » [Window](#) » [Extension](#) » [Pantone Connect](#) and log in to your free premium account with either an [iscom.org](#) or [eduservices.org](#) email address
- When the PANTONE confirmation email gives its ambiguous error notice then just ignore this

6 Packaging InDesign files

An InDesign file reads from images and renders fonts, so if you want to save your InDesign work to back it up, or to use on another computer, or to pass your work on to a colleague for further editing, you need to create a package, and the result is files in a directory. Go » [File](#) » [Package](#), and the rest is obvious.

7 Checklist for print

To have your InDesign design work successfully printed at an external offset or digital printer, you need to get *all* of these five points right.

1. Have the correct InDesign document settings, including bleed, margins and page configuration (and do not forget to switch off facing pages unless your document has facing pages).

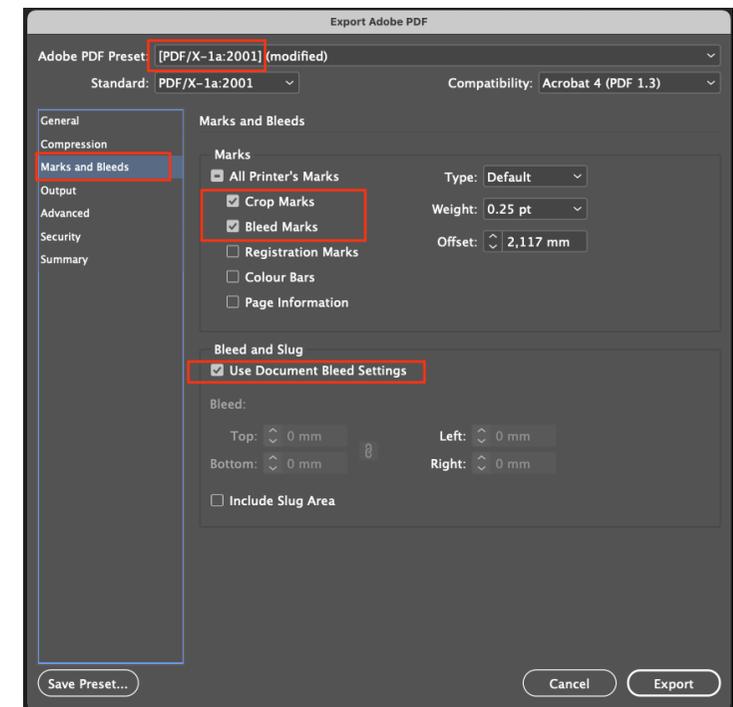
So when creating a new InDesign document — concentrate!

2. In InDesign never forget to respect bleed and margins (like all elements that go to the edge of the document *must* go to the bleed).
3. In InDesign (with Photoshop) respect image sizes, usually not less than 300 dpi for conventional printing. As aforesaid, 300 dpi is approximately 120 pixels per centimetre. See page 3 of this lesson.
4. In Photoshop convert images to the correct mode and colour profile (according to the printer instructions).

The colour profile depends on the paper used, for example “Coated FOGRA39” is typical for coated paper (go » [Edit](#) » [Convert to Profile](#) which conveniently also converts your image to four-colour CMYK).

5. In InDesign export PDF with all the correct for-print settings as stipulated by the printers (go » [File](#) » [Export](#), and set the “PDF Preset” as typically “PDF/X-1a:2001” then click on “Marks and Bleeds” and set marks and bleed as per the printer’s instructions — see example on the right).

If you are exporting for electronic viewing (for web or with email) then: choose a different “Adobe PDF Preset”; switch on “Include Hyperlinks” etc. as appropriate; switch off “Marks and Bleeds”.



Some typical for-print PDF export settings

8 Making tables in InDesign

Go through this video (<7'): <https://www.youtube.com/watch?v=OTVnzolEkvQ>

Not covered in this video is how to change the strokes (the lines surrounding the table and cells): in the control panel you see what is shown here on the right...

- switch the blue lines on and off by clicking on them
- in this example, the stroke (line) around the table and vertically within the table will be orange
- if this is not obvious then ask me.



Exercise

The first table below is, well, sub-optimal for many reasons and we can discuss why in class. So please make the second table below.

Age category	Percentage of UK visitors 2015/2016	Percentage of Overseas visitors 2015/2016
Under 16	26%	18%
16-24	16%	19%
25-34	22%	22%
35-44	18%	18%
45-59	12%	17%
60-64	2%	2%
65+	4%	4%

Visitors in 2016/2017, by %

Age	UK	Overseas
Under 16	26	18
16-24	16	19
25-34	22	22
35-44	18	18
45-59	12	17
60-64	2	2
65+	4	4