

# Visual Design and Web Project module

## VDWP02 Session Notes - Tuesday 16th January 2018

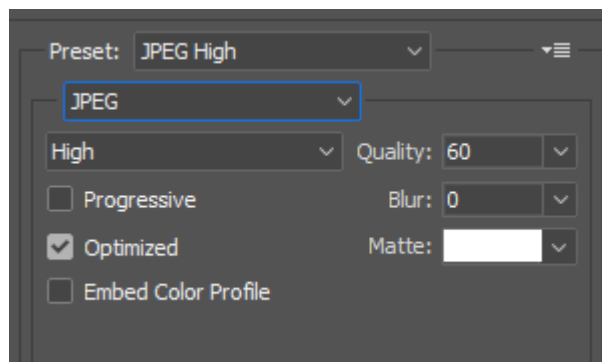
Using Photoshop CC2018 to convert images for Web use .....	2
JPEG .....	2
PNG .....	3
GIF .....	3
PNG-8 .....	5
Weighted Optimisation .....	<b>Error! Bookmark not defined.</b>
Weighted Optimisation and JPEG .....	<b>Error! Bookmark not defined.</b>
Weighted Optimisation and GIF .....	<b>Error! Bookmark not defined.</b>
Resizing images .....	5

## Using Photoshop CC2018 to convert images for Web use

Photoshop CC2018 has a 'Save for Web and Devices' feature. This feature allows you to view 2 or 4 versions of an image and apply various levels, and formats, of compression to the different views and compare them for quality and file size, then save your best choice. The file size and estimated download speed are also displayed along with the image in its original format.

### JPEG

To save an image as a JPEG in Photoshop go to 'File'>'Export'>'Save for Web (Legacy)'. This will open the 'Save for Web' window. You can then choose whether to display 2 or 4 versions of the image for comparison. To make changes to a view, click in that view and use the 'Settings' menu on the left to make alterations.



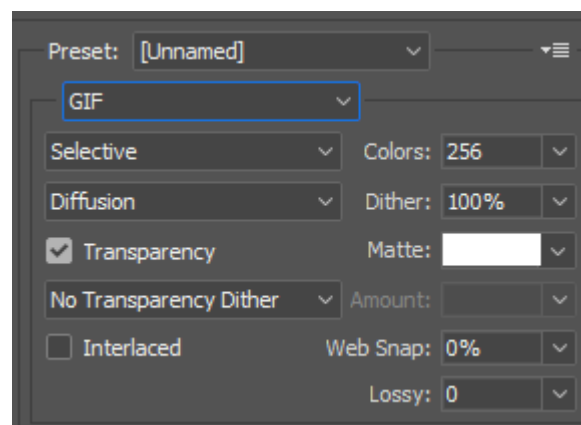
JPEG options allow you to choose 'low', 'medium' or 'high' compression as well as 'tweak' that option on a sliding scale of 1-100. The 'Progressive' checkbox, when clicked, will cause the image to download in several passes, each increasing the image quality (This is a JPEG equivalent of an interlaced GIF). The 'Blur' option allows you to blur an image slightly using a sliding scale. This aids JPEG decompression by 'smoothing out' an image. Once you have made your choice of settings click 'Ok' to name and save the file. This then saves a version of the original, which you can close without saving changes.

## PNG

To save an image a PNG change the 'Settings' pulldown menu in the 'Save for Web' view to PNG-24. The only options available for the PNG-24 format are 'Interlaced', 'Transparency' and 'Matte'

## GIF

To convert an image to the GIF format change the format in the pulldown selection menu. This will display the various GIF options in the settings window. You can then start to apply different options for GIF compression to the different views in your image window.



The settings available in this window allow you to specify a palette, number of colours, dither method and in certain cases amount of dither. You can start by choosing a palette option. The palettes available in the selection menu are 'Perceptual', 'Selective', 'Adaptive', 'Web', 'Custom' and 'Mac OS' or 'Windows'. The differences between the palettes are:

- Perceptual gives priority to the colours that appear most commonly in the image. This palette usually gives the best colour integrity.
- Selective also prioritises common colours but has a broader range and attempts to preserve web colours.
- Adaptive uses colours from the portion of the RGB spectrum that appears most commonly in the image. A predominantly blue image would produce a palette that was also predominantly blue.

- Web consists of the 216 colours are shared by the Mac OS and Windows system palettes
- Custom preserves the current perceptual, selective or adaptive palette but does not update it when the image is altered.
- Mac OS or Windows uses the Mac or PC system palette of 256 colours.

The 'Color Table' displays the various colour palettes and the colour lookup table for a particular image. Using the buttons at the bottom of the colour table you can, from left to right, snap a particular colour to its nearest web safe equivalent, lock a colour so that when the number of colours in the palette is reduced the locked colour is not removed, add a new colour and remove a colour.



You can reduce the number of colours that make up the colour palette in the settings window. You can do this in large increments with the selection menu to the right of the number of colours or one by one using the increase/decrease arrows to the left. You should use a combination of the palette options and the number of colours stored with the image in the CLUT (colour lookup table) to reduce the file as much as possible without adversely effecting image quality.

As well as controlling the make-up of an image's colour lookup table you can also control, to a certain extent, the way in which an image is dithered when it appears in a browser. Dithering is the process by which the browser attempts to 'mix' colours that are not in the colour lookup table from those that are. When the number of colours are reduced in the colour palette you will notice that the image becomes 'mottled' or 'spotty', this is the application or browser placing colours together to create new ones. You can use the dither options in the selection

menu to determine how 'spotty' or 'mottled' the image looks when dithered. The dither options are:

- No dither turns off dithering and does not attempt to approximate colours not in the CLUT
- Diffusion mixes the two colours in a seemingly random way and allows a dithering amount to be set.
- Pattern mixes the two colours in a regular and very noticeable way.
- Noise mixes the two colours in a similar way to diffusion dithering but does not allow a dithering amount to be set.

Again it is possible to preview the results of the different dithering options and a choice can be made about the amount of dithering alongside the colour palette and number of colours.

Photoshop also has a 'Lossy' option in the GIF optimisation settings. This option allows you to increase or decrease the extent to which individual pixels in an image are replaced with indexed patterns during LZW compression. A small amount of 'Lossy' option (10-20%) can reduce file size significantly and the effect is similar to dithering but too much (above 50%) can ruin the image.

## PNG-8

To convert an image to the PNG-8 format you must change the 'Settings' to 'PNG-8'. The options available for optimising PNG-8 images are the same as those available for GIF images.

## Resizing images

It is possible to resize your image in the 'Save for Web' view. To do this you need to click on the 'Image Size' tab. Here you can set pixel dimensions for the image or change the size of the image by a percentage. Checking the 'Constrain Proportions' option below the image dimensions will ensure that dimensions are

kept in proportion. You may also choose the way in which the image is resized. The options for resampling are:

- 'Smooth (Bicubic)' using this method Photoshop will analyse the values of adjacent pixels and calculate a middle value between them when sampling down and attempt to create intermediate colours when sampling up. (JPEG)
- 'Jagged (Nearest neighbour)' this method adds extra pixels and colours them according to adjacent pixels. (GIF)

