

# IMAGE DEVELOPMENT IN LIGHTROOM CLASSIC

JOHN TAYLOR

Before you read this article, you should already have read my articles **STARTING WITH LIGHTROOM CLASSIC**, and **LIGHTROOM CLASSIC LIBRARY WINDOW**. These explain how Lightroom Classic works with the catalogue file it creates on your computer.

I have based this article on Lightroom Classic, but the same applies to Lightroom, Adobe Camera Raw (ACR), Capture One and similar applications (DxO, Bibble). Lightroom and ACR have an identical processing engine to Lightroom Classic for image development, although the interface looks different. An image developed with any of Lightroom, Lightroom Classic or ACR is interchangeable in all 3 applications. The key to understanding Lightroom Classic is that stores all your edits on every image in one catalogue file on your computer hard drive. ACR stores its edits in separate sidecar files for each image. Lightroom CC stores your images with edits in the Adobe Creative Cloud. Photoshop is a Pixel editor. Edits you make with it change the original file. The only exception to this is that RAW files are converted to an editable file (for example PSD, TIFF or JPEG).

If you shoot JPEG's, you only have limited scope to adjust colour and contrast when you develop them. When your camera creates a JPEG image, it develops the RAW image and discards 70% of the original data, which includes tones, colours and detail. Getting colour balance and exposure correct in camera is essential. When you develop a RAW image, you use all the data the camera captured and have the ability to adjust exposure, white balance and a lot more. Not only can you correct mistakes, but you can be much more creative.

Always commence development in a RAW image processor (Lightroom, Lightroom Classic or ACR), even if you shot in JPEG format, because this is the safest way of working. If you open a JPEG directly in Photoshop, unless you Save-As immediately, you risk altering your original destructively.

The basic processing you do using Lightroom Classic or ACR will produce a well-balanced image that will satisfy your needs most of the time. But a lot more is possible in Photoshop: special effects such as removing larger unwanted elements or compositing several images should be done using Photoshop.

## BEFORE YOU START DEVELOPMENT

### MONITOR CALIBRATION

Before you adjust colours using any development software you should calibrate your monitor. This is done using a calibrator or colorimeter. The club owns one of these for member's use, so approach one of the committee members to loan it. If you don't calibrate your monitor, the colours you see on your screen will not look the same when printed, or when the images are shown on a calibrated monitor or projector.

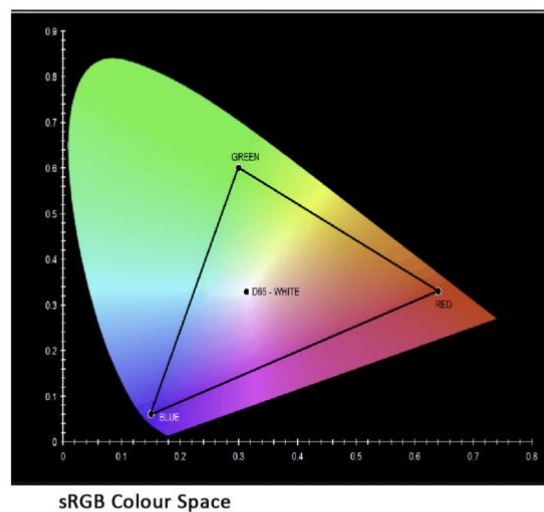
## COLOUR MANAGEMENT, COLOUR SPACES AND YOUR MONITOR

While talking about monitors it is worth considering using a colour correction monitor, such as an Eizo ColorEdge monitor. Computer screens are designed for several uses. Those supplied with your computer are for general use. They are designed to show images and other coloured files as bright and punchy. There are special monitors for gamers, designed to show games in bright colours, at high resolution (4K) and a high frame rate. These are no good for photography.

The colour correction monitor is designed to show colours in the much larger Adobe RGB colour space. You can see a much wider range of colours on them, and more shadow and highlight detail. They are accurate over the whole screen. Eizo monitors are the best known, but Benq monitors are now available at reasonable prices. I would not choose the more expensive 4K versions. One at the HDTV standard (1920 px wide) works very well.

Having got yourself the best monitor, ensure your workroom does not have bright lighting, and is of subdued neutral colours. The worst thing is to have a strongly coloured large curtain or other piece of furniture close by. This can throw your colour perception. Team Digital report this as one of their main reasons for customer problems with prints having unnatural colour casts.

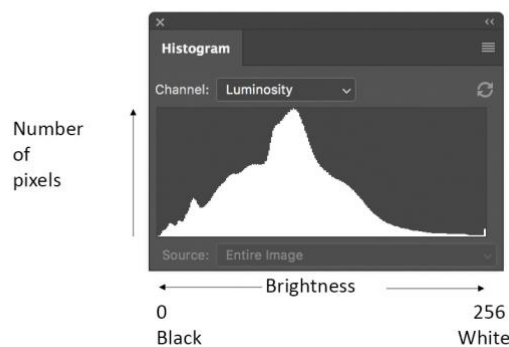
The CIE Chromaticity colour space shows all possible visible coloured light conveniently on a 2-dimensional diagram. The outer horseshoe line (locus) represents pure light (monochrome to a scientist), or the colours of a rainbow. The colours within the locus are mixtures of these pure colours. The straight line at the bottom represents the limits of human vision.



When you only use three coloured pixels (red, green and blue) you can only create colours within the triangle formed by these colours. The sRGB workspace can only accommodate a small part of the available spectrum. Colours outside this triangle are out of gamut – and cannot be created from the three primary colours. The Adobe RGB colour space is a larger triangle, covering more of the greens and blues. It will contain all the colours the camera sensor can record. The colour space used by Lightroom Classic and Photoshop by default, the ProPhoto RGB colour space, is an even larger triangle, allowing for colour manipulation without going out of gamut. The average colour monitor only covers the sRGB colour space. A colour correction monitor will show the much larger Adobe RGB colour space, and therefore a much subtler range of colour.

## UNDERSTAND THE HISTOGRAM

Understanding the histogram is fundamental to understanding exposure and image development in photography. You will find your camera has a histogram when you review images on its LCD screen. All image development software uses histograms. Lightroom Classic, ACR and Photoshop all show a histogram in the top right corner of their main window. Individual tools such as Photoshop's Levels and Curves also show a histogram in their display panel. The histogram in editing tools will show the look of the image after development has been applied.



The histogram really is a bar chart. Brightness is quantised in discrete steps of value, from zero for black tones to 256 for white tones in an 8-bit image. The bars are arranged along the horizontal axis from 0 (black) on the left to maximum intensity (white, red, green or blue) on the right. The vertical axis represents number of pixels of each tone. The colour histogram displays each colour channel from black through to full saturation.

A peak at the left-hand side of the histogram indicates there are a large number of pixels with a light intensity of zero, which will show as black. For a camera histogram if you are shooting RAW, there will be some shadow detail that can be recovered, because camera histograms are displaying the sRGB data, not the RAW. For a developed image, a high level at the left-hand side of the histogram will represent a large area of blackness with no shadow detail.

A peak at the right-hand side shows there are a large number of pixels with an intensity of 256, which will be rendered pure white with no highlight detail. A peak of one colour denotes an area of fully saturated colour. Again, for a camera histogram of a RAW image, there will be some detail that can be recovered in development.

For camera histograms, in most cases blown highlights are regarded as not good, so exposure is aimed at getting detail in highlights, and letting the shadows take care of themselves. However, this is not always the case. If your image is high key, large areas of white with no detail help concentrate the attention on the subject. Similarly, for night scenes or low key images, large areas which are black negative space may be what you want. An image with a peak in the centre and nothing towards the left or right may look flat and lifeless. However it does portray a mood. There is no ideal histogram.

A histogram with peaks in the dark grey and light grey areas with few mid tones usually is a problem. It will look muddy in some areas and washed out in others. It can be corrected in processing. Always check your histogram rather than the image on the screen to determine the range of tones in your final image,

particularly if you are not using a colour correction monitor. Your screen can look fine, but the print may not have the rich black you want.

If in Lightroom Classic or Photoshop the histogram has a warning sign (! In a triangle), the tones are not showing correctly. Click on this to update the histogram.

## PANELS IN THE LIGHTROOM CLASSIC DEVELOP MODULE

Selecting Develop in the top ribbon or typing D will open the Develop window with the active selected image shown.

On the Lefthand side are panels for Presets, Snapshots, History and Collections. The Presets are those supplied with Lightroom Classic, from third parties, or those you have created. Snapshots are useful for recording a copy of your image at different stages of development. History lists every step you have taken on the image, and you can step back in the history panel to see previous stages of the development.

The Copy and Edit buttons are useful for copying some or all of the edits done on one image to paste into similar images.

Most of your editing will be done using the panels on the righthand side. To see a larger version of your image, hide the left-hand panels by double-clicking the right edge of the panel or clicking on the triangle in the middle of the left edge.

## SET AND FORGET PROCESSING USING PRESETS

Lightroom Classic allows a lot of adjustments to be done automatically using Presets. The Preset can be applied using one click in the Develop Module, or to every image when it is imported.

In Lightroom Classic's Library window, click on an image you want to develop. Type D or click on **DEVELOP** at the top of the screen to open the Develop module.

Presets are multiple adjustments in development parameters that can be applied in one click. The Presets Panel in the develop module contain a number of useful items, but you can create your own. As you mouse over a Preset button, the effect is temporarily applied to your image. To apply a Preset, just click on it.

## CREATING AN IMPORT PRESET

An import Preset is one you apply to every image taken by one camera type. It can be applied to a selection of images in one click or can be applied during import. There are 3 things you would normally apply to every RAW image:

- Lens Correction
- Camera Profile
- Sharpening and Noise Reduction

## LENS CORRECTIONS

Even if you purchase very expensive lenses, they will come with some aberrations. See my notes on lenses on the web site for more detail on these. The most common aberrations are:

- Barrel/Pincushion distortion – straight lines at the edge of the frame are curved, outward for barrel distortion or inward for pincushion distortion

- Vignetting – The image is darker at the edges than the centre
- Chromatic aberration – The lens focuses different colours in different spots leading to coloured fringes at edges, particularly towards the edge of the frame.

In the **LENS CORRECTIONS** Panel, you have the option to make corrections manually. Setting them accurately requires particular images with even illumination over the whole image area and straight lines at the image edge. It is usual to use the Profiles that Adobe has created.

If you have lenses from your camera's manufacturer (Nikon lenses on a Nikon camera), Lightroom Classic will often have a lens correction profile you can use. The same is true for some third-party lenses. Click on Profile, then check "Remove Chromatic Aberration" and "Enable Profile Corrections" boxes and Lightroom Classic will automatically correct the chromatic, pincushion and vignetting lens aberrations.

If these boxes are dimmed, then the profiles are not available for your lens-camera combination. Some cameras, for example Olympus and Leica do not have correction profiles. In the case of Leica, the beautifully-designed lenses and camera software that performs these corrections means you do not need to correction aberrations using Lightroom Classic.

Where a lens correction profile is available, it should be applied to every image. The only exception I have found is with fish-eye lenses. If the profile is applied it removes the fish eye effect. Including lens correction in a Preset applied to every image is a good idea. It can be turned off if the image is with a fish-eye lens and you want the distorted effect.

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## CAMERA PROFILES

Many cameras come with a range of colour settings that give the image a particular look. Canon calls these Picture Styles (Camera Faithful, Landscape). Fuji calls them Film Simulation. Chose these in your camera's menu to apply these styles as you take the image. They are a good start point for further editing.

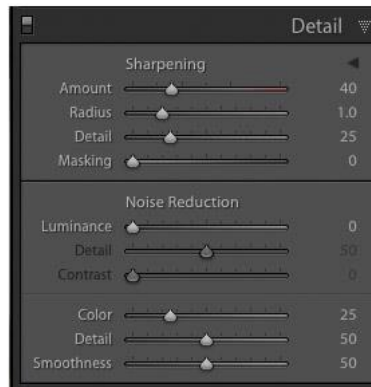
If your image is a RAW capture, you can apply or change these settings using Lightroom Classic from the Profile control at the top of the Basic Panel. Click on the dropdown menu icon to see available ones. Selecting Browse allows you to see the ones available for your camera, as well as a large selection of Adobe ones. Click on the four rectangles to see previews of those available. Adobe may not include camera profiles for all cameras, but I can see Canon and Fuji ones.

I use the Camera Faithful profile for all my Canon images, and have this as part of my import Preset.

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## CAPTURE SHARPENING AND NOISE REDUCTION

One of the first things to do on any RAW image is to apply capture sharpening and if necessary reduce the image noise. The **DETAIL PANEL** is where you do this. Click on the detail panel header to open it. Hit the spacebar to view the image full size.



The above detail panel shows the default settings for a RAW image. In most cases for low ISO images, these will be satisfactory. JPEG images will have all the sliders at zero, because the image will already have been sharpened by the JPEG algorithm. Capture sharpening is not necessary for JPEG images.

**SHARPENING** is applied to edges in the image by a very local increase in contrast. The *Amount* is the intensity difference between the light and dark sides of the edge. The *Radius* is the distance from the edge the sharpening is applied. The *Detail* adjustment affects how textures are sharpened. A low amount sharpens strong edges only. A high amount will make fine textures more pronounced, but will emphasise noise and may make textures unnatural. The *Masking* slider will introduce an edge mask, showing where there is a pronounced edge to be sharpened leaving the less pronounced ones unsharpened.

Hold down the Alt/Option key as you move each slider. The effect will be visible in monochrome in the zoomed-in view.

The **NOISE REDUCTION** sliders can be used to reduce noise arising as a result of a high ISO, long exposure time or both.

**LUMINANCE NOISE** is a grainy effect that occurs as you increase ISO, or because the sensor gets hot with a long exposure. Moving the *Luminance slider* reduces this noise. Increase noise reduction until the graininess disappears. Too much will give the image softness, artefacts and a glassy look at high magnification. I prefer to leave a little graininess rather than this unnatural glassiness. The *Detail* slider controls where noise reduction takes effect. Lower values give smoother results, but reduce image detail. Higher levels give more detail but with more noise. The *Contrast* slider controls the contrast of the luminance noise. A high setting is useful for very noisy images, but can result in blotchiness. Lower settings are smoother, but have less contrast.

**COLOUR NOISE** shows as brightly coloured pixels throughout the image. It is only evident with older sensors or at extreme ISO levels. Increase the Colour slider until the spots disappear. Adjust the Smoothness and Detail sliders if necessary. Usually the default values are good enough.

For more on **CREATIVE SHARPENING AND OUTPUT SHARPENING**, see my article on Sharpening Overview. Some **CREATIVE SHARPENING** can be done using Lightroom Classic's Masking Tools (see below) over areas of your image, but the Photoshop methods are more powerful. Lightroom Classic does **OUTPUT SHARPENING** during printing, or on export as a JPEG or TIFF. See below.

Detail adjustment	Sharpen Detail	Sharpen Portrait
Amount	52	35
Radius	0.5	1.2
Detail	54	20
Masking	8	70
Noise reduction - Luminance	5	5

Capture sharpening is one adjustment that is best applied to with a Preset. I use my own with settings recommended by Martin Evening, as in the table above for ISO 100 images.

### CREATING AN ISO ADAPTIVE PRESET

The 2021 version of Lightroom Classic has a way of creating a Preset for sharpening and noise reduction over the useful range of ISO for your particular camera using two (or more) images. One image is shot at ISO100, or the lowest ISO of your camera. The other is using the highest ISO you would normally use, say ISO6400. Develop these two images, ensuring you have turned on lens corrections, applied the profile you want to start with and sharpened and reduced noise in each image. I would start with the Detail settings above for both images. Increase the luminance noise reduction for the high ISO image. Raising the Masking and reducing the Detail is also required. An adjustment of colour noise may be required.

Select these two images. Create your Preset by clicking the + button in the Presets panel header. A dialogue box will open. You uncheck the Settings you don't want the Preset to have, so for the import Preset, uncheck everything except Treatment and Profile, Detail (Sharpening and Noise Reduction), and Lens Corrections. Check the *Create ISO Adaptive Preset* box at the bottom of the window. With the Preset named appropriately (eg 5DIV + Faithful + Lens) and the above values set, click Create. You will be given an option to create a Preset group.

### APPLY A PRESET TO IMAGES ON IMPORTING FROM YOUR CAMERA CARD

Presets can be applied as images are downloaded from a camera card. In Library view, click on Import. In the Right-hand group of panels, you will find the Apply During Import Panel. Click on Develop Settings and you will access the list of development Presets. Select the one you want to apply that Preset to images on import. My Preset ensures all my Canon images have automatic sharpening, noise reduction, lens correction and a Camera Faithful profile.

### ADJUSTING A SINGLE IMAGE

Developing a single image in Lightroom Classic is straightforward. This is the order I do my development. One suggestion is to collapse the panels on the left-hand side by clicking the leftmost triangle. This gives your image more screen room, but you will need the right-hand panels to access Presets.

When in Grid view, select the image you want to develop. Then click on Develop in the module bar, or alternatively Type D.

## DEVELOPING IMAGES ON A DRIVE WHICH IS NOT CONNECTED

Most of your images in Lightroom Classic's catalogue will not be on your computer's hard drive. However, Lightroom Classic has a cool feature, which allows you to process these images, even when a drive is disconnected. You create **SMART PREVIEWS** for these images.

With the drive connected and in Grid View (G), select the photographs you want to create a Smart Preview for. Then MENU: Library > Previews > Build Smart Preview. Now if you look under the histogram on the right-hand side, you will see Original + Smart Preview. What Lightroom Classic has done is added more information to the catalogue, so that you can edit the file, even when its drive is disconnected.

Creating a Smart Preview increases the file size of the catalogue, so it is not something you want to do for every image. When you have finished with the smart preview it can be removed with MENU: Library > Previews > Discard Smart Previews. You can find all the images in the catalogue with smart previews by using the existing Collection called Smart Preview Images.

## CROPPING AND STRAIGHTENING

I always want to see how my composition will look, and to get the best feel the first thing I do is crop it. As with all Lightroom Classic adjustments, cropping is temporary and only takes effect when you export an image. If I am going to further process in Photoshop, particularly using Content Aware tools, I do my final cropping in Photoshop after other development tasks. The cropped areas may contain useful textural information I can sample with Content Aware Tools.

If your image has converging verticals (Keystoning) or horizontals you want to straighten, then it is best to start adjustment in the **TRANSFORM** Panel. To straighten a horizon of a seascape. Click on the Level button. To straighten vertical lines, click on Vertical. The most accurate way of using the panel is to click on the hatch ikon top left of the panel. You can set vertical and horizontal lines to precisely straighten an image's vertical and horizontal lines as below.

### Before transformation



Just under the histogram is a panel with 6 ikons. At the left is the **CROP AND STRAIGHTEN** ikon. Click on this to open the crop dialog box. Your image will have lines around the outside. Drag the lines inwards at one of the 8 points at the corners and edges to crop the image. Hold and drag anywhere in the image to align it.



Change the aspect ratio by clicking on Original and selecting from the menu. Click the lock to unlock the aspect ratio and make it anything you like. Click on *Angle* with the spirit level icon in it to adjust a seascape's horizon. Choose guidelines inside the crop box from MENU: Tools > Crop Guide Overlay. There are several choices: Thirds, Golden Ratio, Golden Spiral, standard aspect ratios (2 x 3, 4 x 5, 5 x 7).

Click Close when you are done.

## THE BASIC PANEL

Most image development is undertaken in the Basic panel.

### THE WHITE BALANCE (WB) PANEL

The white balance of an image is based upon the light used to illuminate the subject. Candle light (2,500 K) is redder than sunlight (6,500 K), because it is a considerably lower temperature. We say candlelight is warmer than sunlight, because warmer yellow, orange and red predominate over the cold blue colours. We associate blue with cold, but the scientific reality is different – blue light is generated at higher temperatures. In cold, cloudy weather the red light and heat rays from the sun are absorbed in the atmosphere and the light is blue. However, we see and feel warmth from a fire, which is emitting a lot of red light as well as heat – hence the association of redness with warmth.

Your camera should have a setting for white balance. Most of the time the Auto white balance setting will be good enough, but be aware that this setting is trying to make the colours average out to a mid-grey, and if your image has one predominant colour, it may get the balance wrong. Where the light source is a sunrise or sunset, a cloudy or shade setting is better than Auto, because Auto tends to give a blue cast as it tries to balance everything to neutral. I would use a flash setting where Speedlight flash is my main light source, a colour temperature setting based upon the flash or LED light source setting, where this is adjustable. With a RAW file, colour balance can be adjusted over a considerable range in development, and you can choose the same pre-set adjustments that the camera has.

White Balance is adjusted using the Basic WB Panel in Lightroom Classic or ACR. There are two sliders, **TEMP**, which slides between blue and yellow, and **TINT**, which slides between magenta and green. How fussy you are about white balance and other colour management tools depends on what you want to do with your image. If you are photographing fashion or architectural images, which you intend to use to sell the clothing, makeup or building, very accurate colour management is the aim, and you can go to extraordinary lengths to obtain accurate colours. If your image has skin tones, it is important that they look natural and healthy. Excessive yellowness, greenness or blueness is not good. Colour balance can be adjusted creatively to achieve artistic effects, rather than accuracy.

Adjust the white balance of RAW images in Lightroom Classic or ACR in one of the following ways.

- Select a standard white balance based upon the subject lighting, e.g. daylight for sunlit images, flash for flash lit images. Click on *As Shot* to see a dropdown menu.
- Use the eyedropper tool to set the white balance off something in the image that is grey coloured. A grey card in one of the images at a photoshoot is the most accurate way. Try different whitish areas to find the one you like best.
- Drag the **TEMPERATURE** and **TINT** sliders to achieve what you want.

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## tone adjustments

Lightroom Classic has sliders that control luminance (darkness and lightness) over the image very simply in the **TONE** area of the **BASIC** panel. Ensure you watch the histogram to see the effects of your adjustment.

Click **AUTO** to apply an automatic adjustment of these. It does not always produce the result you are after, and separate adjustment is usually required. Either drag the sliders, or click on one of the slider labels to allow fine adjustment with the + and - keys.

**EXPOSURE** may be adjusted to apply exposure compensation, lightening or darkening all the image tones. The number to the right of the Exposure slider is the number of stops over or under exposure applied by the adjustment. The amount you can apply to a RAW image is dependent on the exposure latitude which depends on your camera's sensor. A RAW image produced at low ISO by a camera with large pixels will have a wide exposure latitude. You will see where this when shadow detail cannot be gained by increasing exposure during development, or highlight detail by reducing it. Little exposure compensation can be applied to a JPEG.

The **CONTRAST** slider will adjust contrast over the mid-range of tones. You will see that increasing contrast also increases colour saturation.

Increasing the **HIGHLIGHTS** and **WHITES** by pushing the sliders to the right has the effect of brightening the lighter parts of the image. When you position your mouse over a slider, you will see a grey bar appear on the histogram, indicating which tones are being adjusted. The Whites slider adjusts brighter tones than the Highlights slider.

The **SHADOWS** and **BLACKS** sliders work in a similar way adjusting the darker areas of the image.

As you work with the tone sliders you need to watch whether you are **CLIPPING THE WHITES OR BLACKS**. The histogram has small triangles on the right and left-hand sides. If the left triangle is white, you have started to clip the shadows. Click on the triangle so its border becomes white. Now your image will show the clipped black areas highlighted with blue. The right triangle shows the clipped highlight areas as red in a similar way. A small amount of clipping will show your image has a full range of tones. Large areas of blue or red highlight areas with no shadow or highlight detail.

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## the presence sliders

The **CLARITY** slider adjusts local midtone contrast, making images look sharper. Most images will look better with 10% increase in clarity. For those showing texture, increasing this to up to 100% may give them punch, but also emphasises artefacts making the image look over-sharpened. Negative clarity can be used to give a softness that may be desirable, particularly to a person's skin.

A newer feature of Lightroom Classic is the **TEXTURE** slider. This seems to be similar to the Clarity slider, but without changing contrast or colour saturation. An increase will add texture to hair, wood or similar textures. A negative amount is used to soften skin. It does not produce the over-sharpening effect the clarity slider produces.

**DEHAZE** is a feature that will increase contrast and bring out detail in distance shots. Negative Dehaze will add depth to a landscape image.

Raising **SATURATION** will boost colour saturation, but extreme adjustment will cause these colours to reach a maximum intensity, and detail is lost. They become *Clipped* or *out of gamut*. The clipping can be seen as a red, green or blue peak on the right-hand side of the histogram.

Raising the **VIBRANCE** gives a non-linear response. Colours close to saturation are adjusted less than the muted colours, so there is less risk of clipping. The vibrance control has a built-in skin protection filter. This means that skin tones are not affected by the adjustment.

Increasing saturation and vibrance is used a lot to give images more pizzazz, but consider reducing these to give images a subtler feel with pastel colours, as for portraits in period costume.

## STONE CURVE

The tone curve in Lightroom Classic works a little like Curves in Photoshop. It can apply a contrast adjustment in a subtler way than the Contrast slider. Initially when you select the Tone panel, there is a grey histogram covered over with a straight diagonal line. Use the other Presets to apply standard curves, and see what is possible. Clicking and dragging the line will allow adjustment of parts of the tones in the image. If you click on the line in the middle, dragging downward darkens the mid tones and dragging upward lightens them. Dragging up or down the left-hand side, affects the dark tones, and on the right-hand side, the light tones. Dragging down the darks and up the lights will create an S-curve which is steeper in the mid tone area, raising mid tone contrast. Try to obtain a smooth curve. If you drag two points close together in opposite directions, you get some strange unwanted effects. Unlike Photoshop Curves, the only way to remove points is to select one of the Preset Point curves. The Tone Curve adjustment will work on a particular tone in the image if you click on the "Adjust Point Curve" button to the left and above the tone curve figure.

I prefer to do these adjustments in Photoshop with Curves adjustment layers.

## HSL/COLOUR PANEL

The HSL and Colour panels in Lightroom Classic and ACR enable fine tuning of hues using multiple sliders.

There are sliders for each of the hues Red, Orange, Yellow, Green, Aqua, Blue, Purple and Magenta.

The hue sliders change the colours of each hue. The Saturation sliders adjust colour saturation of each hue. The Luminance sliders change the lightness and darkness of each hue.

These sliders give more control than the Hue/Saturation controls in Photoshop, and seem more predictable in their response. They are great for recovering out-of-gamut colours by applying negative luminance and saturation adjustments to colours.

There is a target adjustment tool, the little circle to the left and above each colour list. Clicking on this, then on a specific colour in your image, and dragging up or down will adjust the H, S or L of this colour.

If you use a colour chart such as a Spyder Checkr to calibrate your camera for really accurate colour, the adjustments are applied as a Preset with HSL adjustments.

## COLOUR GRADING

The Colour Grading panel allows adjustment of the hue and luminosity to control the tones in the midtones, shadows and highlights separately. It is fairly easy to understand, but see Lightroom Classic's help on this feature.

## EFFECTS

The Effects panel contains a control for **VIGNETTING** the image, to darken or lighten the edges. I prefer to use masking (was Local Adjustments or Photoshop to give a more subtle effect. If you can see a vignette, it has been overdone.

Effects also has a control to **ADD GRAIN**, simulating film. Why? It's like the difference between real wood and Formica.

## LOCAL ADJUSTMENTS IN LIGHTROOM CLASSIC AND CAMERA RAW

The Local Adjustment tools in Lightroom Classic has been replaced with Masking tools, which work in a different way. The tool strip just below the histogram in Lightroom Classic gives access to four important tools. To the left is the Crop tool, which we have already discussed above. The other three tools, **SPOT REMOVAL**, **RED-EYE REMOVAL**, and **MASKING** tools, are the ones that apply local adjustments that I want to discuss here.

It is the Masking (formerly Local Adjustment) tools that make Lightroom and Lightroom Classic so much better than the cheaper rivals to these applications, such as Apple Photos. Being able to select part of your image and develop that is the key to turning a good photo into a great one.

## SPOT REMOVAL TOOL AND RED EYE REMOVAL TOOLS

The **SPOT REMOVAL TOOL** is simple to use and will get rid of minor blemishes, such as sensor dust as long as it isn't close to an edge. Set the brush size, Feather and Opacity with the sliders and in Heal mode, just zap away blemishes. Clone mode can be used to copy one part of the image to paste over another, but the copy can be obvious. The tools in Photoshop are much more powerful and sophisticated.

**HINT:** If you have a dirty sensor, all the shots in one photoshoot are going to have sensor dust in the same location. Use the spot removal tool in Clone or Heal mode to remove all the dust in the first image. Then click Copy (bottom left of the Develop window). In the dialog box uncheck everything except Spot Removal. Then go to the next image and click Paste and the dust on that image will be removed. Repeat on each image in the photoshoot. Alternatively use Auto-sync as described below on a selection of images. Another way is to create a Develop Preset with the dust and use that.

**DEBBIE'S HINT:** You can use the Spot Removal tool in Clone mode to add catchlights to eyes. Zoom into the eye part of the image. Adjust the hardness and spot size of the spot removal tool to the size of the catchlight you want to add. Click on the pupil and move the sample circle to a light grey or white texture-less part of the image. Adjust hardness or size to your requirements.

The **RED EYE CORRECTION** tool can get rid of Red-eye created from on-camera flash. It will also remove Pet Eye (dog's green-eye).

## THE MASKING TOOL

The October 2021 version of Lightroom Classic replaced the **GRADUATED FILTER**, **RADIAL FILTER** and **ADJUSTMENT BRUSH TOOL** with a single **MASKING TOOL**. Click on the little Rosette icon in the right of the panel to find the tool.

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## CREATING A MASK

Under "Add a new mask", there are **THE SELECT SUBJECT** and **SELECT SKY** buttons. Click on one of these and artificial intelligence will work to select an obvious subject or the sky in your image. Having tried them, these selections are mostly very accurate. How good is that.

The other ways you can make a selection is with the **BRUSH**, **LINEAR GRADIENT**, **RADIAL GRADIENT**, **COLOUR RANGE** and **LUMINOSITY RANGE** buttons. If your image has been taken with a modern camera which has depth information you will have the opportunity of selecting by the **DEPTH RANGE** in the image.

Double Click on **MASK 1** to rename your mask.

Click Create **NEW MASK** to create another mask.

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## EDITING THE MASK

Once you have created your mask a flyout menu will appear showing the details of the new mask. The masked area will have a colour overlay, the default of which is red. The flyout menu will give the opportunity to name the mask, to add to it or subtract from it using the range of selection of tools. The masking tool panel will now show the range of changes you can make to the selected area (Temp, Tint, Exposure, Contrast, etc.). Once you make a change with a slider, such as increasing the exposure, the overlay will disappear showing the effect of the mask in the selected area. Double-Click on **EFFECT** to return all your adjustments to zero. Double-Click on an individual slider to return it to zero.

Clicking on **CUSTOM** will list a number of Preset adjustments, including *Dodge*, *Burn*, *Iris Enhance*, *Skin Soften*, and *Teeth Whitening*. You have the option of saving the current settings to a Preset, or creating a new Preset.

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## HELP WITH MASKING

At the right of the label to the flyout panel is a little button that will access a help menu. This provides a huge amount of detail on how you can use the new masking panel.

## A SOPHISTICATED WORKFLOW

The features described here are useful inclusions to make your workflow more streamlined and save time. You will need the Panels on the left-hand side to access these features.

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### SNAPSHOTS

You can save multiple versions of your edits by using snapshots. At any time during development, click the + button on the **SNAPSHOT WINDOW** to save all the development settings you have included so far. Click **RESET** to remove all development and return to your original. Click **PREVIOUS** to go back to the state when you started development.

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### HISTORY

Each step of development is recorded in the History Panel. You can step back in history by clicking on a previous state.

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## DEVELOPING MULTIPLE IMAGES TOGETHER

If you have images taken under similar lighting conditions, you can save time by applying the development settings for one image to other images.

Click the **COPY** button. Check which settings you want to transfer. Navigate to an image you want to apply the settings to and click **PASTE**.

Alternatively, return to Grid view (G). Select the images you want to develop together. This can be images for a panorama, focus stack, or HDR. Back in the develop module, (D) on the bottom right there is now a button called **SYNC...** Click the Black and White rectangle just to the right, and the button's name will change to **AUTO SYNC**. Now when you develop one image, all the changes will be applied to all the other selected images.

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## COMPARING IMAGES

While you are developing your image, you can compare it to its original state using the **YY** button in the Toolbar below the image (Type **T** to toggle this toolbar's visibility). Repeat click the **YY** button to see more view options.

What is useful is if you are creating a set of images to present together, compare the image you are developing to a previously developed one. In grid view select the image you are developing and the one you want to compare it to. Type **N** to go to Survey view and you can see both the image you are developing and the comparison one. Type **D** to go back to the image you are developing to work on it, and **N** to compare it to the target image. This process allows you to develop a consistent looking colour balance to your set of images.

Lightroom Classic has included a simpler way in the Develop module called Reference view. In the Toolbar, there is an **RA** button. You choose a reference image from another in the toolbar and compare the look of the image you are developing to that.

## FINISHING YOUR IMAGE

Now you have developed your image, you will want to print it or turn it into a single file to send to others, or process it further using Photoshop or another application. As it is, the image can only be seen with your edits if it is opened up in Lightroom Classic on the computer with the Lightroom Classic catalogue that the image was imported into. Opening it in another application will not include your edits. The one exception is if you chose to produce sidecar files. In this case the image with its sidecar file can be opened in ACR with the Lightroom Classic edits.

If you have a laptop and desktop, you may transfer the image from the laptop to the desktop to complete editing using Lightroom Classic. To do this you need to connect the computers together with a cable, and import the image from the laptop's Lightroom Classic catalogue to the desktop's catalogue. MENU: File > Import from another catalog.....

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## OPENING IN PHOTOSHOP OR OTHER PIXEL EDITING APPLICATIONS

The image with Lightroom Classic edits can be transferred to another application with the command MENU: Photo > Edit in > and select the application from the list. Single images are transferred to Photoshop this way, but this menu also has options for creating HDR or panoramas in Photoshop. Multiple images can also be loaded as a stack of layers in Photoshop. This same dialogue box will access third party software, such as the DxO/NIK suite.

Once you save the image in Photoshop, you will be asked to save the image in another format. You can save in Photoshop format (.PSD), or TIFF to preserve all the Photoshop layers. The new file will be added to the Lightroom Classic catalogue, and you will find the new version when you look in grid view. The Photoshopped version will be your new Master file. Flag or colour code it to distinguish it from the other versions of this image.

If you use Photoshop to create a renamed version of your master file, for example after you have resized for printing, you may find the second version has not been imported into Lightroom Classic. You will need to import this using the import dialogue box.

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## EXPORTING

Exporting is used to create a version of your image with the Lightroom Classic edits that you can pass on to someone else. This may be as a JPEG for club night judging or competitions, but it can also be a file for printing. Remember Lightroom Classic stores all the edits you have made in your Lightroom Classic catalogue. Exporting is creating a new file containing your edits, leaving the original file untouched.

In the Library module, just click **EXPORT** and you will be presented with the export dialogue box. Notice how the dialogue box has a sharpening option. This should be checked if you want to apply output sharpening, for example to a JPEG for exhibition or competition.

I have created short notes on how you can create a Preset for producing JPEGs that meet club requirements, and files to take to your photofinisher for printing, which you will find links to on the website. It is far easier to use Lightroom Classic to do this than Photoshop.

See: **[AUTOMATE THE CREATION OF JPEGS FOR CLUB AND WAPF REQUIREMENTS](#)**, and  
**[PRESENTATION OF PRINTS FOR JUDGING](#)**

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## PRINTING YOURSELF

You can use the Lightroom Classic **PRINT** module if you have your own printer. This is superior in many ways to printing using Photoshop.

- You have the option to easily print multiple images on one piece of paper.
- Margins, strokes and text can be added.
- Output sharpening is much easier than using Photoshop.
- By setting up a User Template, you save the paper size, paper profile and other settings, so that the next time you use the same paper you select this template.

## OTHER LIGHTROOM CLASSIC MODULES

Now you have mastered the most important concepts and features of Lightroom Classic you can explore using the other Modules: **[MAP](#)** | **[BOOK](#)** | **[SLIDESHOW](#)** | **[PRINT](#)** | **[WEB](#)**.

In **GRID VIEW**, select images to use in any of these modules. You may want to create a **COLLECTION** so as to work on images in multiple folders. See **COLLECTIONS** in my article **THE LIBRARY WINDOW**. You will find it useful to display images in a folder or collection using the **FILMSTRIP**. Click the triangle at the bottom centre of any module to reveal it.

The **MAP** module will display images tagged with a GPS code on a map. Images without GPS can be given one by copying the metadata from smartphone image taken at the same location. You can also create GPS metadata by dragging and dropping an image or a selection of images onto the map.

You can create and layout a book using a selection or collection of images with the **BOOK** Module. The book can be submitted to a photofinisher for printing in the layout you have created.

A Slideshow is set out and made in a similar way using the **SLIDESHOW** module. This can be exported in a number of formats or run from Lightroom Classic.

If you have your own photograph printer, the **PRINT** Module is the easiest and safest way to print your images. It is reasonably straightforward, provided you understand printing colour management. You can easily set up a template for each print size and paper type so you have less risk of using the wrong paper profile than when printing using Photoshop.

Use Adobe's help function to learn how to use these modules. There are excellent video tutorials to show you how.

## MASTER IMAGE FILES

When development is complete in Lightroom Classic your image is the source of everything you need to show your world – on your website or social media, share with your friends, as a JPEG for competition, or as prints of various sizes. **IT IS NOW A MASTER IMAGE.** If you go onto do more with the image in Photoshop, then this creates a new master image, which should replace the one with just Lightroom Classic development.

I identify my Master image with a flag, so I do not confuse it with another image. You could also have a standard colour code.

*Create all the images you share (prints or digitals), directly from your MASTER FILE, not from one of its daughter files.*

If you Photoshop the image, the master image should be:

- Fully developed
- With the original pixels, not resampled (reframed to a ratio with the Crop tool, but not resized to length dimensions)
- As a Photoshop document (.psd) or a TIFF document (.tif) with all the layers.

If you use the same name for your Photoshopped file as the original in Lightroom Classic, when you save it, it will appear in the Lightroom Classic catalogue. If you change the name (Save-as) it may not appear in the catalogue, but it can be imported.

## DEVELOPMENT IN LIGHTROOM CC

The cloud-based version of Lightroom can be used to perform development in much the same way as Lightroom Classic does, but a number of the functions are not available. Editing in the panels on the left on the right hand side of Lightroom Classic can be undertaken in Lightroom creative cloud. Masking in Lightroom is the same as in Lightroom Classic except that the artificial intelligence edits may not be available on older smartphones and tablets, such as my iPad 6.



However, editing multiple images together is not as easy. Application of development Presets created in Lightroom classic and in Lightroom is possible. However the creation of export Presets is much more limited.

## WHAT'S NEXT?

There is a lot of information here and in my article on the Lightroom Classic Window.

Look at Lightroom Classic Development Hints for a precis of my workflow with Keyboard Shortcuts.

John Taylor

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