

TITLE: PHOTOSHOP WORKSHOP

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**Image Chasers
Photoshop Workshop**

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INTRODUCTION

Presenter - Troy Witte
Automotive Visualisation Designer and Creative Retoucher

Welcome

Welcome to the Image Chaser first Photoshop Workshop. My name is Troy Witte. I've been in the automotive and design industry for over 10 years as a visualisation and creative designer. I use photoshop on a daily basis but to be honest, a day doesn't go by when I don't seem to learn something new. Photoshop although plain looking on the surface, is an extremely powerful piece of software and an amazing tool to add to your digital arsenal.

Examples of current work:

CGI (Computer Generated Imagery) - Renault Megane



Creative Retouching - Allsorts Media & Darren Capp Photography



GENERAL INFORMATION

BASIC TO ADVANCED

This workshop will cover aspects from the most basic to some more advanced techniques. Even if proficient in Photoshop, when self taught, basic fundamentals can always be overlooked and is always good place to start!

SOFTWARE SUBSCRIPTION

Adobe Creative Cloud - Lightroom 5.6 and Photoshop CC 2014 bundle for \$10 per month.

EQUIPMENT RECOMMENDATIONS

Two pieces of equipment I personally recommend are:

Eizo Monitor



Wacom Cintiq



WORKFLOW

WORKFLOW METHODOLOGY

Workflow depends on a few different factors - personal preference, client preference, type of work/project being undertaken and end result required.

Creative Retouching consists primarily of Photoshop from start to finish but can also involve a raw processing software such as Capture One or Lightroom. Ultimately the final result will be produced in Photoshop.

Personal and landscape photography on the other hand, although similar in approach, consist of a different workflow. Due to improvement in raw processing software such as Lightroom (and Capture One), 85 to 90% of my processing is now done within these software. Photoshop is then only used when the desired result stretch beyond Lightroom's capabilities.

NON DESTRUCTIVE WORKFLOW

Non Destructive Workflow within Photoshop means that everything that can be done, can be undone! This methodology is critical when working with clients (especially when they can't make up their mind!) and changes need to be constantly made. Within personal projects this non destructive process allows more flexibility and control over your images. Although a non destructive workflow is ideal there will always be instances when this isn't possible but we will try to cover some tips and tricks to get around this during the workshop.

WHY RAW?

Why shoot Raw files instead of JPG? You would be surprised how many people ask this question...!

JPG Format

Simply a JPG file is a compressed format. When shooting in JPG, the cameras own internal software or firmware converts and makes changes to the image based on generic assumptions. When saved, a large amount of information is discarded (which it assumes you don't need) and hence creates a smaller file. Unfortunately it's this hidden information that we require to control our image. This doesn't mean you can't still edit the image in Photoshop, it just means your starting with an image that has already had permanent changes made to its pixels.

JPG files are 24 bit (8 bit colour)

24-bits is called 8-bit colour, three 8-bit bytes for RGB (256x256x256 = 16.7 million colours maximum)

Raw Format

Raw files (formats include NEF (nikon), CRW or CR2 (canon), IIQ (Phase One) etc.) are essentially the digital equivalent of a film negative. The raw file contains all the information that is captured by the camera. The raw processing software then allows us full control over all the settings that if shooting in JPG or TIF, the camera would adjust internally. This give us ultimate control over the image and its full range of settings.

Raw files are 48bit (16 bit colour)

48-bits is called 16-bit colour, three 16-bit words (65536x65536x65536 = trillions of colours)

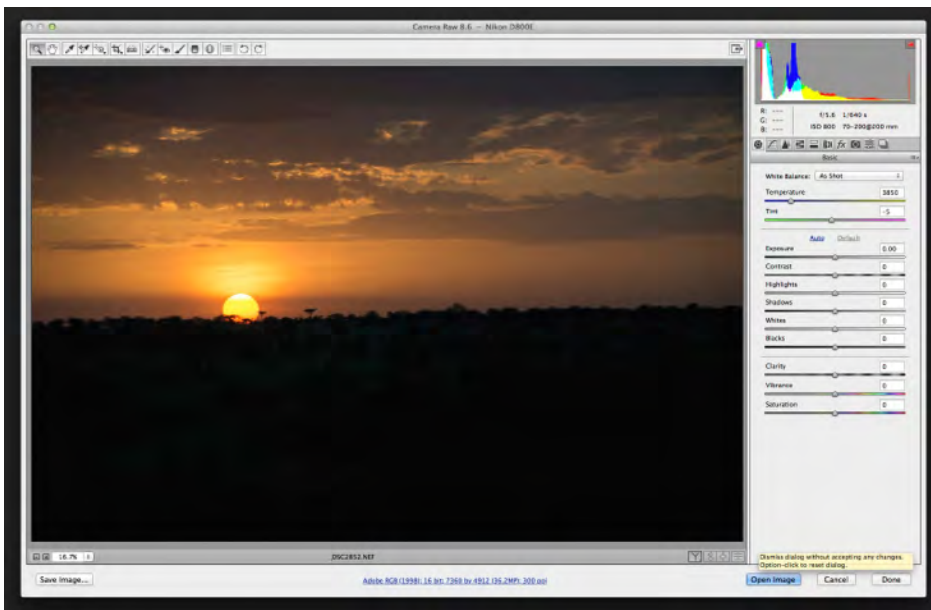
TIF Format

So why not just shoot in TIF. TIF files can contain both 8 bit and 16 bit colour information but just like when shooting in JPG the camera processes the file in a lossy format and makes changes to the image. The file size is also very large (larger than raw). Also worth noting, most cameras when shooting in TIF produce a 8 bit file ultimately loosing a lot of useful information.

Tale of the story, shoot raw!

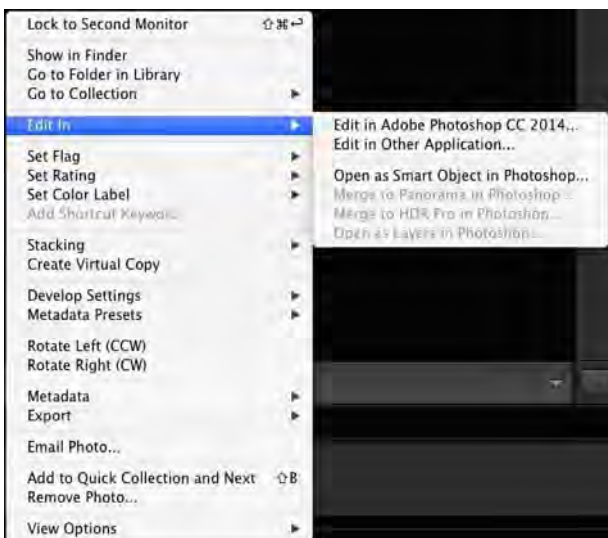
RAW PROCESSING SOFTWARE - LIGHTROOM & PHOTOSHOP

Before the days of Lightroom, the only way to open a raw format file in Photoshop was to use Photoshop Camera Raw. This Camera Raw software/plugin gave you all the necessary controls you needed to process your images. Once the settings were adjusted the file would then open into Photoshop normally as 16 bit file.



From here Adobe expanded on the Camera Raw software and created a standalone software called Lightroom. Basically Lightroom is Camera Raw on steroids! Lightroom gives you all the functionality you had within Camera Raw plus a range of editing features such as spotting, gradient controls, presets etc.

Lightroom is a great choice when wanting to 'process' your images but when it comes to editing it obviously has limitations. This is where Photoshop steps in. Lightroom cleverly allows you to import you image into Photoshop without loosing the connection to the original raw file.



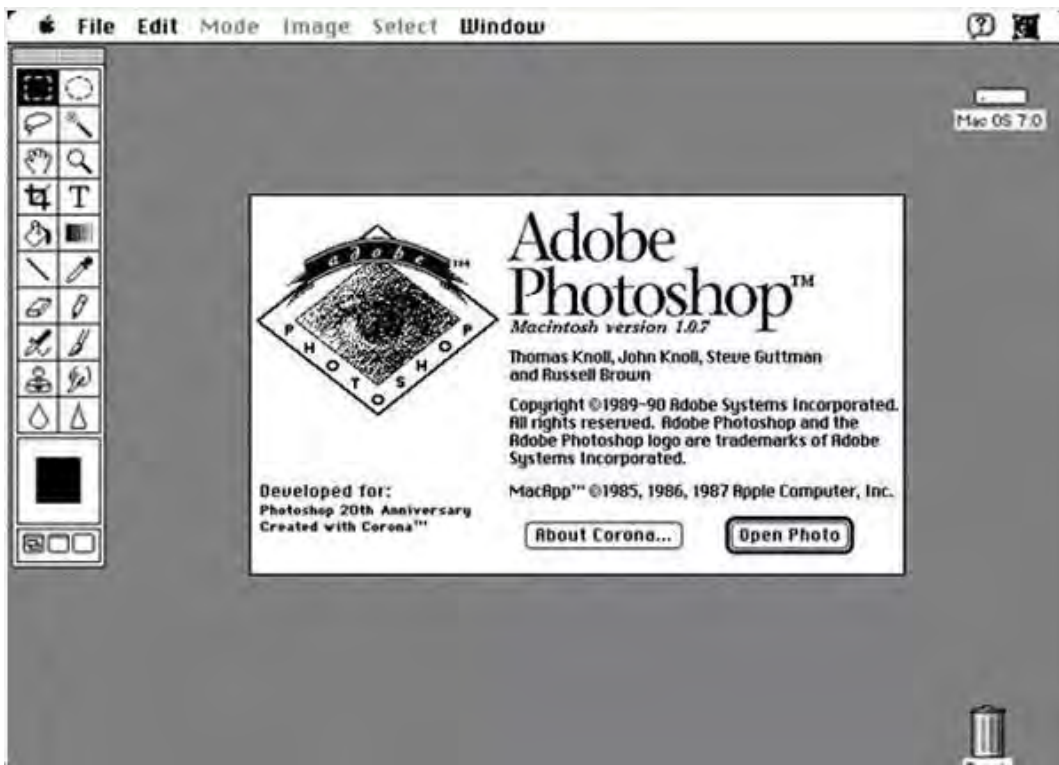
If you select 'Edit in Adobe Photoshop', your telling Photoshop to load the file as a PSD and to apply any of the settings made within Lightroom to the pixels of the image, effectively cutting the cord to the RAW file.

Alternatively Lightroom allows you to 'Open as Smart Object in Photoshop'. This allows the file to be opened with the Lightroom/Camera Raw setting bundled into the image. Normal changes such as adjustments and retouching can then be made but if at any time you want to make changes to the original raw file simply double click on the smart object layer and the Photoshop Camera Raw window will appear with all the changes made in Lightroom. The raw setting can then be tweaked and the file saved. A new version of the image will instantly appear in your Lightroom catalog.

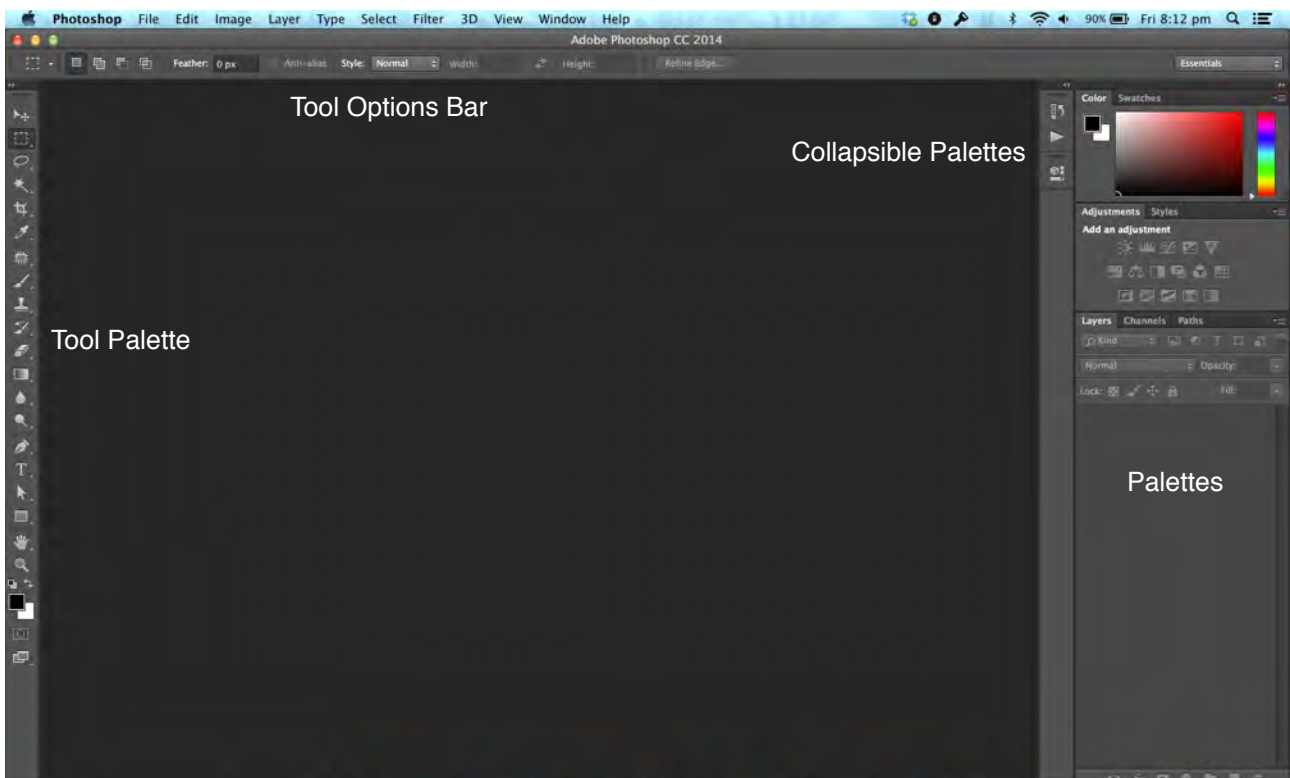
THE BASICS

PHOTOSHOP WORKSPACE

A blast from the past! This is what Photoshop version 1 looked like when it was released in 1988!



As you can see not much has changed in its layout! Like I mentioned earlier, don't be fooled by Photoshop's simple and plain layout though. Underneath it's a very complex and powerful workhorse. Once you start using the software it's easy to see why it is the industry leader.

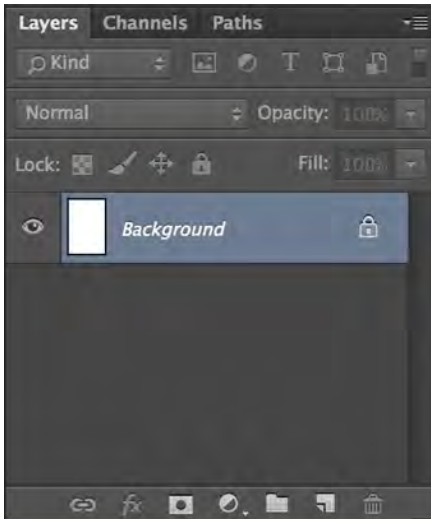


LAYERS

The most powerful part of Photoshop is its use of Layers. Layers allow you to composite multiple images and effects on top of each other to create your desired result.

New Layer - 'Shift + Command N'

Alternatively click the 'Create a New Layer' button.



New Layer

MASKS

Masks allow you to hide or reveal parts of your layers. Masks are monochrome with 100% white pixels being visible, 100% black pixels being invisible and for example 50% grey pixels will be 50% visible.

To create a new mask simply click the 'Add Layer Mask'.

To create an inverse of the mask so all pixels are invisible, click the 'Add Layer Mask' whilst hold down 'Option' key.

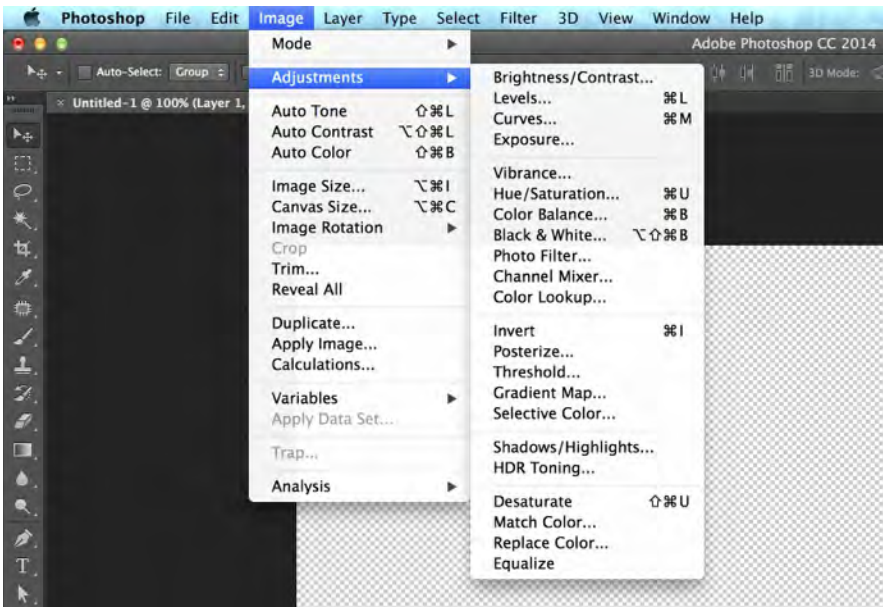
To view or reveal the mask, option click the mask in the layers palette.



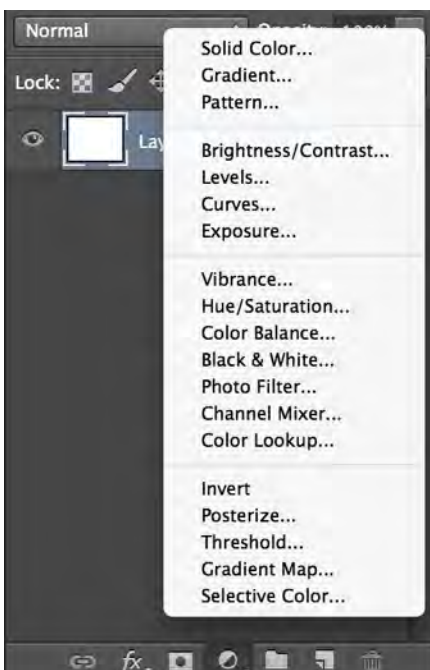
Add Layer Mask

ADJUSTMENT LAYERS

The most common method when wanting to adjust an image is by adding an image adjustment. This is done by selecting from the file menu, 'Image - Adjustments' and finally selecting the desired adjustment method. Unfortunately once you've made your changes and selected ok the changes are permanent and not re-editable. In other words, destructive!

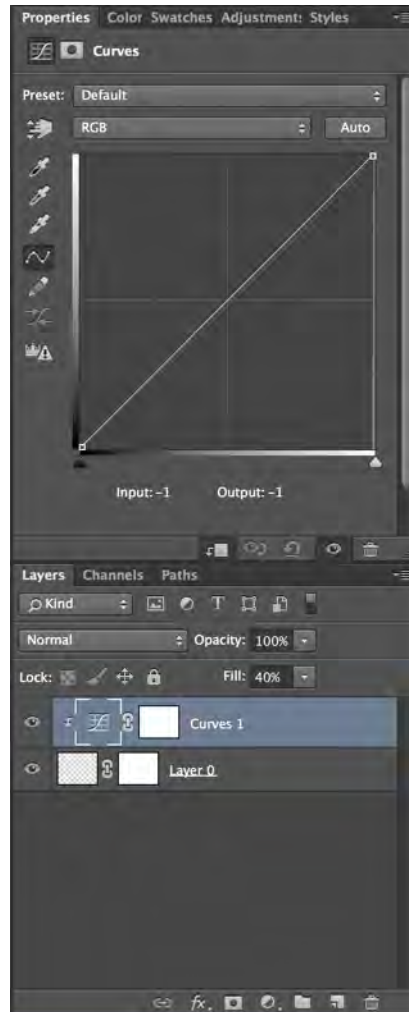
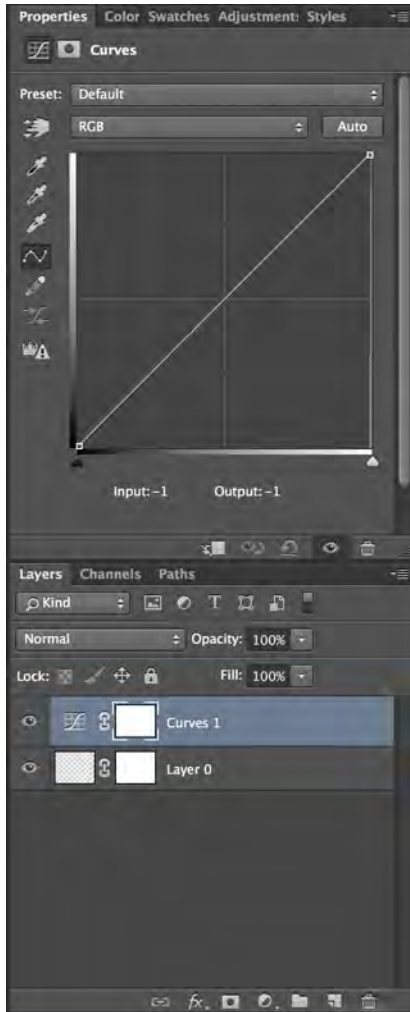


Non destructive workflow being the aim of the game, 'Adjustment Layers' are your friend! Adjustment layers are created by selecting 'Create Adjustment Layer' in the lower layers palette menu.



Create Adjustment Layer

This creates an adjustment layer with the relevant settings and will affect all layers underneath. If you want a adjustment layer to only affect a single layer, hovering the cursor in-between the two layers and holding the 'Option' key will change the cursor. Clicking will then link the two layers. Multiple layer can also be linked.

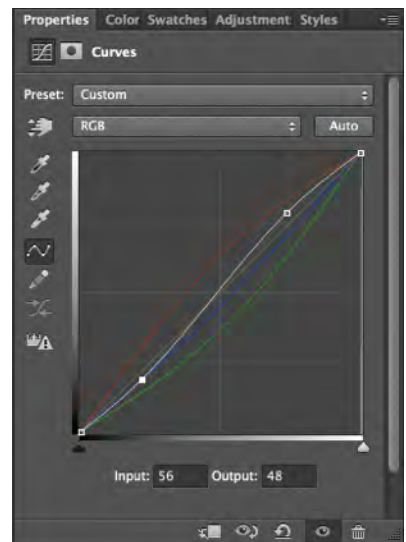
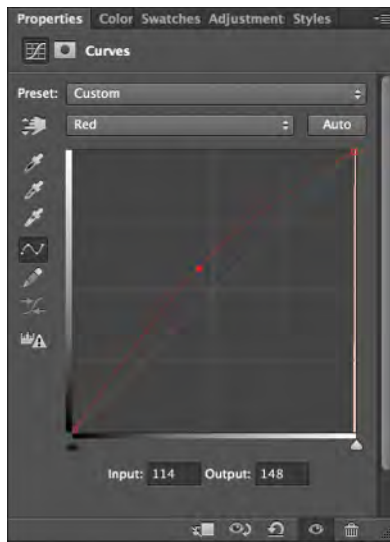
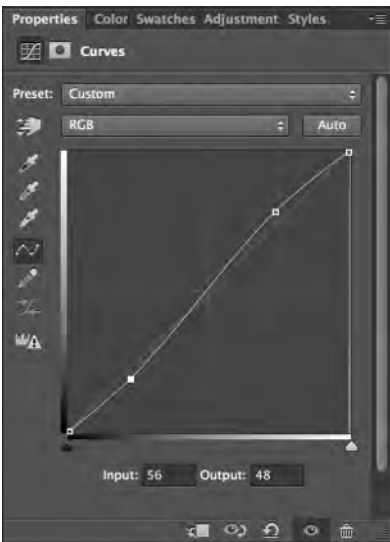


PRIMARY LAYER ADJUSTMENTS

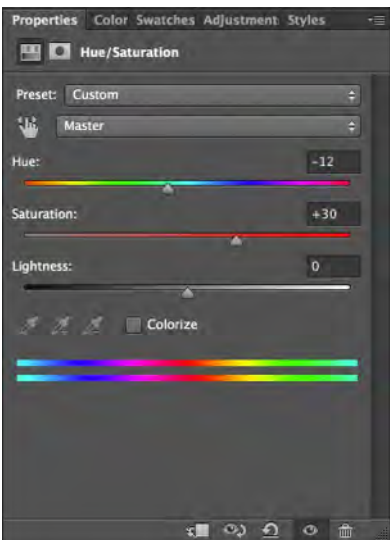
Levels



Curves - RGB & Individual channels



Hue & Saturation



Colour Balance

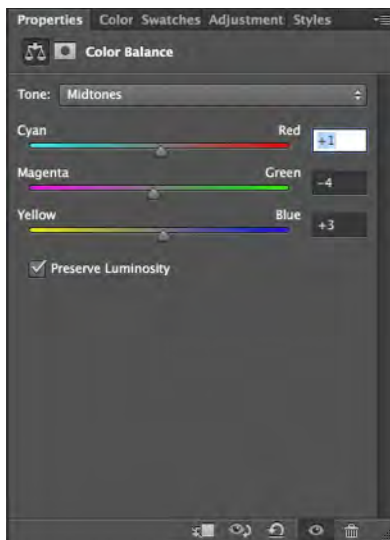
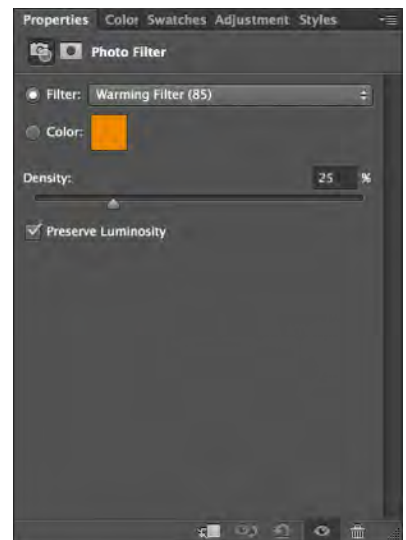


Photo Filter



LAYER BLEND MODES

Just as lowering the opacity of a layer will reveal or blend with the layer below it, 'Layer Blend Modes' do the same with the exception they use a mathematical calculation to blend with the layer or layers below it.

The most common layer blends used are:

Multiply takes the pixel colour and multiplies that with the pixels below. It then divides then by 255. Basically it turns white pixels invisible hence darkening the image

Screen works in the opposite way of the Multiply mode. It turns black pixels invisible in turn lightening the image.

Overlay both multiplies dark areas and screens light areas of the image at the same time. 50% grey pixels will become invisible while black pixels will darken the underlying pixels and white pixels will lighten the underlying pixels.

All this might start sounding a bit technical be in reality the best method is to simply experiment and find what works and what looks good.

For more info some good sites with in-depth explanation are:

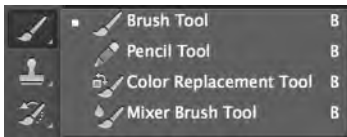
<http://photoblogstop.com/photoshop/photoshop-blend-modes-explained>

<http://www.photoshopessentials.com/photo-editing/layer-blend-modes/intro/>

| | |
|---|------------------------------|
| ✓ Normal Dissolve | — Normal |
| Darken Multiply Color Burn Linear Burn Darker Color | — Darken |
| Lighten Screen Color Dodge Linear Dodge (Add) Lighter Color | — Lighten |
| Overlay Soft Light Hard Light Vivid Light Linear Light Pin Light Hard Mix | — Contrast |
| Difference Exclusion Subtract Divide | — Inversion — Cancelation |
| Hue Saturation Color Luminosity | — Component |

BRUSHES

As the name suggests, brushes allow you to paint onto layers with different colour and shapes.
Brushes shortcut - B

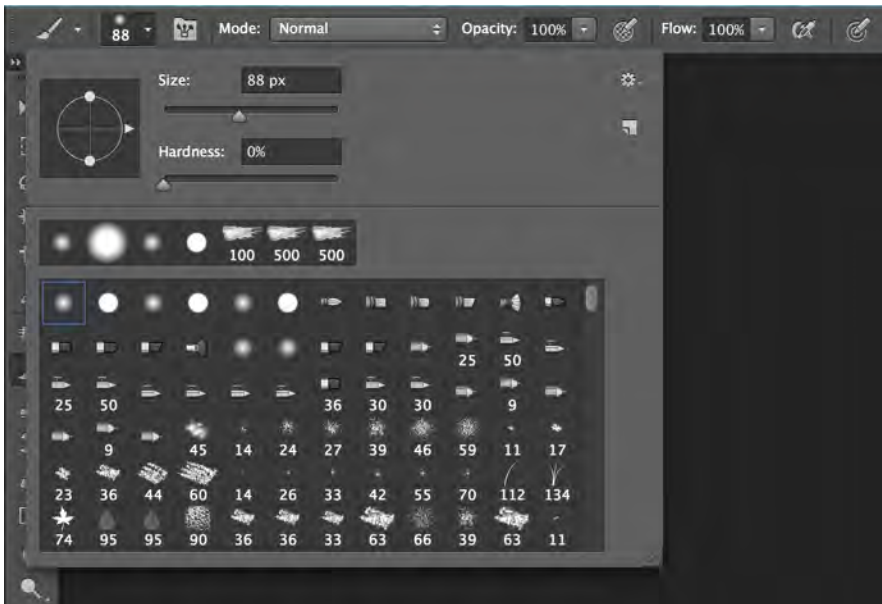


Brushes Option Bar allows you change the properties of the brush such as size, opacity and pressure controls if using a tablet etc.



To change the size of the brush there are 3 methods

1. Slider



2. Square Brackets

[- Decrease
] - Increase

3. Visual Method

Control + Option - Click & Drag - Up & Down - Hardness
Control + Option - Click & Drag - Left & Right - Size
Brush Settings



Brushing Settings

Settings that are not wide known about or used are brush settings. When used correctly are a powerful way to step up the quality of your image.



FILTERS

Filters allow for a range effects to be applied to a layer. All filters are applied in a 'destructive' way and can't be reversed. Alternatively you can apply an effect in a non destructive way by converting your layer to a 'smart object'. The trade off is no more changes can be made to the layer unless it is rasterised (flattened).

Third Party plugins downloaded or purchased can also be installed and will appear here



TECHNIQUES

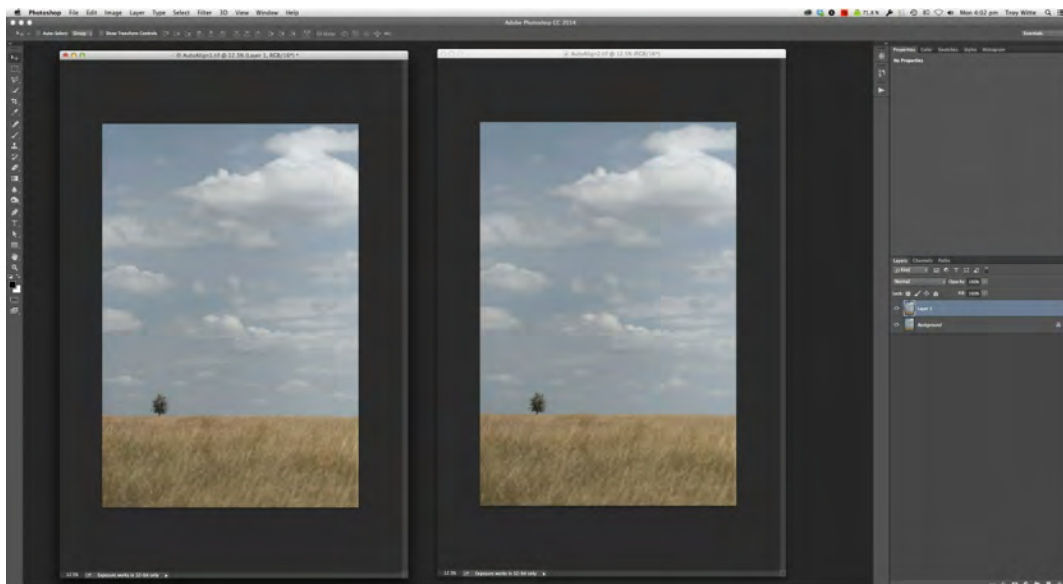
The following are some techniques, tips and trick used commonly when photo editing and retouching.

AUTO ALIGNING IMAGES

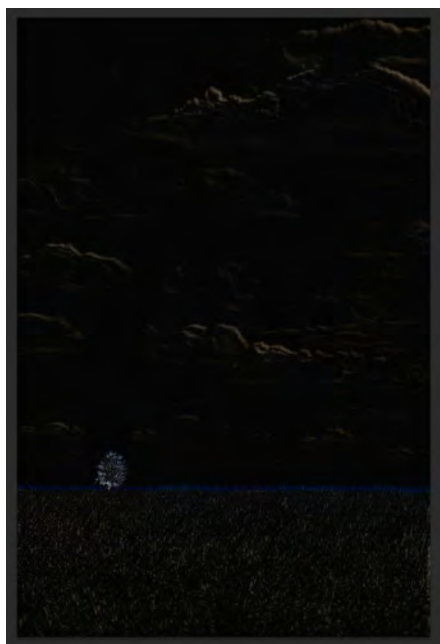
Needing to align images is a common occurrence. For example you may want to stack some photos you took consecutively which were shot freehand. This means that there will be slight variations in the alignment. There a few methods to do this.

Method 1 - Manual

First method is to load the images into photoshop (for this example we'll use 2 images). Cut and paste or drag the second image as a layer on top of the first image, you see by turning it on and off its visibility that there is a slight misalignment.

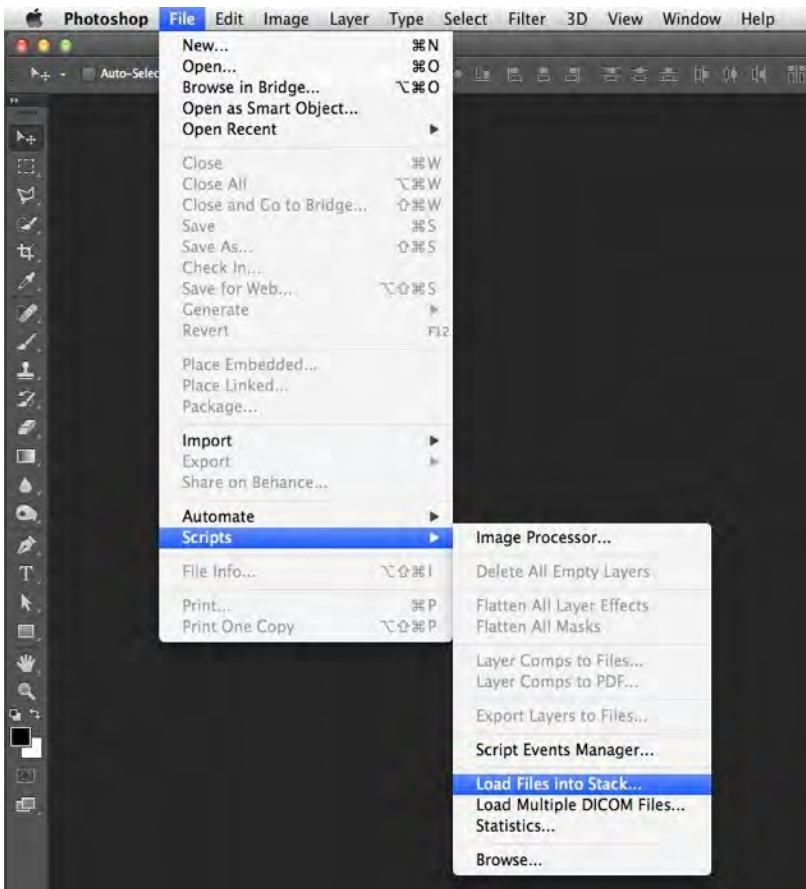


Selecting the top layer, change the blend mode to 'Difference'. This mode shows the pixel value variation with a 100% black pixels meaning that the pixel below it is exactly the same. By moving or nudging the top layer you can visually see when the image perfectly aligns. Note, zooming 100% will give you a more accurate display. Finally change the layer mode back to normal mode and you should have a nicely aligned image

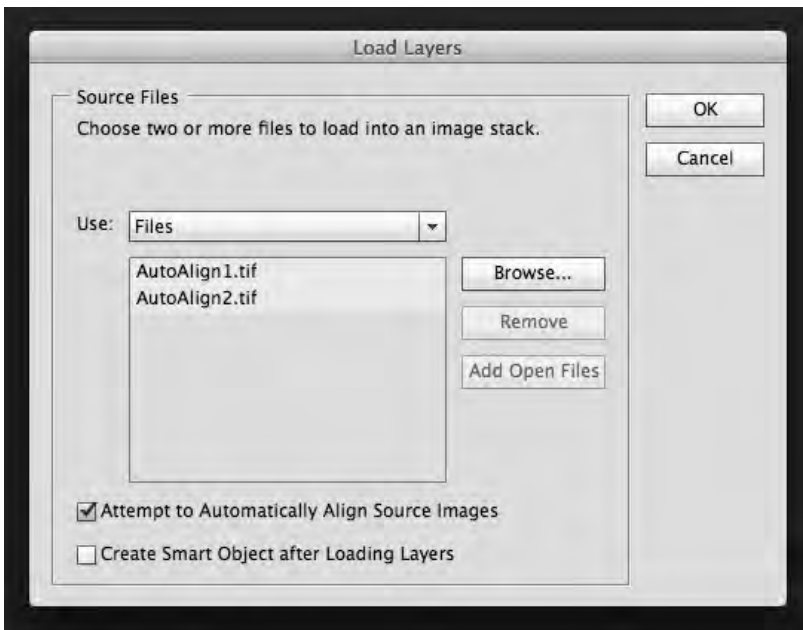


Method 2 - Automated

To automatically align images select, File, Scripts, then Load Files into Stack.



Click Browse and select the desired images making sure 'Attempt to Automatically Align Source Images' is ticked



Photoshop will then do its thing by loading all the files as layers and hopefully automatically aligning them.

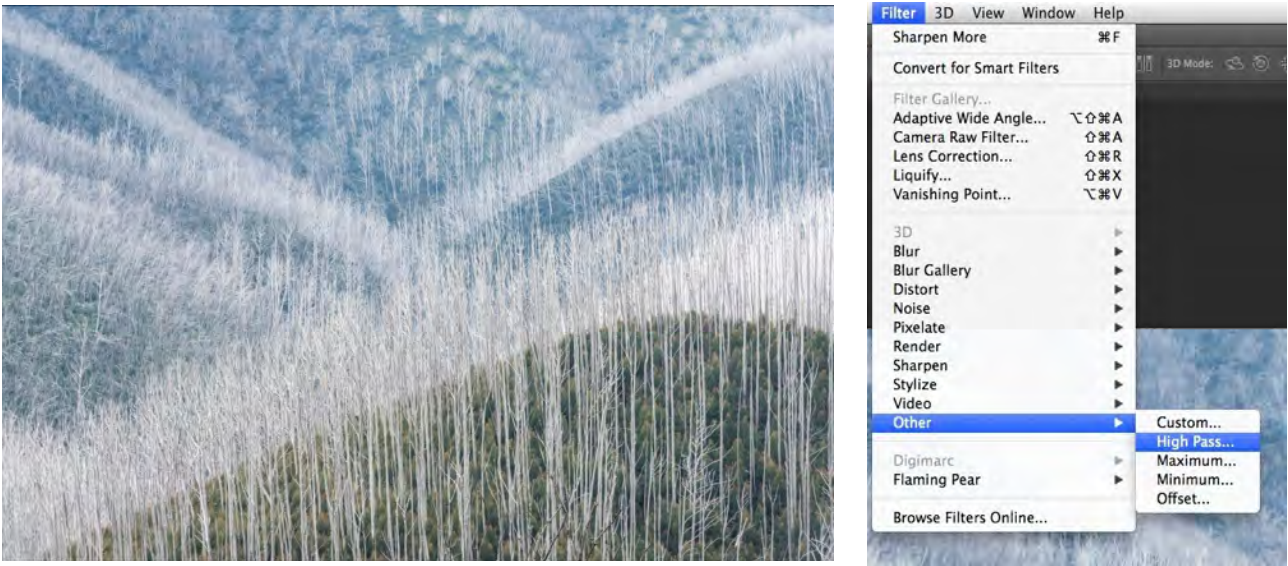
SHARPENING - HIGH PASS FILTER

Ok so you have shot your image with a kick ass, high megapixel camera and you think your image is nice and sharp. But how sharp is it really. You can always simply add a 'Sharpening' or 'Sharpening More' filter but you get very little control and it gives the image a very artefactual (yes I know it's not a word!) feel.

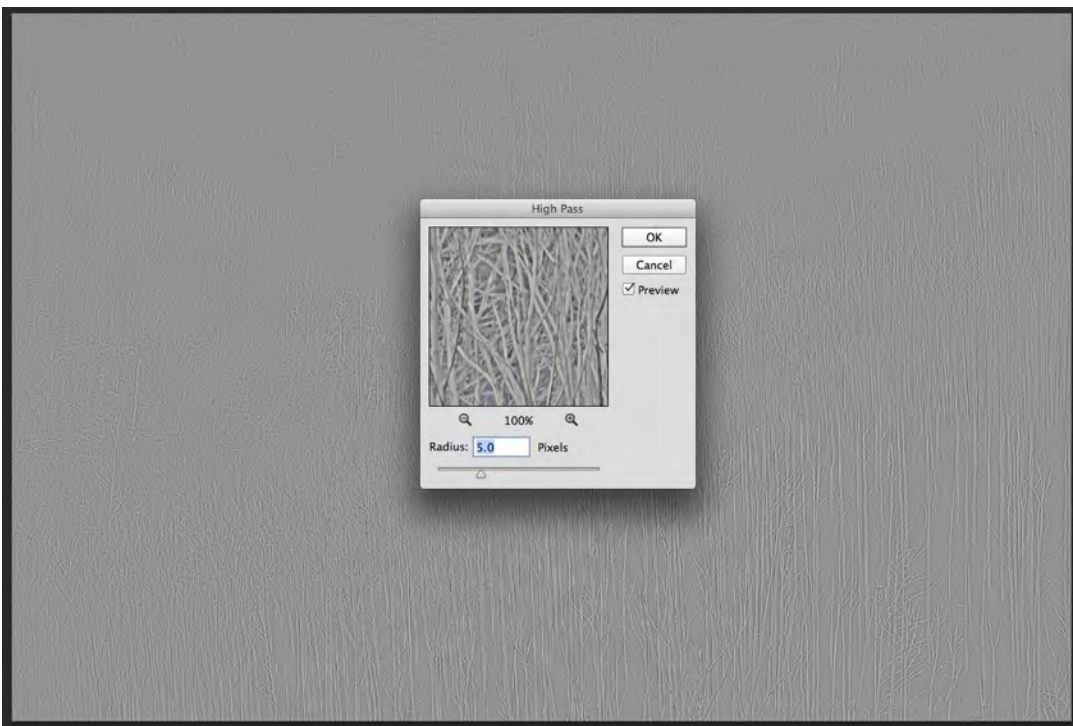
Well one way to sharpen your image in a non-destructive way and with control is by the use of the 'High Pass' filter.

Firstly duplicate the layer you would like to sharpen (Command+J). Alternatively if you want to sharpen a file that contains numerous layers and adjustments, create an empty layer on top and use my most favourite of all the shortcuts, 'Stamp Visible' (Command+Option+Shift+E). This merges all visible layers but doesn't flatten or delete them.

Select Filter - Other - HighPass



The High Pass settings will appear. The correct amount to use will depend on the scale of the image but generally around 5 will give you a good result.

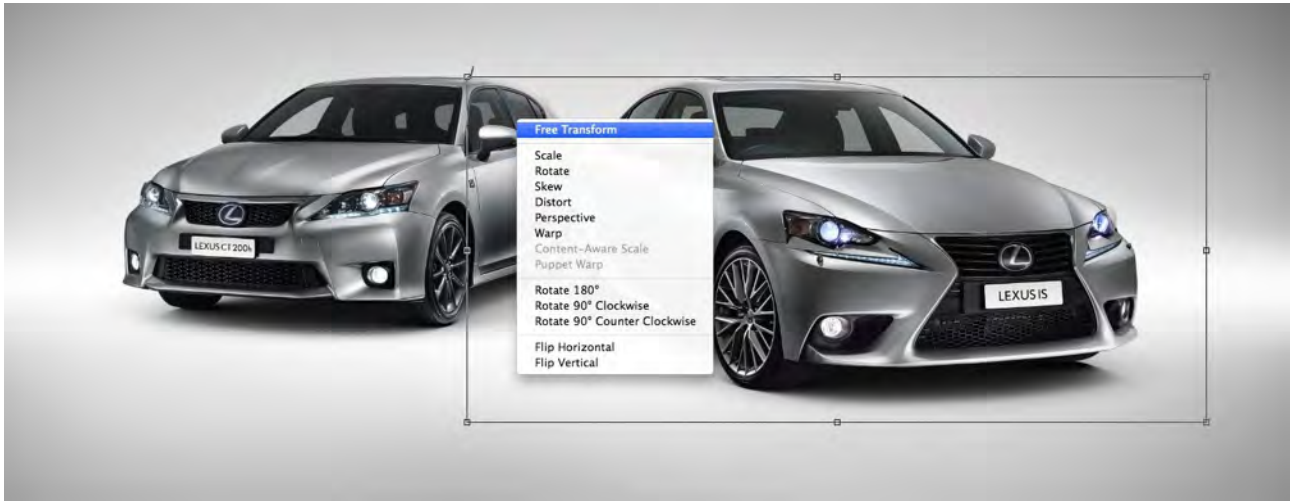


Select Ok and then change the blend mode to 'Overlay'. If you toggle the visibility you'll see how the image is now nicely sharpened. To adjust simply reduce the opacity of the layer.

TRANSFORM MODE

The transform is a very handy tool to learn especially when retouching. Again as the name suggests it allows you to transform layers, elements, masks etc. in a few different ways.

To active the transform tool, choose the layer or multiple layers and press 'Command + T' or Edit then Free Transform. In transform mode, right click to select the transform option modes.



Again transforming the image is a destructive process so I recommend duplicating and hiding the layer first so that if later on in the process you want to go back to the original you have that option.

All the transforms have there own basic attributes in deforming an image as a whole.

Free Transform - Is a mix of all transforms and be controlled in different ways by holding different keys

Scale - Allows the image to enlarged or shrunk

Rotate - Rotates the image based on it axis point. This axis point can be moved by holding Option key and clicking or clicking and dragging the point around the image

Skew - Slants an image both vertically and horizontally

Distort - Allows you to select the outer point and stretch the image

Perspective - Applies a one point perspective to the manipulation

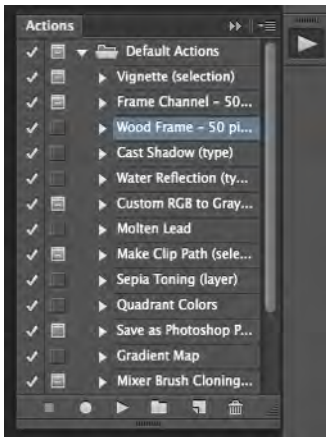
Warp - The odd one out! The Warp function which allows a unique way of pushing and pulling an image.



BATCH CONVERSIONS - ACTIONS & DROPLETS

Actions

Actions are a way of automating a process that you need to perform on a regular basis. Example of this may be the need to turn high res images into low res jpg format for you website or blog etc.



The Actions Pallet should appear in the Collapsible Pallets section.

Start by loading a high res image. Next in the Actions Pallet select the 'Create New Action' icon. Give your new action a name to what your automating for example 'JPG conversion for blog - 700pxw'. Here you can also assign a hotkey if you like. Select Record. Every step you take from now on will be recorded into the action.

1. Convert the image to 8bit
2. Apply the Adobe RGB (1998) colour profile
3. Resize the image to 700 pixel wide and 72 dpi (I've chosen this size as a example as its what my blog uses)
4. Select Save As - JPG or if file size is a concern Save for Web.
5. Close the image

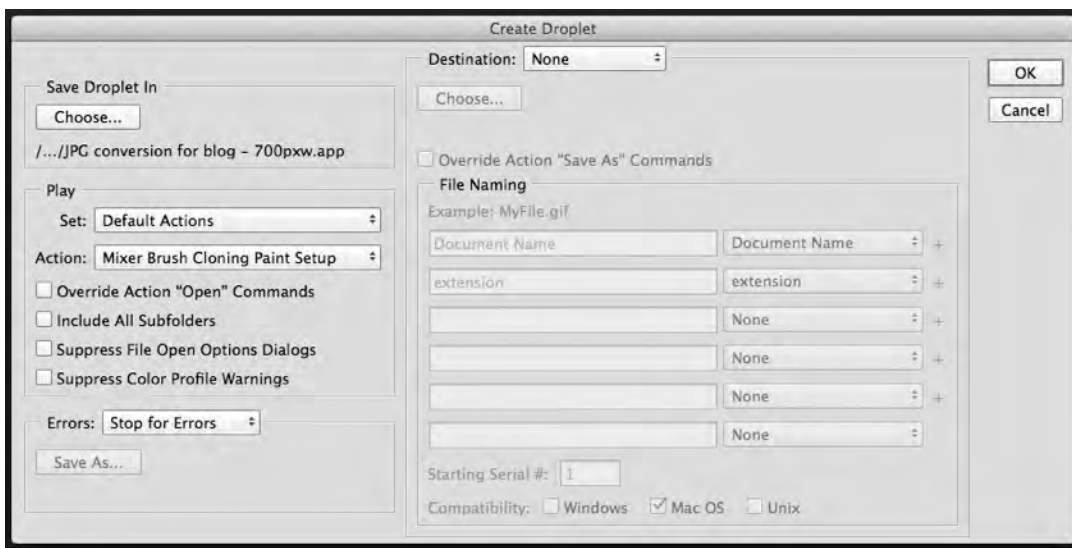
At this stage we've recorded all the changes we want to complete on the image. Finally select 'Stop Recording' from the actions pallet and the action is complete.

Now in future to use the action simple load the required image, select the action and press the 'Play Selection' button.

Droplets

Droplets allow you to create an action in an icon form eg. on your desktop. The droplet work in the exact same way as the action in Photoshop except Photoshop doesn't need to be open.

Droplet are create by selecting File - Automate - Create Droplet and filling out the required information

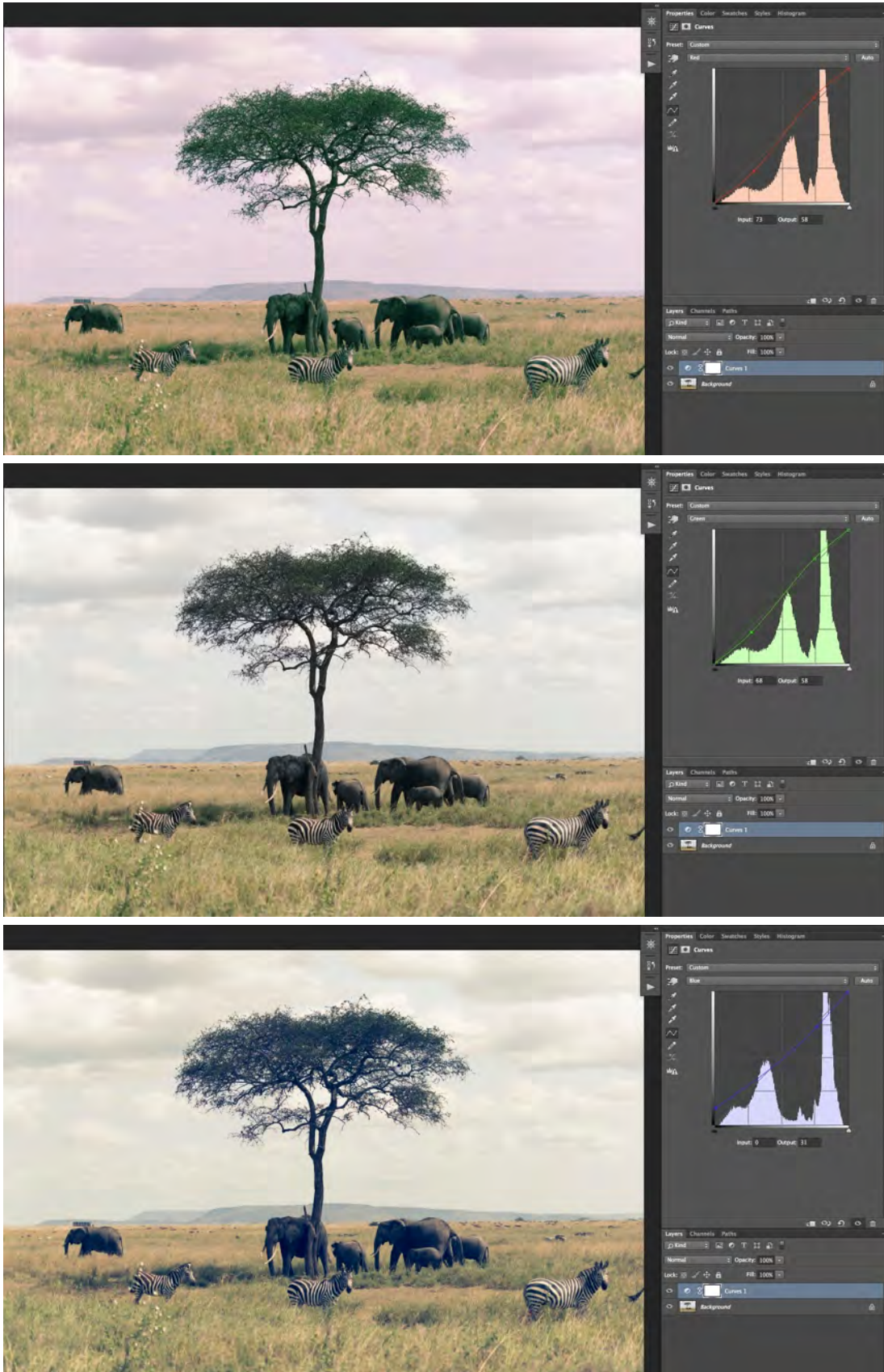


Your images can then be dropped onto the Droplet icon and the batch process will automatically begin.

CROSS PROCESSING EFFECT

This look was originally created in the days of film. When a negative was processed with incorrect chemicals it changed the colours of the film. A similar effect can be created in Photoshop with curves. Although this look has been slightly overused as of late (thank you Instagram!) the technique itself can be used in numerous other ways.

First create a curves adjustment layer. Then splitting out the curves RGB channels adjust as per the images below:



CONTENT AWARE FILL

Content Aware is a very cool and clever function within Photoshop. Sometime our image can have distracting or unsightly elements to them such as poles, birds etc. Also sometime as a retoucher we need to extend out beyond the edges of the image such as sky extensions etc. Content aware intelligently analyses the image and removes or adds them automatically. Traditionally the techniques used to remove these elements would be to paint or clone them out (these techniques will be shown next).

Firstly start by duplicating the base image (Command + J) and name appropriately. Using the Lasso tool, select the unwanted element. Creating Fill (Shift + F5), select use 'Content-Aware'. With fingers crossed the element should disappear! 95% of the time this should work but occasionally when photoshop can't work out how to fill the area traditional method will need to be used.

CLONE TOOLS

The 'Clone Stamp Tool' is one of the most commonly used and when combined with a pressure sensitive tablet is very effective. It allows you to sample an area and then paint it into another spot.

Unfortunately I see it way too often and sometimes from professional retouchers (who should know better) and that is a repetition in the stamp pattern. The trick is to avoid this by sampling multiple area and simply taking your time when cloning areas.



The other main set of tools are the patch tools. The great thing about these tools is most of them use the content aware algorithm and produce great results



Spot Healing Brush Tools uses content aware to fill in wherever you paint. Perfect for removing that pesky sensor dust!!

Healing Brush Tool is similar to the Spot Healing except you have to select a sampling area as opposed to using content aware

Patch Tool allows to you draw out a marquee selection then choose where you want that selection to sample from. You can also change the patch mode to content aware which I believe uses a combination of sampling and content aware.

Content-Aware Move Tool is similar to the patch tool but in reverse

Red Eye Tool does exactly what you think, it removes the red eye you can sometimes get when using camera flash

RETOUCHING EXAMPLE - SKIN

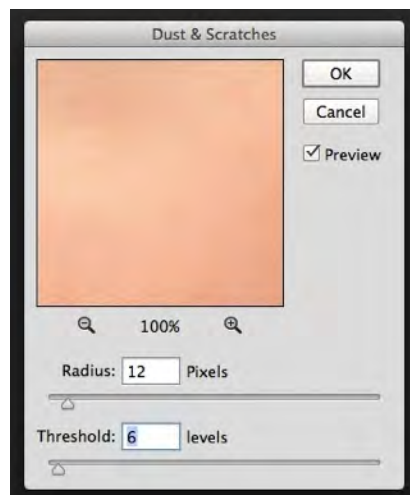
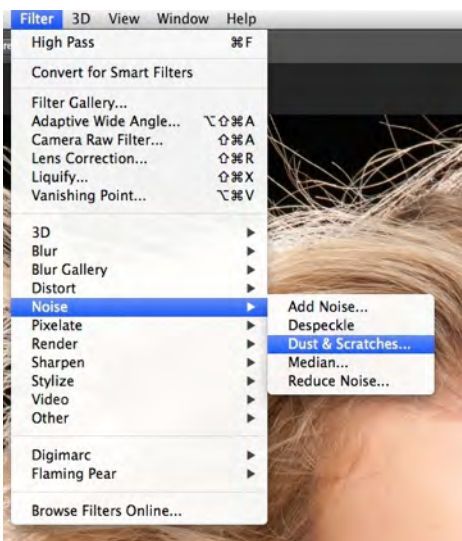
A good example of when the clone and patch brushes come in handy are for retouching skin blemishes. Whether its a model for a front cover of a magazine or a family group photo, you can always improve it by cleaning up the unwanted pimple or blemish.

Again the best way to start the process is by creating a new empty layer. Using the 'Spot Healing Brush Tool' and making sure that the sample type is 'content-aware' & 'Sample All Layers' is ticked, start painting over all the blemishes. Instant digital makeup!

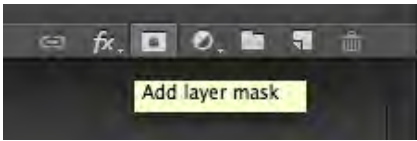


If the face is quite shiny or has lots of pores you can smooth this out by technique called 'Dust and Scratches'. Dust and Scratches allows you to blur or smooth out an image but gives you the option to introduce back some detail normally lost when smoothing (threshold).

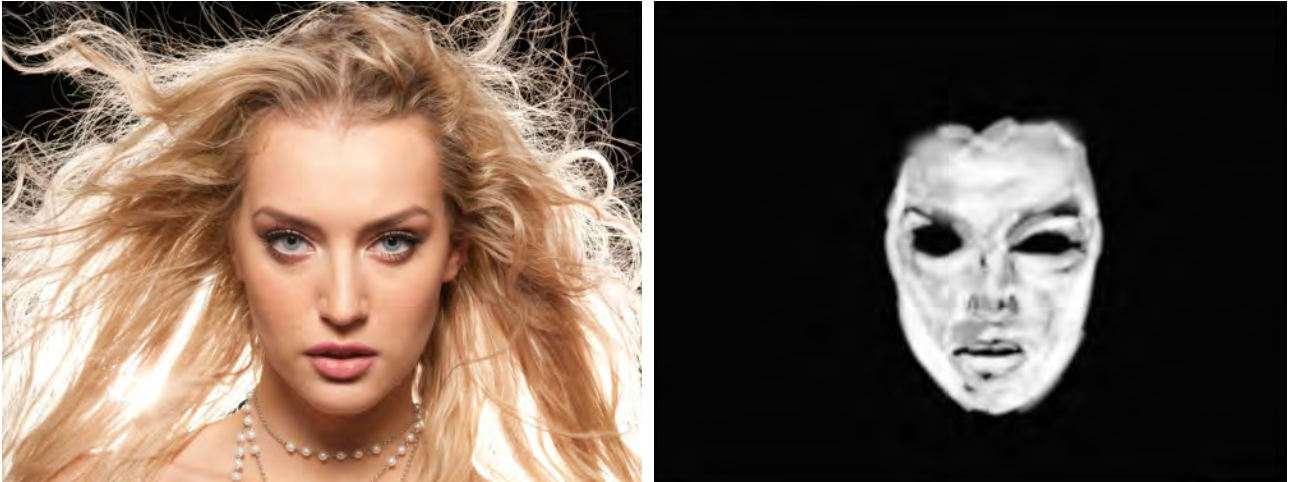
Firstly insert a new empty layer and create a flattened version of the layers below by stamping visible (Command+Option +Shift+E) This apply the effect by going to Filter - Noise - Dust & Scratches...



Next create an inverted mask on this layer by holding Alt and selecting the 'Add Layer Mask' button



You should now have a black mask making it invisible. With a brush now paint with a white colour on the area you want to smooth

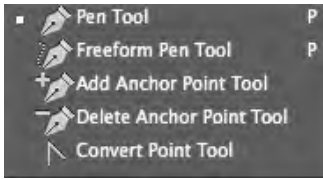


Just be warned if you over do the effect you can end up with that unrealistic, porcelain look but hey sometimes that's what the agencies want!

PATHS & SELECTIONS

Paths

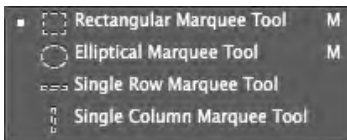
Paths are a way to create nurb based bezier splines to contour an object. These paths can then be converted into selections.



Selections

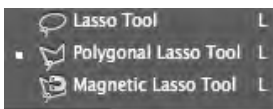
Selections, otherwise known as marquee tools (or marching ants!) are a way to isolate an area of your layer. These selection can then be used to cut out, paint within, mask etc.

The most common set are the basic marquee tools. Square, Circle and Single Row selections. To create a selection simply click and drag. If you wish to create a negative selection, holding down 'Option' key you'll notice the icon will change to a minus icon. Again click and drag and the selection will be subtracted from the area originally selected.



Like the basic selection tools the following set allows you to draw a selection of any shape.

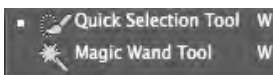
Lasso Tool allow a free hand selection to be drawn
Polygonal Lasso Tool allows a selection to be drawn in straight lines
Magnetic Lasso Tool snaps to borders of objects



The next set of selection tools are the most advanced.

Magic Wand Tool selects an area based on its pixel tone and colour. This selection can be changed based on the selections tolerance

Quick Selection Tool sounds very simple but is far from it. It is similar to the Magic Wand in term of its selection based on tone and colour except we can paint the selection. This selection then has a large range of option to adjust.



SELECTION EXAMPLE - HAIR & BACKGROUND REPLACEMENT

I'll start with a photo I took of my very cute little niece and my old man trying to get her to support our favourite team, Carlton!!! Go Blues! As much as it looks like she's singing the theme song, she actually yelling, "OFF, OFF!" Anyway this was my first test shot with a very dodgy home made background. Unfortunately all the following shots just didn't work and weren't as good as my test shot in terms of facial expressions. Always good fun working with kids!

So how to salvage this shot?



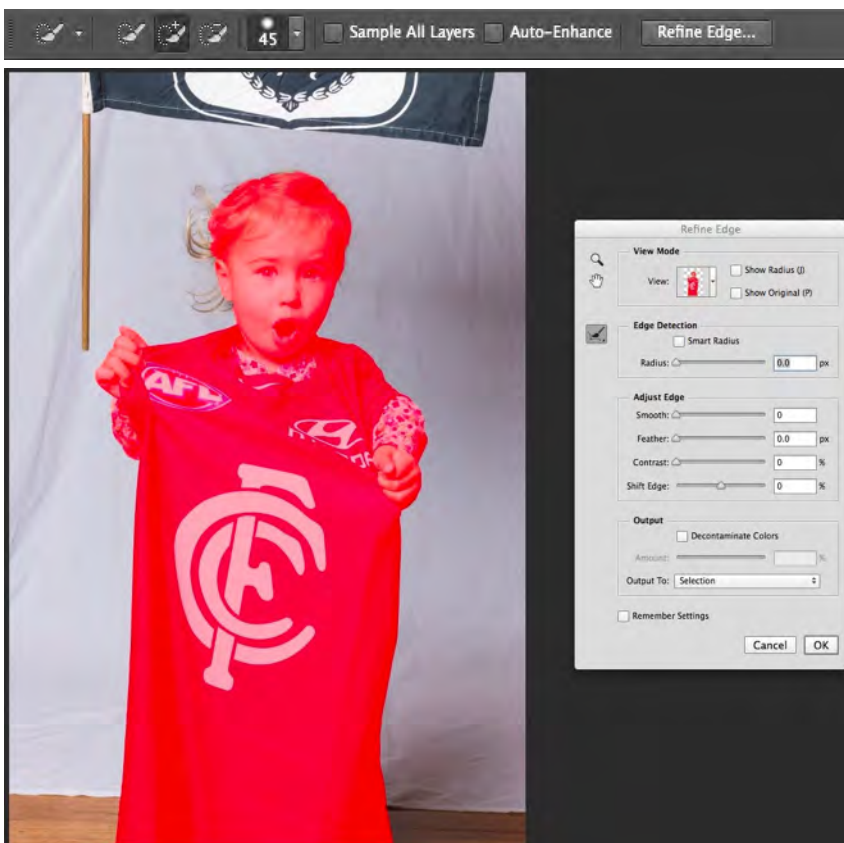
We'll start by cropping it down



Using the Quick Selection Tool we'll paint a selection around the edge of our model. If the selection goes beyond the outline we want hold down Option and paint it back out. The selection is looking great but things like the hair aren't selected.



To see or visualise the selection select the 'Refine Edge' button which then brings up the option dialog box. Here as well as adjusting the edge of the selection you can turn on the 'Smart Radius' edge detection and adjust the radius. This setting analyses the pixel edge and create a more accurate selection



Before selecting finalising and hitting ok, we can now paint in the hair



You can also change the view mode to help see the selection



When your happy select ok.

With the selection active, hold Option key select Add Layer Mask



Finally we can add an empty layer underneath and Fill white a white colour (Shift+F5) and we've now turned a test shot into a cool studio looking shot.



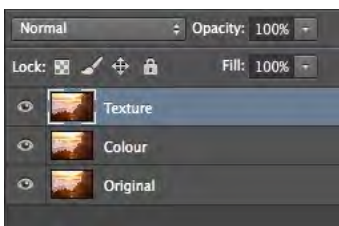
REMOVING LENS FLARES

Lens flares in your photos can look interesting but aren't always wanted and can be hard to avoid when shooting into the sun. Like always the best way to remove a lens flare would be to do this in camera. By this I mean when out shooting, take your base photo (which happens to have the lens flare) and then take a second photo with the sun blocked by either your finger or a paper card etc. These two photos can be simply blended together in photoshop. If when shooting you didn't notice you had a flare and only realised it when your back in your comfy, warm accommodation, there is a way to fix it in post.

Start by loading the offending lens flare image into photoshop.



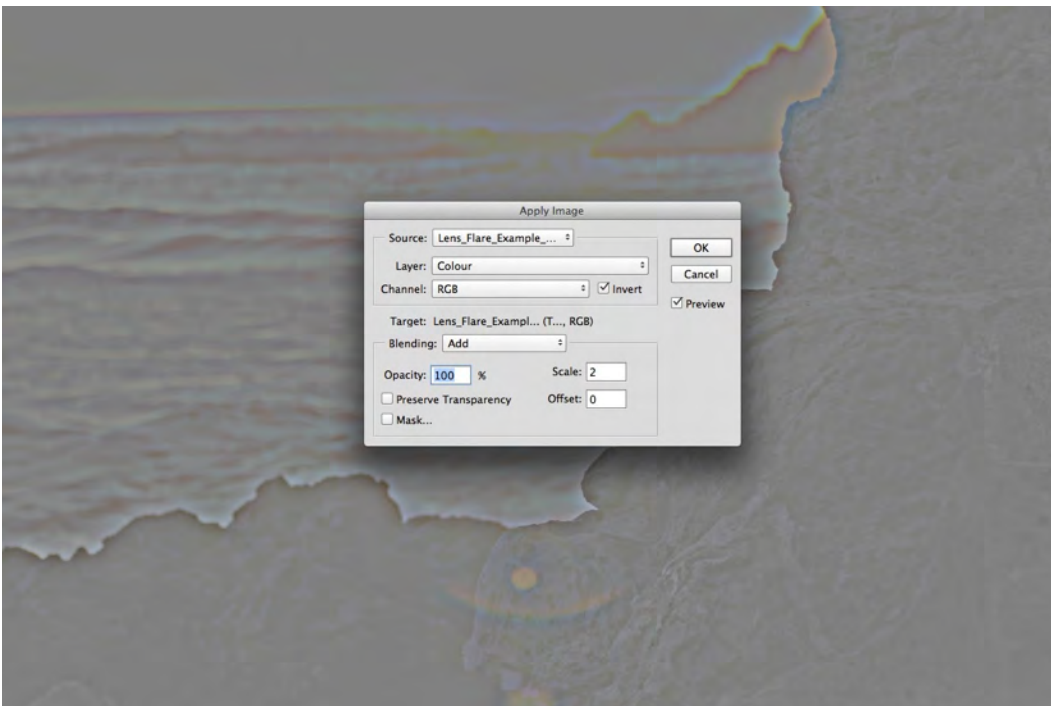
Duplicate the layer 2 times (Command+J) and name as below



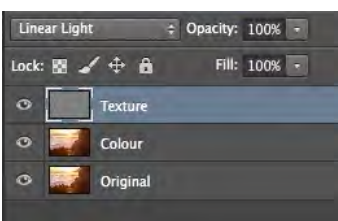
Select the layer named Colour and apply a Gaussian Blur. The blur amount will depend on the size of your image but try to achieve a blur amount similar to the below image.



Next select the Layer named Texture. Under the file menu 'Image' click 'Apply Image' and change to same setting as below



Select OK and change the layer blend mode to 'Linear Light'

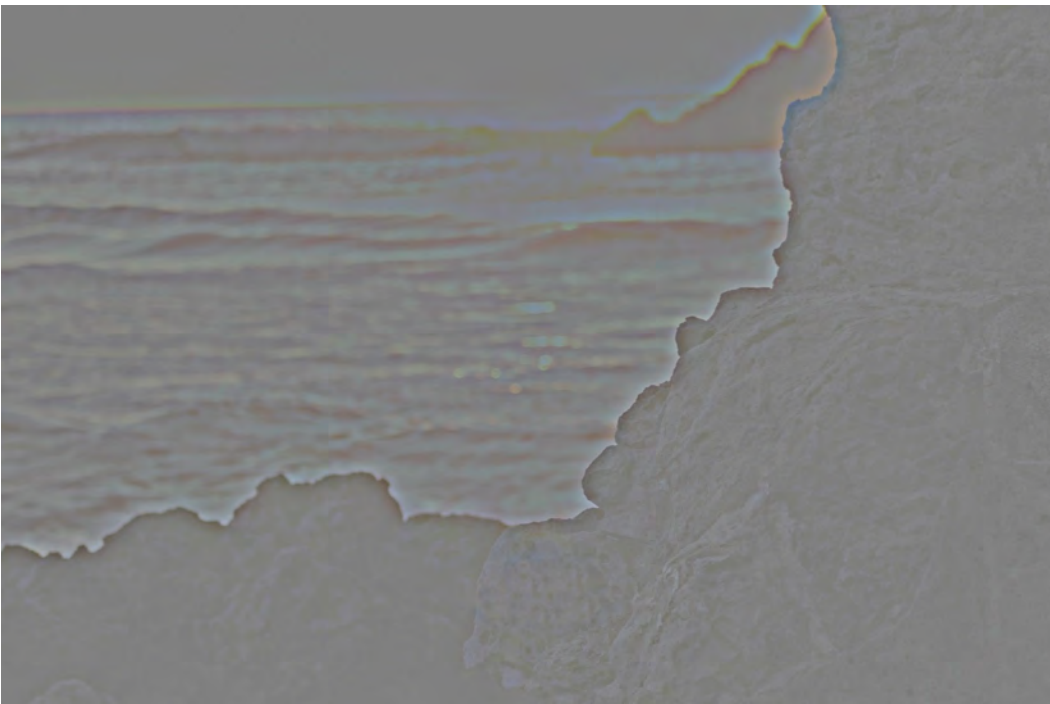


The image should now look exactly the same as when we started. Sweet, all that work and we've achieved... Nothing! Well actually we've now split our image into 2 elements. Colour and Texture.

Next on the Colour layer we need to use our stamp or clone techniques previously learnt and paint out the lens flare. Normally this will fix the problem but unfortunately in this example the lens flare is quite strong so what's happened is the Texture layer has elements of the lens flare in it too.



Ok so its nearly there but we now need to do some clone work to the Texture layer. Turn the blend mode back to normal (so we can see what's going on) and clone stamp out the visible lens flare elements.



Turn the layer blend mode back to Linear Light and there we have it. The lens flare is gone!



Honestly... Where would we be with out Photoshop!!!

Adobe Photoshop CC (OS X)

Cheat Sheet

Tools

| | |
|--|--------------|
| Rectangular Marquee Tool | M |
| Elliptical Marquee Tool | M |
| Move Tool | V |
| Lasso Tool | L |
| Polygonal Lasso Tool | L |
| Magnetic Lasso Tool | L |
| Quick Selection Tool | W |
| Magic Wand Tool | W |
| Crop Tool | C |
| Slice Tool | C |
| Slice Select Tool | C |
| Eyedropper Tool | I |
| Color Sampler Tool | I |
| Ruler Tool | I |
| Note Tool | I |
| Count Tool | I |
| Spot Healing Brush Tool | J |
| Healing Brush Tool | J |
| Patch Tool | J |
| Content-Aware Move | J |
| Red Eye Tool | J |
| Brush Tool | B |
| Pencil Tool | B |
| Color Replacement Tool | B |
| Mixer Brush Tool | B |
| Clone Stamp Tool | S |
| Pattern Stamp Tool | S |
| History Brush Tool | Y |
| Art History Brush Tool | Y |
| Eraser Tool | E |
| Background Eraser Tool | E |
| Magic Eraser Tool | E |
| Gradient Tool | G |
| Paint Bucket Tool | G |
| Blur Tool | U |
| Sharpen Tool | U |
| Smudge Tool | U |
| Dodge Tool | O |
| Burn Tool | O |
| Sponge Tool | O |
| Pen Tool | P |
| Freeform Pen Tool | P |
| Add or Delete Anchor Point Tool | P |
| Convert Point Tool | Opt+Pen Tool |
| Horizontal and Vertical Type Tool | T |
| Horizontal and Vertical Type Mask Tool | T |
| Path Selection Tool | A |
| Direct Selection Tool | A |
| Rectangle Tool | U |
| Rounded Rectangle Tool | U |
| Ellipse Tool | U |
| Polygon Tool | U |
| Line Tool | U |
| Custom Shape Tool | U |
| 3D Object Rotate Tool | K |
| 3D Object (Roll, Pan, Slide, Scale) Tool | K |
| 3D Camera (Rotate, Roll, Pan, Walk, Zoom) Tool | N |
| Hand Tool | H |
| Rotate View Tool | R |
| Zoom Tool | Z |
| Default Foreground/Background Colors | D |
| Switch Foreground/Background Colors | X |
| Toggle Standard/Quick Mask Modes | Q |
| Toggle Screen Modes | F |
| Toggle Preserve Transparency | / |
| Brush Size Decrease or Increase | [or] |
| Brush Hardness Decrease or Increase | Shift+[or] |
| Previous or Next Brush | , or . |
| First or Last Brush | < or > |

Photoshop Menu

| | |
|-----------------------|------------|
| Preferences > General | Cmd+K |
| Hide Photoshop | Ctrl+Cmd+H |
| Hide Others | Opt+Cmd+H |
| Quit Photoshop | Cmd+Q |

File

| | |
|------------------------|--------------------------|
| New | Cmd+N |
| Open | Cmd+O |
| Browse in Bridge | Shift or Opt+Cmd+O |
| Open As Smart Object | |
| Close | Cmd+W |
| Close All | Opt+Cmd+W |
| Close and Go to Bridge | Shift+Cmd+W |
| Save | Cmd+S |
| Save As | Shift+Cmd+S or Opt+Cmd+S |
| Save for Web | Opt+Shift+Cmd+S |
| Revert | F12 |
| Place | |
| Import | |
| Automate | |
| File Info | Opt+Shift+Cmd+I |
| Print | Cmd+P |
| Print One Copy | Opt+Shift+Cmd+P |

Edit

| | |
|---------------------|-----------------|
| Undo/Redo | Cmd+Z or F1 |
| Step Forward | Shift+Cmd+Z |
| Step Backward | Opt+Cmd+Z |
| Fade | Shift+Cmd+F |
| Cut | Cmd+X or F2 |
| Copy | Cmd+C or F3 |
| Copy Merged | Shift+Cmd+C |
| Paste | Cmd+V or F4 |
| Paste in Place | Shift+Cmd+V |
| Paste Into | Opt+Shift+Cmd+V |
| Check Spelling | |
| Fill | Shift+F5 |
| Stroke | |
| Content-Aware Scale | Opt+Shift+Cmd+C |
| Free Transform | Cmd+T |
| Transform > Again | Shift+Cmd+T |
| Auto-Align Layers | |
| Auto-Blend Layers | |
| Color Settings | Shift+Cmd+K |
| Keyboard Shortcuts | Opt+Shift+Cmd+K |
| Menus | Opt+Shift+Cmd+M |

Image

| | |
|--------------------------------|-----------------|
| Brightness/Contrast | |
| Levels | Cmd+L |
| Curves | Cmd+M |
| Exposure | |
| Vibrance | |
| Hue/Saturation | Cmd+U |
| Color Balance | Cmd+B |
| Black & White | Opt+Shift+Cmd+B |
| Invert | Cmd+I |
| Selective Color | |
| Desaturate | Shift+Cmd+U |
| Match Color | |
| Replace Color | |
| Auto Tone | Shift+Cmd+L |
| Auto Contrast | Opt+Shift+Cmd+L |
| Auto Color | Shift+Cmd+B |
| Photo Filter | |
| Shadow/Highlight | |
| Image Size | Opt+Cmd+I |
| Canvas Size | Opt+Cmd+C |
| Analysis > Record Measurements | Shift+Cmd+M |

Layer

| | |
|--------------------------------------|-------------|
| New > Layer | Shift+Cmd+N |
| New > Background | |
| New > Group | |
| New > Group from Layers | |
| New > Layer via Copy | Cmd+J |
| New > Layer via Cut | Shift+Cmd+J |
| Duplicate Layer (Group) | |
| Delete > Delete Layer (Group) | |
| Delete > Hidden Layers | |
| Layer Content Options | |
| Layer Mask > Reveal All | |
| Layer Mask > Hide All | |
| Layer Mask > Reveal Selection | |
| Layer Mask > Hide Selection | |
| Layer Mask > Delete | |
| Layer Mask > Apply | |
| Enable/Disable Layer Mask | |
| Link/Unlink Layer Mask | |
| Vector Mask > Reveal All or Hide All | |
| Vector Mask > Current Path | |
| Vector Mask > Delete | |
| Enable/Disable Vector Mask | |
| Link/Unlink Vector Mask | |
| Create/Release Clipping Mask | Opt+Cmd+G |
| Convert to Smart Object | |
| New Smart Object via Copy | |
| Edit Contents | |
| Export Contents | |
| Replace Contents | |
| Smart Objects > Rasterize | |
| Group Layers | Cmd+G |
| Ungroup Layers | Shift+Cmd+G |
| Hide Layers | |
| Arrange > Bring to Front | Shift+Cmd+] |
| Arrange > Bring Forward | Cmd+] |
| Arrange > Send Backward | Cmd+[|
| Arrange > Send to Back | Shift+Cmd+[|
| Arrange > Reverse | |
| Lock All Layers | |
| Link/Unlink Layers | |
| Select Linked Layers | |
| Merge Layers | Cmd+E |
| Merge Visible | Shift+Cmd+E |
| Flatten Image | |
| Matting > Defringe | |
| Matting > Remove Black Matte | |
| Matting > Remove White Matte | |

Select

| | |
|---------------------|-------------------------|
| All | Cmd+A |
| Deselect | Cmd+D |
| Reselect | Shift+Cmd+D |
| Inverse | Shift+Cmd+I or Shift+F7 |
| All Layers | Opt+Cmd+A |
| Find Layers | Opt+Shift+Cmd+F |
| Color Range | |
| Refine Edge or Mask | Opt+Cmd+R |
| Modify > Feather | Shift+F6 |
| Transform Selection | |
| Load Selection | |
| Save Selection | |

Filter

| | |
|---------------------|-----------------|
| Last Filter | Cmd+F |
| Adaptive Wide Angle | Opt+Shift+Cmd+A |
| Camera Raw Filter | Shift+Cmd+A |
| Lens Correction | Shift+Cmd+R |
| Liquify | Shift+Cmd+X |
| Vanishing Point | Opt+Cmd+V |

View

| | |
|-----------------------------|--------------------|
| Proof Colors | Cmd+Y |
| Gamut Warning | Shift+Cmd+Y |
| Zoom In | Cmd++ |
| Zoom Out | Cmd+- |
| Fit on Screen | Cmd+0 |
| Actual Pixels | Cmd+1 or Opt+Cmd+0 |
| Print Size | Cmd+1 or Opt+Cmd++ |
| Screen Modes (cycle thru 3) | F |
| Extras | Cmd+H |
| Show > Layer Edges | |
| Show > Selection Edges | |
| Show > Target Path | Shift+Cmd+H |
| Show > Grid | Cmd+' |
| Show > Guides | Cmd+; |
| Show > Smart Guides | |
| Show > Slices | |
| Show > Notes | |
| Show > Pixel Grid | |
| Show > All | |
| Show > None | |
| Show Extras Options | |
| Rulers | Cmd+R |
| Snap | Shift+Cmd+; |
| Snap To > Guides | |
| Snap To > Grid | |
| Snap To > Layers | |
| Snap To > Slices | |
| Snap To > Document Bounds | |
| Snap To > All | |
| Snap To > None | |
| Lock Guides | Opt+Cmd+; |
| Clear Guides | |
| New Guide | |

3D

| | |
|------------------------------------|-----------------|
| New Layer from 3D File | |
| Render | Opt+Shift+Cmd+R |
| Show/Hide Polygon within Selection | Opt+Cmd+X |
| Show/Hide Polygon Reveal All | Opt+Shift+Cmd+X |

Channels

| | |
|-----------------------|-------|
| RGB or CMYK Composite | Cmd+2 |
| Red or Cyan | Cmd+3 |
| Green or Magenta | Cmd+4 |
| Blue or Yellow | Cmd+5 |
| Black | Cmd+6 |

Window

| | |
|--------------------|------------|
| Arrange > Minimize | Ctrl+Cmd+M |
| Actions | Opt+F9 |
| Adjustments | |
| Brushes | F5 |
| Brush Presets | |
| Channels | |
| Character Styles | |
| Color | F6 |
| Histogram | |
| History | |
| Info | F8 |
| Layer Comps | |
| Layers | F7 |
| Paragraph Styles | |
| Paths | |
| Properties | |
| Swatches | |
| Timeline | |

Help

| | |
|----------------|----------------------|
| Photoshop Help | Shift+Cmd+/ or Cmd+/ |
|----------------|----------------------|

All the best and happy photochoppin'

Troy Witte