



For Lightroom Classic CC & Mobile

The Photoshop Lightroom Manual

✓ Master Digital Editing ✓ Create Stunning Photos ✓ Essential Tutorials

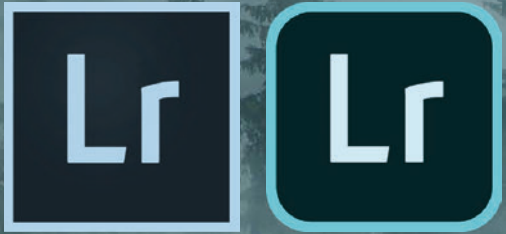
196
PAGES
of guides,
tutorials and
projects





BDM's Independent Manual Series

The Photoshop Lightroom Manual



Welcome to one of the most powerful photo processing programs around!

Photoshop Lightroom is a powerful and feature packed photo processor and image organiser designed to help photographers shoot, catalogue, edit, print and publish their images. In this guide we take you through every aspect of using the desktop focused Photoshop Lightroom Classic CC, including processing, printing and publishing your finished photographs. We also introduce you to the new Lightroom CC, which is a cloud based photo service that takes the essential tools you are used to using in the desktop version and gives you a mobile focused version that is still packed with the powerful features and tools that you would come to expect from such a popular class-leading program.

Lightroom, in all its forms, is a powerful app that can help you to get the best out of your photos. Whether you want to use the classic desktop version or prefer to use the mobile cloud based software, we're here to show you how you can make your photos look amazing!



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Guides in this title are based on Lightroom CC and Lightroom Classic CC. Some content may have been previously published in other BDM titles or volumes. We advise potential buyers to check the suitability of contents prior to purchase.



Image Conversions and Tweaks

Lightroom offers some impressive results from very little effort on the part of the user. The conversion from the before image to the after image took just a few minutes, and with just a few clicks of the Mouse button. Read on and we'll show you how.

This striking wide-angle shot of a sunset on the Cornish coast started out looking a little lacklustre but thanks to Lightroom there's huge scope for adjustment and improvement. We can emphasise the dramatic light of the dawn colours and boost Clarity, Shadows and Saturation; the image is transformed. Additional use of graduated filters in the sky ensures a good tonal balance between foreground and background.

AFTER

BEFORE







Get Started With Lightroom Classic CC

Before we start looking at organising, editing and publishing photos, let's take a moment to understand what Adobe Lightroom is all about; how it differs from Photoshop, how you download and install it and how you get started with importing your photos into the app for processing. Your journey starts here!



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Introduction: What is Lightroom?

Let's take a closer look at the development of Adobe's specialist app for photographers, Adobe Photoshop Lightroom.

Ever since digital cameras first became popular in the early 1990s, photographers have sought ways to adjust and improve digital images and replicate the darkroom tricks and techniques that film photographers have used for decades to get the most out of their pictures. There are dozens of digital image editing programs available and almost everyone who's ever taken a digital photo, whether they use a top-end digital SLR or just the camera on their mobile phone, has used some sort of editing software to adjust and enhance the image. Most smartphones come with some sort of image editing app as a standard feature.

Adobe Photoshop

For more than two decades the industry standard for image editing software has been Adobe Photoshop and ever since it was first introduced in 1990 it has been the go-to program for professional photographers. The editing tools that you take for granted in your smartphone app were all inspired by tools first introduced in Photoshop.

Photoshop is an amazing piece of software and in skilled hands it is capable of making almost any adjustment or alteration imaginable to a digital image. However, in recent years Adobe has expanded Photoshop's capabilities to include elements such as video editing, 3D texturing and text editing, making what was already a very complex program even more difficult to master.

"...it was clear that a new app was needed, that catered more specifically to the needs of photographers."

Of course, these expanded capabilities have been reflected in the ever-increasing price, making Photoshop a very expensive piece of software indeed. Nobody likes to pay for something they're not using

and photographers found that most of Photoshop's expanded features were surplus to their requirements; so it was clear that a new app was needed, that catered more specifically to the needs of photographers. This was the remit under which Adobe Photoshop Lightroom was developed.

Shadowland

Mark Hamburg is a veteran software engineer who has been working at Adobe since 1990 and, along with Thomas Knoll, was part of the original team behind the development of Photoshop. In 1999 Hamburg started working on a new project codenamed Shadowland (a reference to a k.d. lang album, of all things). He brought on board Andrei Herasimchuk, the interface designer responsible for the distinctive look of Adobe Creative Suite, and development was started later that year.

Some people are under the impression that since it's officially named Adobe Photoshop Lightroom, it is essentially just a repackaged version Photoshop with some of the features removed, but this is not true. Hamburg, Herasimchuk and their team wrote the new program virtually from scratch, even writing a large portion of it in a completely different coding language. Initial development took three years and in 2002 Hamburg was able to demonstrate an early version of the program. An interface was added the following year and in 2004 full scale development started at Adobe's development facility in Minnesota.

In early January 2006, Adobe took the unusual step of releasing a beta version of their new program for public evaluation, initially on Apple Macintosh computers only, and used customer feedback to continue development of the program.

Further beta versions followed later that year, adding new features, including support for Microsoft Windows in July, and integration with Adobe Photoshop in September. Finally, the full retail version of Adobe Photoshop Lightroom 1.0 was announced in January 2007 and released to the general public the following month.

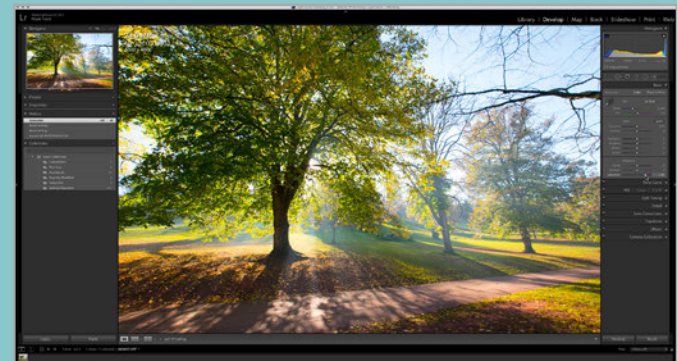
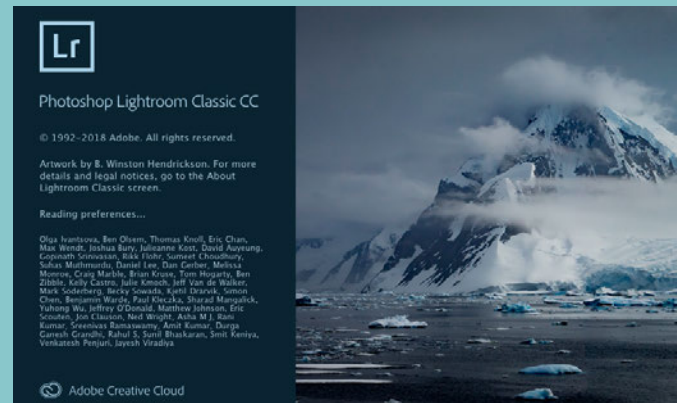


Photoshop Lightroom Classic CC

Over the years since its initial release as a stand-alone product, there has been major stand-alone versions released and multiple minor sub-version updates. Then Adobe launched its subscription based Creative Cloud service. You were able to choose from the entire suite of Adobe Products either singly, or in various packages. Adobe Photoshop Lightroom CC (2015) as it was initially called, has received various updates over the years of its release and at the time of writing is in the stable release version 8.1 as of mid-December 2018. It is now known as Photoshop Lightroom Classic CC and is the powerful desktop-focused version of the app. Regarded as the go-to app for serious photographers, the majority of tutorials in this title are based on these versions.



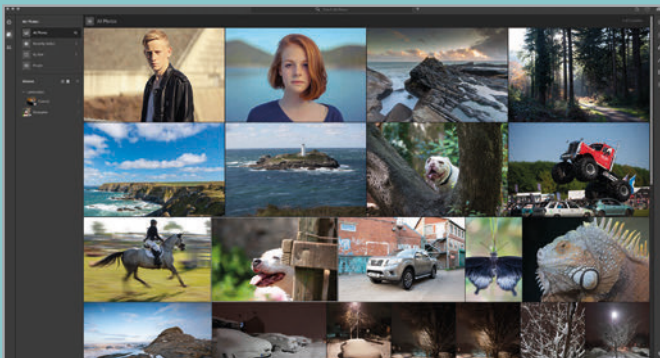
The Map Module is a great addition to recent versions. Utilising GPS technologies, you're able to stamp location specific metadata to your photos.



Lightroom easily imports your photos from many different sources. You can create Collections, add Presets and custom Filters to each or all of your images.

Photoshop Lightroom CC

Photoshop Lightroom CC is new from Adobe, launched mid-September 2017 and at the time of writing is in its stable release version 2.1.1 as of mid-December 2018. Photoshop Lightroom CC is a cloud-based photo service which caused a bit of a stir at its release. Not only was it an unexpected new product, it was a much pared down version of its much more fully-featured cousin Lightroom Classic. You can only work on images that are stored in the cloud and if you need extra storage space, then further storage has to be purchased. There is no doubt it is a faster and more streamlined product for enthusiasts to use across multiple mobile platforms, but if you are a professional photographer, then Lightroom Classic might be your better option.



The Lightroom CC interface is a much simpler affair, designed to be less cluttered with just the main tools for processing your images and adding keywords.



Apart from basic exposure adjustments, you can crop, heal and add graduated and radial filters. There are also a number of Presets for one-click adjustments.



Lightroom Versus Photoshop

At some point in your digital image editing life you're going to face the question: Lightroom or Photoshop? It's not always an easy answer though as it depends on what it is you want to achieve. Both are heavyweights in the photographer's toolbox, but which is right for you?

Lr or Ps?

It's not always an easy choice but there are vast differences between Lightroom and Photoshop that can help make your mind up. These differences depend on the situation and what you intend to do with the finished product. Let's break down a few strengths of each.



VS



Lightroom Classic CC Strengths

- Lr** Lightroom can manipulate and edit Raw files directly from your camera, without the need to install or use another plugin.
- Lr** Workflow and image management is one of Lightroom's main draws. You can easily import, organise, edit and manage each of your images without too much in-depth knowledge of advanced design techniques.
- Lr** There are less features than with Photoshop, which lessens its learning curve and thanks to a well-planned user interface, it's relatively easy to adapt to if you're already familiar with other photo editing tools.
- Lr** Lightroom has an impressive number of presets available to the user. Exposure levels, contrast, toning, colour presets, video presets, effects and many more are readily available via the Navigator.
- Lr** You can arrange the images you've imported by keyword, tags and metadata. You can easily publish finished work and there are many more under-the-hood tools and preferences to play around with.
- Lr** You don't have to dive into the program's inner workings to see great results. Most of the common functions that provide you with a superb image are just a few clicks away, and available on the surface of the interface.

Photoshop Strengths

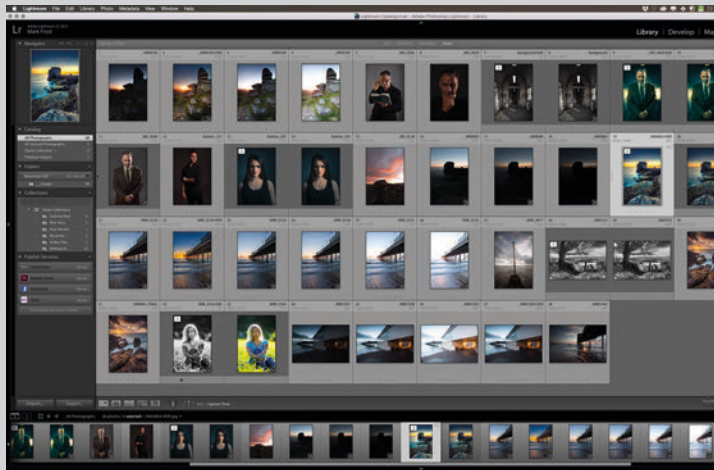
- Ps** Photoshop is a pixel-level editor. Where Lightroom allows you to adjust pixels in an image, Photoshop lets you move them and manipulate them in a way that's nothing short of magical.
- Ps** Photoshop allows multiple layers to be applied to an image. You can keep images and edits on separate layers, and modify them accordingly and independently. This is the basis of non-destructive editing.
- Ps** It's huge. Mind-bogglingly huge. The toolbox alone is the stuff of legend and contains just about everything the professional designer and photographer would ever need from a piece of software.
- Ps** You can record specific actions within Photoshop, allowing you to apply those actions to other images with a click of a button.
- Ps** You're able to blend many different layers together, masking areas of an image to protect it from being edited, even down to the pixel level.
- Ps** Almost anything is possible in Photoshop. If you can imagine a scene, then you're able to turn your wedding photos into a dramatic space battle or have a picture of the kids playing with a T-Rex. Remove objects, add objects, touch up skin tones, the list goes on and on.

So which one should I use?

In short, Lightroom is designed for photographers. It's a powerful image management tool that you can use to quickly organise and edit your photo collection. Most photographers will utilise Lightroom's features over that of Photoshop, but that's not to say it's the only tool they'll use.

The beauty of both products is that where one leaves the photographer's needs, the other can take up the slack. Once you've used up Lightroom's features, and you want to do more with an image, then you can take it over to Photoshop for that intricate level of control.

Both programs are an integral part of the design process and workflow, but for the sake of this book and photographers the world over, we're opting to start your post-processing adventure with Lightroom.



Lightroom is a great image editor and organiser, and is remarkably easy to use, considering how powerful it can be.



Photoshop has an incredible array of benefits on offer; with it you can just about do anything your imagination comes up with.



Most photographers will use Lightroom for their post-processing, moving to Photoshop for advanced techniques and edits.

Shooting in Raw Mode

To get the best out of your digital images with Adobe Lightroom, you should always shoot in Raw Mode.

If you've bought this book, we can safely assume that you know something about digital photography, so you're probably already aware that the vast majority of digital images are stored in a file format known as JPEG. Nearly all digital cameras and mobile phones record their images as JPEG files. You can spot a JPEG file because it will usually have the filename extension .jpg or .jpeg. The JPEG format has been around since 1992, when the standard was first specified by the Joint Photographic Experts Group (after which it takes its name), a standing committee of imaging and software industry experts. There have been various attempts to update or replace the JPEG format over the years but it is now so entrenched in the digital world that it will likely be with us forever.

The JPEG format is great for digital images that are shared or published via the Internet or stored on digital media, because it is a compressed file format. File compression is a way of shrinking file sizes by removing redundant information and encoding the rest in a more efficient way. For digital images this means that a photograph that is maybe 35 megabytes as it comes off the camera sensor can be compressed down to a fraction of that size without losing too much image quality. This obviously means that you can store a lot more images on your memory card or hard drive and view your friends' photos on Facebook without using up your entire data allowance at once. Whilst a slight loss of image quality, as a trade-off for more efficient storage, is not a problem

for the majority of users, professional photographers want the best images possible and so any loss of quality is unacceptable. For this reason, most high-end cameras have an option to store photos in an uncompressed format usually known as Raw mode.

Advantages of Raw Mode

A full explanation of JPEG compression would take up much more space than we have available in this guide and you really don't need to know most of it. For our purposes, the major difference between JPEG and Raw mode is the amount of information used to describe each pixel in the image. In JPEG mode each pixel is described by 24 bits, that is 24 ones and zeros, 8 for each colour channel of red, green and blue. This 8-bit encoding allows 256 gradations of brightness per colour channel, meaning that it can display $256 \times 256 \times 256$, or 16,777,216 different shades of colour. That might sound like a lot but if you look at a JPEG image of a clear blue sky you may still see lines between the different tones of blue rather than a smooth gradation of colour.

In uncompressed Raw mode, each pixel is usually described by 12 or even 14 bits per channel, giving 36 or 42 bits per pixel. This might not sound like a big difference but whilst a 12-bit Raw file can describe 68 billion shades, a 14-bit file can describe four trillion. This means that not only will your colours look smoother and more lifelike, much more shadow and highlight detail can also be recorded, giving your pictures much more dynamic range. This means that when you're processing a Raw mode shot you can pull out much more detail from shadows and highlights. See the sample photos shown here to see the difference.



Choose Raw Over Jpeg



This photo was shot using in-camera JPEG compression. As you can see there is almost no detail in the shadow areas and no amount of brightening can change that.



This is the same photo shot in Raw mode and processed in Lightroom. With the greater exposure, latitude and colour depth this mode provides, shadow detail and colour saturation are improved, producing a much nicer shot.

Disadvantages of Raw Mode

For day-to-day use there aren't many disadvantages to shooting in Raw mode. High capacity memory cards and multi-terabyte hard disks are now so cheap that storage capacity really isn't a problem and if you want to send a photo via email or share it online it's very simple to convert a Raw file into a more manageable JPEG. The only real disadvantage is that there is very little standardisation of Raw file types between different camera manufacturers, and all of them have their own proprietary formats. This means that when you buy a new camera you may find that Lightroom or Adobe Camera Raw won't be able to open or process the images until a compatibility update is released, which can sometimes take several weeks. One way around this is to use the Adobe DNG Raw format, which is an open-source Raw file format that is available on some cameras, notably Pentax DSLRs and some other high-end cameras. All Adobe software can handle this format by default.

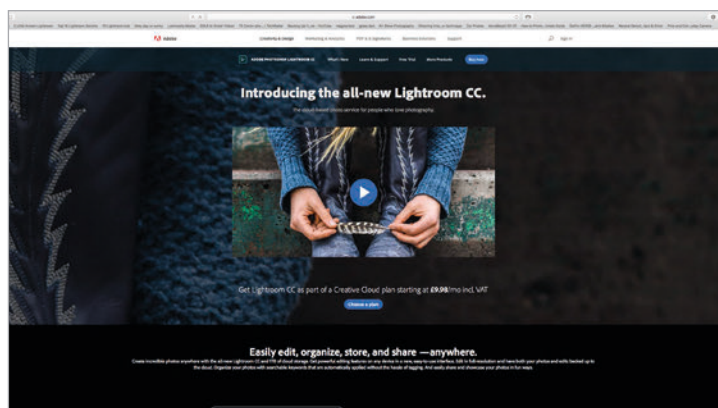
Raw or RAW?

Most books, magazines, websites and even camera menu screens refer to Raw mode all in capital letters: RAW. There's really no reason for this as it's not an acronym and just means that you're recording the Raw uncompressed information from the camera's primary image processor. As far as we've been able to determine, the practice of writing it in caps started with a Canon press release circa 1998; and was carried on by other PR departments and camera journalists who didn't know any better. Since we do know better, in this book we're going to write it as 'Raw'.

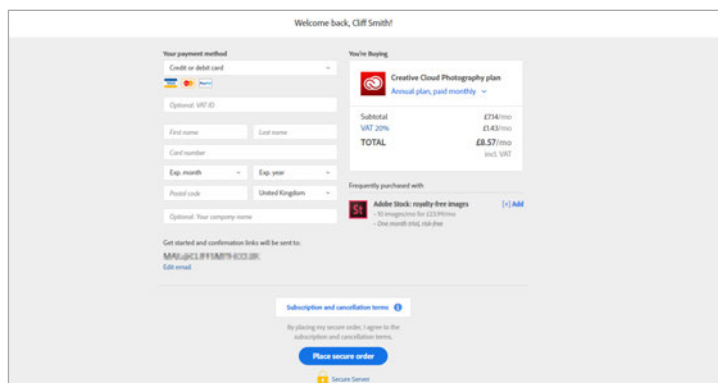


Installing Adobe Lightroom

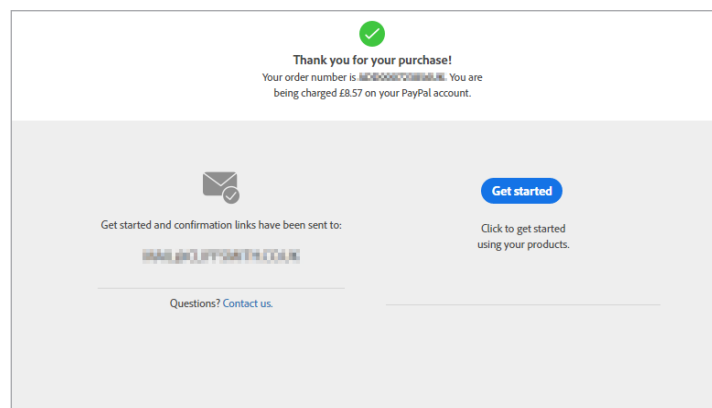
Adobe Photoshop is the most pirated piece of commercial software in history, so to combat this Adobe introduced Creative Cloud. Before you can start using Lightroom to organise and improve your digital photos, you need to sign up for a monthly subscription.



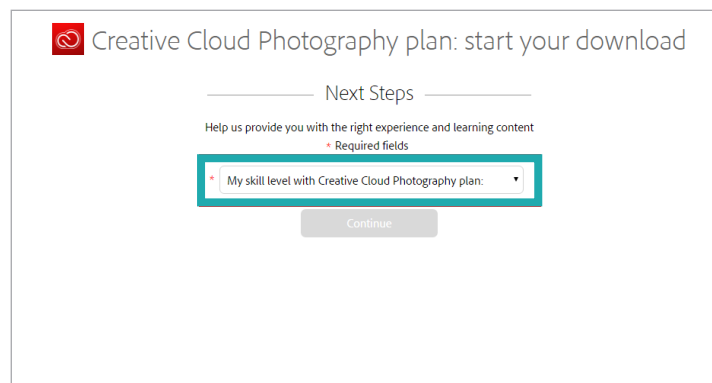
1 To obtain Lightroom via Creative Cloud, open your web browser and go to <https://www.adobe.com/uk/products/photoshop-lightroom.html>. You should find yourself on the page shown above. If you want to buy the software, then click on the 'Choose A Plan' button but if you'd like to try it before you buy you can opt for the free trial version.



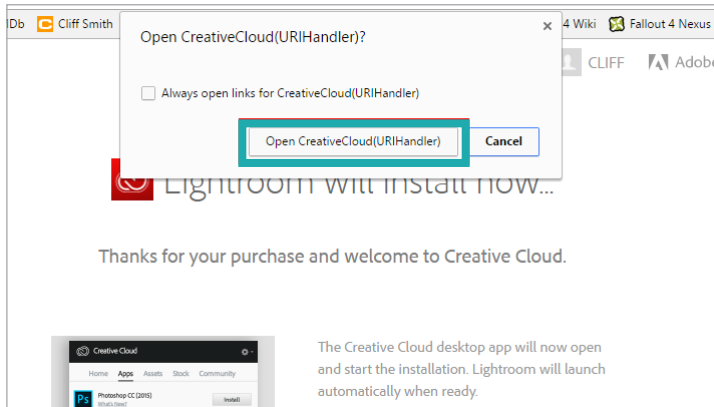
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3 Once your payment has been processed you should see the confirmation screen above. You also receive a confirmation email at your registered email address. You're also prompted to sign up for an Adobe account as part of your sign-in process. To get started with your download, click the 'Get started' button, or use the link in the email.



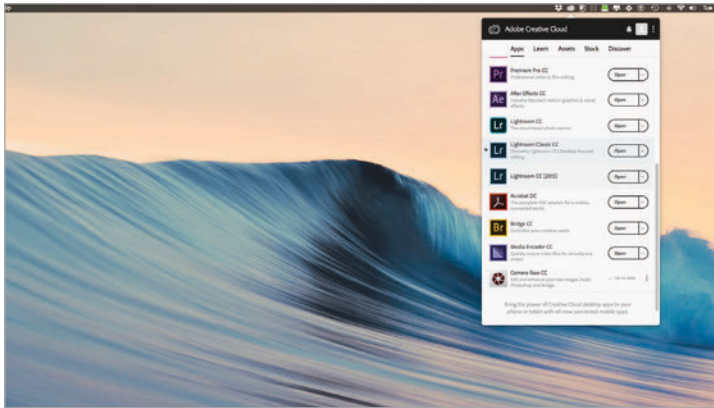
4 There's one more thing you need to do before you can begin your download. On the next screen there is a simple drop-down menu to select your skill level with the Creative Cloud software. If you've used Creative Cloud before you can choose Experienced but if this is your first time you should choose Beginner. Choose one and then click Continue.



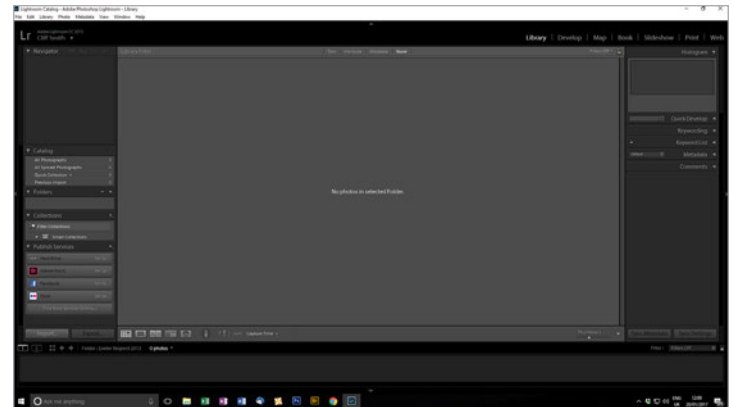
5 What happens on the next screen depends on which web browser you're using. Your download may begin automatically or you may get a confirmation request before it proceeds. We're using Google Chrome that requires a confirmation to begin the process. Once you confirm, you should see the Adobe Creative Cloud App appear. If not, look for it in your Start menu.



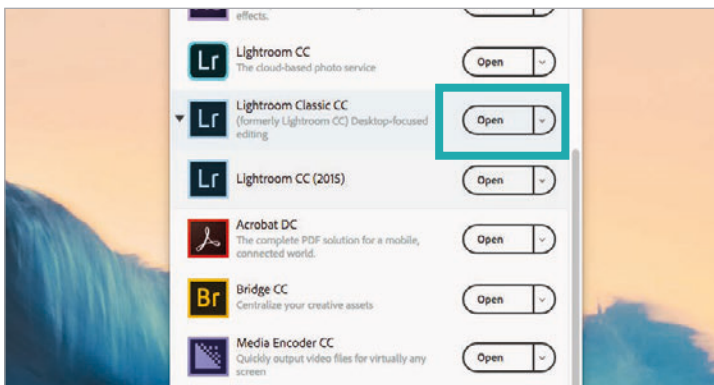
8 After a few moments, Lightroom will start. The first thing you see is a welcome screen telling you about new features that have recently been added. Since Creative Cloud software updates automatically you may see this screen again in the future when new features are added. To close this screen and continue, click on the 'OK, got it!' button.



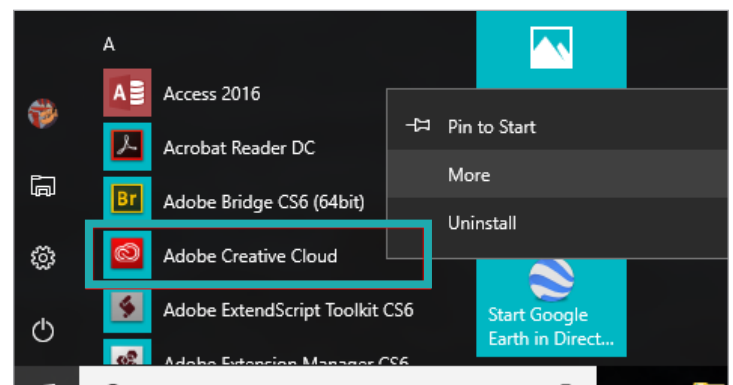
6 In the Creative Cloud app you can see buttons prompting you to install the software included in your subscription. With the Photography Package this includes Photoshop CC, Lightroom CC and Lightroom Classic CC. Once installed, you can click 'Open' on your installed applications to begin using them for the first time.



9 You're now ready to begin importing your photos into Lightroom's library, a process that we cover in a later tutorial. Lightroom organises your photos into its own database that you can search using many different criteria and also edits non-destructively, so photos shown in the library are just thumbnails. Removing or altering one doesn't change its position on your hard drive.



7 Once the installation has completed you should see the Creative Cloud app screen change, offering you buttons to open your newly installed software. Unless you also want to install Photoshop CC, go ahead and click on the button; you may be prompted to complete product registration by entering your registered email address and password.

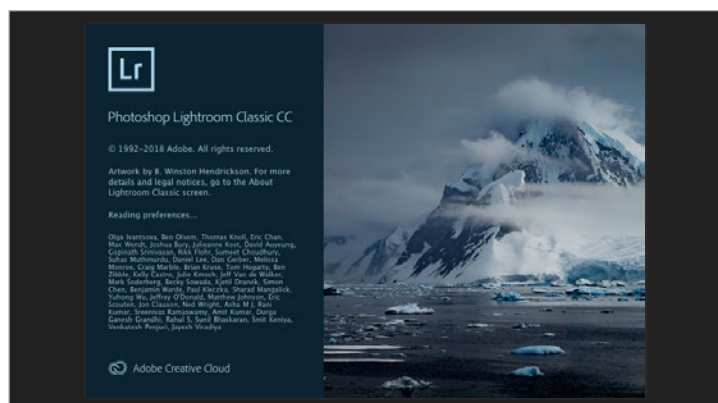


10 Once Lightroom is installed, you can launch the program by going to your Start menu and clicking on Adobe Creative Cloud to open the launcher app and then clicking on the Open button. If you use Lightroom regularly you can speed up the process slightly by pinning the app to your taskbar, so you can open it with a single click.

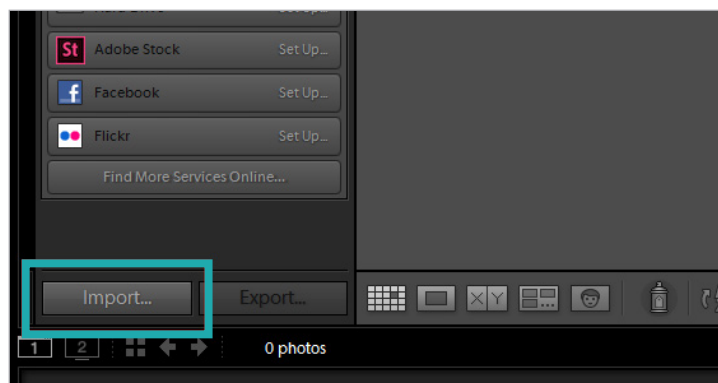


Importing Photos for the First Time

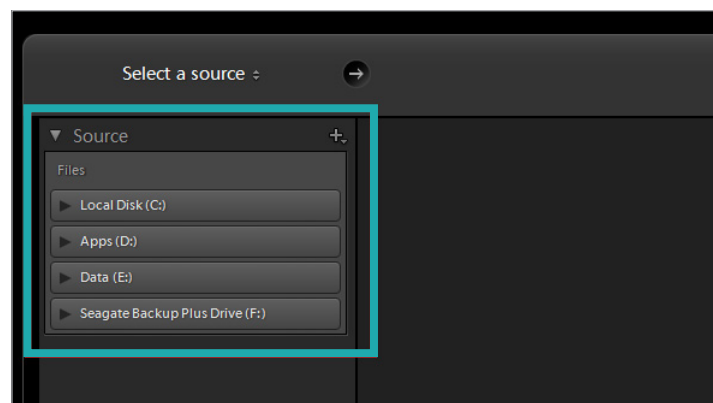
Before editing and improving your photos with Lightroom Classic CC, you need to import them into the program's database. Depending on the size of your collection this could take a while, so it's best to set aside some time.



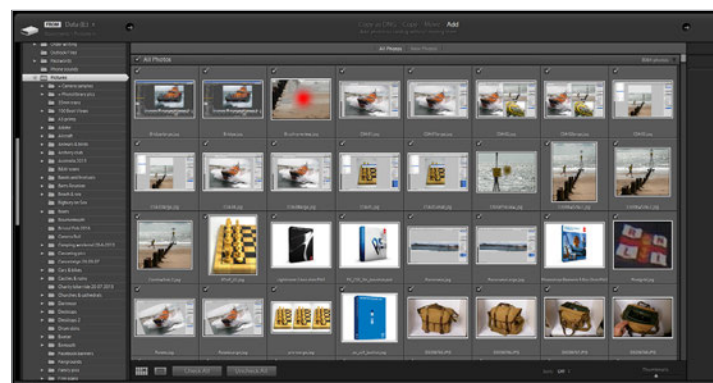
1 The first step after installing Lightroom Classic CC for the first time is to import your photos into the program's catalogue. Lightroom uses this catalogue to organise your photo collection and to help you find them by applying keywords and other search criteria. By keeping a separate database it means that the files on your hard drive are not affected.



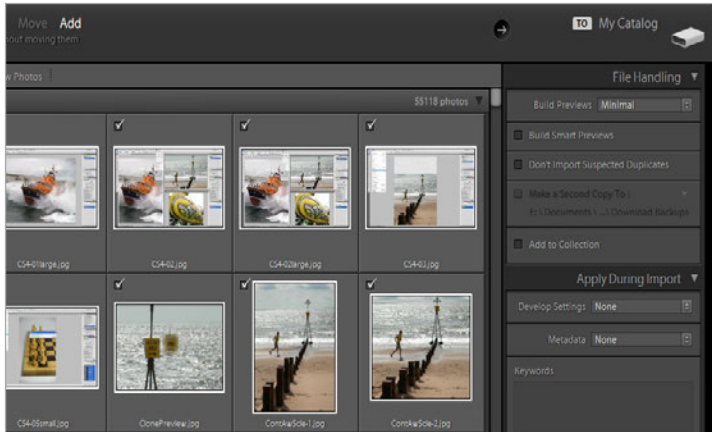
2 When you open Lightroom for the first time, you'll see a blank screen with the words 'No photo source selected' in the middle. To get started with importing your photos, take a look in the bottom left corner. You should see a button labelled Import. Click on this and you'll be taken to a new screen to begin the import process.



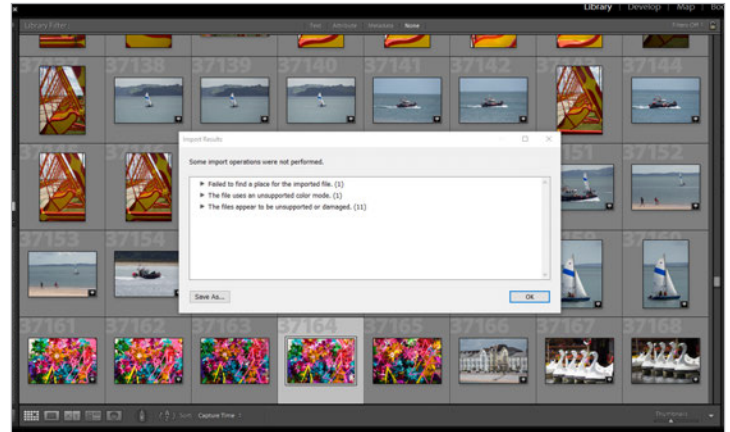
3 On the next screen, you'll see a message saying 'Please select a source'. In the upper left you'll see a list of the storage devices attached to your system. If you want to import photos from some other source, such as a USB flash drive, you need to plug it in now. Lightroom will add it to the drive list as soon as it's detected.



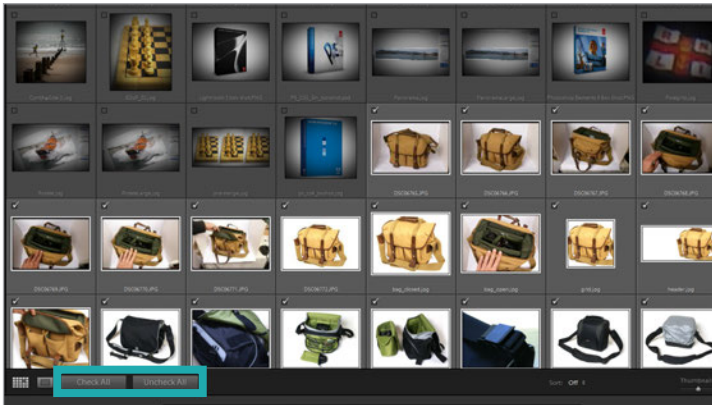
4 Click on the drive that contains the folder from which you wish to import your images and you should see all the folders on that drive displayed in the file-tree on the left of the screen. Navigate to the correct folder and click on it. Lightroom will immediately begin searching that folder for image files, including any sub-folders.



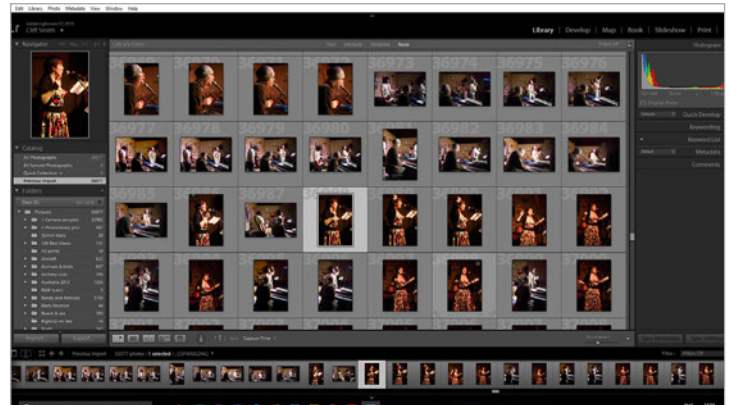
5 The process of finding image files is fairly quick and even a large collection should only take a couple of minutes. Meanwhile there are a couple of settings we can look at. On the right of the screen you'll see a panel called 'File Handling'. Open it and if you want, un-check the option 'Don't import suspected duplicates'.



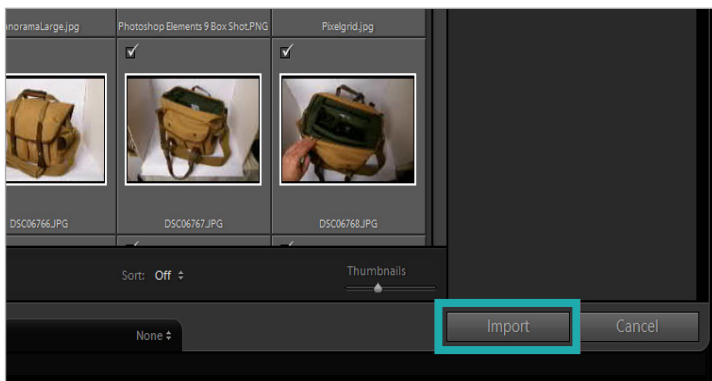
8 Once the import process has completed you'll see a report notifying you of any problems. Common errors include damaged files, which will not be imported, and unsupported file type or colour modes. Lightroom supports all common file types and most colour modes, so it's unlikely that you'll see either of these if you're just importing digital photos.



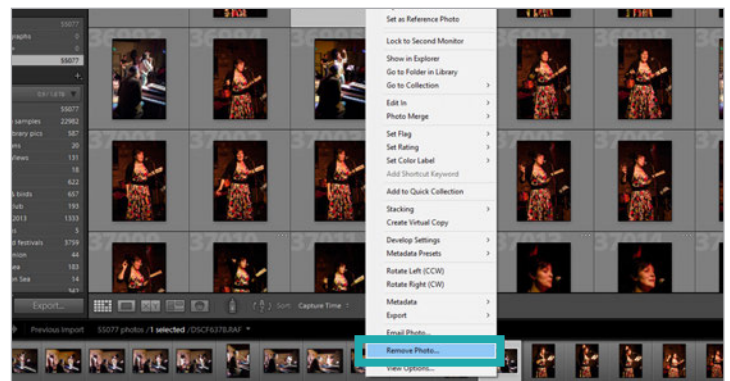
6 Once the import system has located all the photos in your selected folder you'll see the total that it's found and the combined file size displayed in both the lower left and upper right corners of the screen. All the files will be checked by default but if there are any that you don't want to import, you can uncheck them.



9 Click on the OK button to dismiss the report message and you'll finally be able to interact with your new catalogue of images. We'll take a closer look at the layout of the workspace in the next tutorial but for now just explore and check that all your pictures are present and correct. You can scroll up and down by using the mouse wheel.



7 Once you're happy with your selection of photos to be imported, click on the Import button in the bottom right corner of the screen and Lightroom will begin adding photos to your catalogue. If you're importing a large collection of images for the first time this process can take an hour or more, so go and do something else for a while.



10 If you subsequently want to remove any imported images from your catalogue you may do so by right-clicking on the image and selecting Remove Photo from the context menu. Note that this doesn't delete the photo from your hard drive, it just stops Lightroom from seeing it. You can reimport it later if you change your mind.

Exploring the Workspace

The default workspace you view when launching Lightroom can look a little confusing to begin with. However, with a little exploration the many menus and options soon become second-nature. Here, we show you around all the basic areas before you get stuck into editing.

1 Lr

This is the Identity Plate for Lightroom, displaying the user's logged in account name, with further options available to be expanded that connect to Adobe's cloud services. The Identity Plate can be further personalised, using either set templates or customising your own for branding your own photos. These can be text-based, or even a graphical Identity Plate to add that little extra personal touch to your Workspace view and image edits.

2 Presets: Catalog

The Catalog Preset is a database that stores a record for each of your photos. This record contains key pieces of information regarding each of the photos you import into Lightroom, such as a reference to where the photo is stored on your system, instructions for how to process the photo and metadata relating to the photo.

3 Presets: Folders

The Folders Preset displays where your photos are stored in the system. These reflect the folder structure on the drive itself and appear in an alphanumeric order for you to browse through. The triangles can be expanded to display sub-folders within each root folder level and each folder will display the number of images or videos you've imported into Lightroom; there's also information on the amount of space on the hard drive that the images have taken up, with the total space displayed too.



4 Presets: Collections

Collections provide a way for Lightroom to group photos in one place for easy viewing, or for performing a variety of tasks. For example, to assemble photos into a slideshow collection, or a web photo gallery. You can create as many Collections as you need from Regular, Smart and Quick Collection listings. These can store custom defined rules, temporary groups and various other clever features.

5 Presets: Publish Services

The Publish Services options menu allows you to export collections of photos to your hard drive or a variety of defined online services, such as popular social networks as Facebook and Flickr. Additional information can be added to the export process and you can find more services online via the available button. It's

even possible to publish entire folders or collections of photos, reducing the process considerably compared to manual uploads. These can be used in much the same way as the Collections, with various options and custom defined rules if needed.

6 Film Strip

The Film Strip view bar is where you can quickly display and also access the photos you are working on as you move between the modules. This scrolling bar contains photos and all images from the currently selected Library folder, your photo/image collection, or keyword set. By using this option you can quickly access your images without having to open additional folders outside of the Lightroom software. You can quickly and easily move between each of the photos in the Filmstrip using the Left and Right Arrow keys or by choosing a different source from the Filmstrip Source

Indicator pop-up menu to the right of the navigation buttons.

7 Histogram and Adjustment Panels

The Histogram is an often overlooked feature of Lightroom, which is a shame as it's an extraordinarily useful tool to master. However, we have covered this and these areas will be looked at in further detail as we move through the various Lightroom modules, such as the Develop Module and other elements of the software in this book.

8 Top Toolbar

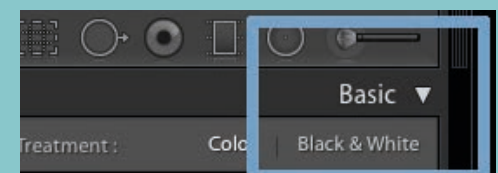
The top toolbar contains the familiar aspects of a traditional program, with File, Edit, Library, Photo, Metadata, View, Windows and Help. Most of these are self-explanatory, and function in the same way as any other program. Others though, contain elements and options to enhance each of the modules. You could spend a lot of time trawling through the many different menu options and we cover many of them throughout this book. For now though, take a moment to explore what's available and see just how in-depth Lightroom can get with just a few clicks of the Mouse button.

9 Modules

Lightroom has seven workspace modules available: Library, Develop, Map, Book, Slideshow, Print, and Web. Each module offers a unique set of tools and features tailored to your workflow: importing, organising and publishing, adjusting and enhancing and generating output for screen, print or web detail. These tools, within each Module, are startlingly powerful in their use, whilst still being relatively simple to use. We'll look at these Modules and the tools within, as we progress through the book.



Show or Hide Panel Groups



- To show or hide a single panel group, click the triangular Show/Hide Panel Group icon. A solid icon indicates the panel group is showing.
- To show or hide both side panel groups, choose Window > Panels > Toggle Side Panels, or press the Tab key.
- To hide all panels, including side panels, the Filmstrip and Module Picker, choose Window > Panels > Toggle All Panels, or press Shift-Tab.

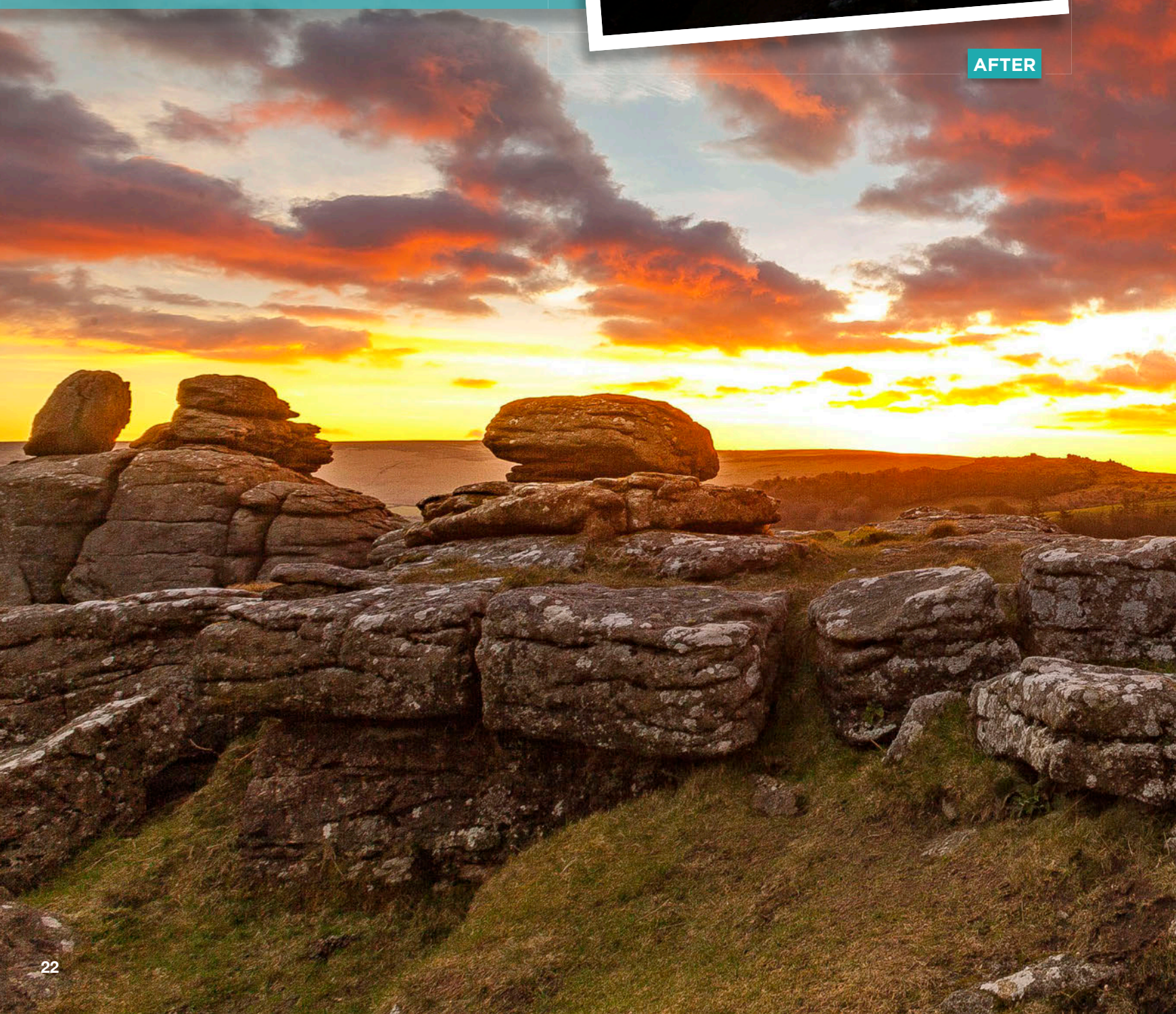
Using Filters

Filters play a huge role in getting a photo just the way you want. With some clever tweaks, Lightroom is capable of delivering spectacular results, such as the before and after images you see on these pages. We delve into elements like this later in the book.

Shots like this that combine landscape with skyscape are prime candidates for a graduated filter. In this case, we've increased the overall exposure slightly, boosted the highlights to brighten the clouds, reduced the shadows to bring out the rock's texture and then applied a coloured graduated filter from top to bottom, reducing exposure by half a stop and increasing colour saturation by 75. The result is a bright and colourful shot worthy of any picture postcard.



AFTER







Getting Organised: The Library Module

The Library module is where you organise your images and select candidates for editing; also apply and search for keywords, meta tags, EXIF data, GPS location data and even individual faces. It's a very powerful resource and the central heart of the Lightroom system. In this section, we'll explore the Library module and find out what it can do.



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26	Introducing the Library Module	30	Organising Photos with Collections
26	Using the Loupe View	32	Searching for Your Images
27	Managing Your Photos	34	Using Face Recognition
27	Understanding Metadata	36	Fix Photos with Quick Develop
28	Sorting and Rating Your Photos	38	Before and After: Monochrome Shots

Introducing the Library Module

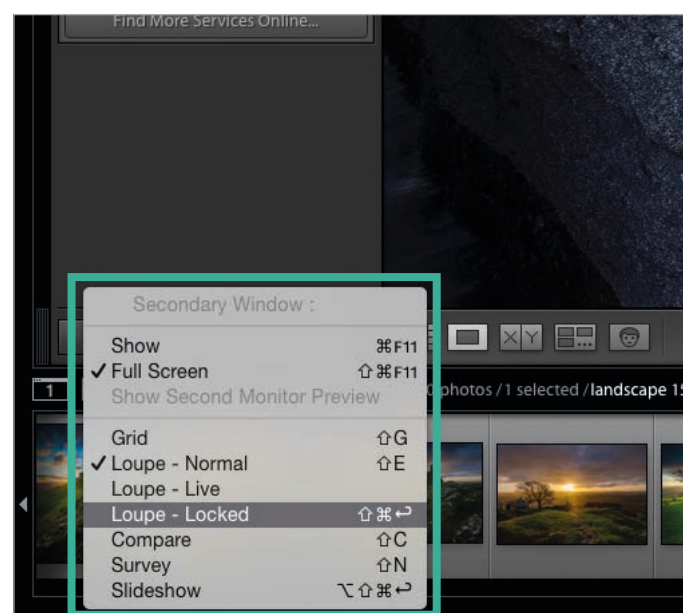
The Library module is the central hub of Adobe Lightroom. From here you can select, sort, rate and search your image library; add keywords, compare images and much more. Here's a quick overview of what it offers.

In the last section, you imported your images into Lightroom and the Library module is where you'll see the result of that process. The Library module is where you can view and scroll through your image catalogue, select images for sharing or development, add and search for keywords and build collections. It's comparable to Adobe Bridge, the file browsing and viewing app that installs alongside Photoshop, but the Library module has a lot more functionality.

Loupe View

After the Grid view, the other one that you'll find yourself using most often is the Loupe view. A Loupe is a small handheld magnifier used by photographers to closely examine a negative or print, to check sharpness and spot minor flaws. Lightroom's Loupe view performs a similar function. It magnifies the selected image and if you click on the image in the view window it will zoom in to full 1:1 magnification, allowing you to easily spot any imperfections. You can click-and-drag on the image to move it around and the thumbnail at the top of the left sidebar shows you the part of the image you are looking at.

If you're using a second monitor, it can display a Loupe view of any image that you select in the Grid view. There are several other options for the secondary view available from a context menu that appears when you right-click or click-and-hold on the second monitor button.



Compare View

To compare a chosen image with another side-by-side, select one image and then another and then click on the button for Compare view or use the hotkey C. Both images will be displayed at the same size and zoom level, with the first you selected being labelled Select and the other as Candidate. If you use the zoom slider at the bottom of the screen, both images will be zoomed at the same time and if you drag one image around the other will move as well, which is handy for pixel-peeping the same spot on two similar images to see up close which one is in sharper focus. One handy hint is to click on the arrows on either side of the screen to minimise the sidebars and maximise the viewing area.



Survey View

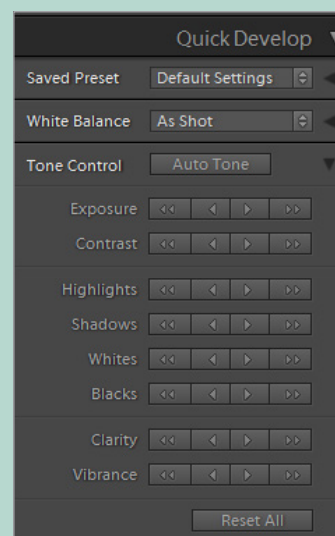
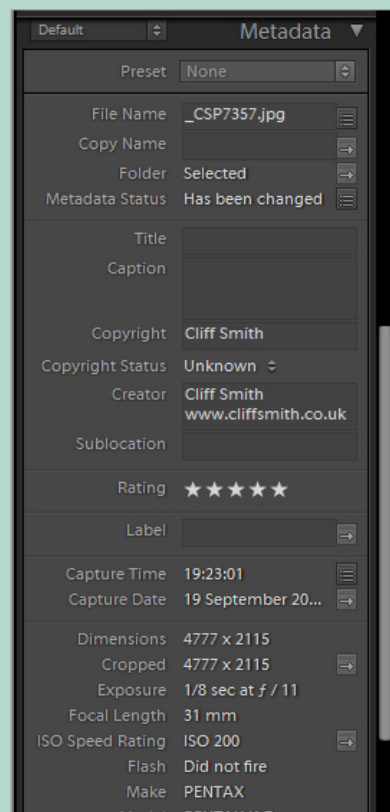
The Library module offers several ways to view your images. One useful way to compare a group of similar images is the Survey view. To use this, use CTRL-click or SHIFT-click to select three or more images and then click on the Survey view button, highlighted in the image above, or use the hotkey N. The view window will change to show the selected images arranged automatically to maximise the size of each image. The Survey view can display dozens of images but obviously the more you select the smaller the individual images appear, so it's best to select no more than five or six at a time.

Manage Your Photos

The Library Module is the workspace where you can manage and organise all your Lightroom photos and their metadata. You can find, assess and import them, assign keywords and search for specific images; and it is also the space where you can use Lightroom's social integration tools such as Facebook, Flickr and find more services online.

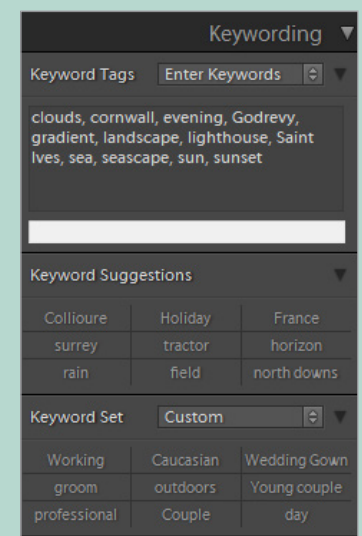
Metadata

In the left sidebar you'll also find the metadata panel. In the case of photographs, metadata is generated by the camera that took the picture. This data file is then attached to the digital image, carrying information about the image, such as the date and time it was shot, the type of camera and lens used, the exposure settings used, GPS location data, copyright information, the creator's name, contact details and even information about the size of the photo and the flash settings if they were used in the shot. There are many editable fields in the image metadata and you can edit them by clicking on them in the sidebar panel and typing in your entry. If you upload images to photo sharing sites like Flickr, this data will be shown as



Quick Develop

There are several useful features to be found in the left-hand sidebar of the Library view. One is Quick Develop that lets you make broad adjustments to exposure, contrast and tone; and apply pre-sets or automatic adjustments to single images or groups of selected images. It's very useful if, for example, you had the wrong white balance or exposure set on your camera for a group of shots; but it doesn't allow for the same range or finesse of adjustment as the Develop module that we'll look at in a later section.

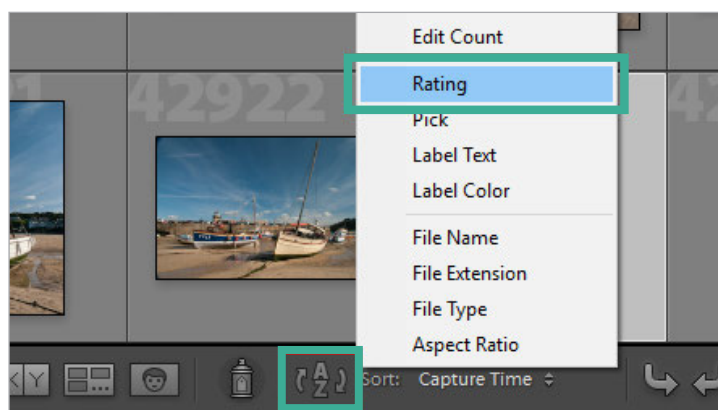


Keywording

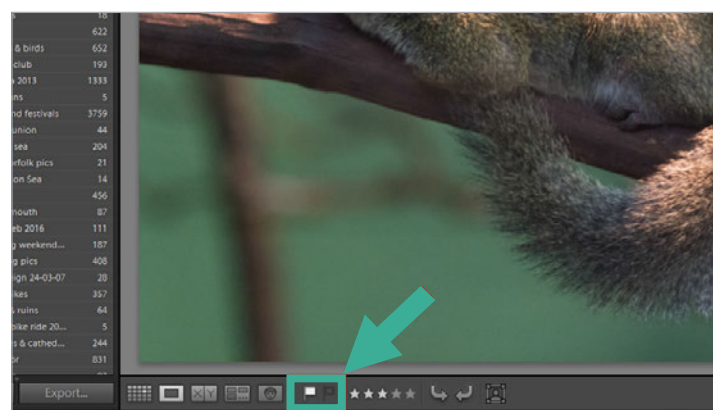
The other really useful feature found in the left sidebar is Keywording. You can add keywords to single images or groups of images, to make it easier to sort and search your image library. You can add keywords manually or from an exhaustive list, or use automatic suggestions. Keywords are added into the metadata for the image. The more keywords you use, the easier it becomes to search your image library for more specific items and narrow down search parameters to pick out the most appropriate photos that you

Sorting and Rating Your Photos

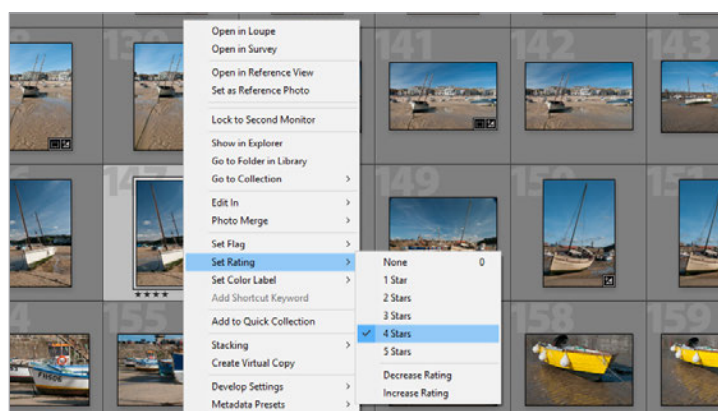
Keeping your photo library organised is essential and the Library module has several tools and features that you can use to achieve this goal; allowing you to group them by subject, time, location and who appears in them.



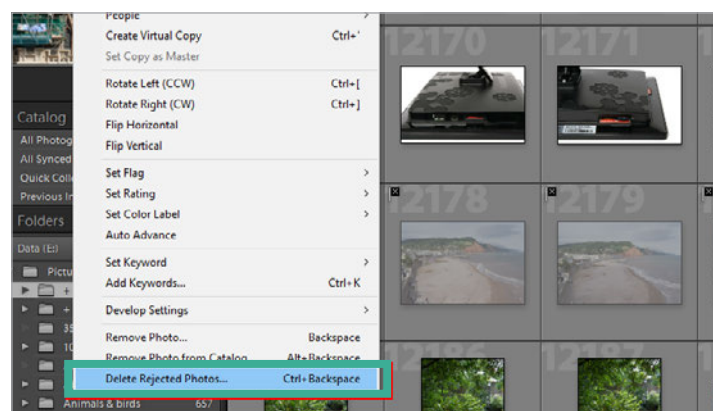
1 Select Grid view by pressing G. By default, photos are listed in the order of shooting date, with the newest at the bottom. You can change the sorting criteria to Rating with the Sort: pop-up menu on the toolbar at the bottom of the view window. You can reverse the order so the highest rated are at the top by clicking the A-Z button.



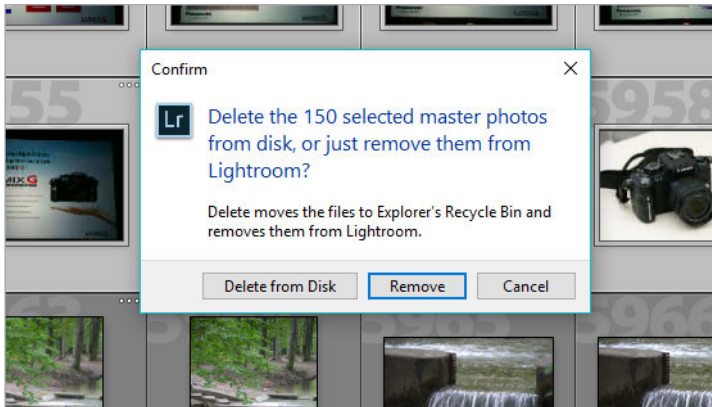
3 As well as setting a star rating, you can also flag a photo as accepted or rejected. Again, there are several ways to accomplish this. You can do it from Grid view by clicking in the upper left corner of the thumbnail or right-clicking to show the Reject flag. You can click on the flag buttons in the toolbar or you can right-click and choose Set Flag from the menu.



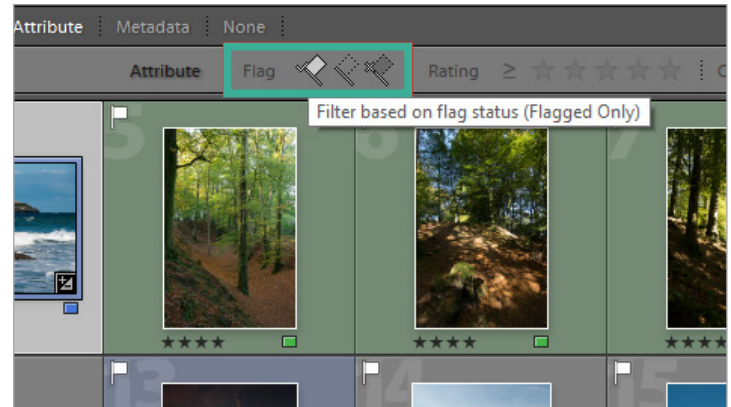
2 The rating of an image is shown by a row of 0-5 stars below the image in all view modes. You can change the rating in several ways: by clicking on the row of stars below the image and dragging to the appropriate position, by tapping the number keys 0-5, or by right-clicking and selecting Set Rating from the menu.



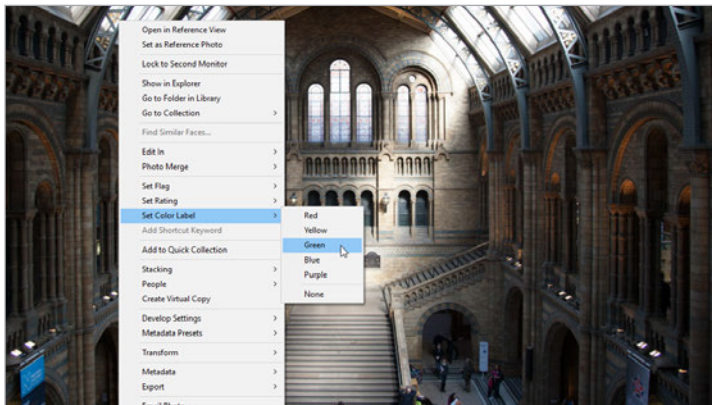
4 Photos flagged as rejected will be greyed out in the Grid view and can be easily deleted. Once you've flagged a few that you don't like, open the Photo menu in the top bar and at the bottom of the list you'll see Delete Rejected Photos. A quicker alternative is to use the keyboard shortcut, Ctrl + Backspace.



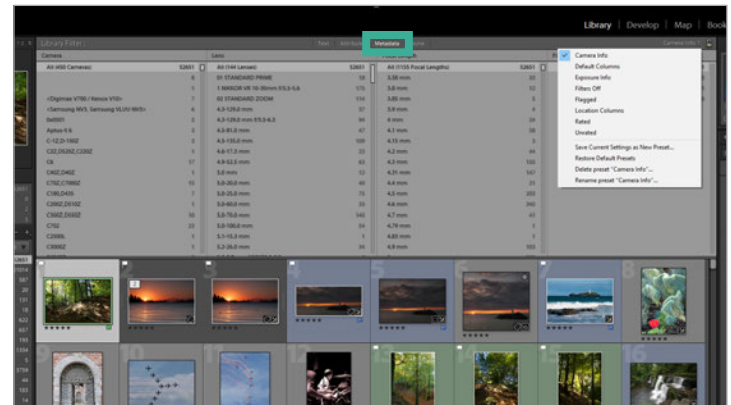
5 The rating of an image is shown by a row of 0-5 stars below the image in all view modes. You can change the rating in several ways: by clicking on the row of stars below the image and dragging to the appropriate position, by tapping the number keys 0-5, or by right-clicking and selecting Set Rating from the menu.



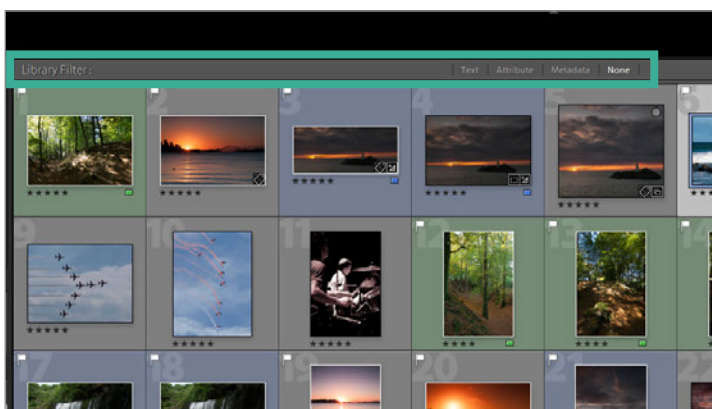
8 If you click on Attributes in the Library Filter bar, you'll see several options. If you click on the Flagged icon, you'll see only images that have been flagged. Similarly, you can choose to see only images over a certain star rating, or only images with one or more colour labels. You can apply several different filters at once.



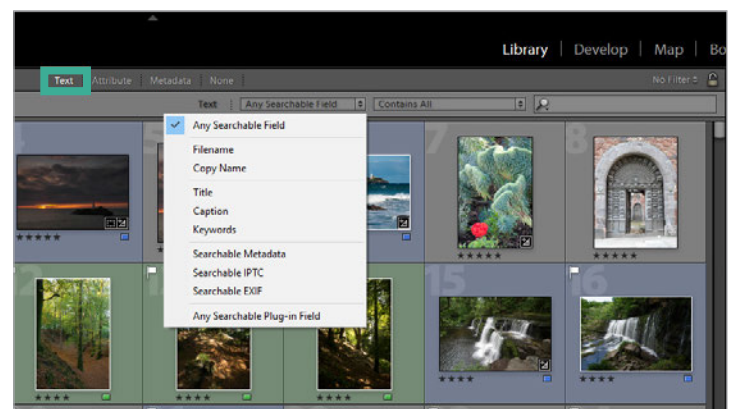
6 There is another way to tag your photos for later sorting, and that is colour labelling. You can apply one of five coloured labels to images. You can apply a label by either clicking on the little box on the lower right edge of the Grid thumbnail or by right-clicking in any view and selecting Set Colour Label from the menu.



9 Another filter option is Metadata that lets you select only photos taken in a particular year, with a particular camera or lens, or any other searchable metadata field, including detailed location information. This is arguably the most powerful search filter and particularly useful for working professional photographers.



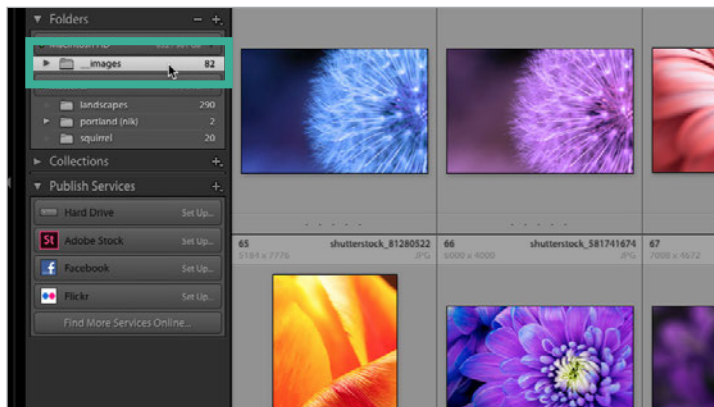
7 Once you've applied ratings, flags and colour labels to your images, you can quickly use these attributes to perform filtered searches on your library. In the Grid view, at the top of the view panel you'll see the Library Filter bar, with four options available: Text, Metadata, Attributes and None. The latter is the default option.



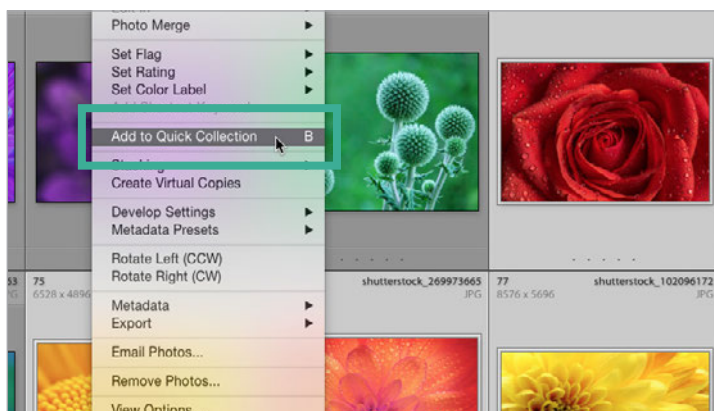
10 The Text filter option lets you search in any text field attached to your images. These include the file name, any copy that is attached, the title, caption or keywords and any other searchable EXIF or metadata. This is handy if you title or add descriptive captions to your photos, or if your library includes photos from more than one photographer.

Organising Photos with Collections

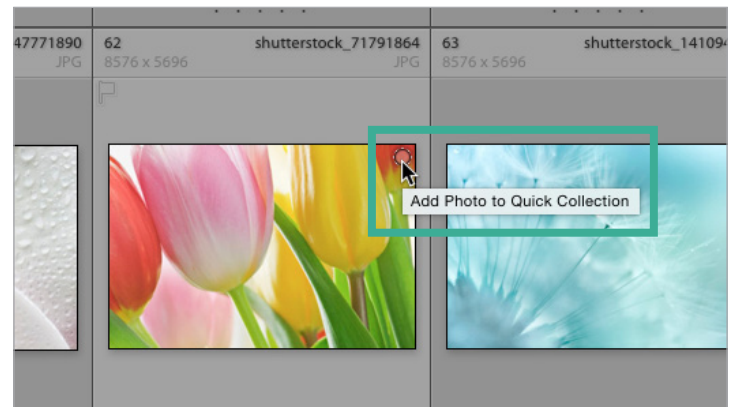
If you've been using a digital camera for some years, you probably have thousands of photos stored by now. Lightroom is all about keeping those images organised and accessible, and one great way to do that is by using Collections.



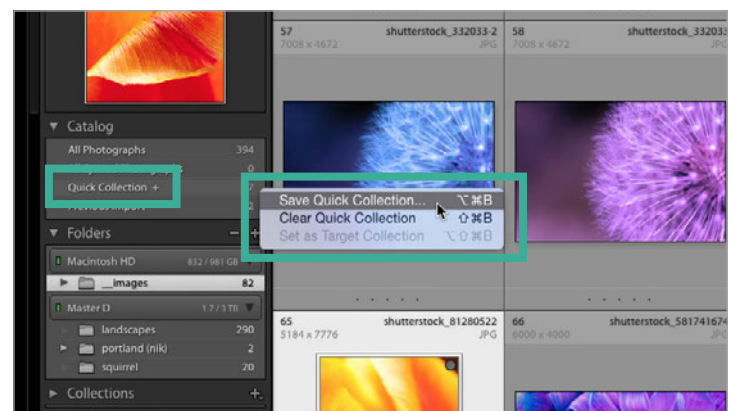
1 Quick Collections are a temporary method of quickly organising a group of photos that you want to be able to find easily. In this example, we've got a series of macro close up photos of flowers and we want to group all the photos of certain colours of flower. First, find the folder containing the photos in the Folders sidebar tab.



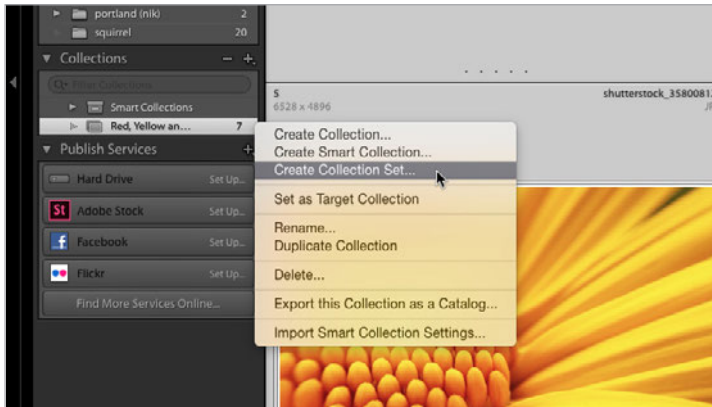
2 Go through your photos and use CTRL-click to select all the photos that you want to add to the Quick Collection, in this case all the shots of flowers that are red, orange and yellow. Once you've highlighted a few, right-click on any of the selected shots and select Add to Quick Collection from the menu that appears.



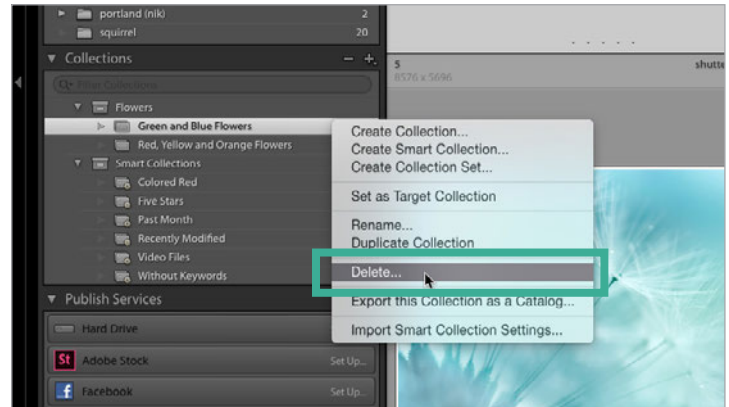
3 You can see that photos are added to the Quick Collection and marked with a small circle in the upper right corner of the thumbnail. If there are any additional photographs that you want to add to the Quick Collection, such as this shot of some tulips, you can either use the menu or simply click on the position of the circle.



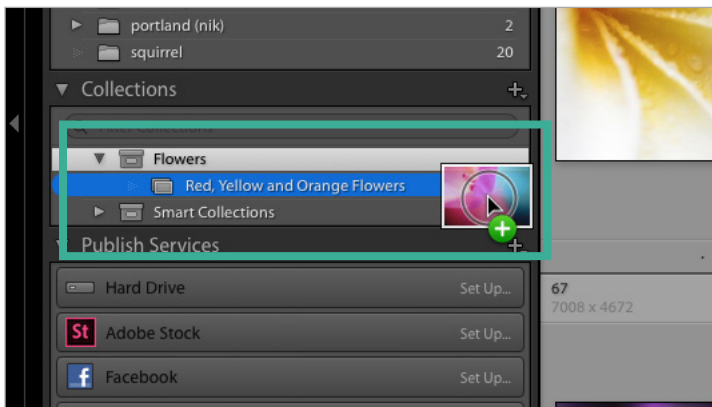
4 You can save your Quick Collection as a permanent collection by right-clicking on the Quick Collections + and selecting Save Quick Collection. Type in a name for your collection and if you want to clear the Quick Collection at the same time, check the box for that option. You'll find your new Collection in the Collections tab.



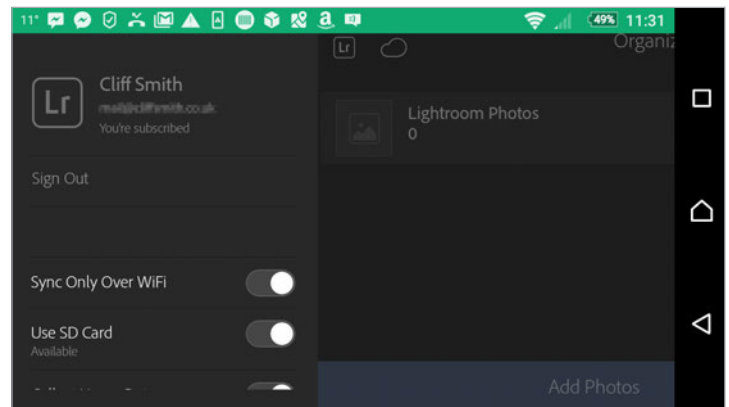
5 You can nest groups of collections inside one another by creating a Collection Set. Once you've created a set (our example here is called Flowers), you can create further sets or collections within it and move collections into the set by dragging and dropping in the Collections sidebar tab. This way you can build-up a useful collection structure.



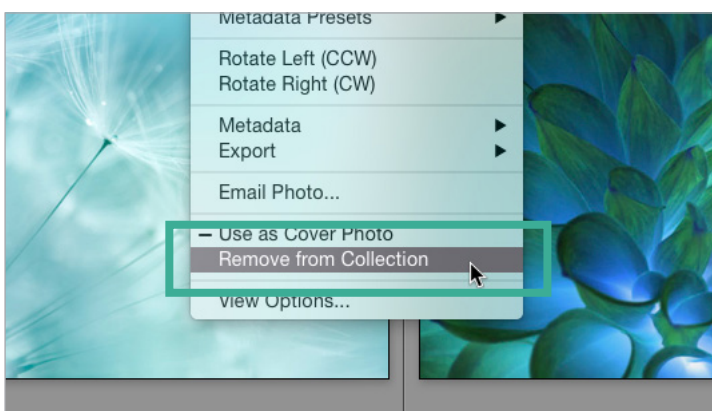
8 You can delete a collection by either right-clicking on it in the Collections tab and selecting Delete from the pop-up menu or by highlighting the collection and clicking on the minus sign button on the Collections tab title bar. Either way, doing so does not actually delete the photos from your library or hard drive, just gets rid of the collection.



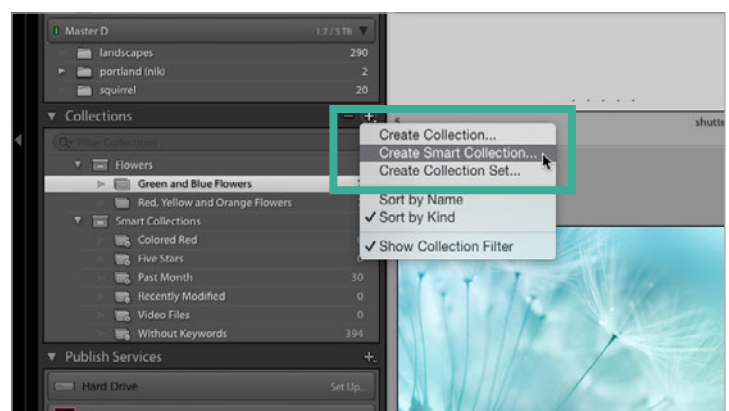
6 You can add more photos to an existing collection by dragging them from the Grid view onto the appropriate collection in the sidebar. You can select several photos at once and drag the whole stack over. Note that you have to click on the thumbnail, not on the surrounding box, and drop them over the collection name, not the folder icon.



9 You can share Collections between the Lightroom desktop application and the mobile apps for Android or iOS. If you add photos to collections on one device, they will be automatically synchronised between all your devices. We'll cover this in more detail when we look at the Lightroom Mobile app in a later chapter.



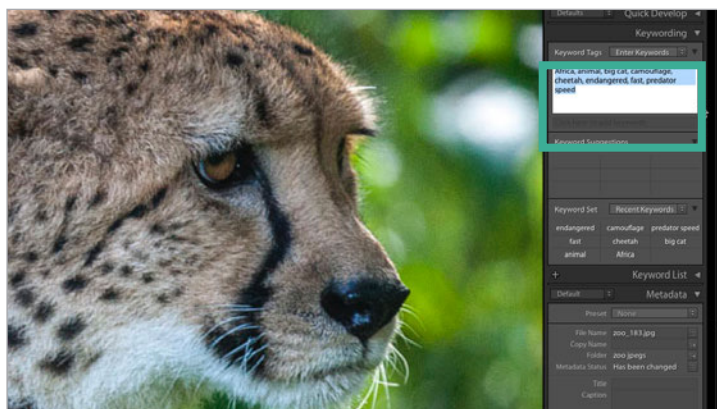
7 To remove a photo from a collection, simply right-click on the thumbnail and select Remove from Collection from the pop-up menu. Note that you can only remove a photo from within the actual Collection of which it is a part and not from any Collection Set within which it is nested. Removing a photo does not delete it from your Library.



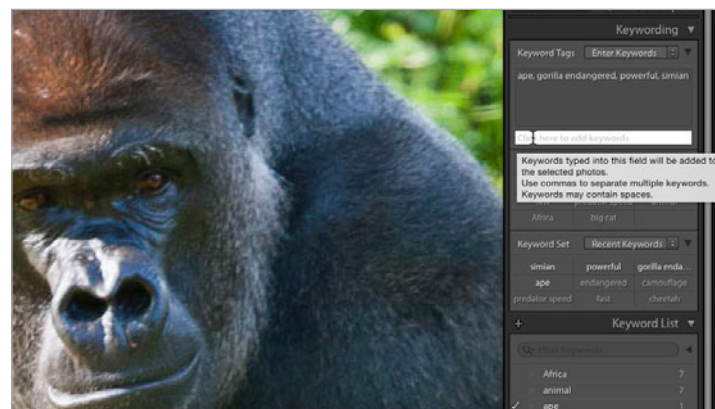
10 Lightroom can automatically build Smart Collections for you. Click on the plus sign on the Collections tab title bar and select Create Smart Collection. You can set up multiple rules for selection, such as rating, caption text, image size etc. and apply them to instantly build a collection. In all other ways a Smart Collection behaves exactly like any other.

Searching for Your Images

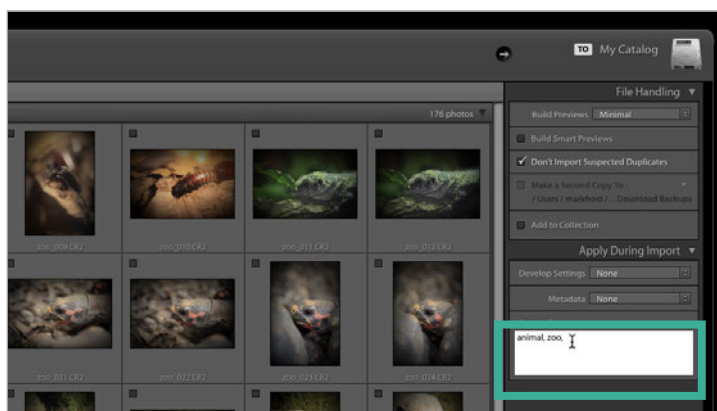
Adobe Lightroom offers many ways to search for particular images or groups of images but some of them require a little bit of setting up to get the most out of them. Once you get things organised though, you'll never lose an image again!



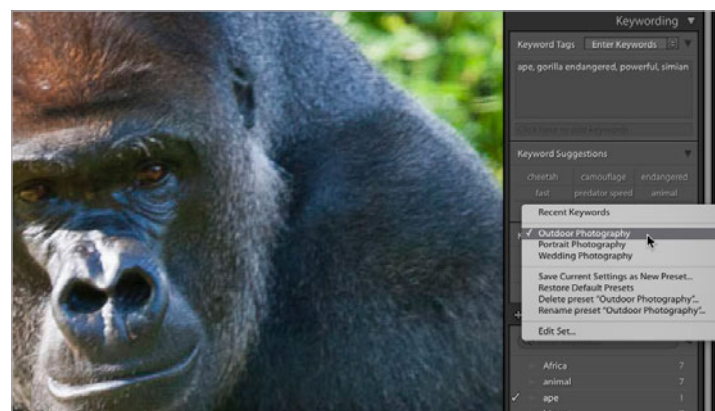
1 The best way to make your library searchable is by applying keywords to your photos. Keywording is more art than science; you should add words that describe the image but also ones that describe the circumstances. For example, this shot has the keywords: Africa, animal, big cat, camouflage, cheetah, endangered, fast, predator and speed.



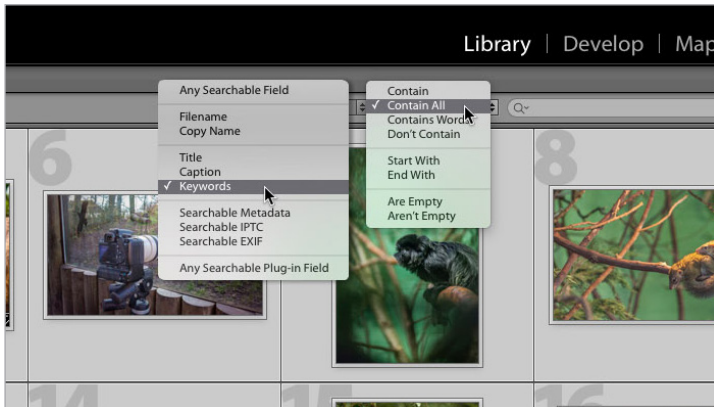
3 You can apply keywords manually to images that have already been imported. In the Library view, in the right-hand sidebar you'll find the Keywording tab. To add a keyword, you can type it into the 'Click here to add keywords' bar, or select from the Keyword Suggestions panel. Keywords are separated by commas and can contain spaces.



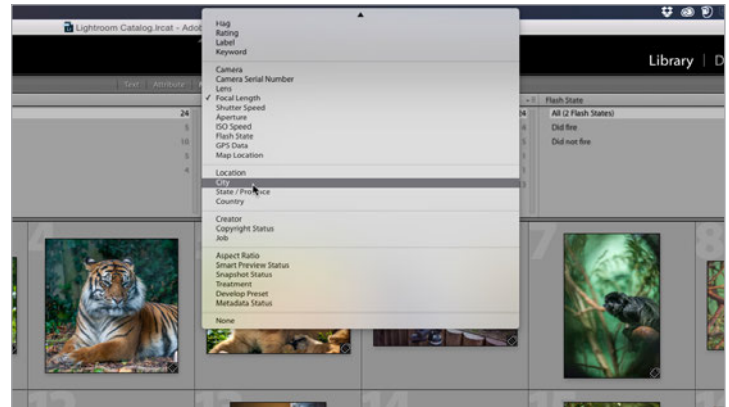
2 The quickest and easiest way to apply keywords is during the import process. When you click on the Import button, along with your images you'll see the Apply During Import option, including a panel for keywords that will be added to all the images imported in that batch. You can always apply more keywords later but these first few will help.



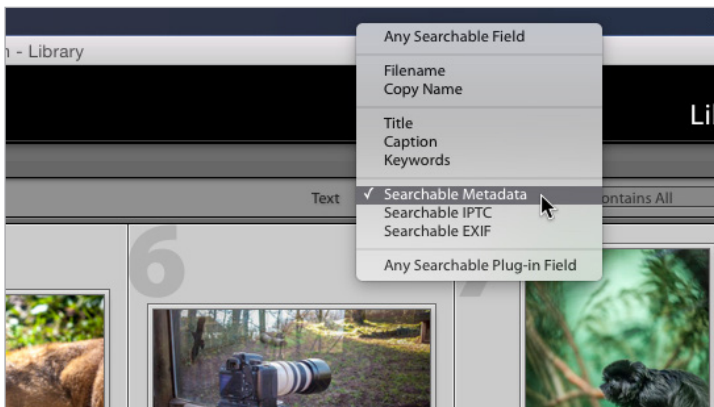
4 Lightroom includes preset Keyword Sets, including Outdoor Photography, Portrait Photography and Wedding Photography; but you can build and save your own personalised keyword sets, which is very useful if you regularly photograph similar subjects or in similar situations. You can also edit or delete preset and personal keyword sets and restore defaults.



5 Once you've applied keywords to your photos, you can use those keywords to search or filter your photo library, helping you find specific images. In the Library Grid view, you'll see a selection of filters at the top of the screen. Select Text, and choose Keywords from the drop-down menu. You can also choose to filter inclusively or exclusively.



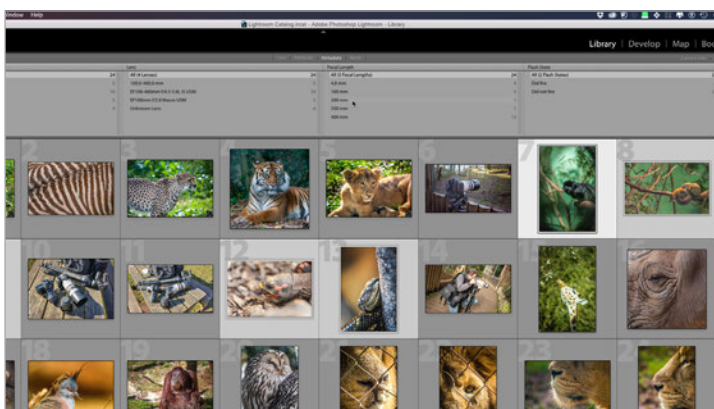
8 You can customise the metadata filters to help you search under a number of different parameters. If you regularly shoot with a GPS-enabled camera, one very handy search parameter is the location data. Click on the top bar of a search filter column and select from Location, City, State/Province or Location to see a list of the available data.



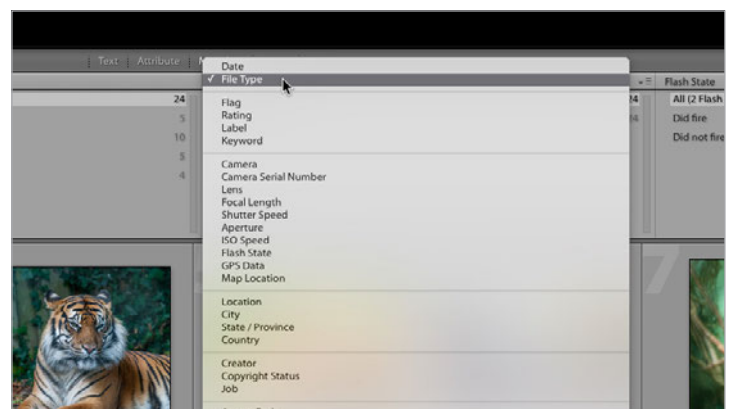
6 You can use the text search filters to find more than just keywords. You can also search for specific words in image metadata, for example a camera brand name or model type. If you shoot particular types of photo with a particular camera this can help to narrow down your search to just photos taken with that camera.



9 Another use for the metadata filter is to search for photos that you've flagged or given a particular star rating. Again, you can choose an option from the drop-down menu by clicking on the top bar of any of the metadata filter columns. The columns will show you the number of photos in your library to which each filter applies.



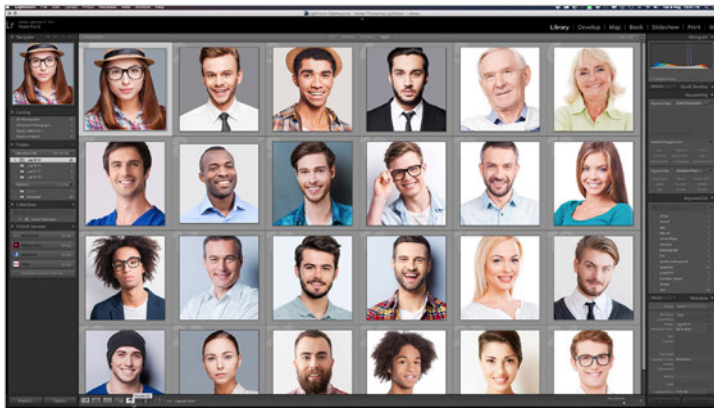
7 You looked at metadata in a previous section and you can also use metadata to filter your searches. Since the metadata of a digital photograph contains information on the time the photo was taken and the type of camera used to take it, you can quickly filter search for just photos taken with a specific camera and lens on a particular date.



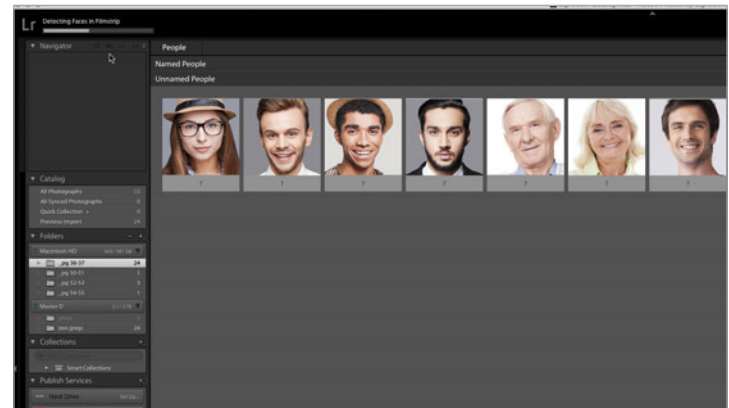
10 You can also search by file type, such as JPEG, DNG, Photoshop PSD file, TIFF, Raw files from various camera types, PNG graphics files or video files of any type. If, as we've suggested, you always shoot in Raw mode this might not be too helpful but if you have a lot of mixed media in your collection it can help to locate specific types of file.

Using Face Recognition

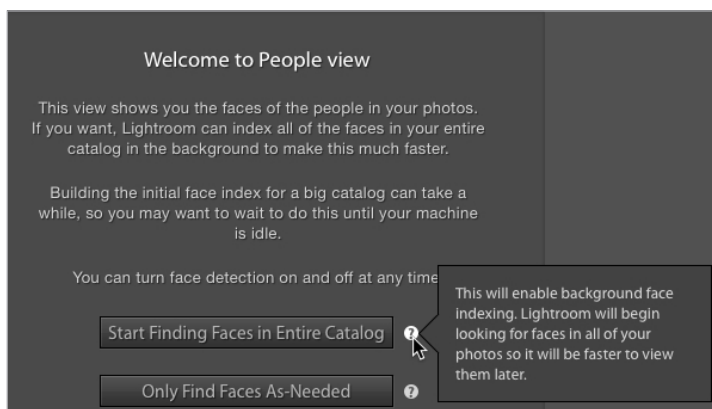
Lightroom incorporates advanced facial recognition technology to help put names to the faces in your photos. It's remarkably effective at recognising the same face, even under unusual conditions, but it does need a bit of help.



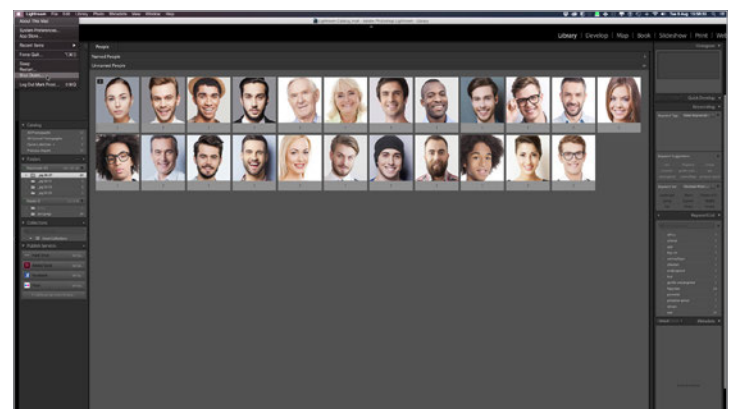
1 To get started with the facial recognition system, go to the Library Grid view. On the bar at the bottom of the view window you'll see the row of viewing option buttons that we discussed earlier, and next to them a button with a face on it. This is the People button; click on it or alternatively use the hotkey shortcut O.



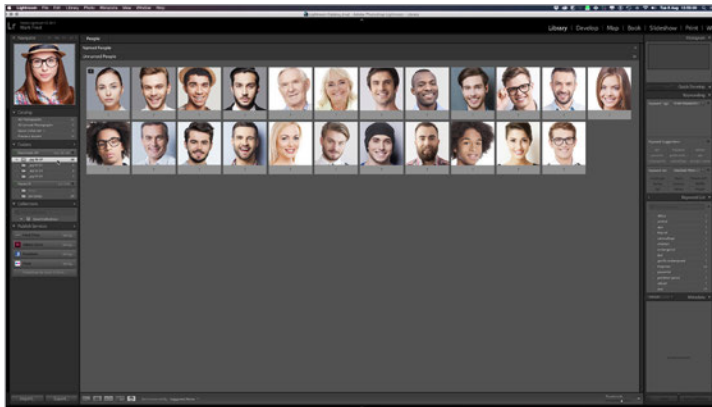
3 Click on the 'Start finding faces...' button and the program will start going through your image library looking for faces. If you have a collection of thousands of images with many of them containing people, this process may take a long time. For example, a collection of more than 50,000 images could take around 24 hours.



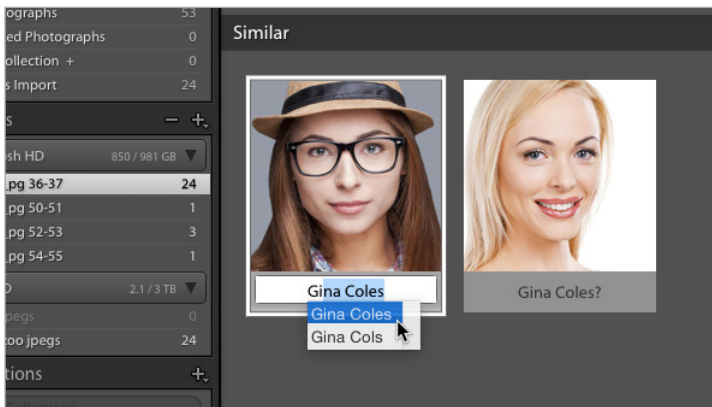
2 If this is your first time using the facial recognition system, you'll see an introduction screen with two options. You can choose either to run face recognition on your entire catalogue of images or to just use it as needed. The first option will produce more useful results in the long run but the second is more convenient for a single image.



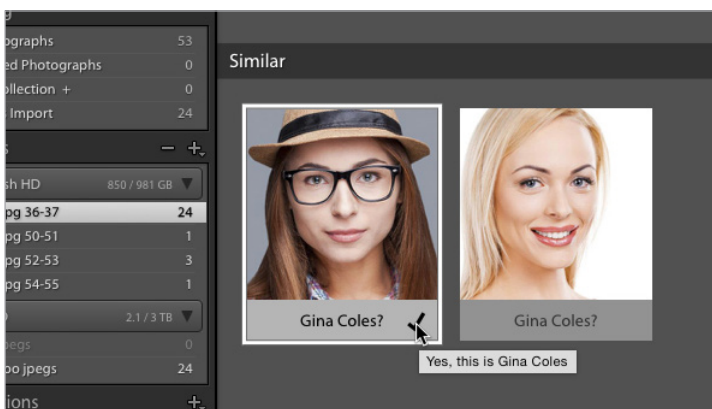
4 If you are able to leave your PC switched on overnight, you can leave the search running and it should be complete by the morning. If not, don't worry. You can close the program and switch off your PC safely. The search will resume the next time you start Lightroom and will carry on running in the background.



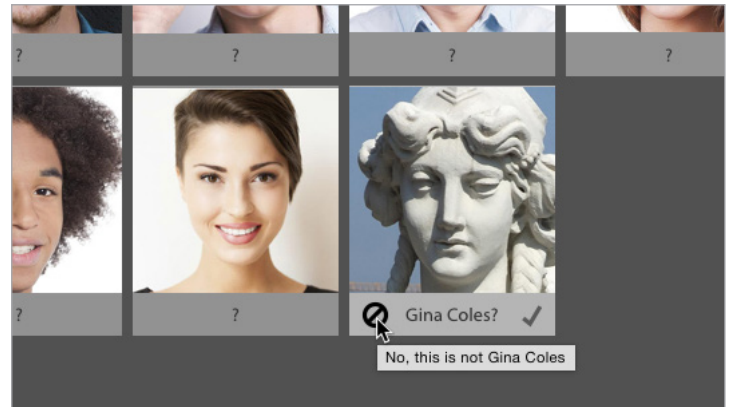
5 By default, the system will start searching through and indexing your entire picture library but you can set it to just look in one particular folder. While the search is running, go to the Folders tab and select the folder that you want to search. The system will immediately begin indexing that folder and any sub-folders that it contains.



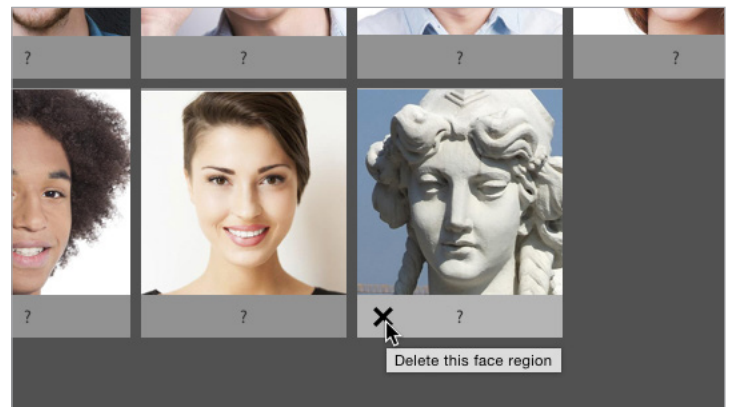
6 As the system starts finding faces, you can start adding names to them. At first, obviously, it won't recognise anyone and the faces will just have question marks under them. Click on the question mark to add a name to the face and the system will then start suggesting similar faces to the ones that you've identified.



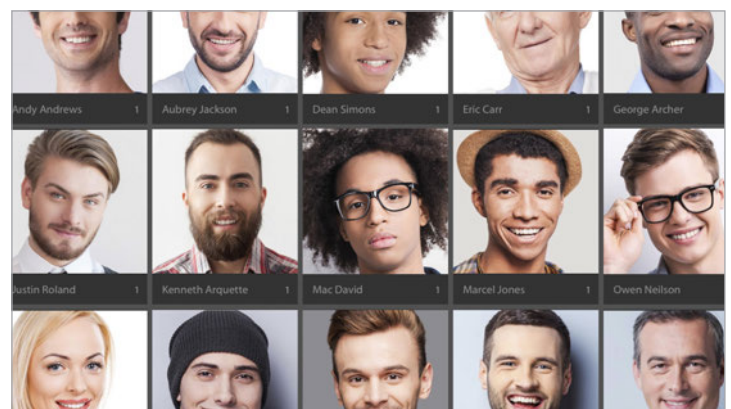
7 Once you've added a few names and the system starts making identifications, you can confirm the correct ones by clicking on the Tick button under the thumbnail. The more correct identifications that you confirm, the more accurate the face detection algorithm will become. You'll be surprised by just how accurate it can be.



8 Similarly, if the system makes an incorrect identification, click on the button on the right below the thumbnail to let it know that this is not the person it thought it had recognised. The suggested name will revert to a question mark, so if it is someone you recognise you can click on that and enter the correct name instead.



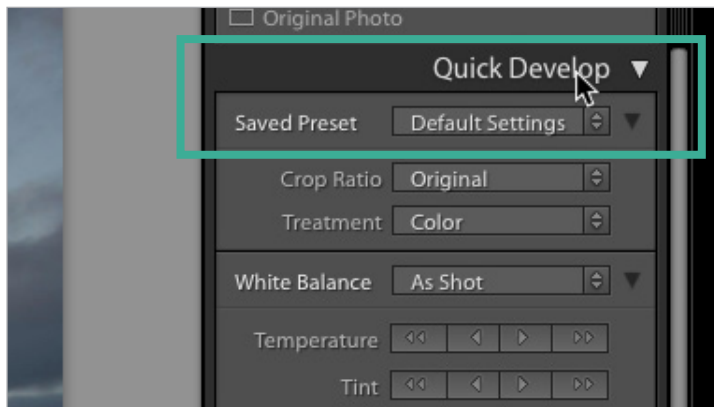
9 Although the face recognition algorithm is extremely good, it's really only identifying patterns of pixels that look like a face, so it will sometimes make mistakes. Statues, posters and cats (although not dogs, strangely) will confuse it, as will other face-like shapes. You can remove these by clicking again on the right-hand button.



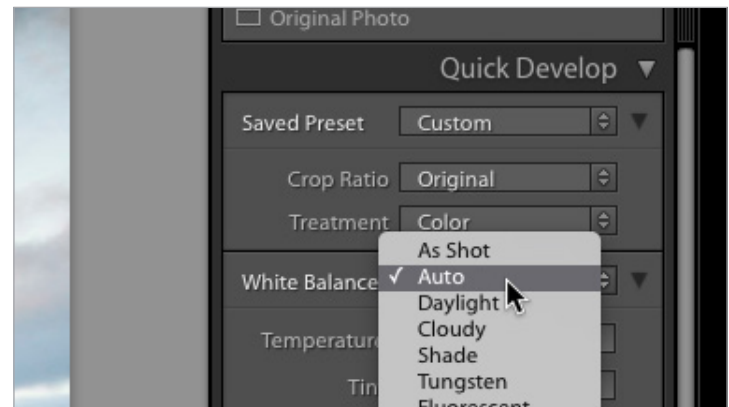
10 You'll be amazed at how successful the face recognition can be. It can easily recognise photos of people taken thirty years apart and has no problem with sunglasses, fancy dress costumes and people pulling silly faces. The mistakes can be quite amusing too, a depiction of Satan on a poster mistaken for a former boss, for example!

Fix Photos with Quick Develop

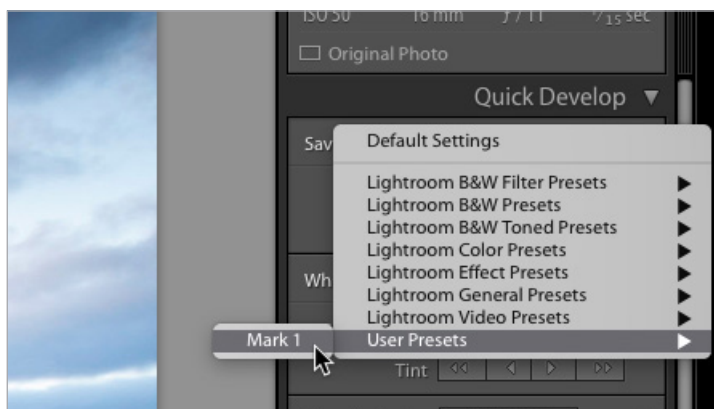
Lightroom offers two ways to get the best out of your images. We'll take a closer look at the power of the Develop module in the next section but the Library module Quick Develop tab features a range of tools that can apply quick fixes to improve your photos.



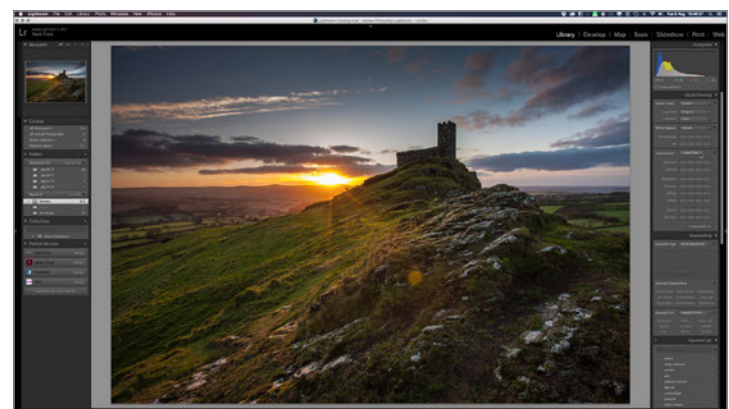
1 You can find the Quick Develop tab in the right-hand sidebar of the Library module. To get the best use out of it, it's a good idea to make sure you have the Histogram tab open at the same time, to help get the exposure right, and use the Loupe view in zoomed-out mode so you can see the whole picture much more clearly.



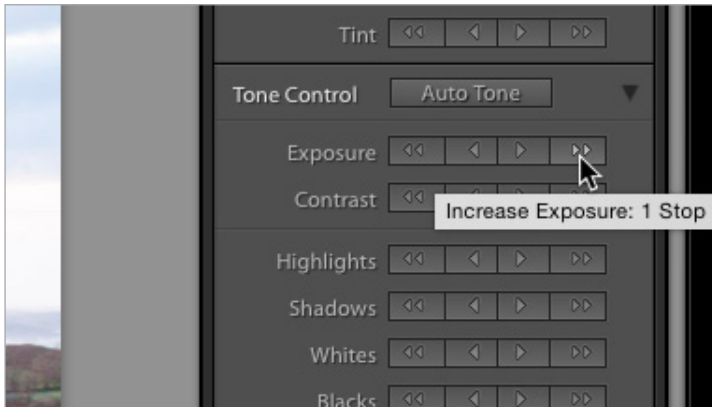
3 The next feature is the white balance control. This lets you change the white balance from the setting used on the camera when you took the photo. It works best if you're editing a Raw file, since it can correct the white balance without losing quality. If you're not sure what the correct white balance should be, use the Auto option.



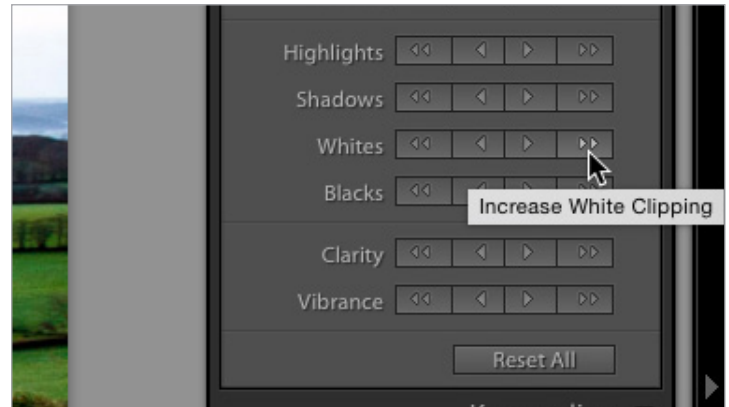
2 At the top of the Quick Develop panel you'll see a drop-down menu offering a wide range of preset developing settings. These are great for experimenting with different looks and styles and include a range of monochrome filter and toning effects, various colour processing styles, sharpening, contrast enhancement and more. There are also video effects available.



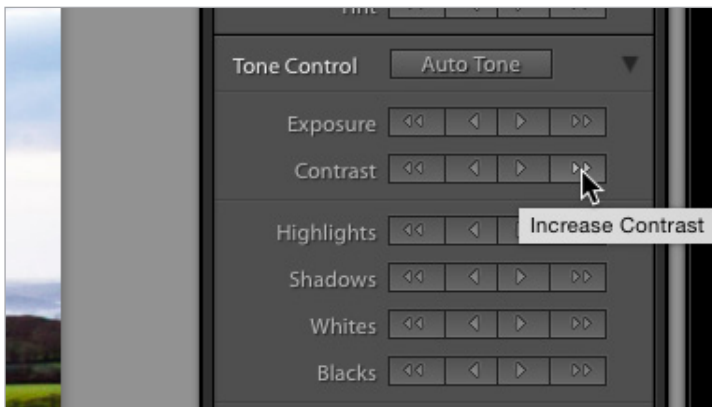
4 The Auto Tone button is something of a last-resort option. It will attempt to optimise the exposure, contrast and tone settings to produce a good result but it will only ever be an average approximation. All photos vary in their requirements, so it's best to avoid it and adjust tone and exposure manually, keeping an eye on the histogram.



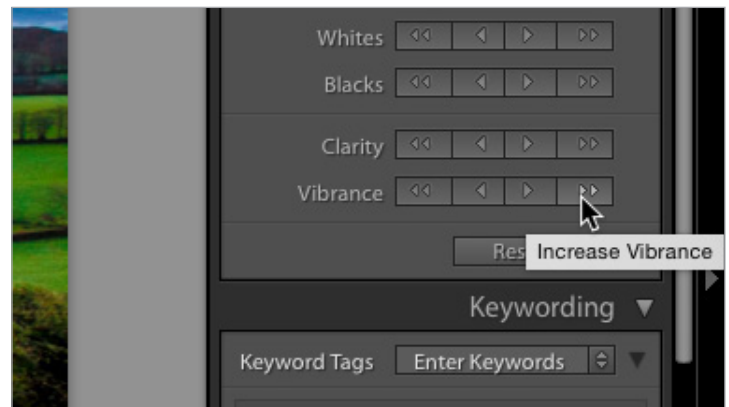
5 The Exposure adjustment control has four buttons. The ones with the single chevron adjust the exposure up or down by one third of a stop, while the buttons with two chevrons adjust it by a full stop. Unless your image is dramatically under or over-exposed it's best to use the 1/3rd-stop buttons, keeping an eye on the histogram and the Loupe view.



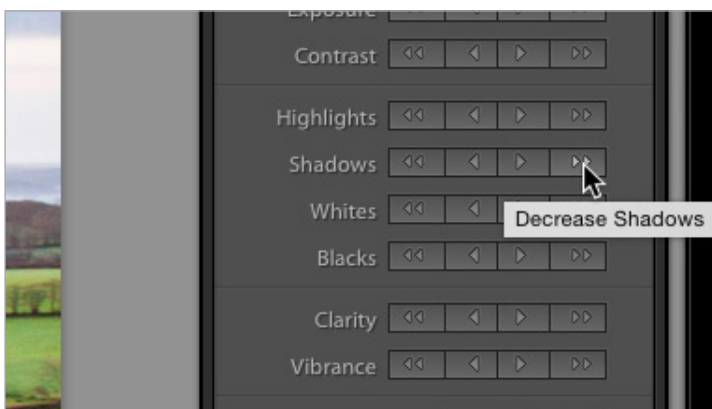
8 The Whites and Blacks adjustments are basically more extreme variations on the Highlights and Shadows adjustments. They are used to correct excessive clipping in deep shadows and bright highlights and take advantage of the expanded dynamic range available in Raw file images, as we discussed on page 15. Use in conjunction with the histogram for best results.



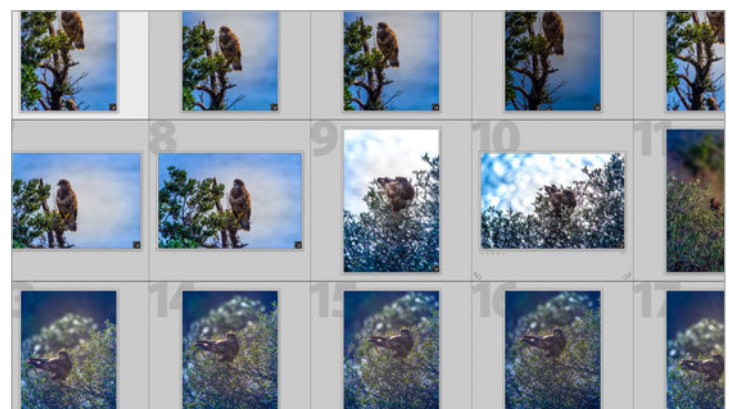
6 Contrast is a harder thing to quantify than exposure but generally it makes the light tones lighter and the dark tones darker. Again, the single chevron buttons make a slight adjustment, while the double chevron buttons make a larger adjustment. Most correctly exposed images won't need much adjustment, so use it sparingly for best effect.



9 Clarity and Vibrance have replaced the old Saturation adjustment and offer much more precise control over tone. Basically, Clarity improves the contrast in the mid-tones of the image by sharpening the edge detail, while Vibrance increases the saturation of only the least saturated colours, so you can improve overall saturation without blowing out bright colours.



7 The Highlights and Shadows adjustments affect the higher and lower ends of the histogram respectively. They are used to improve detail in shadow and highlight areas and are particularly useful in difficult lighting conditions, such as heavily backlit scenes, where they can brighten up shadowed faces. They are best used in combination to avoid unbalancing the shot.



10 One advantage of using the Library module quick develop is that you can adjust a whole batch of photos at once. Simply select all the photos that you want to adjust and whatever adjustments are needed will be applied to all of them. This is particularly useful if you discover that you've used the wrong white balance setting on a whole shoot!

Monochrome Shots

Often, converting a colour photo to black and white can degrade the quality or lose some of the definition of the object being photographed. However, Lightroom has some excellent presets and tools available to help create the perfect monochrome portrait.

Portrait shots can look great in black and white and this simple fashion shot especially benefits from an application of the cyanotype processing preset. You can find it in the left sidebar of the Develop module, under Lightroom B&W Toned Presets. We've added a slight boost to the contrast, as well as the toning preset and -25 points of post-crop vignetting to slightly darken the edges and corners. The result is a nice atmospheric portrait.

AFTER**BEFORE**





Improve Your Image: The Develop Module

You've familiarised yourself with the organisational abilities of the Library module, so now it's time to get down to what Adobe Lightroom is really all about: using the powerful tools in the Develop module to enhance and improve your photos. From basic corrections like white balance and lens distortion, to sophisticated tone and filter effects, we'll show you how to get the best results from this amazing program.



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56	Basic Colour Adjustments	74	Before and After: Developing Your Images
58	Improve Contrast with Tone Controls		

Introducing the Develop Module

The Develop module is where the tools that let you fully realise the potential of your photographs lie. Enhancing and improving them, removing blemishes, noise and distortion and applying a range of impressive effects and filters.

Like the Library module, the Develop module window is divided into three main areas, the left sidebar, the main viewing area and the right sidebar. The filmstrip view is also available at the bottom of the screen. The filmstrip and both sidebars can be permanently in view or set to auto-hide by clicking on the arrow symbols on the edge of the screen.

The left sidebar holds the Navigator thumbnail, a list of available Presets, the Snapshot and History views and the Collections. The right-hand sidebar holds all the actual editing and enhancement tools, as well as the Histogram.

1 Navigator

This shows you a view of the whole image, useful if you zoom in when using the spot correction tool and need to navigate around the frame.

2 Presets

This list shows the preset adjustments that can be applied with just one click. Lightroom comes with dozens built-in and you can add and edit your own user presets.

3 Snapshots

If you're experimenting and making adjustments to an image as you go, you can save a snapshot of your progress at any point. It's like a save point in a video game; you can go back to that point by clicking on the snapshot in the list.



4 History

This shows each alteration that you've made to your image in chronological order. If you decide that you don't like the last few changes that you made, you can revert to an earlier point by clicking the step in the history list.

5 Collections

We covered these in the Library module section. You can also access your collections from the Develop module by opening up this tab.

6 Copy and Paste

Rather than copying the active image, as you might expect, the Copy button copies certain adjustments that you've made to the image. You can open another image and instantly apply the same corrections by clicking the Paste button. You can choose which parameters are copied.

7 View Window

As with the Library module, there are a number of viewing options available, including split-screen and the before-and-after view.

8 Histogram

Another that's the same as in the Library view, the histogram shows you a graph of the number of pixels of a given tone in three colour channels, vital for setting the best optimum exposure.

9 Crop, Repair and Filter Tools

Here's where you'll find the crop tool, spot and Red Eye removal, graduated and radial filters and the Adjustment Brush, all vital editing tools.

10 Developing and Adjustment Tools

In each of these panels you'll find more tools to improve your images, such as lens distortion correction, noise reduction, grain and filter effects and more.

11 Previous and Reset Buttons

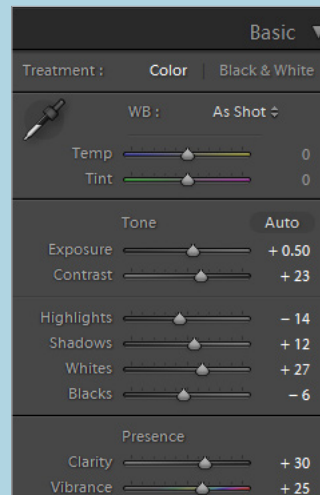
As the names imply, the Previous button takes you back one editing step, while the Reset button removes all effects and restores the image to its original state. Since Lightroom edits non-destructively this involves no loss of original image quality.

12 Done Button

The Done button applies any adjustments you've made in Lightroom. Clicking it will close the current adjustment window and make the alterations to the image. If you clicked it too soon, you need to start again and re-apply any adjustments.

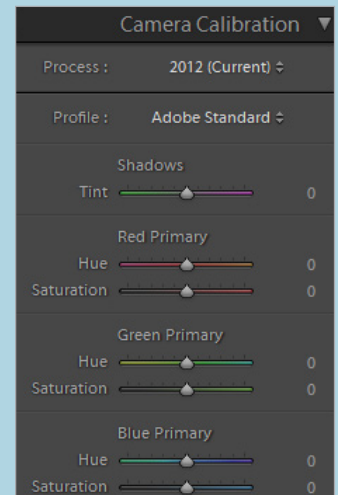
The Adjustment Panel

The Adjustment Panel offers a range of tools tailored to the Module you're currently on, in this case the Develop Module. Here you can find a wealth of features to help tweak your photo to perfection.



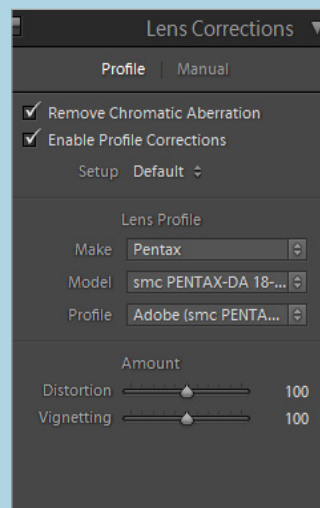
Basic

The Basic panel holds the essential adjustments for white balance, exposure, contrast and tone, as well as clarity, vibrancy and saturation. This is probably where you'll spend most of your time when using the Develop module.



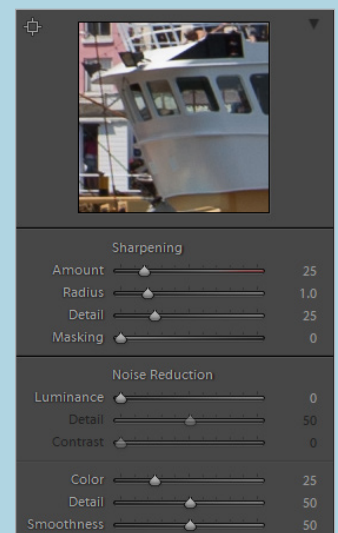
Camera Calibration

Some cameras have unique colour balance profiles that are embedded in the metadata along with the image file. You can use this to ensure absolutely accurate colour reproduction in your photo.



Lens Corrections

Lightroom can automatically apply preset corrections that compensate for known distortions in many popular lenses from most manufacturers. You can also choose to make manual adjustments yourself.



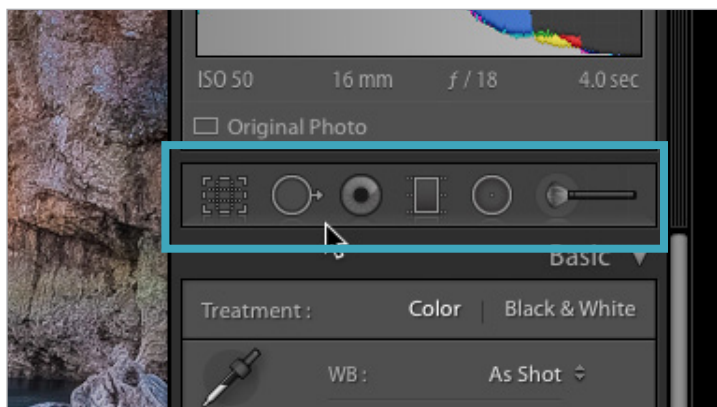
Detail

The Detail panel is where you can find the controls for adjusting sharpening and noise reduction. It includes a small preview window for judging the effects of your image adjustments.

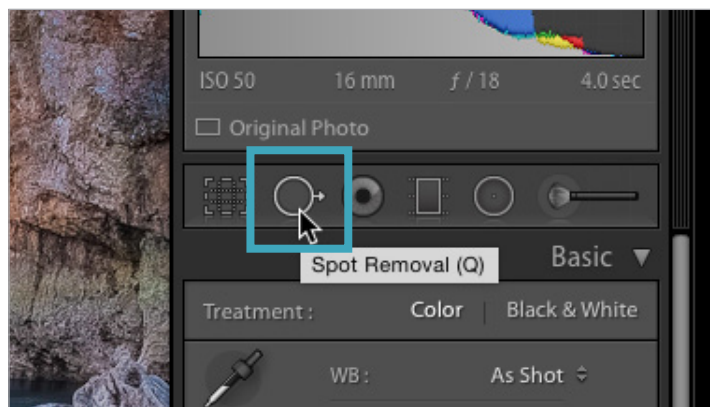


Exploring Photo Editing Tools

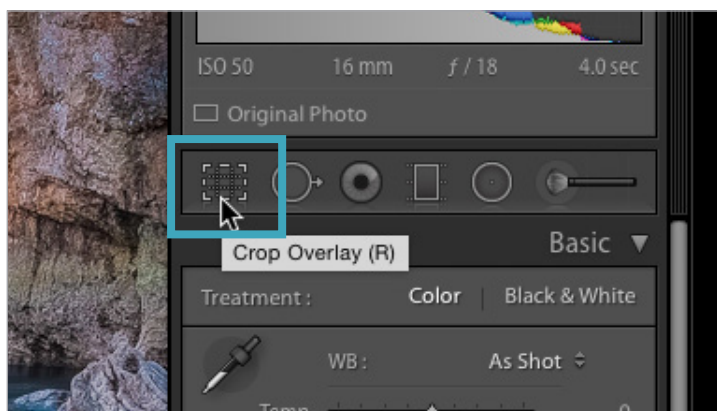
Lightroom offers a range of tools for cropping and rotating your images, removing spots and blemishes, correcting Red Eye, adding graduated, radial filters and more. Whilst it lacks the range of Photoshop's editing tools, there's still plenty on offer.



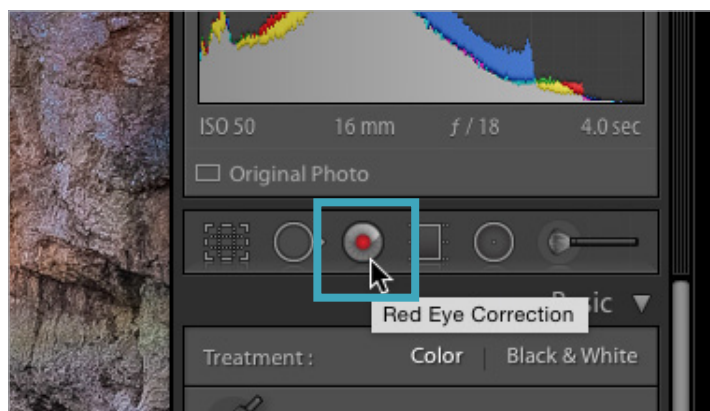
1 First, let's take a look at the editing tools panel. You'll find it in the right-hand sidebar just under the histogram panel. It's a row of six symbols. In order left to right they are; crop, spot removal, Red Eye correction, graduated filter, radial filter and adjustment brush. Clicking on any of them opens a panel of options below the bar.



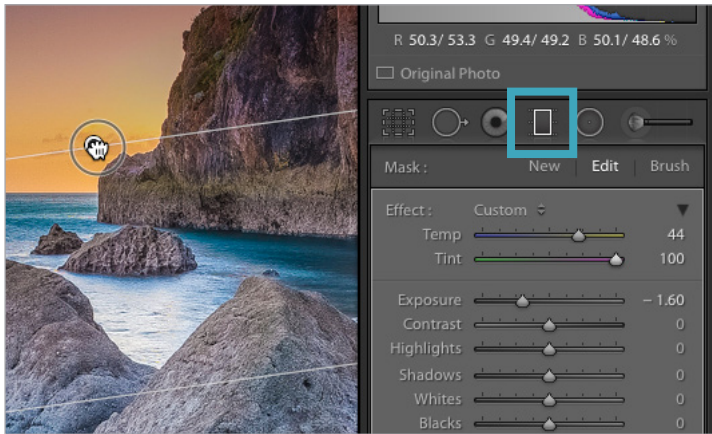
3 Next we have the Spot Removal tool. This is a very useful tool and can be used to remove any small blemishes or spots, usually caused by dust that has managed to get onto your camera sensor. It works in a very similar way to the Healing Brush tool in Photoshop. We'll show you how to use this tool on page 48.



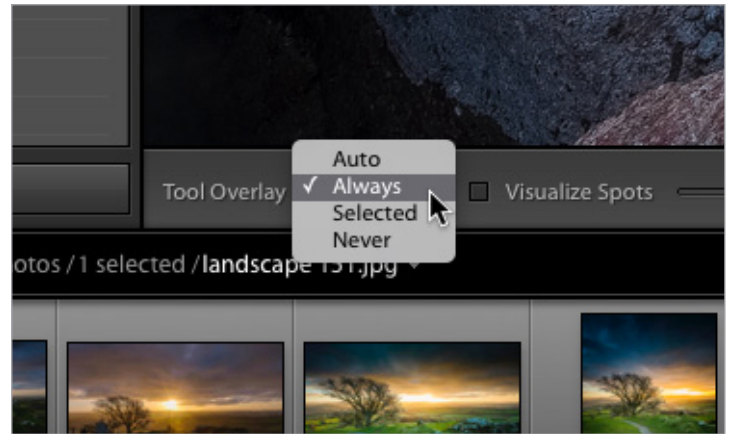
2 The first tool is Crop & Straighten. As the name suggests, this is used to crop the image to remove unwanted areas around the edge and to rotate the cropped section to straighten horizontal or vertical lines. It works in the same way as the Crop tool in Adobe Photoshop. We'll look at using this tool in more detail in the next guide.



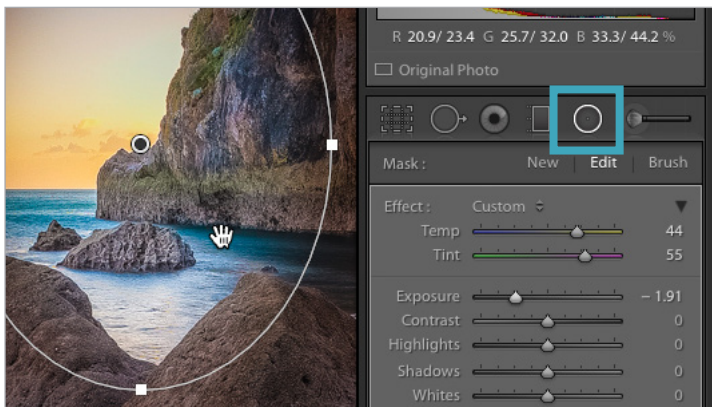
4 Then, we have the Red Eye Correction tool. Red Eye is caused when light from your camera's flashgun reflects off the blood vessels at the back of the eye and is a very common problem in low-light portrait photography, particularly in small compact cameras. We take a closer look at this tool on page 49.



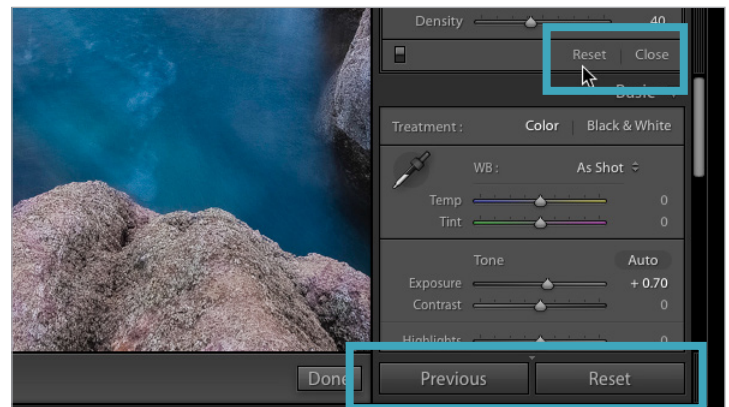
5 Moving across, we come to the Graduated Filter tool. This is one of the more powerful of Lightroom's editing tools and is actually more sophisticated than the similar tool in Photoshop, owing far more to the powerful Graduated Filter tool in Adobe Camera Raw.



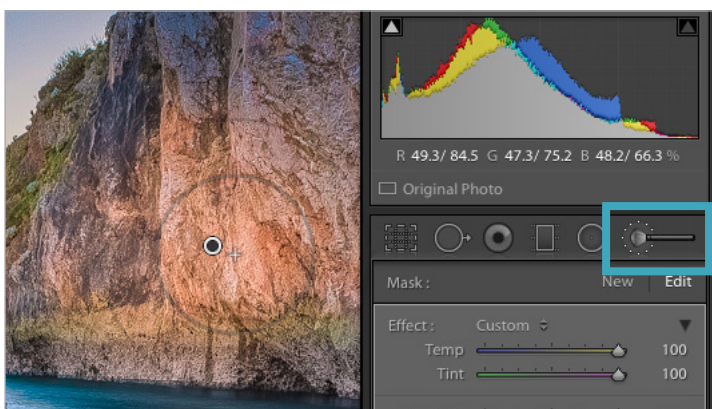
8 The various editing tools all have their own variations on the options bar at the bottom of the viewing window; most of them allow the visibility of the tool overlay to be toggled on or off, or in the case of the filters, show the editing pins. Pick one of these options and stick with it depending on your own preference.



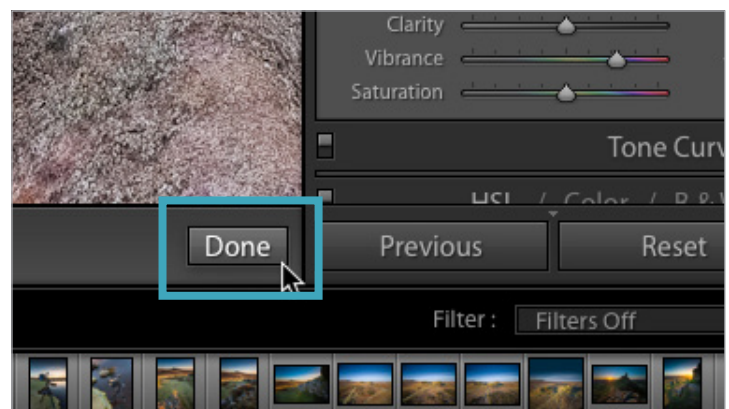
6 Next, we have the Radial Filter tool. This is very similar to the Graduated Filter tool but instead of applying a filter across the width or height of the image, it places a filter that starts in the middle and attenuates outwards, or vice versa. It's great for making old style vignettes and mimics a centre spot filter as used on DSLR cameras.



9 You wouldn't be human if you didn't make mistakes, so if you apply an editing tool and then regret your choice, you can undo your mistake by clicking on Reset at the bottom of every tool's options panel. Alternatively, you can reset the image back to its unedited state by clicking Reset at the bottom of the screen.



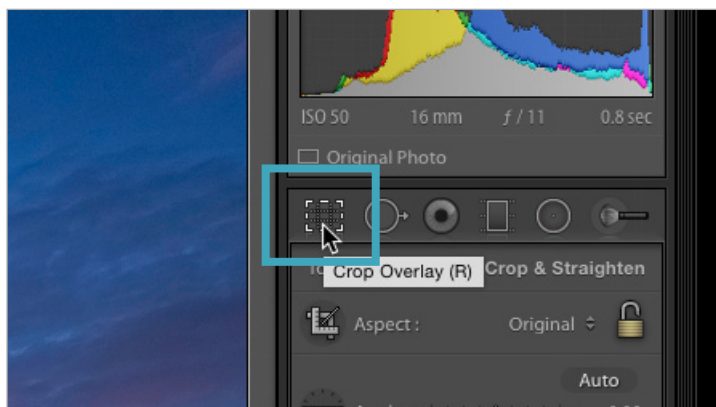
7 Finally on this panel, we have a tool that is unique to Lightroom, the Adjustment Brush. This is a very powerful and versatile tool which can be used to selectively apply a wide range of effects on your photographs, such as adjusting exposure or saturation, altering temperature and tint, altering contrast or removing noise.



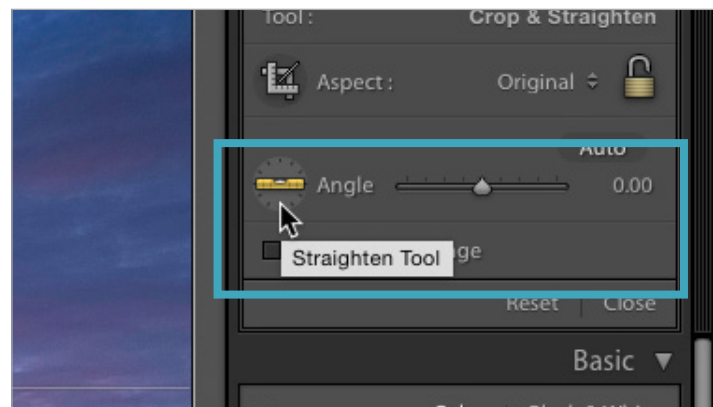
10 Once you're happy with your results, you can click Done in the lower right of the screen to save your editing. Remember however that Lightroom edits non-destructively, so even if you've applied a whole range of crops, filters and adjustments, you can still reset the image back to its original state at any time.

Using the Crop & Straighten Tool

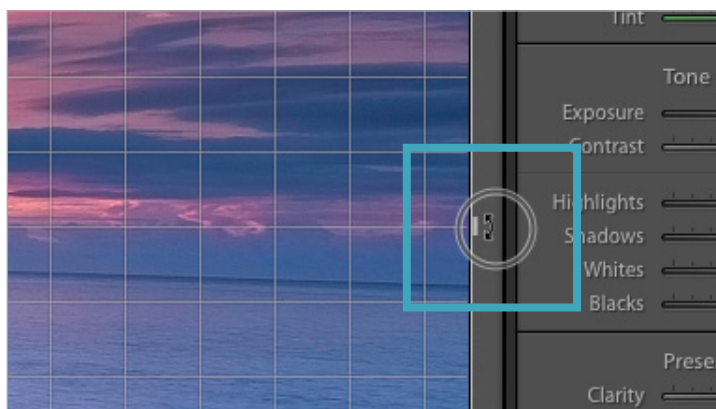
Even the most careful photographer will sometimes rush a shot and take a photo that's not quite level, with either a sloping horizon or a leaning building. Fortunately, Lightroom offers several effortless ways to correct those faults.



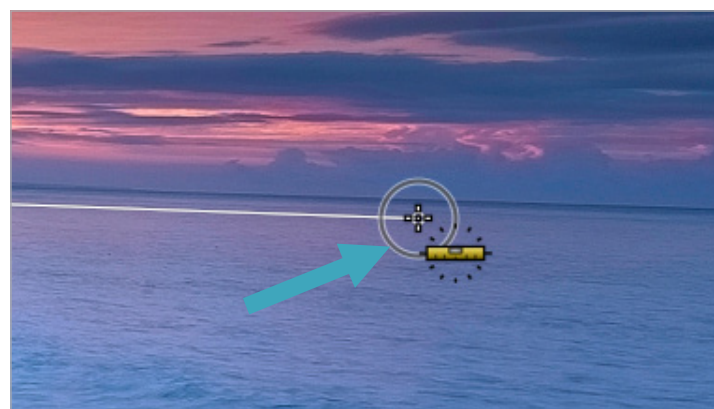
1 The main tools that you'll need to straighten your shots are found in the Crop & Straighten tool, located on the editing tools panel that we looked at before. Click on the tool and you can see a grid with corner handles appear over your image, as well as a panel of other tools and options appear below the panel.



3 A quicker and more precise way to straighten a tilted horizon or leaning vertical is to use the Straighten Tool. You'll find this on the left-hand side of the options panel below the edit tool bar when you click on the Crop & Straighten tool. It's the circular icon with a picture of a spirit level in it. Click on this icon to activate the tool.



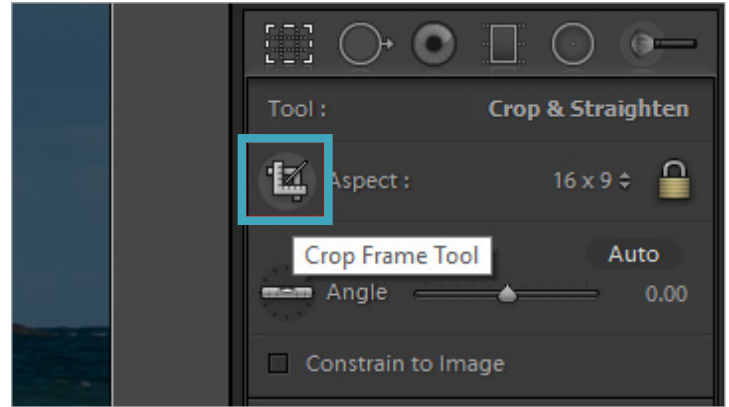
2 If you place your mouse cursor anywhere on the grey border of the workspace outside the image, you can see that it changes to a double-ended curved arrow, indicating rotation. Click anywhere in this area and you'll see a grid appear over your image. You can simply drag the image around until your horizon lines up with the grid.



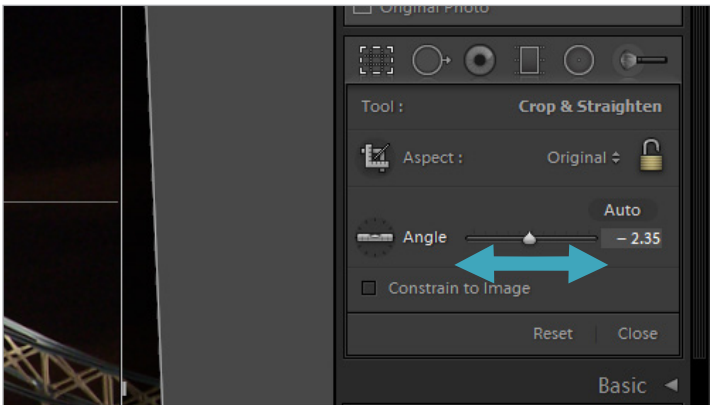
4 To use the Straighten Tool on a tilted horizon, simply click on one end of the horizon line and drag a line along it. As soon as you release the Mouse button Lightroom will automatically rotate the image to make the line horizontal. Note that it also constrains the rotated image within the original size of the frame.



5 The Straighten Tool also works on leaning verticals. To save a toppling building, activate the tool by clicking on the icon and then click and drag a line up or down a line on the image that should be vertical, such as the side of a structure. Again, as soon as you release the Mouse button the image will automatically be straightened.



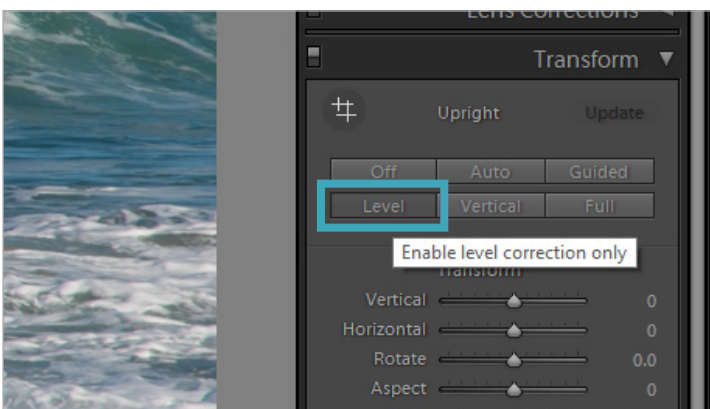
8 Cropping your image to improve composition is very simple. When you open the Crop & Straighten tool it defaults to the crop tool straight away; but if you've previously been using the Straighten tool you'll need to click on the round icon with a picture of a darkroom crop-frame tool to switch the tool back into cropping mode.



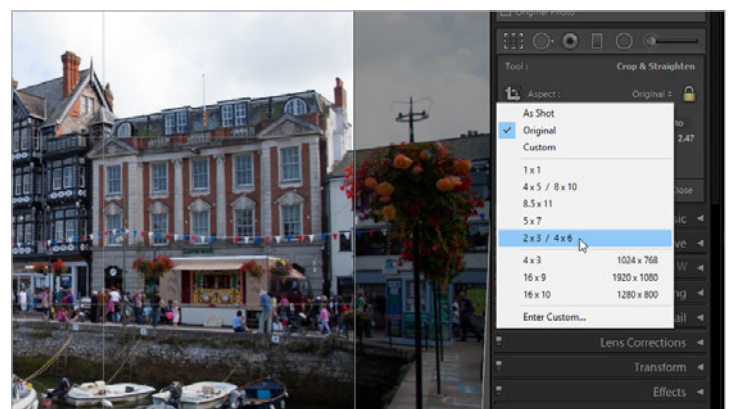
6 The Crop & Straighten tool offers a third option for rotating your image. Next to the Straighten Tool you'll see a slider. If you drag this slider right and left, you'll see that it rotates the image clockwise and anticlockwise. This is useful if you want to tilt an otherwise level shot. You can also enter the degree of tilt numerically.



9 You'll see a crop frame grid overlay your image, with drag points in each corner and in the middle of each side. When you click on and drag one of these points in any direction you'll see the cropping frame move, with the areas outside it slightly greyed out. It also includes a "rule of thirds" grid to help with classical composition.



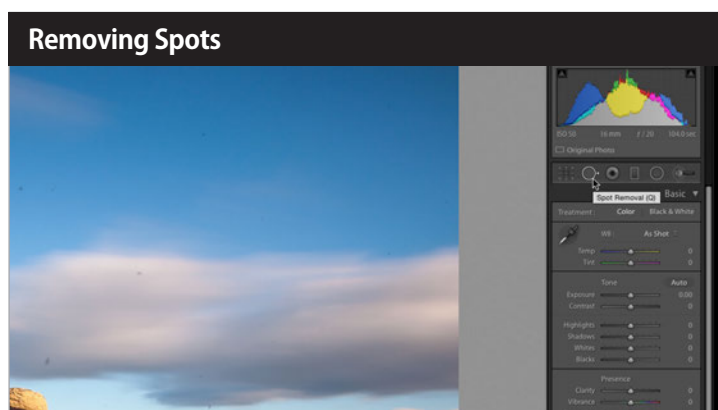
7 There is yet another option for levelling your shots. If you open the Transform tools you'll see a panel of buttons in the options panel, including one marked Level. If you click on this button, Lightroom will attempt to automatically straighten your image. Note that this is based on pattern recognition and is therefore not 100 per cent reliable.



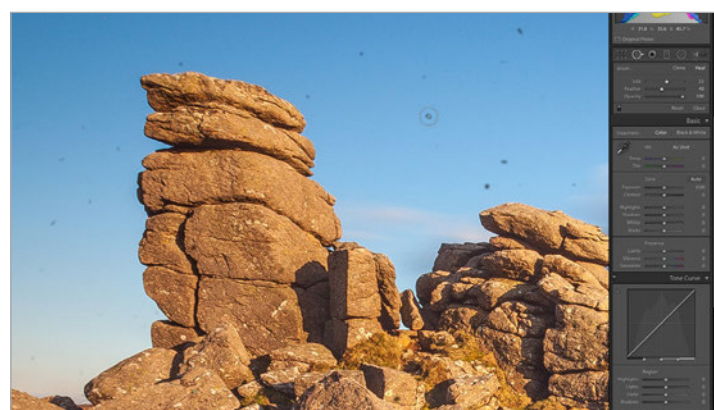
10 You can crop to a specific aspect ratio or image size by clicking to the right of where it says Aspect to open the context menu. You can select a preset ratio or size or enter your own manually. Note that the padlock icon next to the menu changes, to indicate that the aspect ratio is now locked to the dimensions that you've set.

Removing Spots and Red Eye

Even the latest digital cameras can sometimes get dust inside and contaminate the sensor, leaving black spots on your images; and there's also the problem of flash Red Eye and indoor photography. Luckily Lightroom offers tools for dealing with these problems.



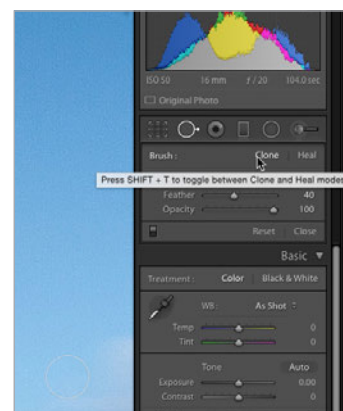
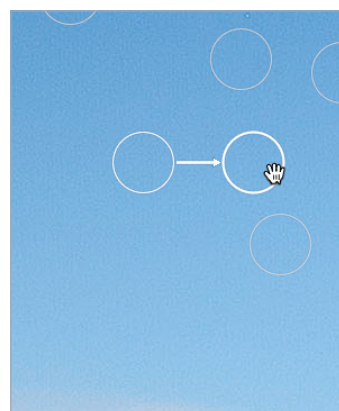
1 If you scan film photos or use an older DSLR, you may have problems with dust and blemishes on your images. Fortunately, Lightroom includes a handy tool to get rid of them. It's the Spot Removal tool and you can start using it by clicking on the icon in the editing tools panel or by using the keyboard shortcut Q.



3 As you click on dust spots you'll see the position from which the replacement sample is being taken displayed on the image and you can adjust the position and size of the sample location by dragging on the visible circle. You can turn this feature off from a pop-up menu on the lower tool bar; this can help if your image is heavily spotted.

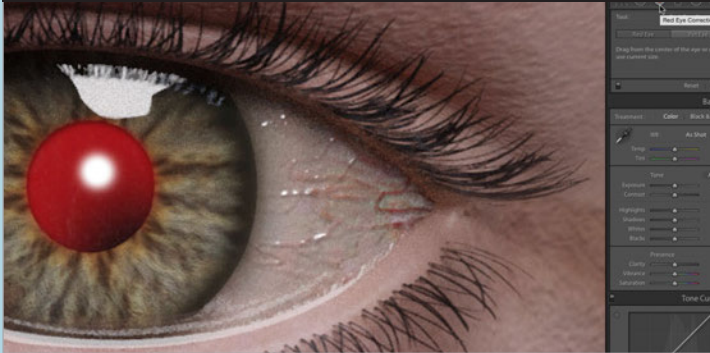


2 The Lightroom Spot Removal tool operates in the same way as the matching tool in Photoshop. You can adjust the brush size by using the slider in the control panel or by using the square brackets keys [and]. Simply click on a spot and it will be replaced by a matching background colour sampled from elsewhere on the image.

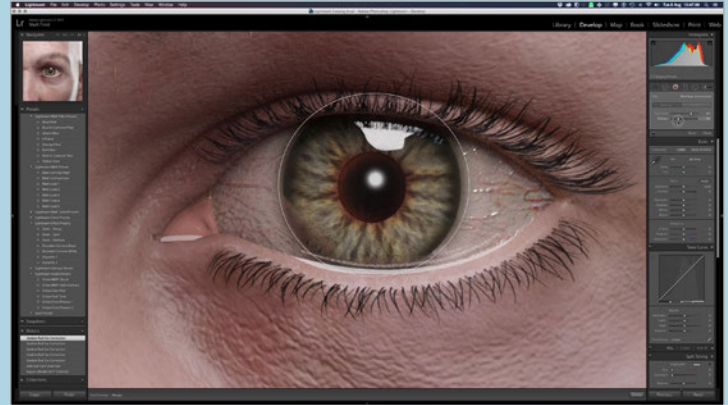


4 If you make a mistake or if you simply don't like the result of one of your spot removal operations, you can undo any of them by holding down the left Alt button and clicking on the offending circle. As well as the heal function, the Spot Removal tool also offers a Clone option. If you hold the CTRL key you can move the sampling point to wherever you want.

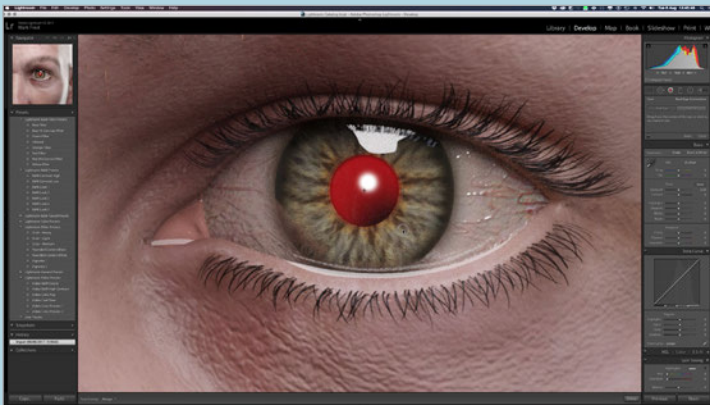
Removing Red Eye



1 Red Eye is caused when light from your camera flash reflects off the blood vessels at the back of the eye and is most visible in low light when the pupils are widely dilated. Even if your flash has anti-Red Eye pre-flash it can still be a problem. You can remove Red Eye from your shots using the Red Eye Removal tool.



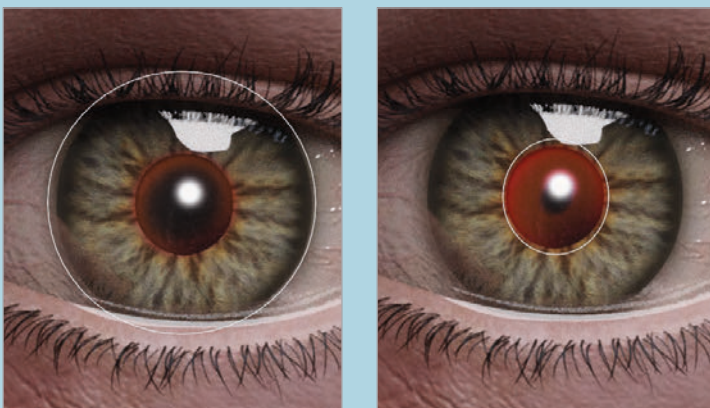
4 Repeat the same procedure with the other eye. If you're not happy with the result, reset the image and try again; the automatic process isn't perfect and a second try may do better. You can also manually adjust the size and darkness of the fake pupil that it superimposes by adjusting the two sliders in the tool options panel.



2 The Red Eye Removal tool is very simple to use. When you activate the tool you'll see a cross-shaped mouse cursor. Simply place this over the centre of an affected eye and drag an elliptical shape outwards until it covers the entire eye. Release the Mouse button and the tool will automatically detect and correct the redness.



5 The Red Eye Removal tool also works with pet's eyes, although due to the nature of cat and dog eyes, they're usually green or yellow rather than red. Click on the Pet Eye button on the tool option panel and then use the same procedure that you did for a human eye; click and drag outwards from the centre of the eye.



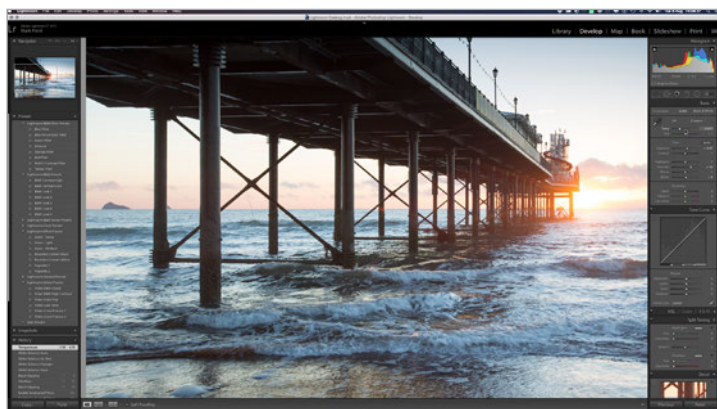
3 As noted above, make sure the elliptical shape covers the entire eye, not just the pupil. You may think you just need to cover the red area of the eye, but the tool works by using the shape of the iris and the pupil. If you drag the ellipse over the pupil alone, you will see that the redness reduction is confined to a very small area. Adjust the ellipse accordingly.



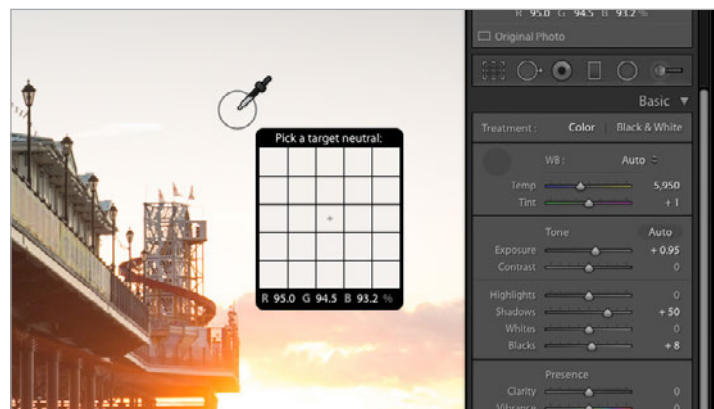
6 As with human eyes you do have the option to manually increase or decrease the pupil size but there is no option to darken, since it will set to maximum darkness automatically. There is an option to add catchlights in the eyes though, which is strangely missing from the tool options for human eyes. The results are usually excellent.

Adjustments Using the Basic Panel

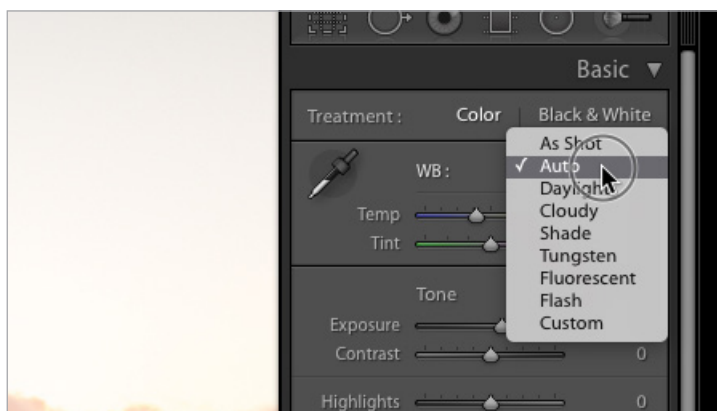
After cropping and straightening, the most common adjustments made are white balance, exposure, tonal balance and colour saturation. Lightroom's Basic panel is where you can find these features, with an easy-to-use slider interface.



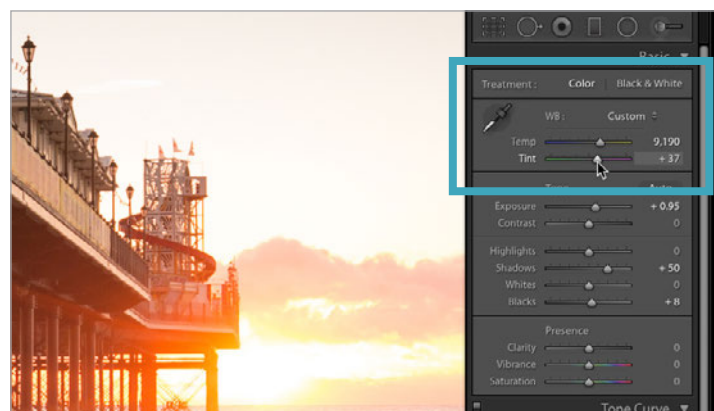
1 You'll find the Basic panel in the right-hand sidebar of the Develop module. Click on the title bar to open the panel and you'll see an array of sliders for things like colour temperature, tint, exposure and contrast; also a panel of Tone controls and another one for Presence controls that adjust Clarity, Vibrance and Saturation.



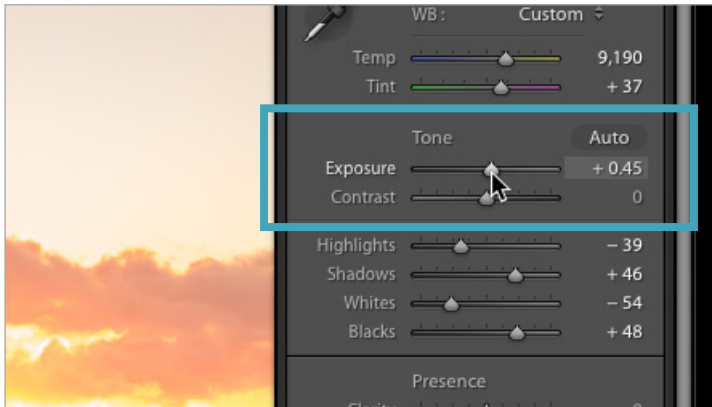
3 To the left of the White Balance selector you'll see another tool with an icon shaped like an eyedropper. If you click on this the eyedropper will become the mouse cursor and you can use it to select a white-point to manually set the white balance. If you've ever used Adobe Camera Raw you'll be familiar with this operation.



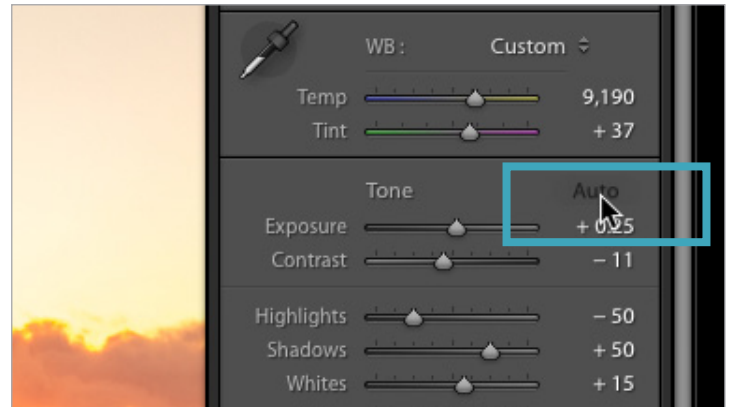
2 Near the top of the Basic panel you'll find the White Balance controls. This will usually show As Shot by default, indicating that Lightroom is using the white balance setting determined by your camera. If you click on this, you'll see a context menu with more options. We'll look more closely at correcting white balance elsewhere.



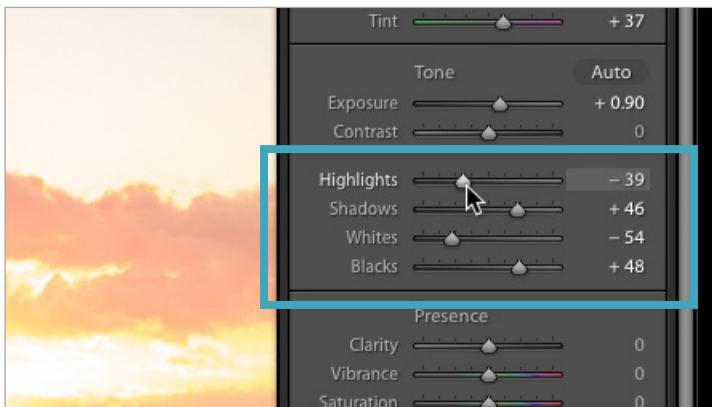
4 Immediately below the White Balance selector you'll see a pair of sliders for Temp, or colour temperature, and Tint. These controls allow you to make manual adjustments to the white balance and colour cast, which is useful if you're shooting under unusual artificial lighting conditions that are not covered by any of the white balance presets.



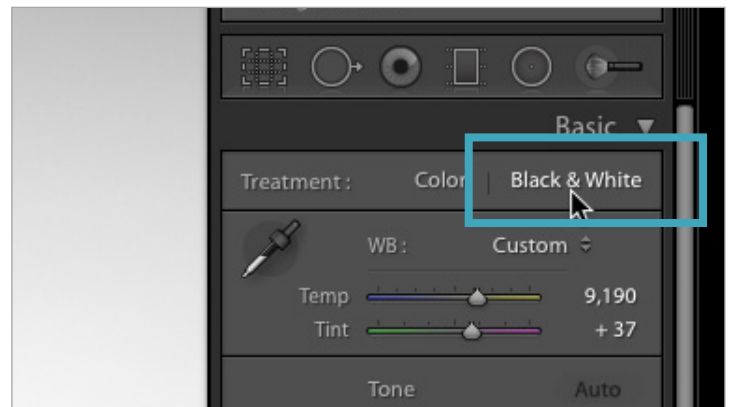
5 Moving further down the panel, we come to the Tone controls, which are divided into two sections; Exposure and Contrast, and Highlights, Shadows, Whites and Blacks. Exposure and Contrast work in exactly the same way that they have done in Adobe Photoshop and most other editing suites for years.



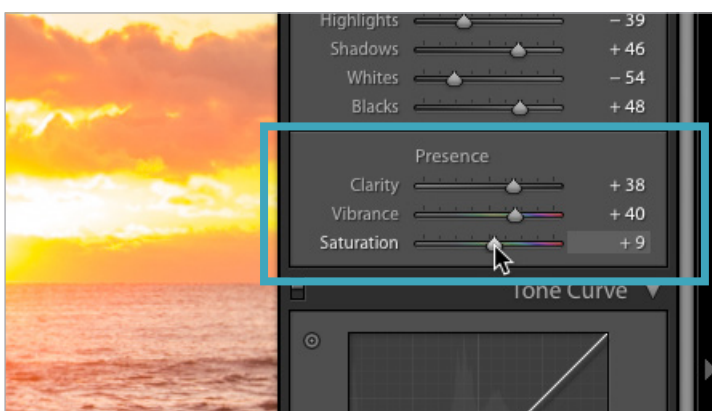
8 If you just want to quickly optimise a photo but aren't sure in which direction to take it, the Basic panel offers an auto-tone option that will instantly analyse your image and attempt to adjust the tone to bring it closer to an idealised average by equalising the histogram. It's not likely to be perfect but can be a good starting point.



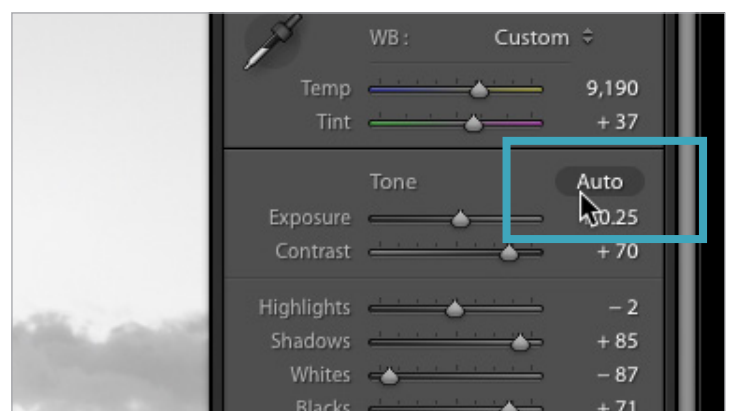
6 The Highlights, Shadows, Whites and Blacks section of the Tone panel is a more recent addition for Lightroom and not found in previous versions of Photoshop. It offers more precise manual control over the relative density of light and dark tones and lets you take advantage of the greater tonal range of raw files.



9 The Basic panel can also be used to turn your colour image into monochrome. At the top of the panel you'll see Colour and Black & White. If you click on the latter you'll see that the Vibrance and Saturation slider will be greyed out and the image will turn monochrome. You still have full control over the other sliders.



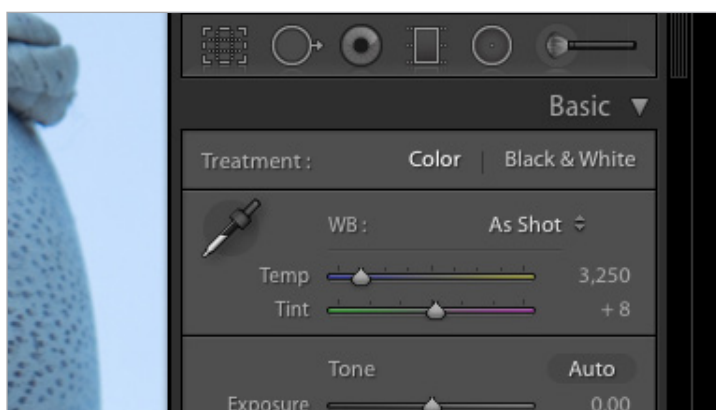
7 The Presence controls are another new Lightroom feature and replace the old Hue, Saturation and Lightness controls that feature in Photoshop. Clarity improves the contrast in the mid-tones of the image by sharpening the edge detail, while Vibrance increases the saturation of only the least saturated colours.



10 Auto-tone also still works in Black & White mode and just like in colour mode it will attempt to equalise the exposure, contrast and distribution of tones to produce an idealised histogram with no clipping. You may find that the results look a little flat though, so use it as a starting point rather than relying on it to finish your images.

Adjusting the White Balance

Even as an experienced photographer using a modern top of the range digital SLR, it's sometimes possible to mess up your white balance. Luckily, if you shoot in Raw and use Lightroom, it's very easy to correct any such mistakes.



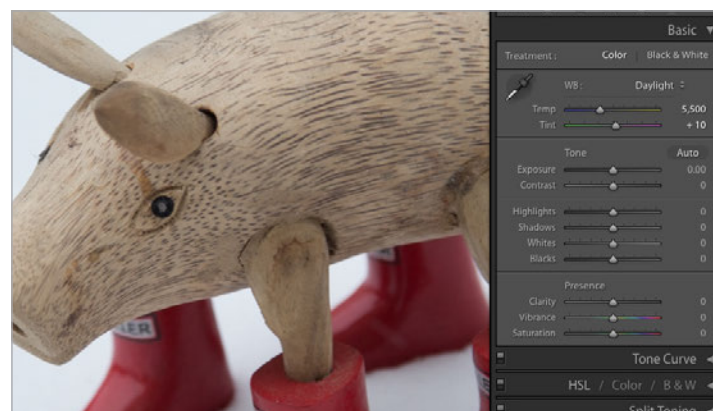
1 You can spot an incorrectly set white balance straight away by the colour cast over the entire image. Open the Basic panel and look at the white balance setting; you can see it's 'As Shot' and that the colour temperature is 3250K, a typical setting for incandescent or tungsten lighting. The camera was incorrectly set when the shot was taken.



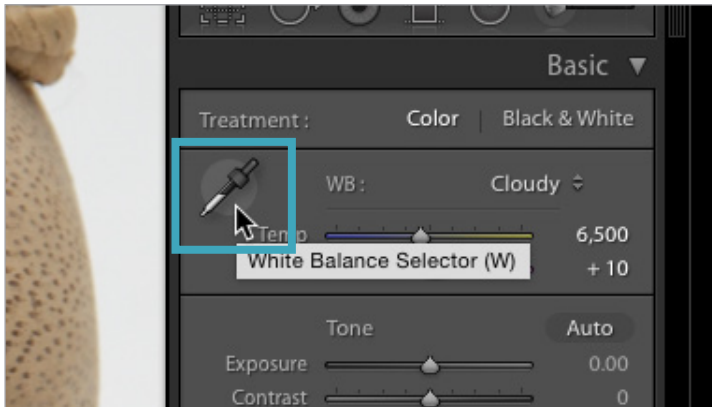
3 As you can see, the results are pretty good in this example. Lightroom has selected a colour temperature of 7250K and a tint setting of +9, adding magenta to offset the blue tint of the original. However, since we know this shot was taken in daylight, we could try the Daylight preset from the menu to see if it's better.



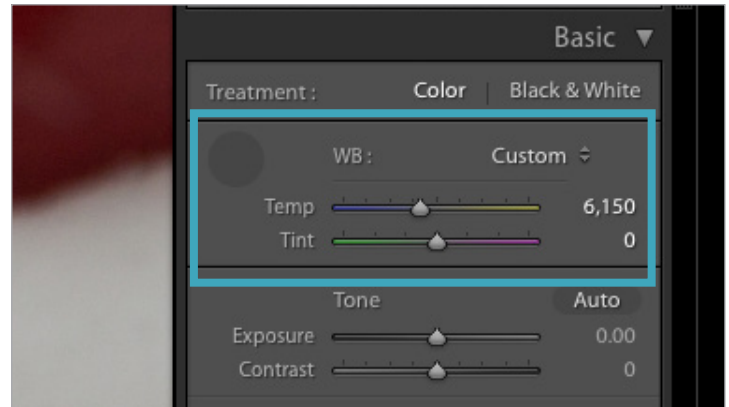
2 The quickest way to correct the white balance is to let Lightroom do it automatically. Click on the white balance setting and you'll see a drop-down menu appear. Select Auto and Lightroom will analyse the photo and attempt to set the correct balance based on the histogram. The results will usually be good for most common lighting.



4 The Daylight preset is looking better, with the colour temperature set to 5500K and a tint of +10. The whites look a bit brighter and the snow looks a little more neutral with less of the magenta tint. The day was overcast, so we can warm the picture up by using the Cloudy preset.



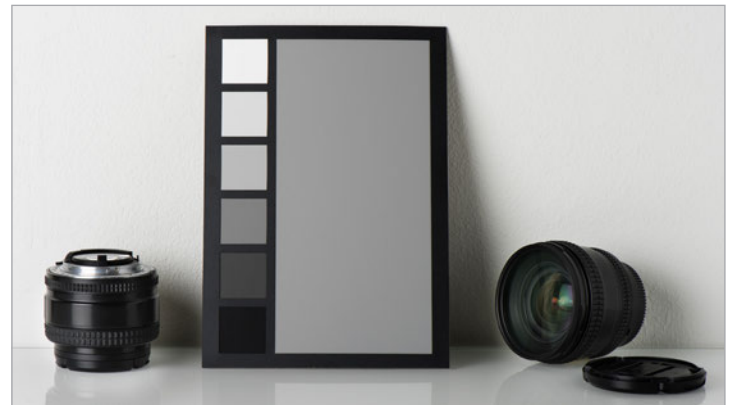
5 There is another way to accurately set the white balance for an image other than presets or guesswork. If you look on the Basic panel, to the left of the white balance setting you'll see an icon of an eyedropper. This is the White Balance Selector tool and you can use it to measure the white balance directly from the image.



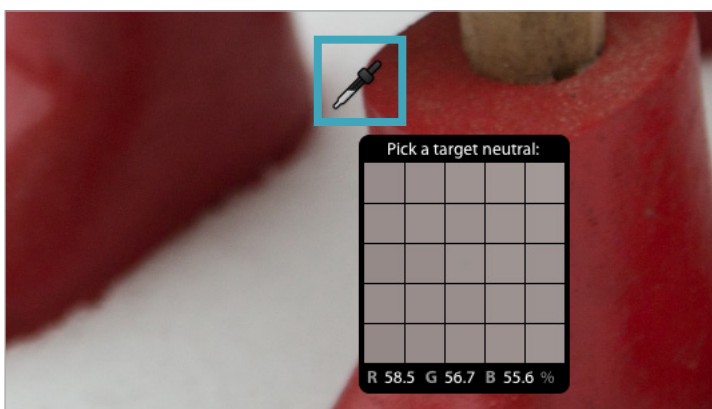
8 Click on the pixel that you want to sample, and you'll see that the eyedropper returns to its home, the White Balance setting changes to Custom, and the colour temperature and tint change to a new value. In this case, it's a colour temperature of 6150K with a 0 tint, quite different to the original Auto setting or any of the presets.



6 To use the White Balance Selector tool, click on the eyedropper icon and you'll see it become your mouse cursor. You need to find an area of the image that you know is a neutral tone; in this example, we know that the snow the wooden pig is standing on is pure white, so that will do nicely. Clouds, paper and white bird plumage are also good for this.



9 Of course, you might not always have a suitably neutral-toned object in the frame, which is one reason why most professional photographers carry something called a 'grey card', literally a sheet of card coloured a neutral mid-tone grey, called '18% grey', that can be placed in a test shot. It is also useful for accurate manual exposure metering.



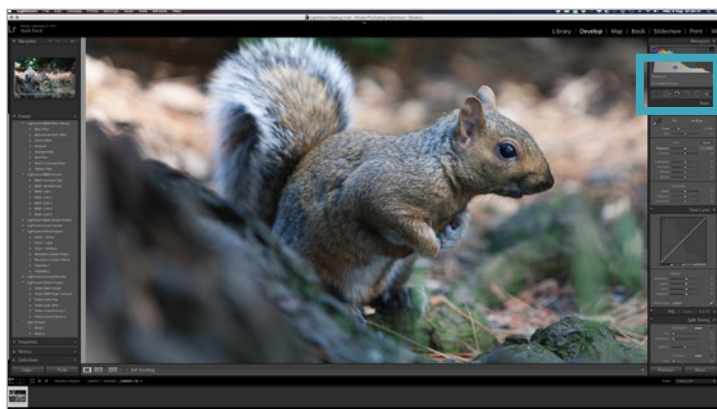
7 Move the eyedropper cursor over the neutral tone that you've selected. You'll see a greatly magnified view of the area around the cursor position, so you can make sure that you don't accidentally click on a dust spot or other non-neutral tone. You can see the RGB values of the selected pixel displayed at the bottom of the frame.



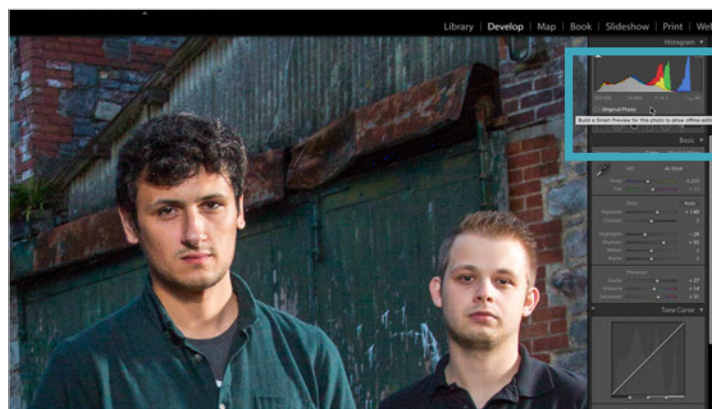
10 It's also worth noting that the white balance and tint controls can also be used in the Basic panel's Black & White mode, where they can be used as a filter to enhance the contrast of certain tones, rather like using coloured filters when shooting in black and white. Effects will vary from image to image, so it's worth experimenting.

Optimising Photos with the Histogram

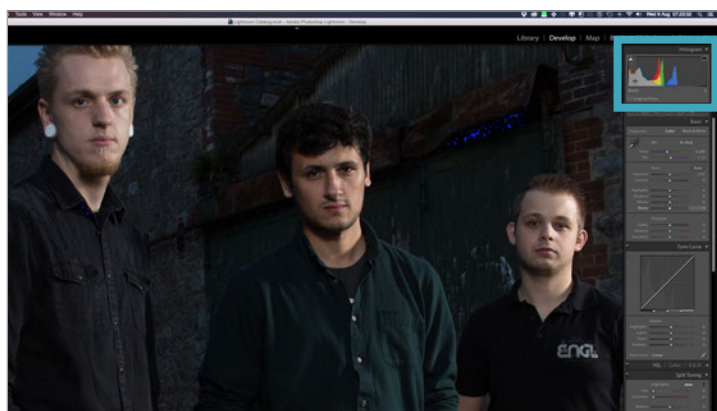
Along with focus and composition, correct exposure is one of the keystones of successful photography. With the extra exposure latitude afforded by shooting in Raw mode, Lightroom lets you adjust exposure to get the best out of your photos.



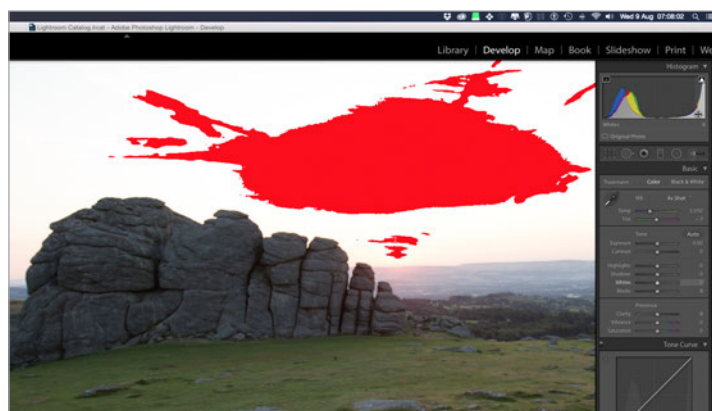
1 The Histogram is a graphical representation showing the ratio of pixels of any given brightness that are present in an image, with black on the left and white on the right. In a correctly exposed image, like this example, the distribution is spread across the graph, without being cut off at the ends and with most of the peaks in the middle.



3 The histogram can show you where highlight or shadow clipping is occurring. In the top left corner of the graph you can see a small arrow. If you click on it, any clipped pixels will be highlighted in blue. Although under-exposure can be a creative option, exposure correction can be applied to pull back some detail if desired.



2 In an under-exposed image such as this one, you can see that the peaks of the histogram are clustered at the left-hand edge of the graph, which is the darker tones, indicating that there are more dark pixels. The curve actually runs into the edge of the graph, which is known as 'clipping'. Any clipped pixels are pure black, with no detail.



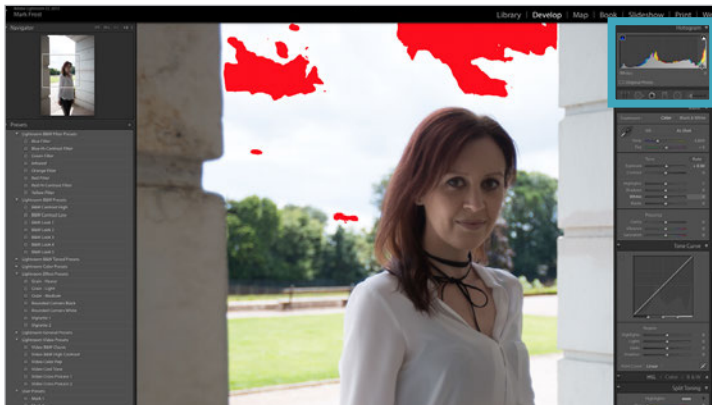
4 Similarly, in this slightly over-exposed image you can see that the tone peaks are pushed up towards the right and the highlights are clipping to pure white, as shown by the fact that there is a peak right on the edge of the graph. In this case the over-exposure is not deliberate but shooting in Raw mode allows some latitude for correction.



5 As with the clipped shadows, the histogram can show you the clipped highlights. Click on the arrow icon in the upper right corner of the graph and you'll see all the pure white pixels highlighted in red. We could correct this and restore the missing highlight detail by reducing the exposure or correcting the tonal balance of the image.



8 Next, we move the Shadows slider to the right. This lightens just the darker tones, restoring darker shadow detail including the dark foliage behind her, without affecting the highlights. You can see that the left-hand peaks of the histogram have moved to the right. Already the image is looking much better but there's still more we can do.



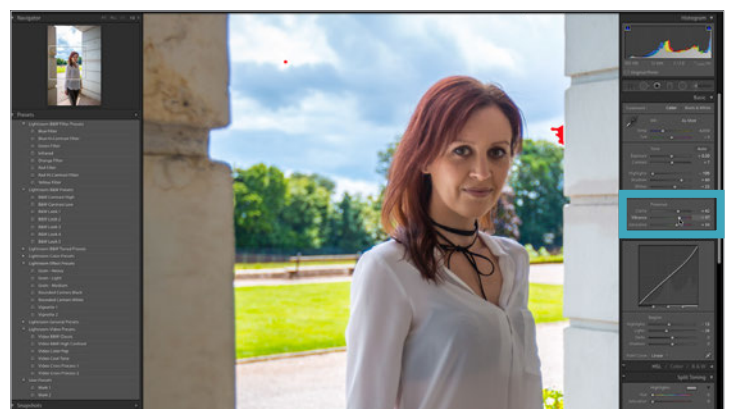
6 One of the toughest exposure challenges faced by photographers is demonstrated this typical shot of a subject with bright backlighting. It has extremes of lighting, as well as very light clothing. You can see from the histogram that there are peaks at both ends of the graph, as well as clipping of crucial highlight detail.



9 If we move the Whites slider a little to the right we can brighten the lighter tones only, adding a bit more punch to the detail on the white shirt. You can see the right-hand end of the histogram curve will be slightly raised as more light pixels are added. Be careful not to go too far or the highlights will start clipping again.



7 We can use the Tone controls in the Basic panel to correct the exposure, restore the highlight detail and generally improve the image. The first thing to do is to move the Highlights slider left, to reduce the brightness of the highlights and remove the clipping. Notice that the peak to the right of the histogram has moved to the left.



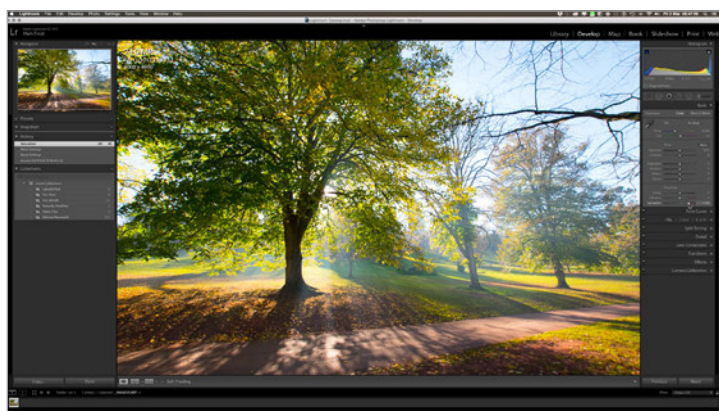
10 Finally, having restored the lost detail at both ends of the exposure curve, we can lighten the whole image by slightly increasing the exposure and then reducing the contrast slightly, which has the effect of evening out the distribution of light and dark areas. The result is a photo with a nice even histogram, indicating correct exposure.

Basic Colour Adjustments

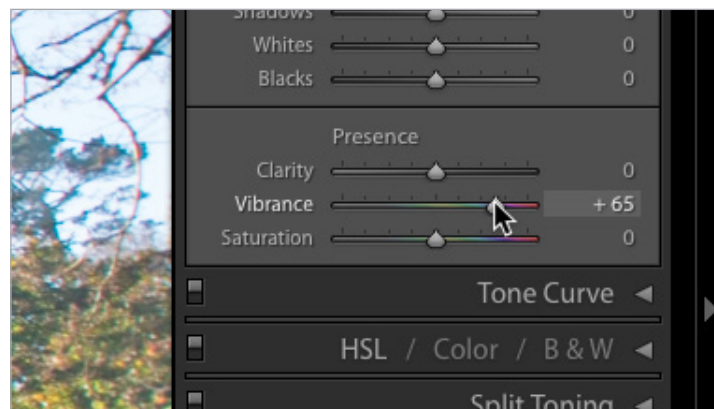
Using the Basic panel's Presence controls we can tweak and adjust the colour balance and saturation of digital photos, creating stunning scenes with life and colour; as with most image editing operations, the key to success is subtlety.



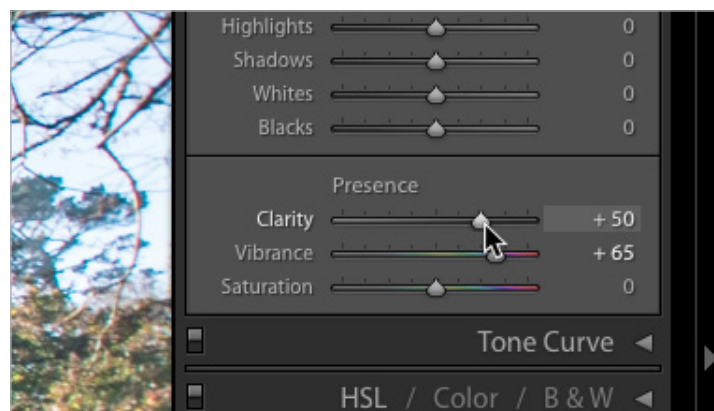
1 For our basic image, we'll use this woodland scene. It's a decent shot with good composition and a nice bright sunny glow to the light; but the colours look a little muted, it lacks punch and it doesn't really capture the full potential of what should be a striking scene. There are several things we can do to adjust the colours in this photo.



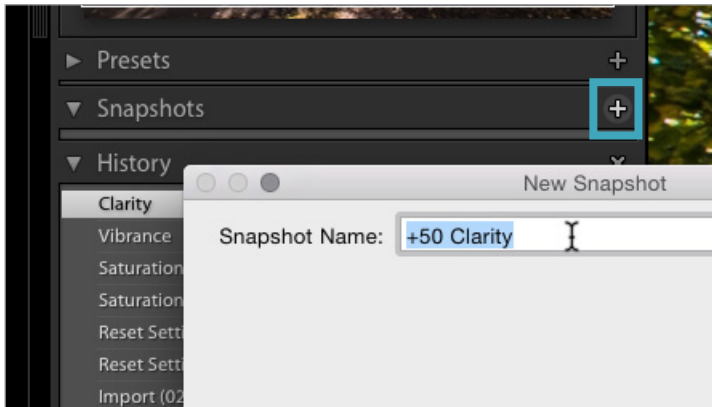
2 Simply boosting the saturation by +65 does make the colours pop but the Saturation slider is a very indiscriminate control when used on its own. The colours are certainly richer but it makes the already bright greens of the grass look too bright and unnatural. It also does nothing to help boost the contrast.



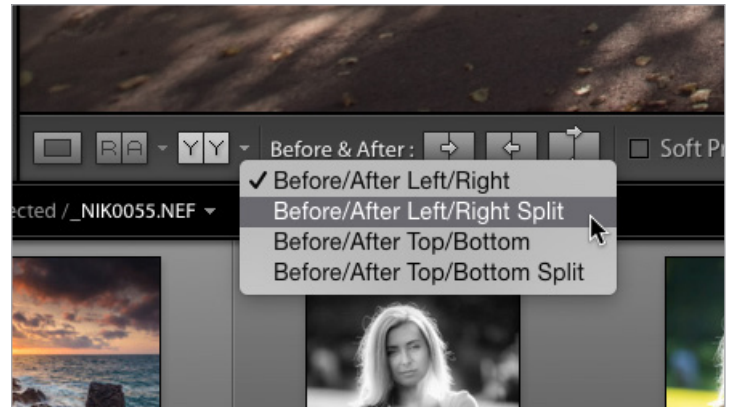
3 The Vibrance control is more subtle. Instead of boosting the saturation of every pixel, it boosts under-saturated colours more and colours already well saturated less. The result is a more colourful image but without the cartoonish over-saturation of the previous example. The grass looks more natural and the sky is more vivid.



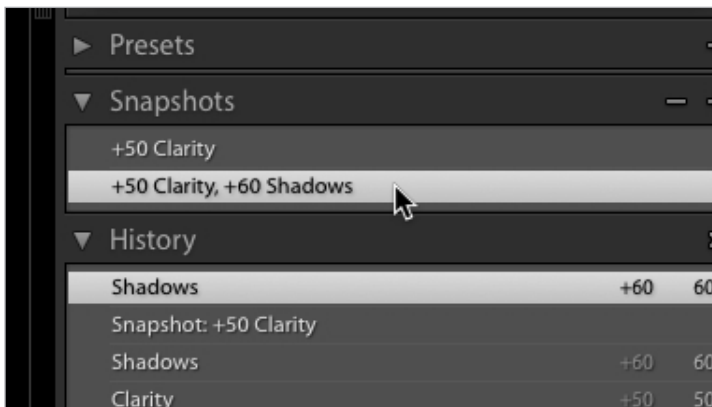
4 The Clarity control doesn't make much difference to the colour balance but what it does do is affect the contrast of the mid-tones by increasing some of the edge detail and adding a general sharpening effect. It really helps to emphasise the contrast and texture of the trees. Clearly what we need is some sort of combination of these three effects.



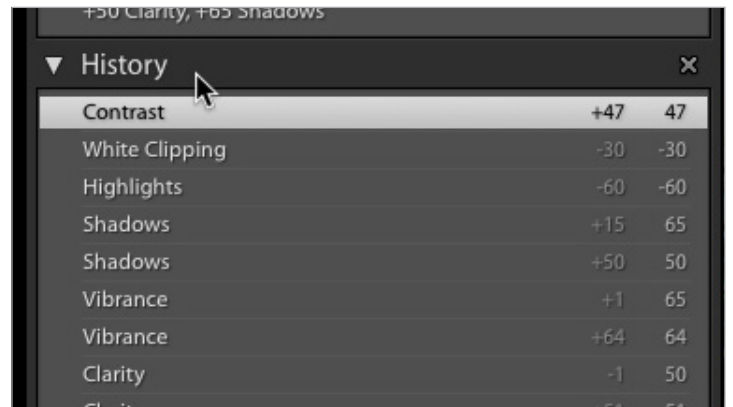
5 When making incremental adjustments like this we can make use of another Lightroom feature, the Snapshot. Make your first adjustment, in this case +50 Clarity to boost contrast, and then click on the Create Snapshot button on the left sidebar. Name the snapshot "+50 Clarity", and then click on Create. The snapshot is now saved.



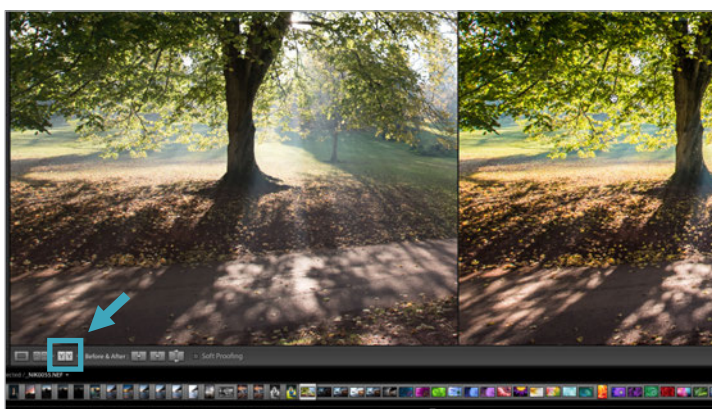
8 The right-hand button on the option bar provides another split-screen option; this displays the left half of the unaltered image on the left of the screen and right half of the edited version on the right of the screen. You can change positions using the pop-up menu that appears when you click the arrow next to the button.



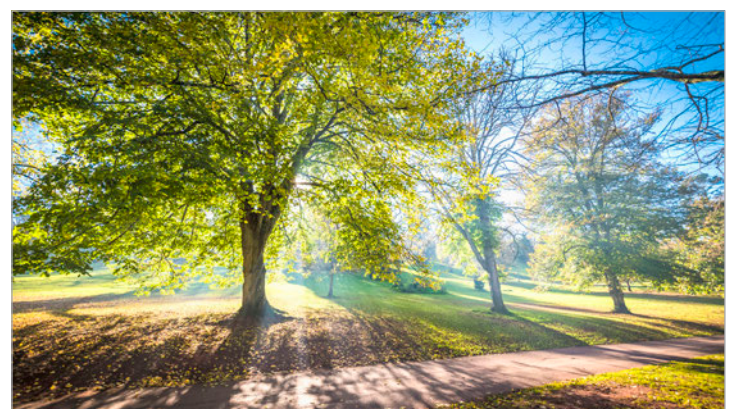
6 Make your next adjustment, then create and label a second snapshot of that state as well. You can do this as many times as you want with different adjustment combinations. You can instantly switch from one state to another by clicking on the snapshots in the left sidebar, letting you instantly compare different adjustment setups.



9 Making these careful incremental adjustments to an image can get confusing and it's easy to make mistakes. If you make an adjustment that you're not happy with, you can instantly undo it and go back to a previous step using the History panel in the left sidebar; just click on the step to which you'd like to return.



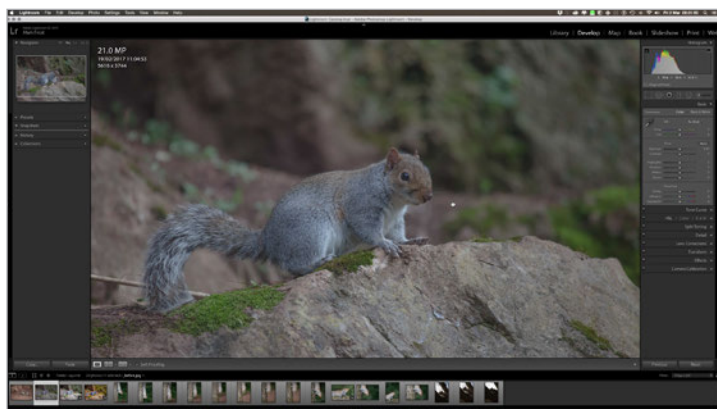
7 Another good way to see how your adjustments look when compared to the original unaltered shot is to use the Before & After split-screen view. In the lower left of the screen on the options bar you'll see several buttons. Click on the right one, labelled Y Y and both the edited and unedited images will appear side-by-side.



10 Adjusting colour in a landscape scene such as this is very subjective but it's what looks the best to you as the photographer that really matters. Here we've adjusted Clarity, Vibrance, Saturation, Highlights and Shadows and the result is definitely a significant improvement over the image we started with and has brighter colours and better contrast.

Improve Contrast with Tone Controls

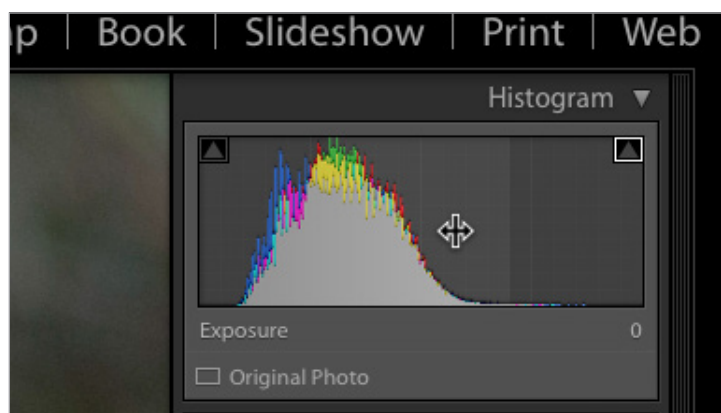
Lightroom's advanced Tone controls are far more sophisticated than the simple Brightness/Contrast controls found in other editing programs. Lightroom makes precise adjustments to specific ranges of brightness, so you can quickly turn mediocre shots into masterpieces.



1 Even with a good quality digital SLR it's possible to produce a shot with limited contrast. Reasons include incorrect metering, poor lighting or simply a low-contrast scene. In our example shot here it's a combination of all three. The shot is under-exposed, the lighting is flat and it's simply not a contrasted scene. Let's see how we can help.



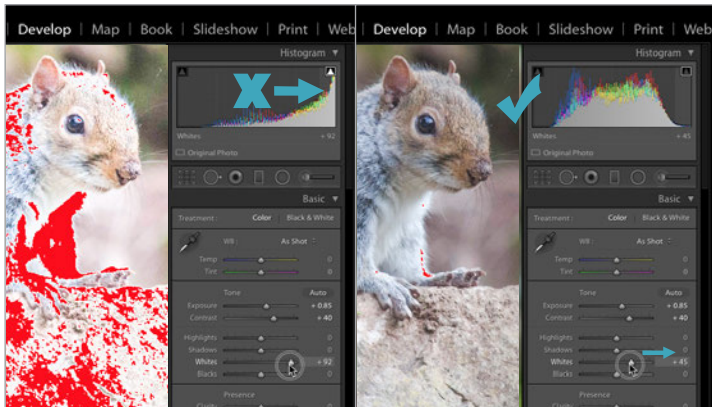
3 To increase the exposure, simply take the Exposure slider in the Basic panel and move it towards the right. Keep an eye on the histogram as you do this. What you want is to position the bunched-up curve roughly in the middle of the graph. In this case an increase of almost a whole stop (+0.85) will be sufficient.



2 One look at the histogram reveals the nature of the problem. The image lacks both highlights and shadows and the histogram curve is bunched up towards the darker end of the scale, indicating under exposure. The first step is to correct that under-exposure, so we need to open up the Basic tab on the right-hand sidebar.



4 Some improvement can be made by using the Contrast slider and moving it a little to the right; you can see that the histogram curve spreads out, as highlights are brightened and shadows darkened. Don't take it too far though, because you can do a better job fine-tuning with the other Tone controls. In this case an adjustment of +40 is plenty.



5 Next, move the Whites slider to the right, so that the curve moves to the right-hand edge of the graph, but not too far. At this point it's a good idea to click on the Highlight Clipping warning in the upper right corner of the histogram window, so that you can see any clipped highlights in red. A value of +45 is just right.



8 So far, you've improved contrast by improving the shadows and highlights but the mid-tones are left looking a little flat. Improve these by using the Clarity control, which enhances mid-tone contrast. With the adjustments that you've already made there's no need to move it far to produce the desired result. +50 is enough to add punch.



6 In order to improve the shadow definition, move the Blacks slider to the right. As before, turn on the Shadow Clipping warning but don't worry too much about a few clipped pixels in the deeper shadows. Move the left-hand end of the histogram curve to the left until it approaches the left border of the graph. -50 is fine for this example.



9 With a change to the white balance, a small adjustment in Vibrance to add a bit of brightness to the colours, plus a bit of minor cropping to tighten up the composition, the end result is a much better photo. Comparing the before and after views side-by-side using the view buttons shows up just how much better the adjusted photo looks.



7 You can further fine-tune the shadow definition by moving the Shadows slider to the left a little, which also has the effect of darkening the foliage in the background. Keep an eye on the histogram clipping as you're moving the slider; if necessary move the Blacks slider back to the right a little. Try to balance the adjustment between these controls.



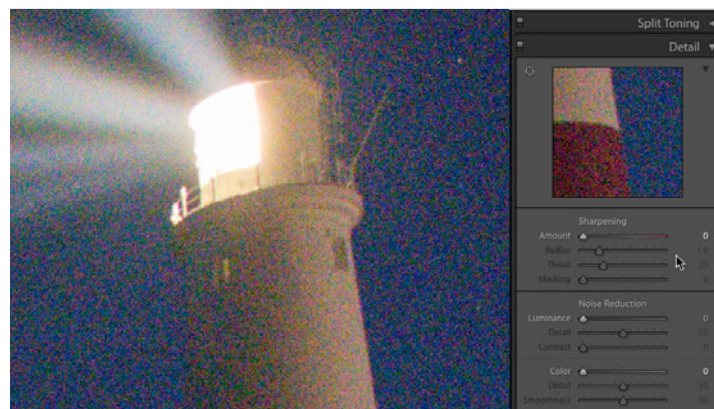
10 If you want to turn the image monochrome, you can use a similar process in the Black & White option of the Basic panel. The major difference is that the exposure hasn't been increased by as much and obviously Vibrance isn't used; otherwise the adjustments are very similar. We'll look more closely at Black & White elsewhere.

Reducing High ISO Noise

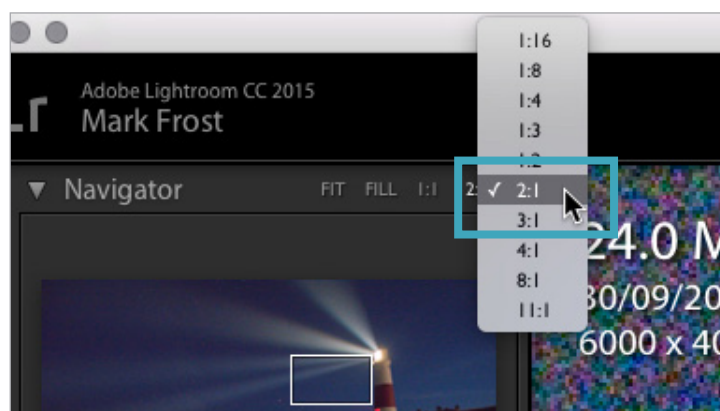
Image noise occurs when the signal from the photocells in the camera's sensor is amplified to boost the image in low light, in other words when you increase the ISO setting. It shows up in your photos as a speckled grain of random colour and brightness.



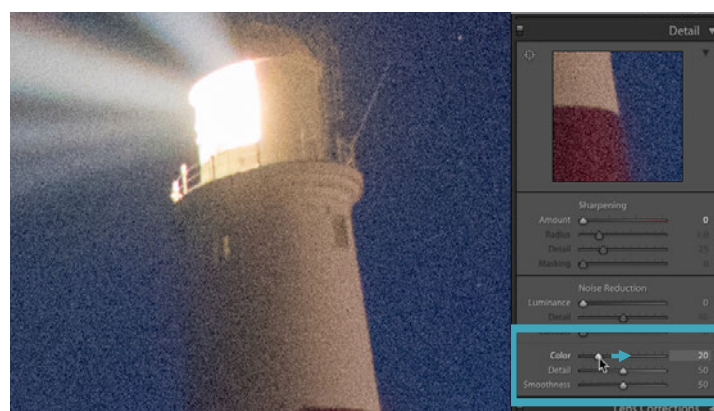
1 All digital cameras suffer from noise but some control it better than others. Modern top-end digital SLRs can comfortably shoot at 6400 ISO without too much trouble but older or cheaper cameras can suffer image ruining noise problems as low as 1600 ISO. This example was shot on a five year old Panasonic compact at 3200 ISO and is very noisy.



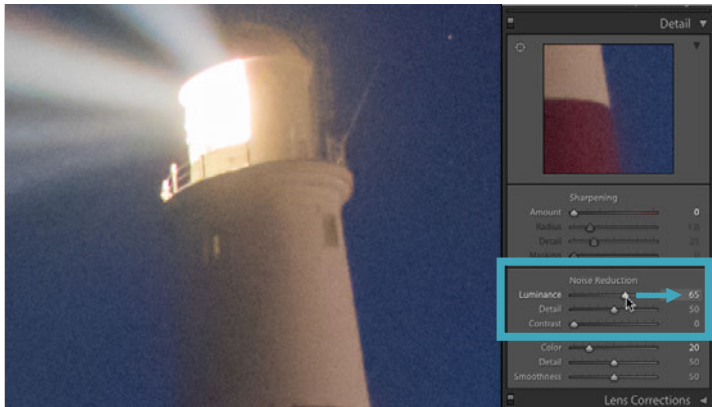
3 In the right-hand sidebar, open the Detail panel. This is where you'll find the controls to adjust Sharpening and Noise Reduction. You might find that images from your camera have some sharpening and noise reduction already applied by default but for this example set all the sliders are set to zero for a worst-case scenario.



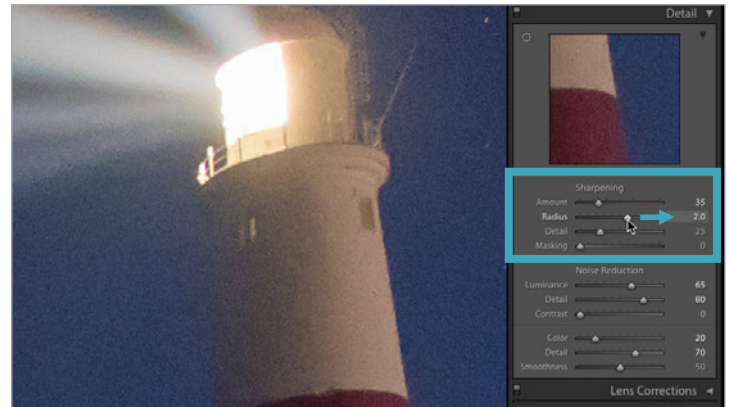
2 Working on reducing noise requires a close-up view of the image, to be able to judge fine detail, so we need to zoom in. At the top of the left sidebar, on the right-hand end of the title bar of the Navigator panel, you'll see a button for a drop-down menu. Click on it and select 2:1 or even 3:1 for a zoomed-in view.



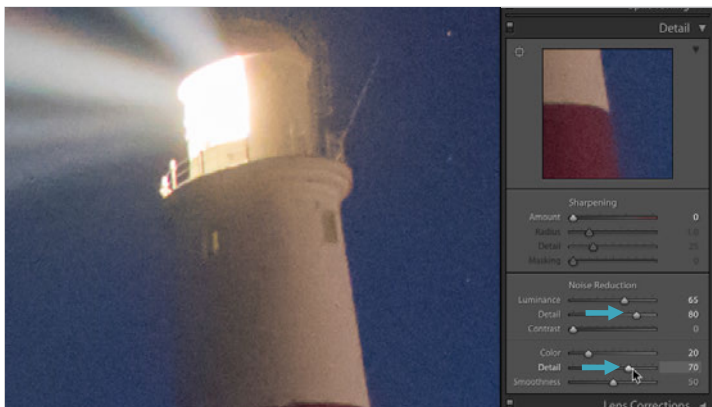
4 The most obvious problem with our example image is colour noise; it's the speckling of random coloured dots all over the image. Fortunately, this is very easy to correct. Simply move the Color slider slowly to the right until the colour noise disappears. Even for an image this noisy, just +20 will do the trick.



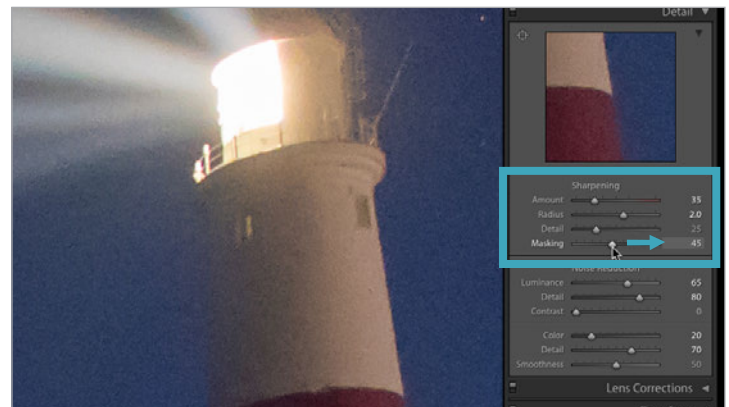
5 Removing the colour noise just means that the luminance noise is more obvious; it's the salt-and-pepper dusting of light and dark pixels that look like grain on the image. To effectively remove this, move the Luminance slider to the right. You'll notice that this also evens out fine detail, so try to balance this against the noise reduction.



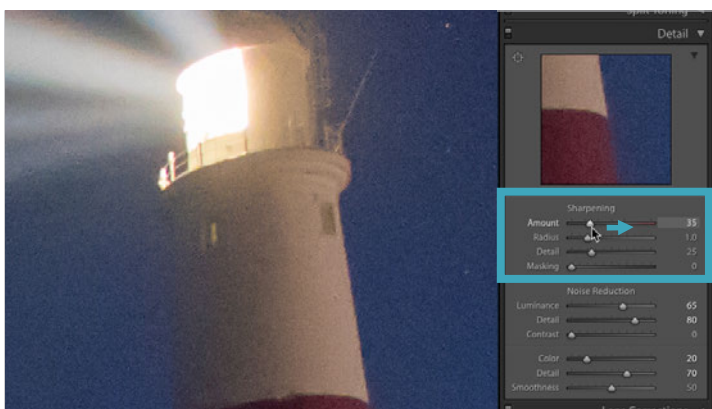
8 You may notice some slightly jagged edges appearing as you increase the Sharpening Amount, especially between areas of contrasting colour or brightness. You can reduce this effect slightly by increasing the Radius slider from its default 1.0 up to 1.5 but don't take it higher or you risk introducing edge artefacts.



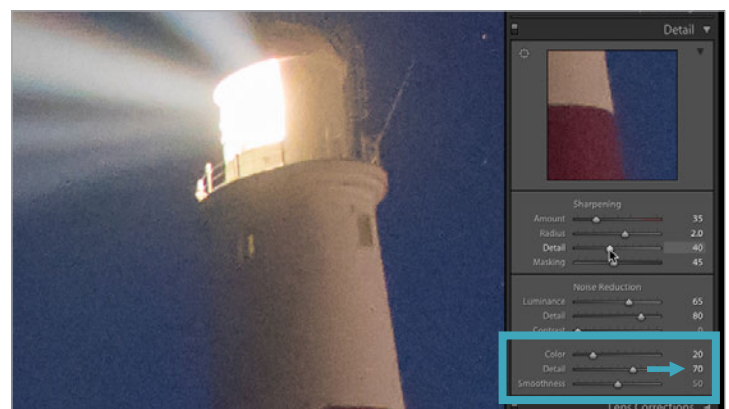
6 Reducing luminance noise always involves reducing fine detail, that's just the way it works but now we can try to pull some of that detail back. Carefully move the Detail sliders on both the Luminance and Color noise sections towards the right, keeping a close eye on the zoomed-in image. These apply a sharpening effect that can improve edge detail.



9 Sharpening an image is a balancing act between improving detail definition and introducing spurious artefacts around those details and any remaining noise. You can improve things further by applying Masking. This is similar to Photoshop's very effective Unsharp Mask feature and reduces sharpening in areas with little detail.



7 You can recover yet more detail by applying sharpening to the noise-reduced image. In the Sharpening section, move the amount slider a little to the right. You'll see that the other sliders are now no longer greyed out. Carefully adjust the Amount to about 35 and you should see a significant improvement in detail sharpness.



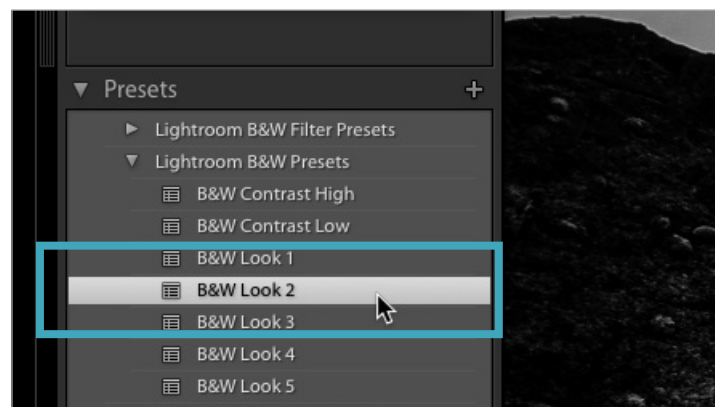
10 Finally there is the Detail slider. This controls how fine the sharpening of detail will go. For images like this, with not much fine detail, it can be left safely at its default setting. For images with more detail it should be increased. If you compare the before and after images in split-screen you can instantly see the effect you've achieved.

Improve Your Monochromes

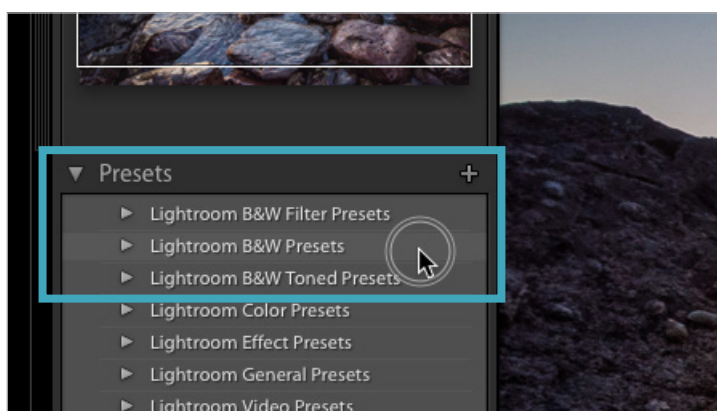
Black and white photography remains as popular today as it ever was and as you'd expect Lightroom supports monochrome photography with a wide range of dedicated features. Lightroom especially supports conversion from colour to monochrome, with great effect.



1 Successful monochrome photography is all about lighting, contrast and texture, so the best monochrome conversions will be images that emphasise these qualities. Artistic portrait studies, modern urban architecture and rugged rural landscapes are all good candidates. For our example, we'll be using this shot of a coastal sunrise.



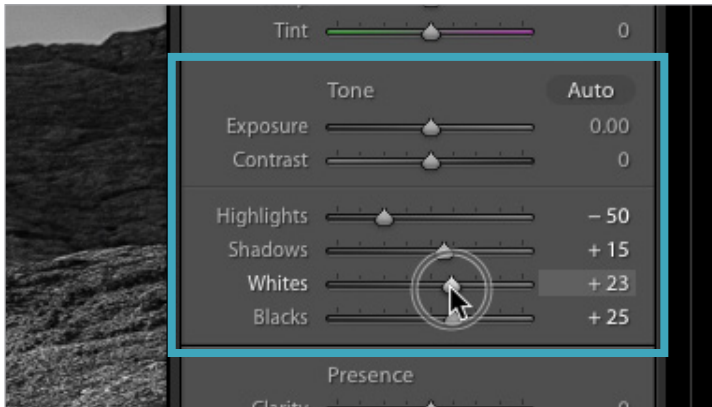
3 Open the Presets tab and then click on Lightroom B&W Presets to see the list of available built-in options. They include high and low contrast settings, as well as five special presets that add effects such as vignetting, film grain and effects with coloured filters. You can try these out and then undo their effects by using the History tab.



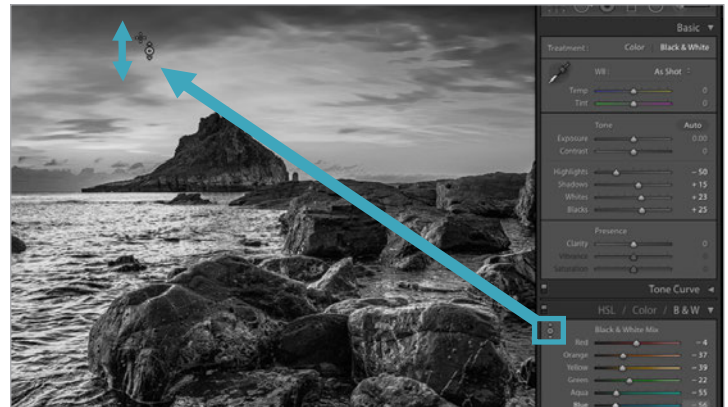
2 For quick results, Lightroom comes with a number of built-in presets for converting colour photos to monochrome. You can find them in the left-hand sidebar, not too surprisingly in the Presets tab. There are presets for B&W Filters, B&W Toned processing and also for simple B&W conversion. Let's take a closer look at these first.



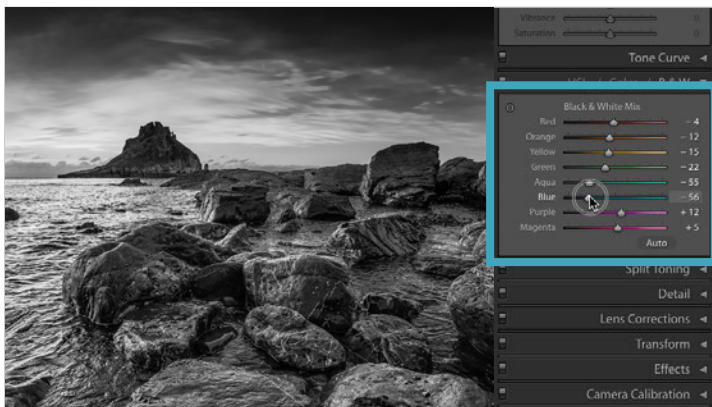
4 If you look at the Basic and HSL/Color/B&W tabs in the right-hand sidebar, after clicking on one of the B&W conversion presets, you can see that both instantly switch to Black & White mode and several of the sliders will move to new positions. If you click through one preset after another you'll see the sliders move each time.



5 The best use for the presets is as a starting point for your own adjustments. For this image we'll start with the B&W Contrast High preset but then increase the lightness of the over-dark shadow areas by moving the Black, White and Shadows sliders slightly to the right. Pay attention to the histogram while making your adjustments.



8 In the upper left corner of the HSL/Color/B&W panel you'll see a small circular icon. This is an immensely useful tool for adjusting monochrome filtering. It lets you directly adjust the tonal balance by clicking and dragging on areas of the image. Click on it, move it over to the sky and move it up and down to see the effect.



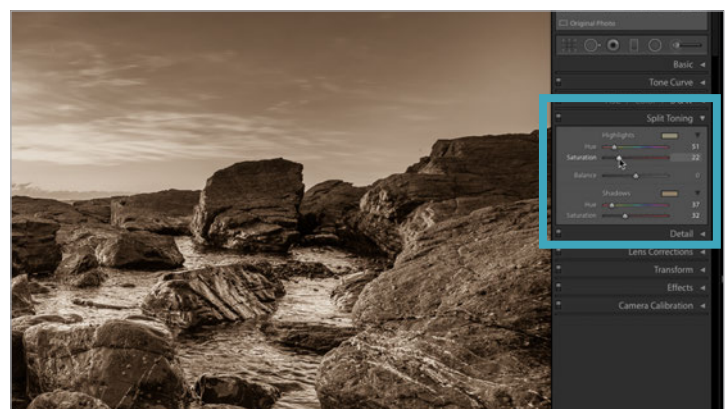
6 Photographers shooting in monochrome use coloured filters over the lens to alter the relative brightness of tones in the final image. For instance, an orange filter will darken a blue sky. We can produce the same effect by using the sliders in the B&W section of the HSL/Color/B&W tab or by using the presets in the B&W Filter Presets tab.



9 Also in the Presets panel you'll find B&W Toned Presets. These replicate the effects of different traditional processing and toning methods used in darkroom photography. They work by adding subtle colours to the highlights and shadows in different ratios and can produce some beautiful effects. Sepia toning is the best known.



7 Before adjusting the colour filters, turn on the before-and-after split-screen view so that you can see which colours are where. For our example shot, reducing the level of blue by moving the slider left makes the sky look darker and more dramatic, while decreasing purple and magenta darkens the foreground rocks, making for a more balanced shot.



10 You can see the effect of the Tone presets if you open the Split Toning panel in the right-hand sidebar. You'll see that the sliders have moved from their defaults. For example, sepia toning applies a light yellow-brown colour to the image, with different saturations for the highlights and shadows. We'll take a closer look at Split Toning elsewhere.

Using Graduated and Radial Filters

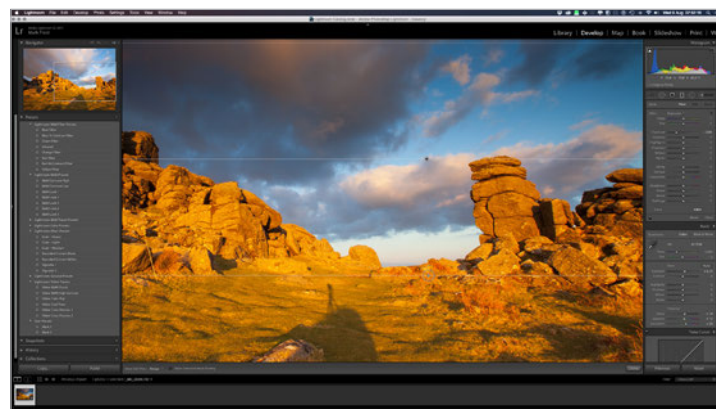
Traditional graduated filters are tinted slides, darker at one end than the other, that photographers place in front of a lens to selectively darken or add emphasis to an image. Lightroom's graduated filters do the same thing but are more powerful.



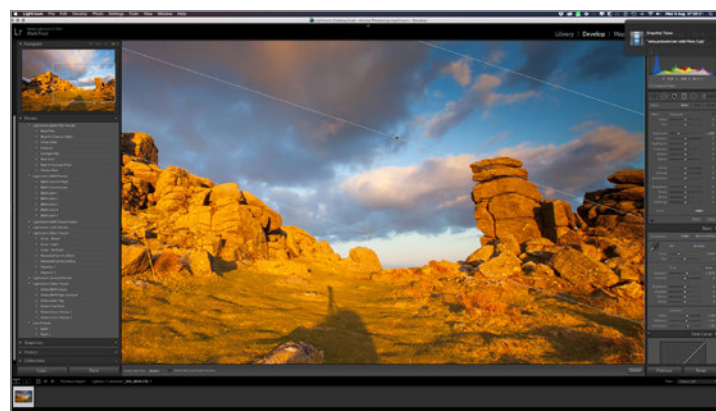
1 You can find graduated and radial filters in the editing tools bar, just below the histogram on the right-hand sidebar. Graduated filters are under the vertical rectangular icon, while the radial filters are under the circular icon to the right. Click on the graduated filter icon and you'll see an array of sliders for controlling the filter's effects.



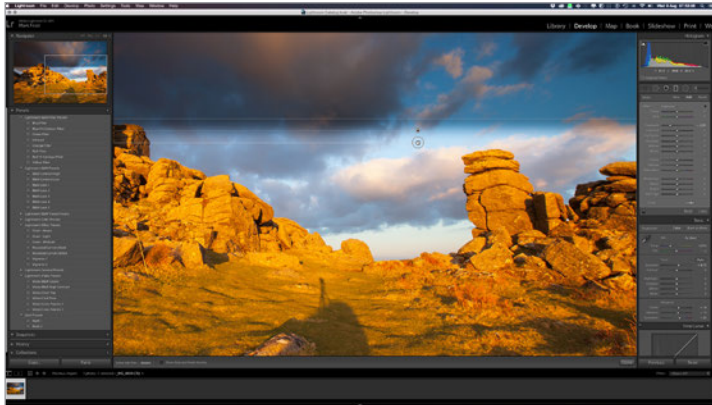
2 As you can see, Lightroom's graduated filter tool can apply a wide range of effects, far more than the simple darkening or tinting of a camera mounted filter. Start with something simple though and try to darken the sky of our example image. Locate the Exposure slider and drag it to the left until the value is -2.00.



3 Click your mouse at the top of the image and drag downwards to about halfway down the frame, and you should see three horizontal lines appear with the filter effect applied between them. If you hold down the Shift button while dragging, the dragging direction will be constrained to vertical (or horizontal if you drag in from one side).



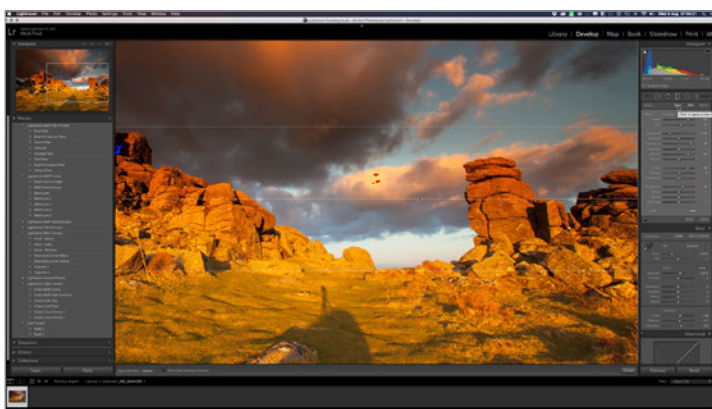
4 You can alter the positions of the filter border lines once they're in place. You can drag the top and bottom lines up and down, drag the button on the middle line to reposition all three or rotate the alignment of the filter by clicking and dragging anywhere else on the middle line. You can use these controls to customise the area affected by the filter.



5 The graduated part of the filter effect is applied between the top and bottom lines. Above the top line the filter is in full effect, while below the bottom line there is no effect. By altering the positions of the top and bottom lines you can customise where the graduated fade is applied, even making the dividing line as narrow as you like.



6 You can add multiple filter effects to the same graduated filter. In this example, we've reduced exposure, adjusted the white balance, boosted the highlights and increased the saturation all at once, with the effect of making the slightly dull sky more vibrant and dramatic. You can apply as many sliders as you want.



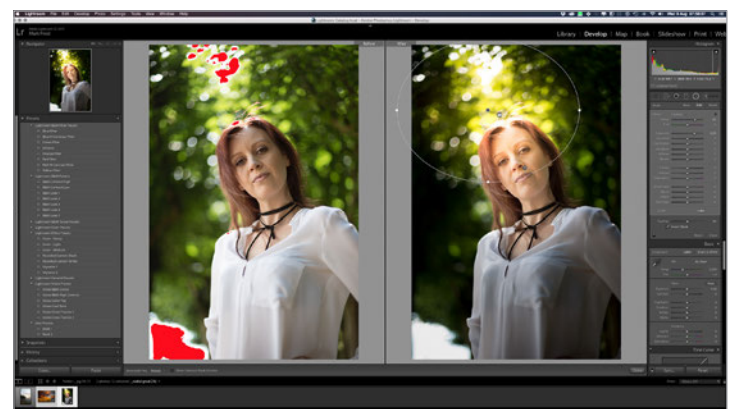
7 You can apply more than one graduated filter to the same image. To add a new filter, click on the New button at the top of the filter panel and drag a new filter onto the image, then set the sliders for that one. You can go back and edit the shape or effects of your original filter by clicking on its button on the image.



8 Radial filters work in much the same way as graduated filters, but instead of going from top to bottom or side-to-side, they are applied around a central point in an elliptical shape. To apply one, click on the radial Filter button, then click and drag outward from where you want the centre of the effect to be. An elliptical shape will follow your mouse.



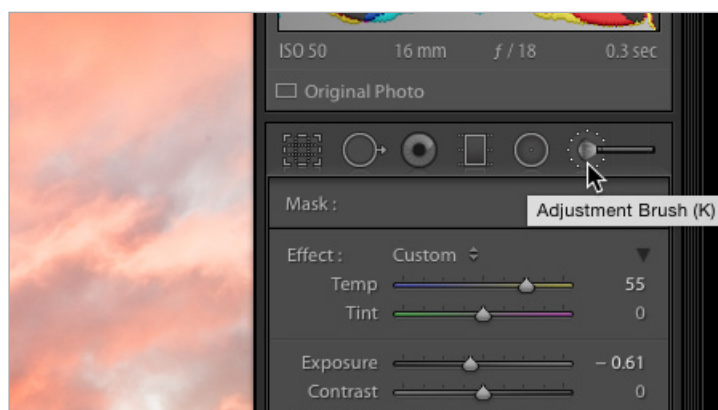
9 You can alter the size or shape (although it remains an ellipse) by clicking and dragging any of the four handles that you can see on the edges of the ellipse, or reposition the entire ellipse by clicking and dragging the centre point. This way you can make sure that the effect is centralised where you want it.



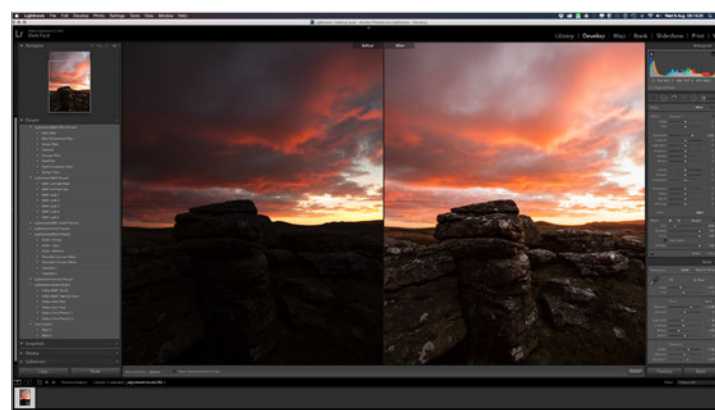
10 As with the graduated filter you can stack multiple slider effects onto the same radial filter, such as white balance changes, exposure adjustments, contrast and saturation enhancements. You can of course also combine more than one radial filter on the same image or combine radial and graduated filters together if you want to.

Editing with the Adjustment Brush

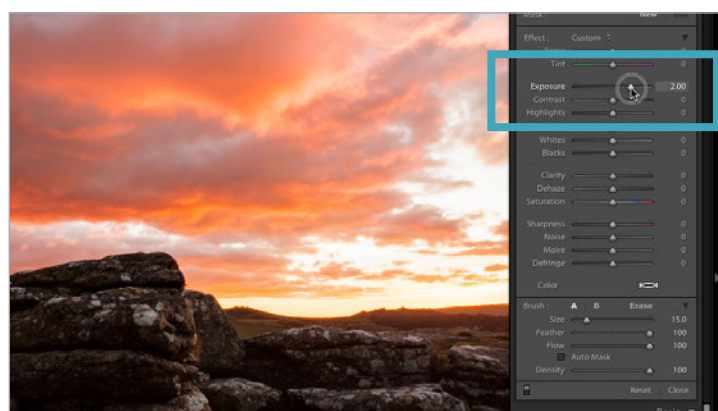
While Lightroom doesn't offer the comprehensive multi-layered image manipulation of Photoshop, it does provide the means for very detailed adjustment of specific areas of your images. The tool we use to achieve this is the powerful and versatile Adjustment Brush.



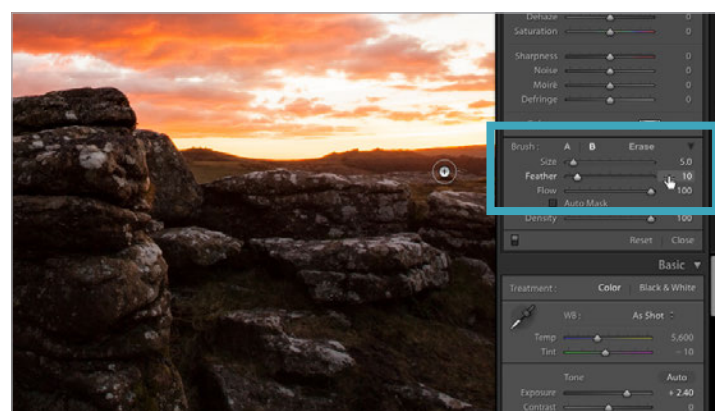
1 Our example photo here is a potential rural landscape but the foreground rocks are very badly under-exposed. Using the Adjustment Brush we can selectively increase the exposure in just this area, leaving the rest of the image unchanged. To get started, click on the Adjustment Brush icon on the right of the editing tools bar.



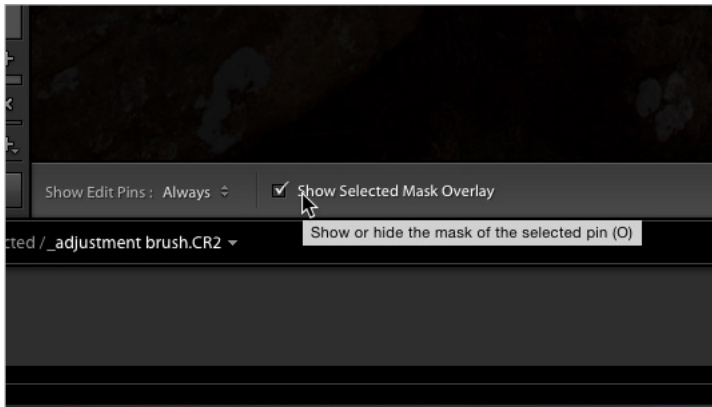
3 Next, we need to set up the brushes. At the bottom of the Adjustment Brush panel you can see the brush options. We can have two painting brushes set up, labelled A and B, and there is also an Erase brush. Click on the A button and then set the Size to 15 and the Feather to 100. This gives a medium-sized soft-edged brush for broad work.



2 First, you need to set up the adjustment that you want to make. In this case it's very simple, you just want to boost the exposure to selectively lighten one area of the image. This shot was taken on a Canon EOS 5D Mk III, so the raw file should easily allow three stops of exposure latitude, but you only need to boost it by two stops.



4 For fine detailed painting, you need a smaller, harder-edged brush. Click on the B button and set the Size slider to 5 and the Feather slider to 10. You can also adjust the size and hardness on the fly by using shortcuts. Brush size is changed by the [and] keys, whilst brush feathering is changed by { and }, the same keys but with Shift.



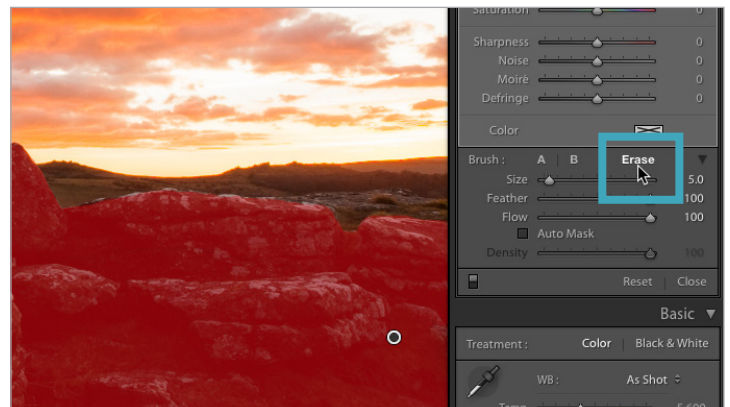
5 On the options bar at the bottom of the screen you can see a check-box labelled Show Selected Mask Overlay. This toggles the red Mask tint on or off. The Mask tint can be useful when making subtle adjustments, since it clearly and unambiguously shows where the effect is present on the image. If you feel this would help click the box.



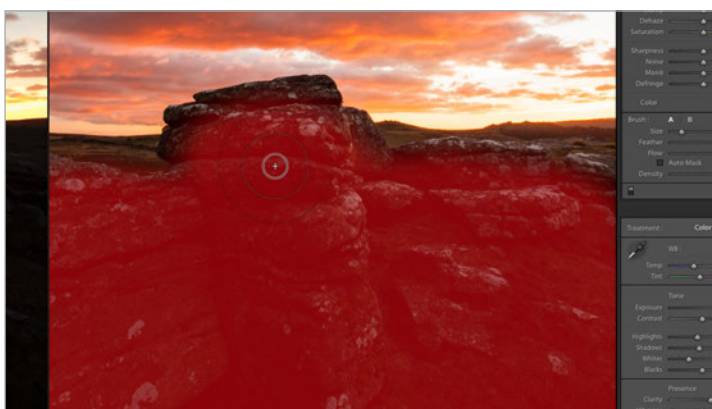
8 Next, we need to fill in the fine details and hard edges along the skyline. Switch to brush B, which we set up earlier to be smaller and with a harder edge. With this brush you can carefully paint over the hard edges of the under-exposed area. It's a bit tedious and requires a steady hand but your perseverance will be rewarded.



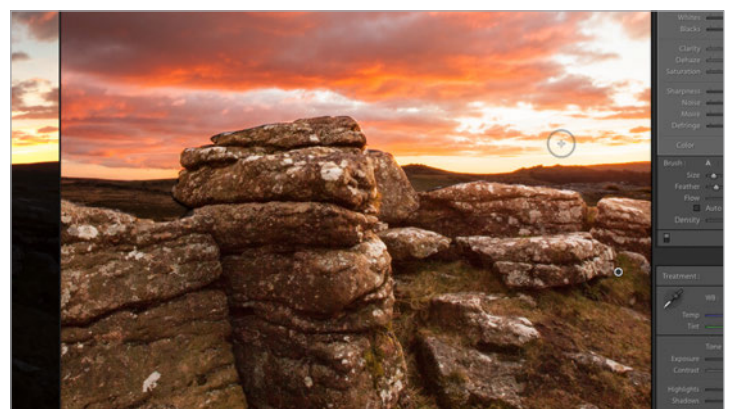
6 Now you're ready to start painting on the image with the Adjustment Brush. Select brush A, and begin painting in broad strokes over the area that you want to adjust. If you checked the box in the previous step, you see immediately that you're painting with the red Mask tint. Uncheck the box to see the progress of the effect.



9 If you make a mistake while painting, you can immediately undo your last stroke by using the History panel to go back a step, or you can rub out the mistake with the Erase brush. In the brush options panel click on Erase and set it to a small size with minimal feather. You can now use this brush to "un-paint" the offending areas.



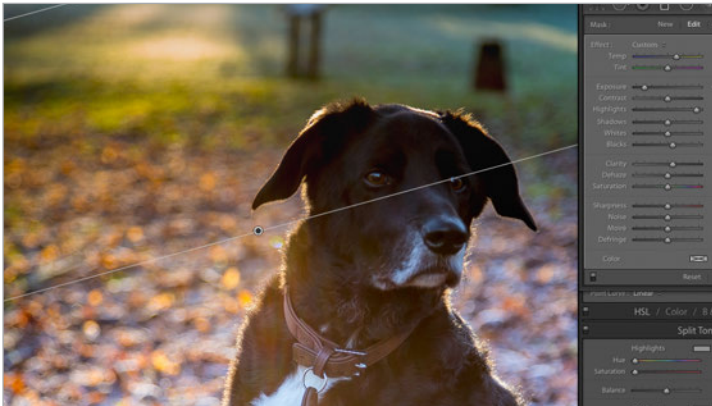
7 Keep painting until you've covered almost the entire foreground rocks. Don't worry if you go a bit too far in some places, you can tidy up the rough edges in a moment. Don't worry about the rocks on the distant horizon as it looks better darker anyway.



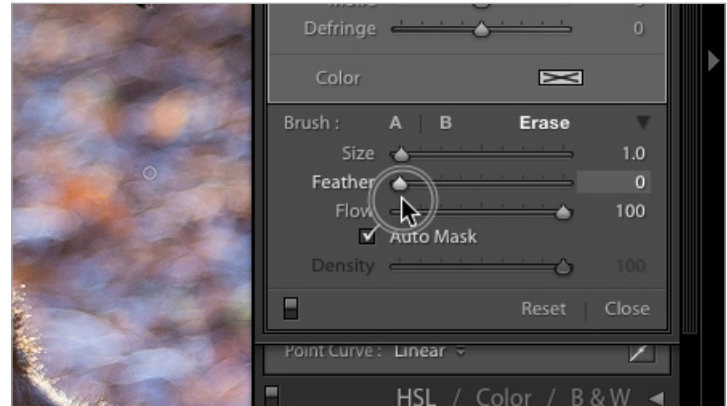
10 Once you're satisfied that you've applied the Adjustment Brush to every area that needs it, un-check the Show Selected Mask Overlay box to see the finished result. You can edit the brush mask at any time, including altering the slider settings, by clicking on the Edit Pin, or add more brushes to adjust other areas.

Editing Graduated Filters Using Masks

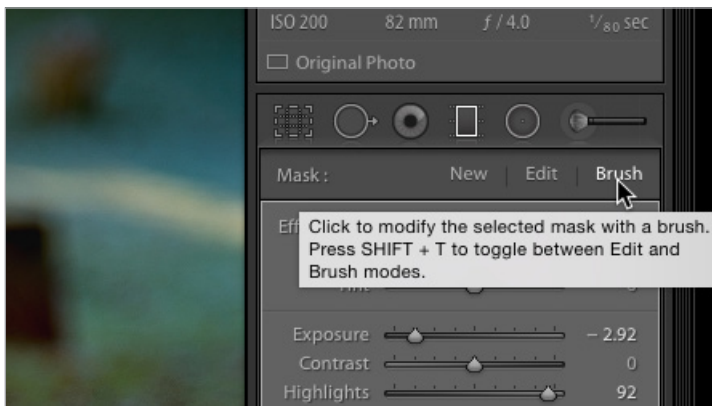
Following on from graduated filters, you can edit the filter for specific areas of an image selectively by using masks. This will be familiar territory to anyone who's proficient with Adobe Photoshop, because Lightroom works in a similar way.



1 If you followed the tutorial from a couple of pages ago, you know how to add a graduated filter over it. However, in some cases the graduated filter can darken the background nicely but it can also darken foreground objects, reducing detail and texture visible. You can erase part of the filter to correct this.



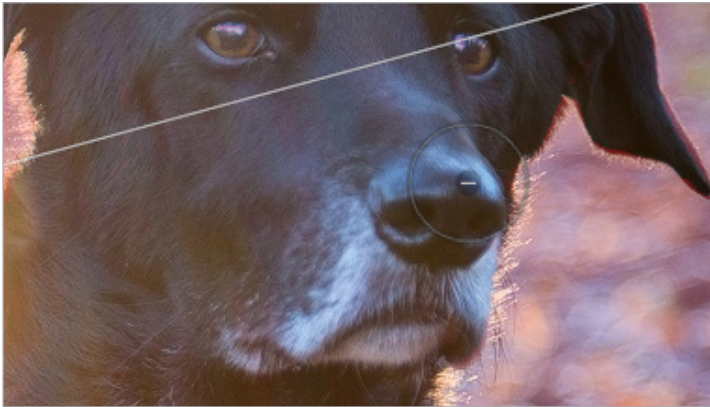
3 Towards the bottom of the panel you can see some Brush options, including Erase. Click on this, and if it isn't already open, click on the drop-down arrow next to the options, to open the panel for some more brush options, including Size, Feather and Flow. Set the Feather slider to zero to give a hard-edged brush, for more precise work.



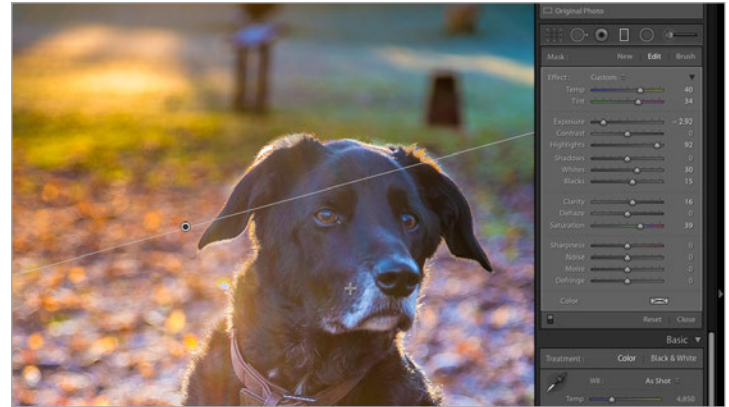
2 Using the graduated filter tutorial mentioned above, follow steps 1-5 and add a new graduated filter to your image. Once you've done so, you can see that in the Graduated Filter panel, on the top bar next to New and Edit, there is a third option, Brush you can use. Click on this to begin editing the filter mask.



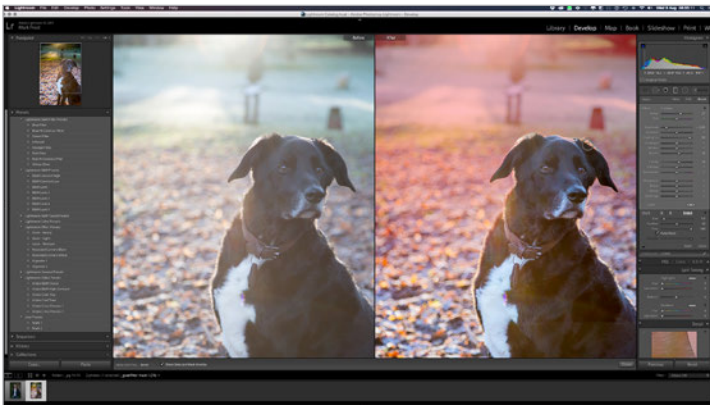
4 The O key toggles mask visibility, allowing you to see the area and extent of the graduated filter mask shown as a red tint. If you've ever used the Quick Mask feature in Adobe Photoshop this will look familiar, and it operates in the same way. It lets you instantly see which areas of the image are affected by the filter, and where the edges are.



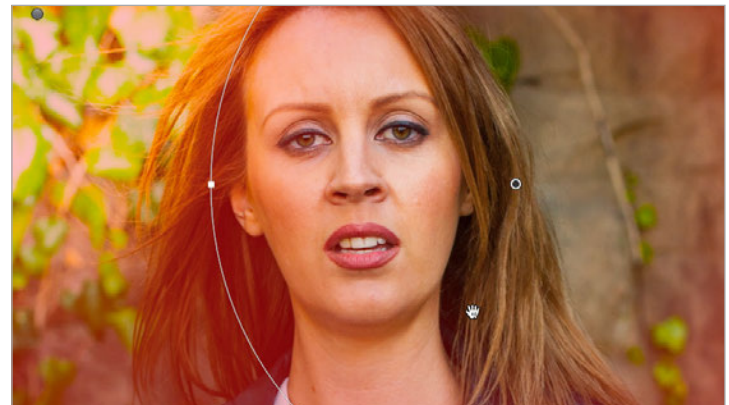
5 Using the eraser brush, paint over the areas that you want to be excluded from the filter effect. Paint using short strokes when near the edges, so that you can use the History panel to undo a stroke if you go over the edges. You can adjust the size of the brush with the panel slider, or with the [and] (square brackets) keys.



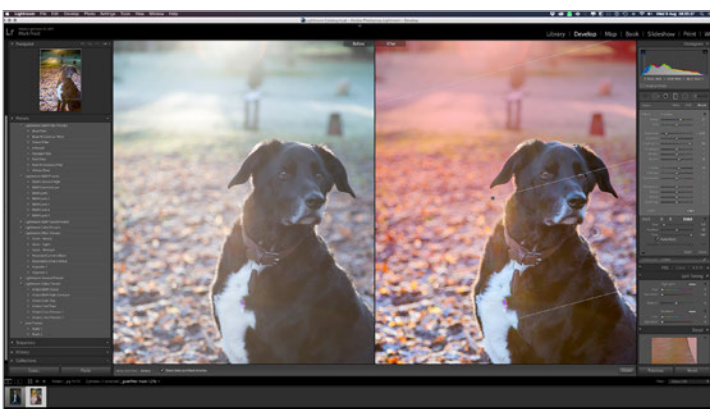
8 Once you've finished erasing the filter mask from the areas that you want to remain unaffected, you can make further changes to the sliders that control the filter effect, such as increasing the contrast or further reducing the exposure. The erased areas remain unaffected, since they are masked from the filter.



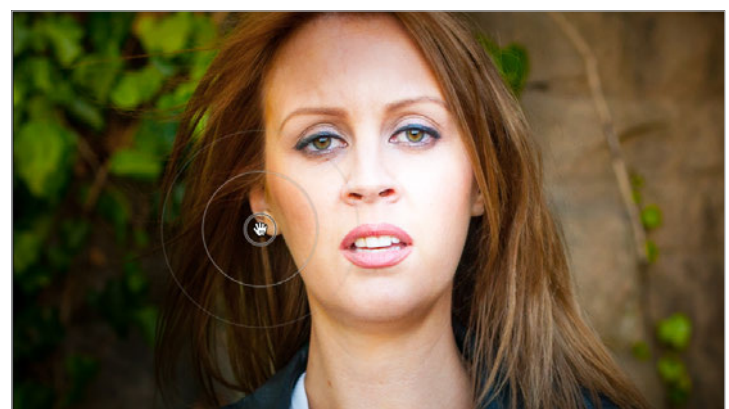
6 Towards the bottom of the background leaves, where you want the mask to fade back into the graduated filter effect, you can increase the feathering of the brush back up to 100, to give it a nice soft edge ideal for blending. Use this in conjunction with the O key to fade the erased area in with the masked area.



9 You can also use the erase tool to edit the effects of a radial filter. In this example, you can ensure that the model's face is unaffected by the vignette of the filter by using a large, soft-edged brush to erase the filter effect. As before, the O key toggles the visibility of the mask tint, letting you see more clearly where to paint.



7 By using this technique of the erase brush combined with the Quick Mask visibility tint, you can erase the filter effect from any areas that you don't want to be affected by it. You can use a softer-edged brush for edges that are less distinct, such as the fur around the dog's chest and back, and a harder brush for sharper edges.

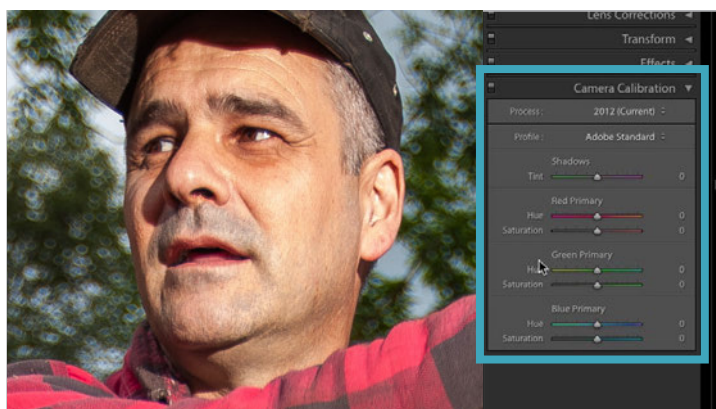


10 To ensure there is a smooth transition with no obvious edges, move the eraser brush in small circles, blending the soft edge into the gradient of the vignette filter. If you do it correctly it should look completely natural and ensure that the model's face is correctly exposed, and remains the centre of the viewer's attention.

Colour and Tone

Camera Presets

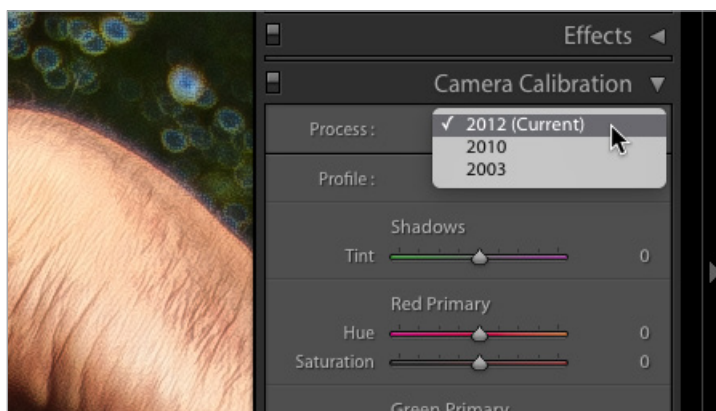
If you shoot in Raw mode, many cameras will include optional in-camera processing that adds preset colour and tone effects to images, such as a landscape preset that boosts greens, or a portrait preset that warms skin tones. Lightroom can offer you these presets too.



1 The camera presets that are available for any given photo will depend on the type of camera and the Raw file format in which it was captured. Proprietary Raw formats such as CR2 (Canon), NEF (Nikon) or ARW (Sony) offer the greatest range. You can find the camera presets in the Camera Calibration panel, at the bottom of the right-hand sidebar.



3 The next line down on the panel is the Profile menu. This is where you find the actual camera preset tone adjustments. These vary depending on the camera and Raw file format used to capture the photo. Our example for this tutorial was shot on a Canon EOS 5D, so your list may vary if you have a different camera.



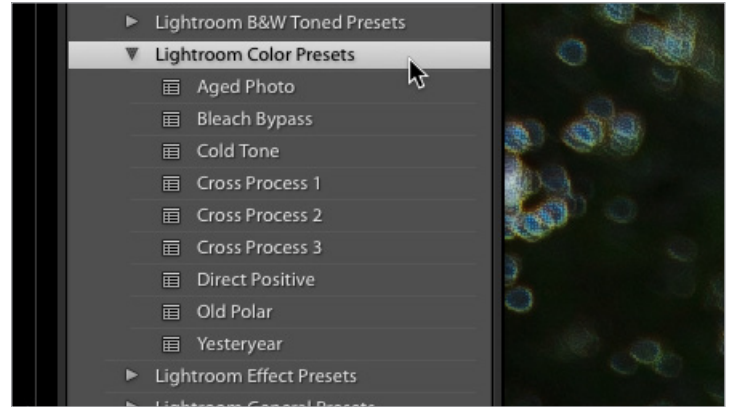
2 At the top of the panel you can see a bar labelled Process. It should be set to 2012 (Current). Click on the drop-down menu and you can see that the other options are 2010 and 2003. These are the Adobe Camera Raw process versions that Lightroom uses to render your photos. The 2012 version offers the best tone control options.



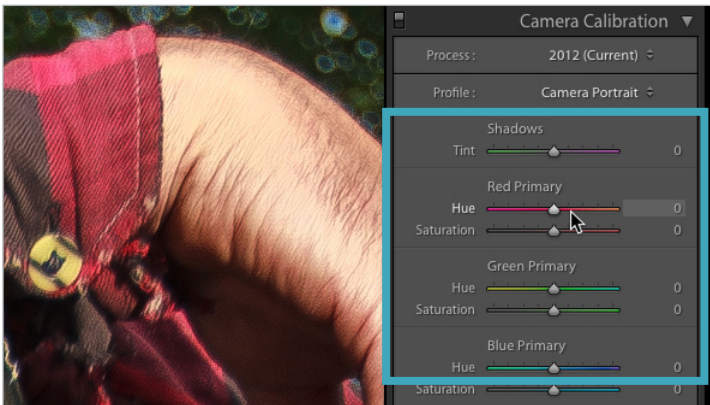
4 Selecting a different preset will change the tonal balance of the image. What it is doing is biasing the gamut of available colours to favour one particular set of tones. For example, if we select the Camera Landscape preset, you can see that the image now has a more yellow-green bias, to emphasise foliage and natural colours.



5 Alternatively, if we select the Camera Portrait preset, the colour gamut is biased to produce warmer skin tones, as you might expect. You can try out these presets on your own photos to see what sort of results they produce. If you're wondering, the ACR 3.3 and 4.4 presets mimic earlier versions of Adobe Camera Raw processing.



8 Besides the camera presets in the Camera Calibration panel, Lightroom includes some development presets that mimic the output of old film cameras or chemical processing techniques. You can find these in the left-hand sidebar in the Presets panel, under Lightroom Color Presets and Lightroom Effect Presets.



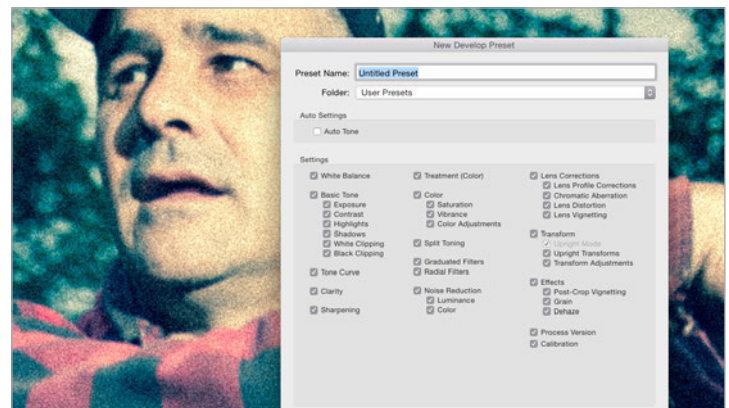
6 As well as the camera presets available from the drop-down menu, there are several sliders that you can use to manually alter the colour balance of the image. The top slider alters the overall tint of the shadow tones, whilst the other three pairs alter the hue and saturation of the red, green and blue primary channels.



9 Unlike the camera calibration presets, the development presets can be stacked, so you can experiment with different combinations of colours, processes and effects. One of our favourites is the combination of Cross Process 3 and Grain - Heavy, which produces an effect similar to an old, faded colour print, but you can find your own.



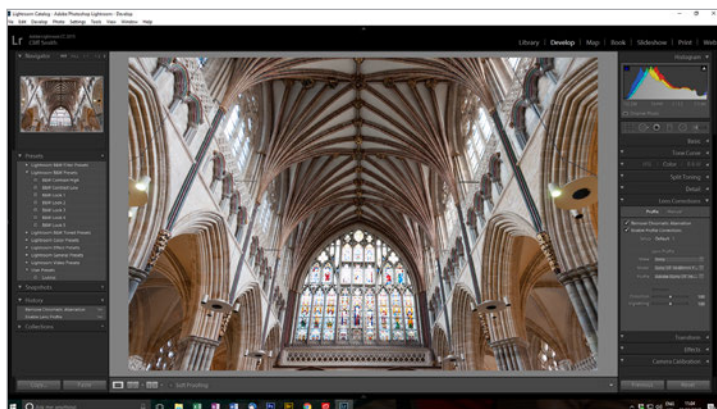
7 The sliders in the Camera Calibration panel are intended to be used to correct any colour bias that might be caused by older camera sensors or processors; but even with a modern high-quality camera you can use them to produce some interesting effects. Try experimenting with reduced saturation for some nice tonal effects.



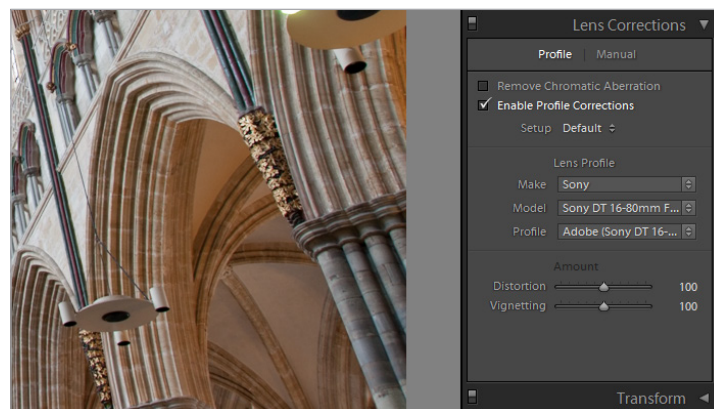
10 As well as using the default colour and processing presets, you can create your own presets. If you're trying to get a consistent appearance across a gallery of images, say for a corporate client, you can save and reuse your development settings by adding them as a user preset. We'll look at this more closely later on.

Correcting Lens Distortions

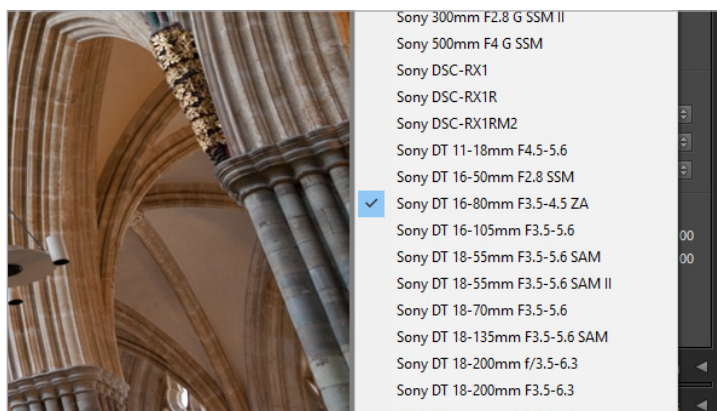
Even the best camera lenses can introduce some distortion or aberration into an image; this is especially true for zoom and wide-angle lenses. Lightroom offers several ways to correct these problems, including an automatic system for correcting popular lenses.



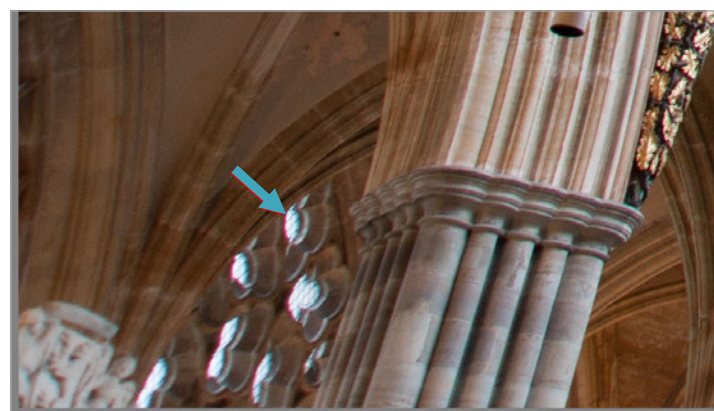
1 There are three main types of optical defects that Adobe Lightroom can help to correct. These are: optical distortion, either barrel or pincushion; vignetting, a darkening around the edges of the frame; and chromatic aberration. Not all lenses produce all three of these effects but very wide angle and zoom lenses are especially prone to them.



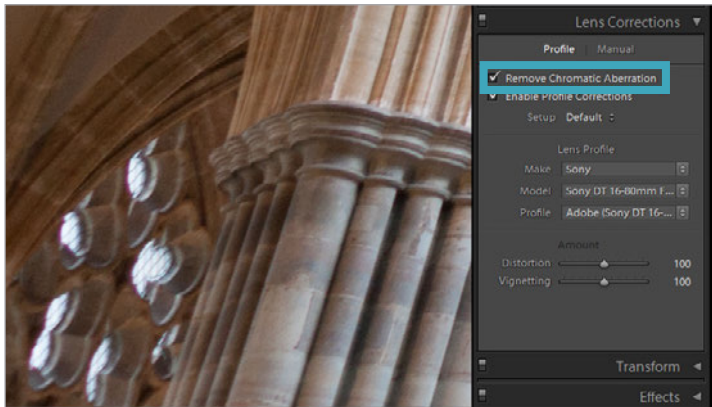
3 In the Develop module, open the Lens Corrections tab. At the top of the tab you'll see two options, Profile and Manual. Select Profile and click in the box at the top of the panel labelled Enable Profile Corrections. You should see the name and model of your lens appear in the Profile section below and the image will be instantly corrected.



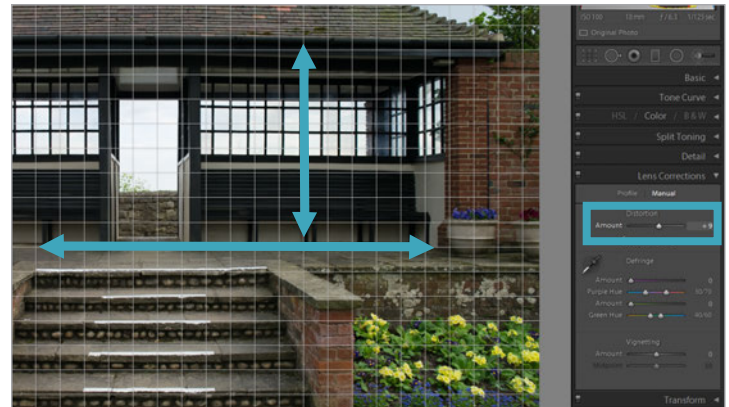
2 Lightroom offers two main options for dealing with lens correction: either manually or by using the built-in Lens Profiles. Lightroom has a database of popular lenses, including most lenses from the main camera manufacturers, as well as third party manufacturers such as Sigma, Tamron and Tokina. If you use a digital SLR this is your easiest option.



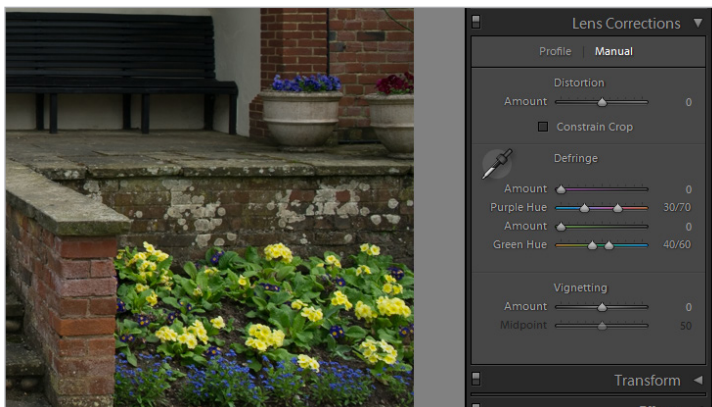
4 Chromatic aberration is caused by light of different wavelengths being focused at different points at the edges of the lens. If you look closely at the corners of our example, which was shot using a Sony 16-80mm lens at extreme wide angle, you can see some slight chromatic aberration; it's the green and purple fringes around the highlights.



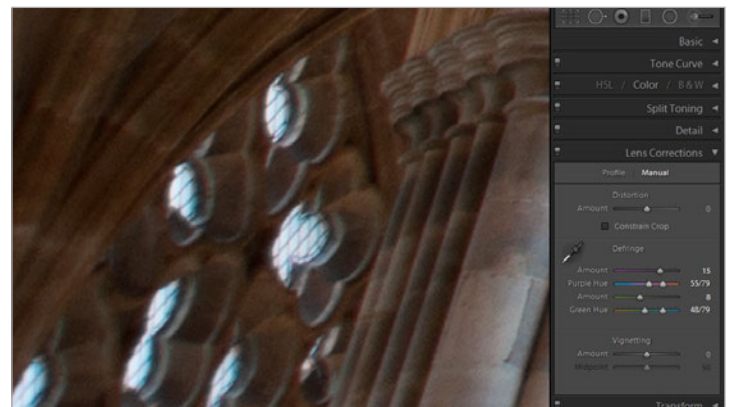
5 Lightroom can attempt to automatically correct chromatic aberration using its lens profile information. Simply check the box in the Lens Corrections tab labelled Remove Chromatic Aberration and you'll instantly see an improvement. In this example the green fringing has been completely removed and the remaining purple fringing is greatly reduced.



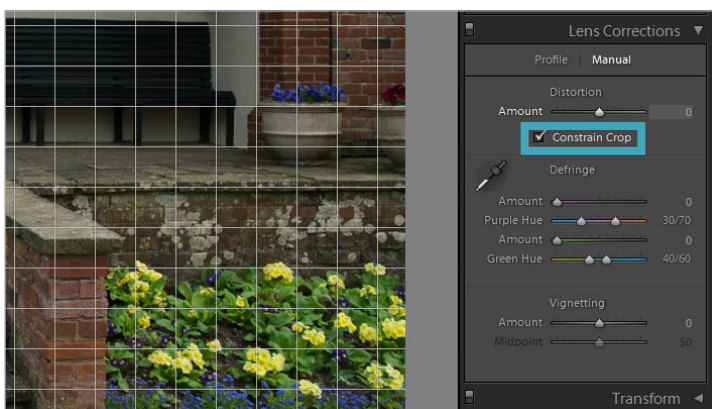
8 Move the Distortion slider to the left or right, paying attention to how well the horizontal and vertical lines in the image match up to the grid lines. The slider can be tricky, so you may prefer to type the numbers directly into the value box next to the slider. The effectiveness is going to be mostly subjective, but do your best.



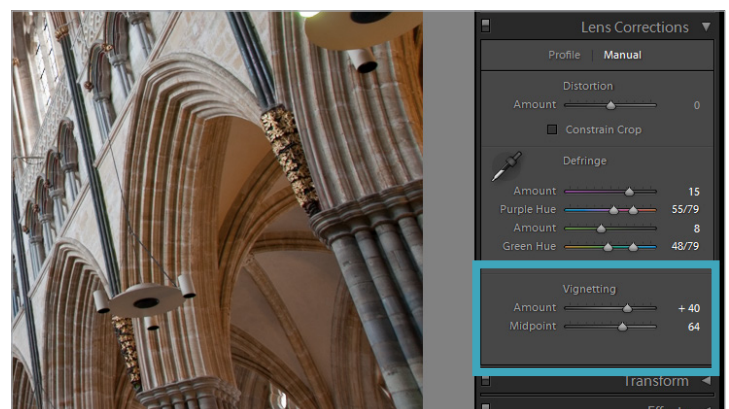
6 Things get a little bit more complicated if an automatic correction profile is not available for your camera or lens. If this is the case, you'll need to click on the Manual option in the Lens Corrections tab. Here you'll see a group of sliders that let you manually correct lens distortion, chromatic aberration and vignetting.



9 Manually correcting chromatic aberration is even more difficult. You can try clicking the eyedropper tool on a colour fringe to set it automatically but you'll get better results using the sliders manually. The Hue slider sets the range of colours to be affected and the amount sets the degree of correction. Again, the results are subjective.



7 As soon as you move the mouse cursor over the Distortion slider you'll see a grid appear over the image, to help you align and straighten horizontal and vertical lines. It's a good idea to check the box labelled Constrain Crop before making any adjustments, to avoid creating any white borders around the edges of the frame.



10 The Vignetting correction sliders adjust the relative brightness towards the edges of the frame, to compensate for narrow aperture shots. The Amount slider adjusts the degree of change, as you'd expect, while the Midpoint slider adjusts the size of the unaffected area in the middle of the frame. Sliding left makes it smaller, whilst sliding right makes it larger.

Developing Your Images

Despite camera and mobile phone camera technology advancing at such a rapid pace, Lightroom has kept up with the latest techniques to help you get the most from your images. The example we have on these pages uses HDR, a term you'll see on nearly every modern device that can take a photo.

HDR (High Dynamic Range) merging is a relatively new technique that has become very popular, to the point that it is often over-used. It works by merging several nearly identical photos, taken at different exposure settings, into one image with expanded dynamic range. Many cameras, including some mobile phone cameras, can produce HDR images in-camera, but you will get better results merging specially shot images in Lightroom. You can find HDR merging in the Photo menu, under Photo Merge > HDR.

AFTER**BEFORE**





Going Deeper: Advanced Image Editing

Now that you have a good grasp of basic image editing in the Develop module, let's dig in a bit deeper and look at some of the advanced editing techniques that make Adobe Lightroom such a powerful tool for digital photographers. We show you how to make precise tone adjustments with the Tone Curve, apply sharpening and reduce noise in your images and use creative features such as Split Tone processing and film grain.



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Advanced Image Editing

While Lightroom may lack the multi-layered photo manipulation and image creation features of Photoshop, it offers far more power and versatility when it comes to correcting and adjusting colour, exposure and detail. From the advanced tone control of the Tone Curve to the beautiful effects of the Split Toning panel, Lightroom has plenty more tricks up its sleeve.

So far we've covered the basics of image adjustment and correction using the tools found in the Develop module. However, Lightroom includes a range of powerful features that can let you get truly creative with your photographs. For anyone who is familiar with Adobe Photoshop and the often extremely complicated methods for producing photographic effects in that program, the ease with which striking and beautiful results can be achieved in Lightroom will come as a revelation.

With a range of dedicated, powerful and versatile tools at your disposal, effects such as advanced tone control, Split Toning, colour channel balance, vignette, film grain and even geometric transformations are just a few clicks away.

1 The Tone Curve Panel

Lightroom's Tone Curve control offers very precise control over the tonal balance of your image.

2 HSL/Colour/B&W Panel

This versatile panel offers versatile control over colour saturation and lightness.



3 Split Toning Panel

Split Toning mimics the effects of advanced darkroom processing techniques where one type of photographic film would be processed using chemicals designed for another film type.

4 Transform Panel

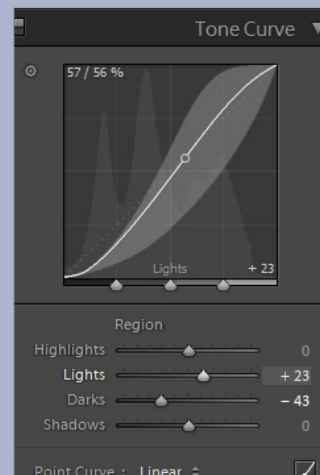
This tool is designed to let you move and manipulate images and correct perspective.

5 Effects Panel

You can find several useful effects here, including film grain, vignetting and the Dehaze tool.

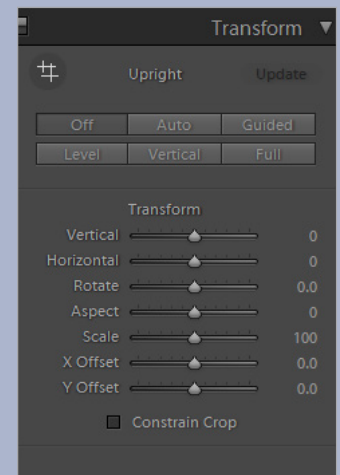
Advanced Adjustment Panels

Advanced editing techniques require a better set of fine-tuning features to make sure you can extract as much detail, colour and tonal information from your photo as is possible. Within the coming pages we'll look at some of the more complex adjustment panel elements and see how they can be applied to your photos. We can look at tonal control, image sharpening and adjustments to perfect your photo's saturation and luminance.



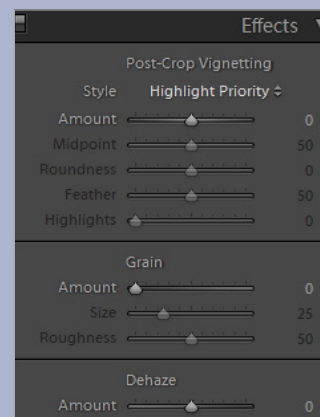
Tone Curve

The Tone Curve allows easy and intuitive control over the tonal balance of the image. By dragging the line into new shapes, you can selectively enhance or reduce the brightness of shadows, highlights and or mid-tones, altering the contrast.



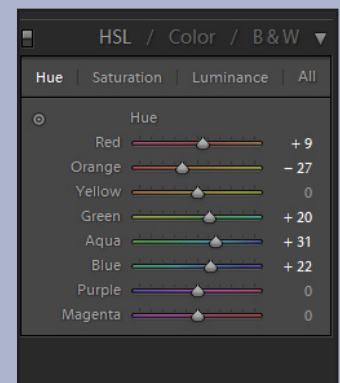
Transform

The Transform panel lets you correct tilted horizons and otherwise move or rotate the image, as well as making geometric and perspective transformation. It also includes automatic level detection.



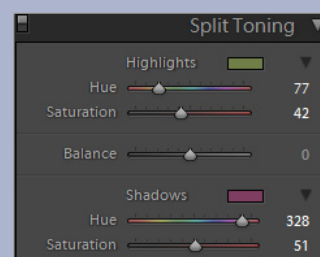
Effects

The Effects panel holds some of the more unusual tools that Lightroom offers, including post-crop vignetting, simulated film grain and the Dehaze tool, which landscape photographers love.



HSL/Color/B&W

This panel holds your main colour correction controls. Here you can adjust hue, saturation and luminance across multiple colour channels, depending on how you prefer to work and also selectively filter a monochrome output.

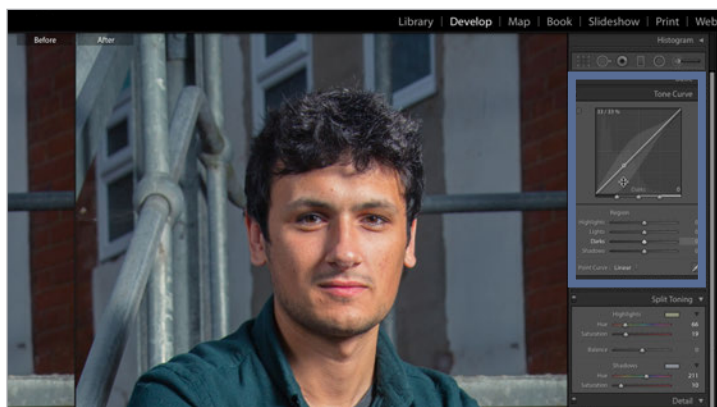


Split Toning

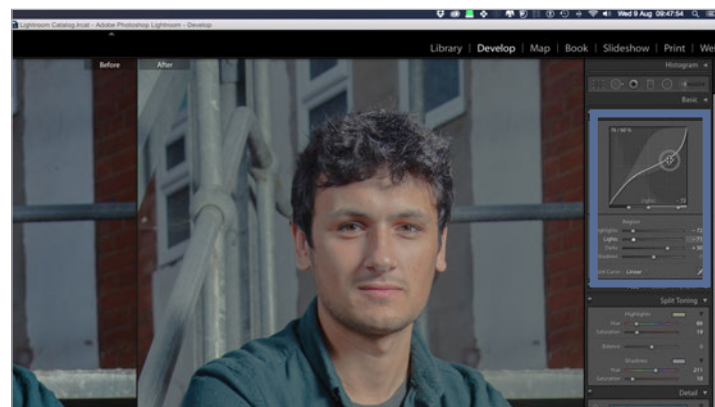
By applying different hue and saturation settings to highlights and shadows, split toning can mimic the effects of different film processing techniques, as well as producing unique colour effects.

Exploring the Tone Curve Panel

When taking a photograph your camera's light meter will attempt to balance the exposure to capture an even range of light, based on the average illumination of the scene. However, you might want to create particular effects. That's where the Tone Curve can help.



1 The basis of the Tone Curve is a histogram. Ignore the diagonal line for a moment and look at the graph in the background. It shows the distribution of pixels of any given brightness, with dark to the left and bright to the right. Large areas of our example image are dark, so the peaks of the graph are mostly on the left, with very few on the right.



3 To move the line, simply click and drag on it. This influences the tonal balance of the image. Here, we've moved the right end of the line down, dimming the lighter pixels, whilst moving the left end upward, brightening the darker pixels, but leaving the mid-point almost unchanged. This has reduced the contrast of the image.



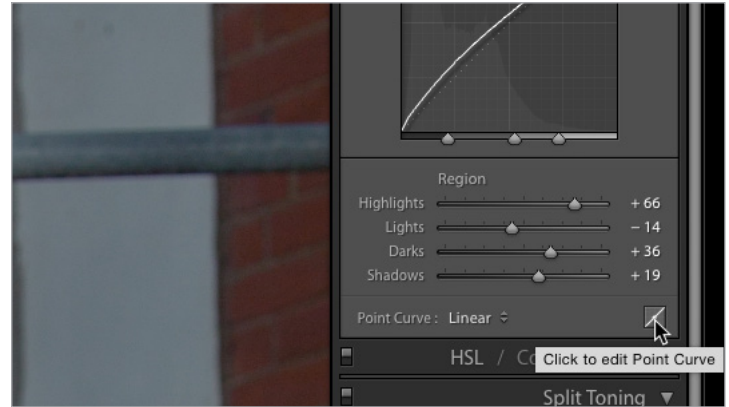
2 The diagonal line across the graph represents the ratio between input brightness and output brightness. When the line is straight, the brightness ratio at any given point is 1:1. By moving a point on the line to change its shape, you can increase or decrease the brightness of the pixels at that point on the histogram.



4 Conversely, if we move the left end of the line down and the right end upwards, whilst again leaving the mid-point almost unchanged, this darkens already dark areas while brightening the light areas, greatly increasing the contrast of the image. This is known as an "S-shaped curve" and is a popular way to boost contrast in photos.



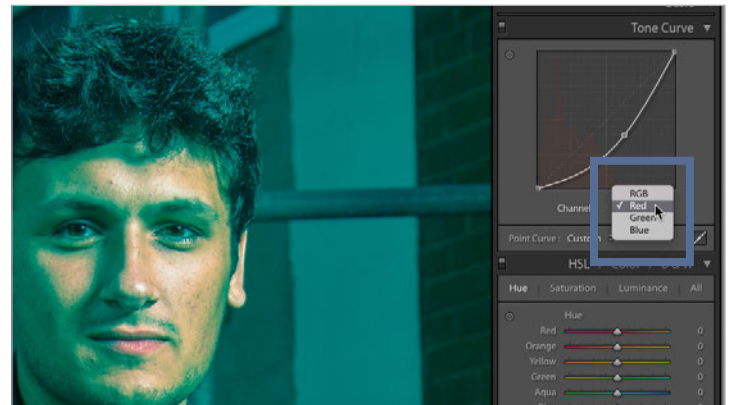
5 Moving every point on the line upwards, including the mid-point, increases the brightness of everything except for the pure white and pure black pixels at either end of the graph, brightening the tone of the entire image. This is a very good way to brighten an image without blowing out highlights or making blacks look grey.



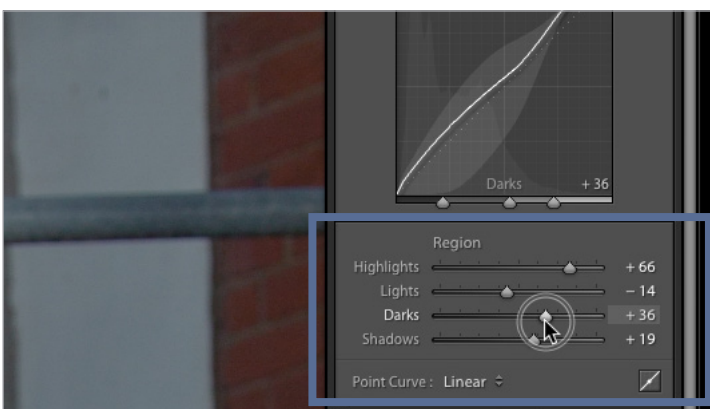
8 If you're familiar with the Curves tool in Adobe Photoshop, you can use the Lightroom Tone curve in the same way. In the bottom right of the panel is a button that removes the tone control sliders and replaces them with the ability to place and move anchor points on the curve, giving a much more Photoshop-like experience.



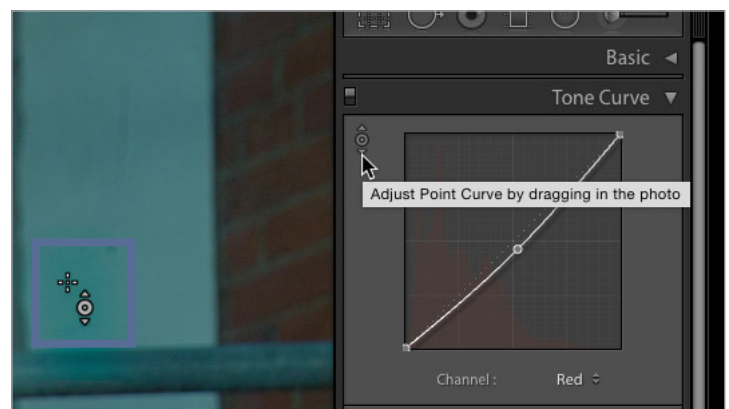
6 Not too surprisingly, moving every point on the line downwards as far as it will go darkens the entire image, apart from a few lighter pixels. Obviously, this is an extreme example but again used in a more controlled manner, it is a potentially useful technique for reducing overall brightness, without sacrificing too much shadow detail.



9 This Photoshop-style anchored curve adds an additional level of versatility: the ability to adjust individual colour channels on a curve. Just below the graph is a drop-down menu that lets you select the RGB default setting, or either the red, green or blue channels. Moving the curve adjusts the brightness of the particular colour.



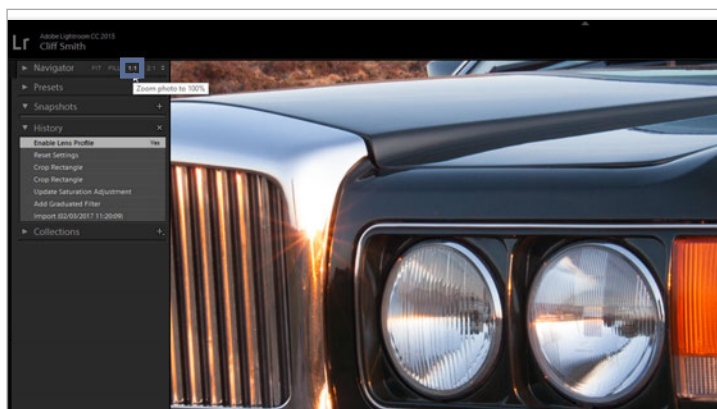
7 There are four sliders below the Tone Curve graph, labelled Highlights, Lights, Darks and Shadows, and these give you another way to move the ratio line. If you mouse over any of the sliders, you can see the range that it covers and possible range of movement available for that tonal segment highlighted on the graph display.



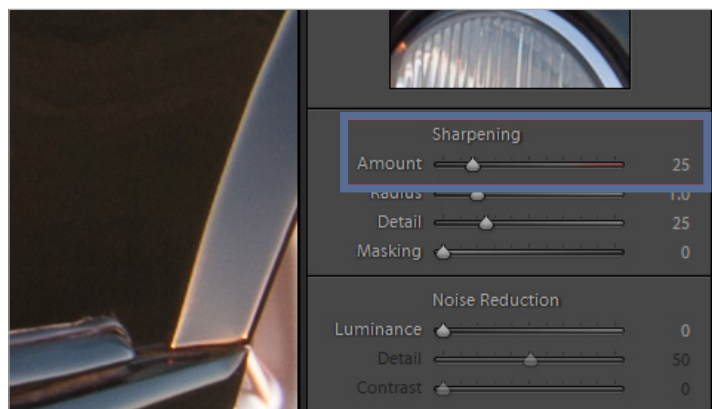
10 There is yet another way to adjust tone using the Tone Curve. In the upper left corner of the panel you can see a cursor icon. Click on this and mouse over the image. You can see that the graph display reflects the tone under your mouse pointer. You can click and drag up or down to adjust that specific tone. This also works with the colour channels.

Image Sharpening with the Detail Panel

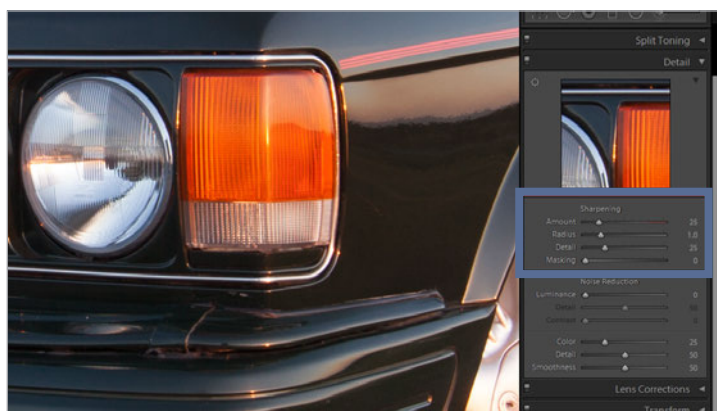
Image sharpening works by increasing the contrast between edges in the detail of your shots, while concealing blur and softness. Careful use of Sharpening controls can improve the appearance of your images, but the key to success is subtlety.



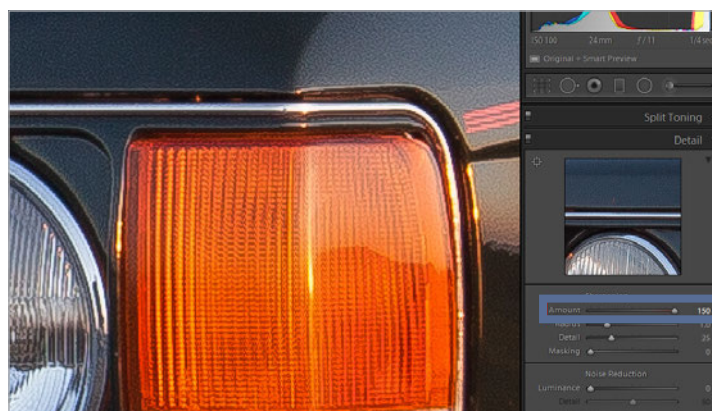
1 Select the image that you want to sharpen and open it in the Develop module. To get a really close look at it, go to the view options on the Navigator panel at the top of the left sidebar and select the 1:1 view ratio, to see the image at 100 per cent size. If you want, you can zoom in even further with the expanded view options, but 1:1 should be enough.



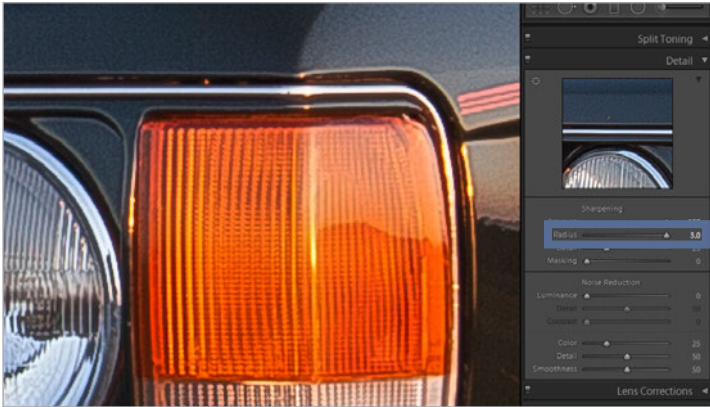
3 Many digital SLRs have something called a low-pass filter that slightly blurs the image to prevent Moiré effects. By default, Lightroom applies a small amount of sharpening to all images to counteract this filter. The standard setting is 25 with a radius of 1.0. If your DSLR doesn't have this filter you can set this to zero for maximum detail.



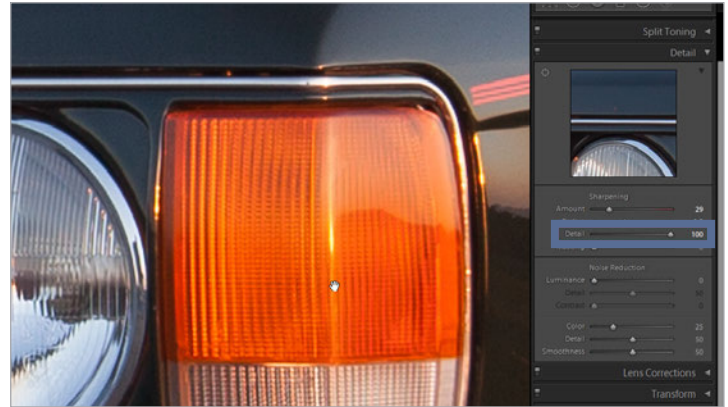
2 Open the Detail panel, which you can find in the right-hand sidebar. We've already looked at the noise reduction functions but the Sharpening functions are in the top half of the panel. There is also a detail view available but to be honest it's far too small to be much use. You're better off checking your progress by zooming the main image.



4 Like many adjustments, judging the correct level of sharpness is very subjective. To see what too much looks like, drag the Amount slider all the way to the right, to a value of 150. You can see that the high-contrast lines in the image now look harsh and jagged and the grain of the image has been emphasised, making it look noisy.



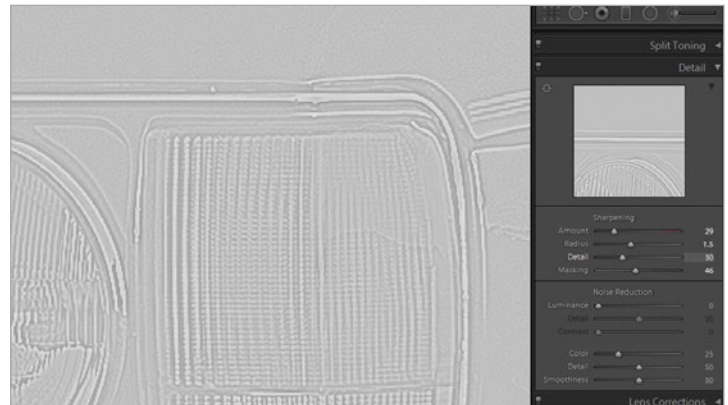
5 The Amount slider controls the degree by which the edge contrast is increased, while the Radius slider controls the distance from the edge that the contrast increase is applied. Keeping the Amount at 150, increase the Radius and watch the effect. Thick lines appear around the edge detail as the contrast area is increased.



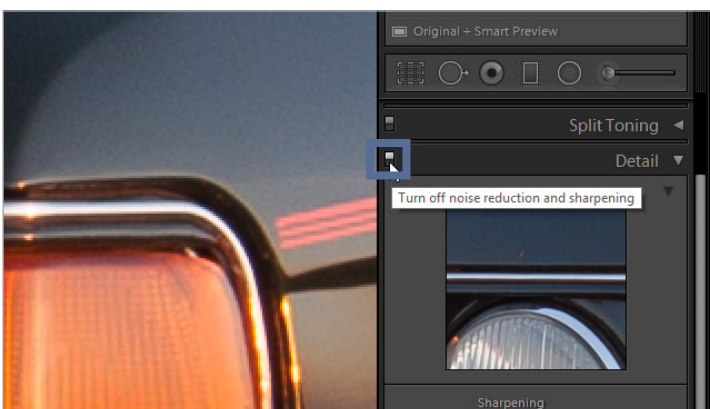
8 The third slider in the sharpening tab is Detail. Increasing sharpening can cause image noise to become more exaggerated, and the Detail slider lets you strike a balance between sharpened edges and visible noise. Try increasing the Detail slider all the way to 100 and back to zero to see the effect that this has on your image.



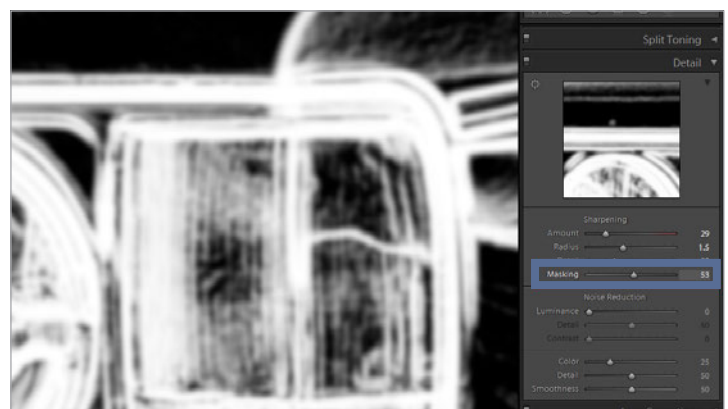
6 The best way to apply sharpening is to make use of the split-screen comparison feature, and to carefully adjust the sliders. Start by slightly increasing the radius to 1.5 and then move the Amount slider to see if it improves the appearance. For most photos shot on a DSLR with a good lens you won't need to apply much additional sharpening.



9 There is another alternative to help you judge the effect of the sharpening that you're applying. If you hold down the left ALT key on your keyboard while adjusting the Amount slider, the image turns monochrome, whilst with the Radius and Detail sliders it shows just the edges that are affected. This special preview helps to show the effects more clearly.



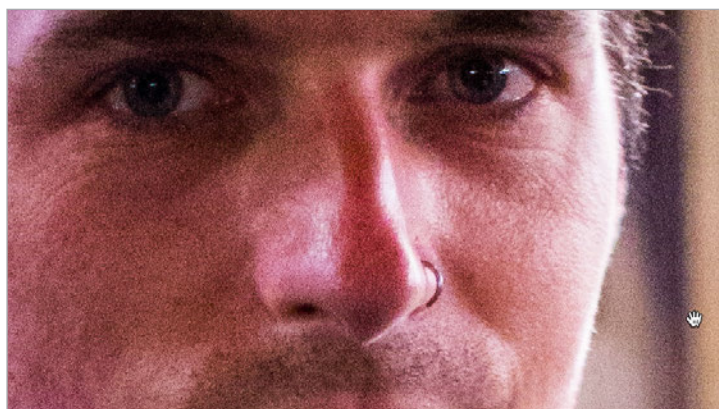
7 Another good way to compare the before-and-after effect of sharpening is to use the preview toggle switch in the top left of the Detail panel. All the Develop panels have this feature but it's most useful in this case. Click the switch on and off a few times to see the effect with and without sharpening or noise reduction applied.



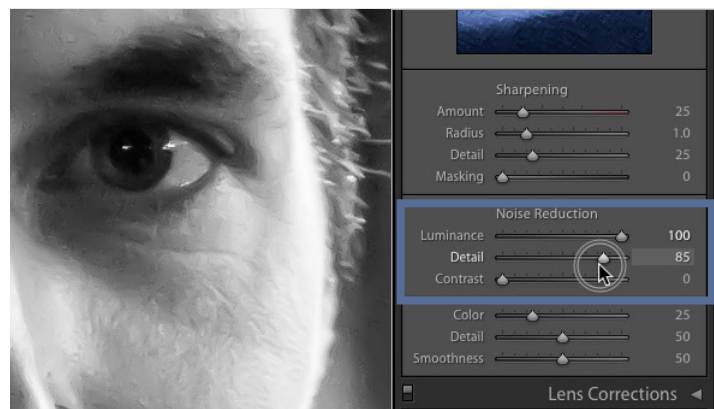
10 The final slider is Masking. This removes the sharpening effect from some areas of the image. Again, hold down the left ALT key whilst moving the slider to see a monochrome preview. The effects of the other sliders will only be applied in the white areas of the image, so by adjusting the mask you can reduce the emphasis of unwanted effects.

Advanced Noise Reduction

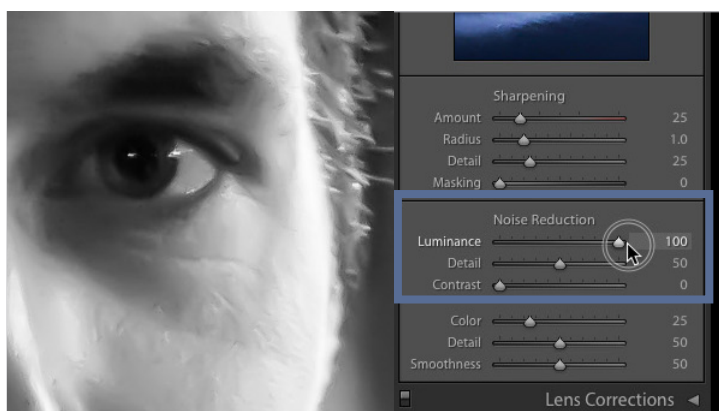
The latest full-frame digital SLRs feature great in-camera noise reduction and can comfortably shoot at up to 32,000 ISO with little visible noise, but not everyone can afford the latest cameras. Lightroom includes some advanced tools to reduce noise.



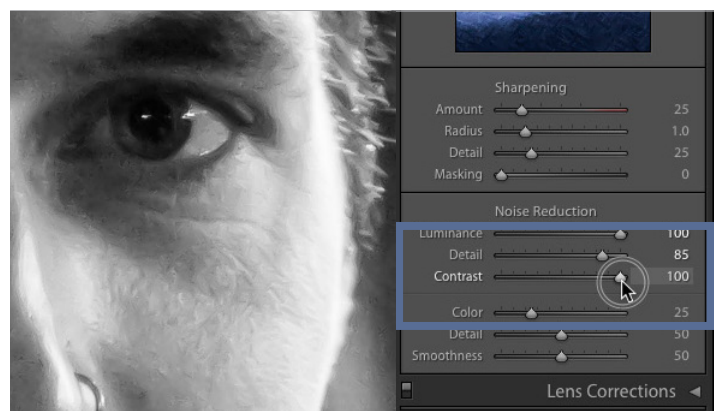
1 Image noise comes in two varieties: luminance noise, which is random variations in brightness, and colour noise, which as the name suggests is random variations in colour. Both are caused by amplified random signal noise from the camera's sensor when operating in low light conditions at high ISO settings.



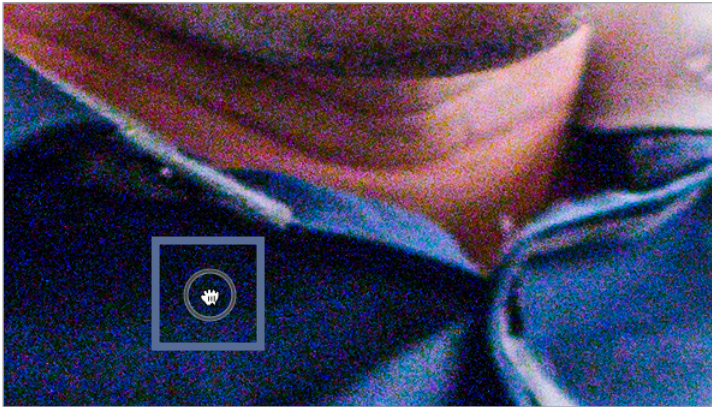
3 Reducing noise inevitably means sacrificing some fine detail, since noise reduction works by averaging out pixels over a certain radius. You can counteract this to some extent by adjusting the Detail slider, which applies a sharpening effect. Again, holding down the left ALT key produces a monochrome preview that can help you to spot the changes.



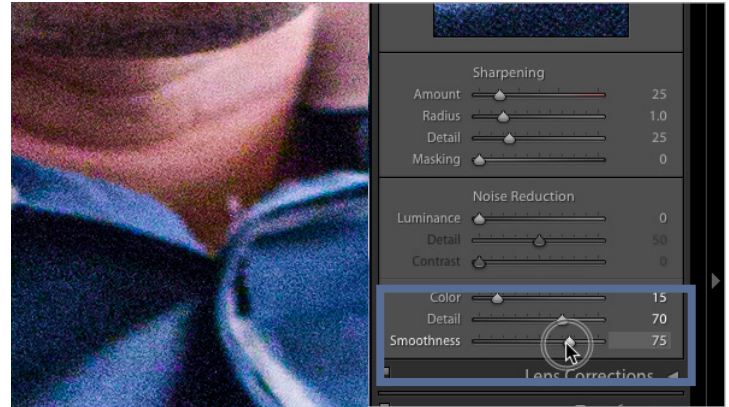
2 To reduce luminance noise you can simply adjust the luminance slider but if you simultaneously hold down the left ALT key, the view in the image window will be turned monochrome; this will make it much easier to see the random light and dark pixels that make up the noise. Using the split-screen view helps to judge the comparison.



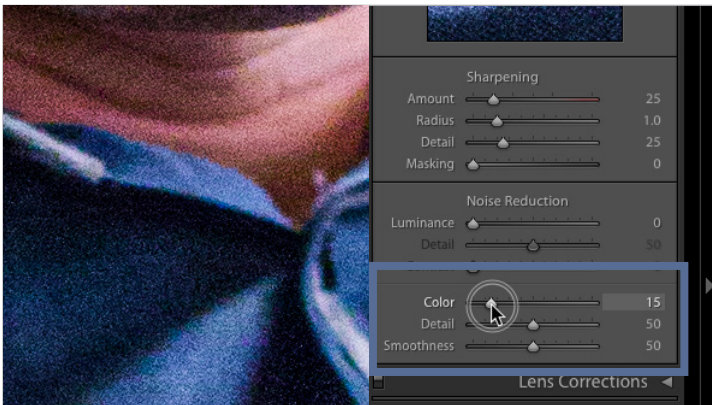
4 To help restore some image definition after noise reduction, you can try boosting the contrast level by adjusting the Noise Reduction Contrast slider, although in many cases this will produce negligible difference. Holding down the left ALT key produces a monochrome preview that can help you to see the changes, however slight.



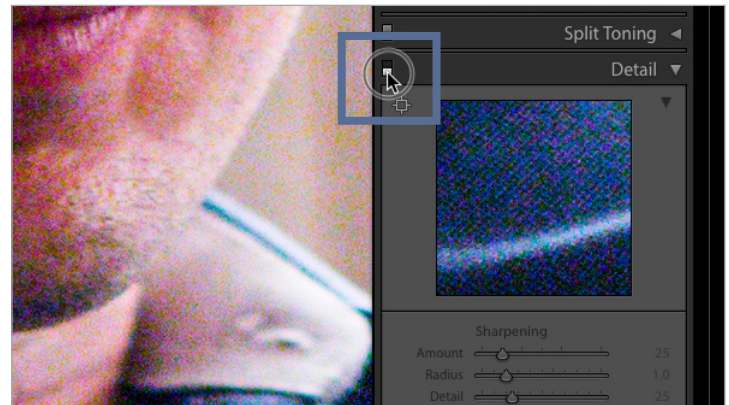
5 Colour noise is random variations in colour in darker areas of the image, caused by the sensor struggling in low light and the resulting signal being amplified by a higher ISO setting. Lightroom applies a colour noise reduction setting of 25 by default. With a very good camera it may be possible to reduce this setting and still have little image noise.



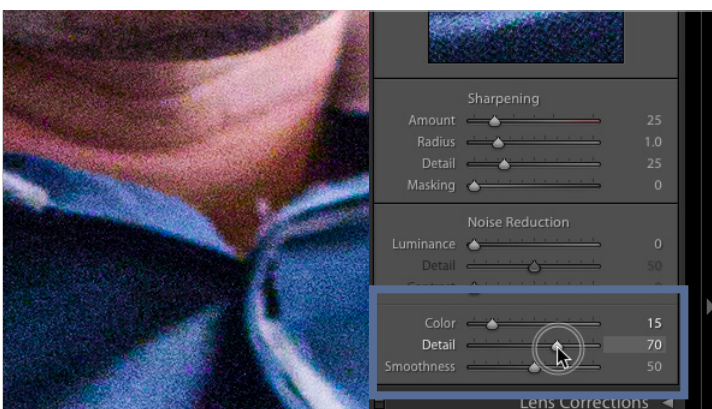
8 You can compensate for the jagged edges by adding some smoothing. Like the Detail slider, the Smoothness slider starts off with a mid-point default value of 50, so keeping a careful eye on the level of detail, move it up slightly until the jagged edges are reduced sufficiently. In this case we've increased it to 75, which is just right.



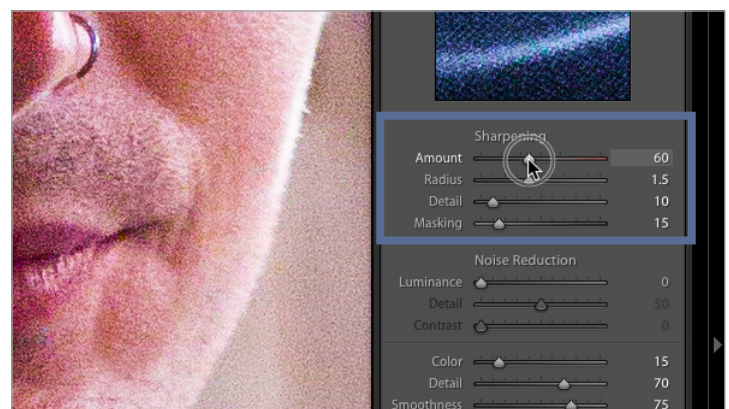
6 This image, shot on a Canon EOS 5D MkII, is one such example. The colour noise slider can be reduced to 15 from the default setting of 25; and there is still negligible colour noise visible in the image. Using the absolute minimum of noise reduction is a good idea, since it minimises the loss of detail caused by the reduction process.



9 Once you've adjusted the noise reduction, one of the best ways to judge the results is to make use of the Detail panel preview toggle. You can find it in the top left corner of the Detail panel. If you click on it, it temporarily removes the effects of the sharpening and noise reduction adjustments. Click again to restore them.



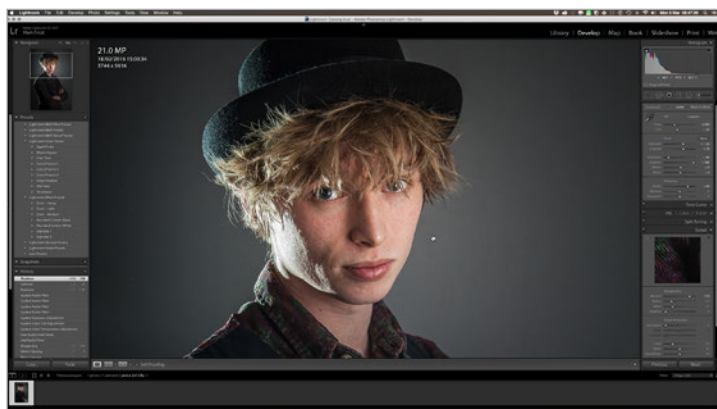
7 Reducing the amount of colour noise correction means that more detail can be preserved and you can take advantage of this by moving the detail slider to the right, in this case up to 70 from its default of 50. This slightly boosts the edge contrast, which can help with detail definition, but can result in the introduction of jagged edges.



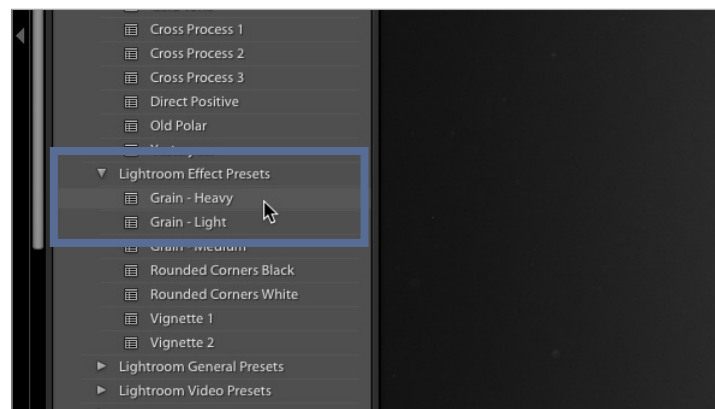
10 Once you've reduced the noise levels as far as possible, you can further enhance the image and attempt to recapture lost detail by applying the sharpening techniques that we covered on the previous tutorial. Make sure to make full use of the left-ALT monochrome previews and masking adjustment for maximum effect.

Adding the Effect of Film Grain

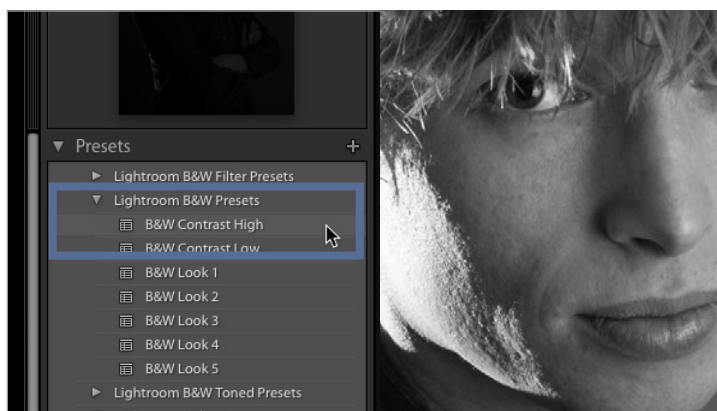
In traditional film photography, the tiny silver iodide crystals that form the image on the negative produce a granular effect on the finished print. Film grain is considered a beautiful effect, so Lightroom can replicate film grain for your images.



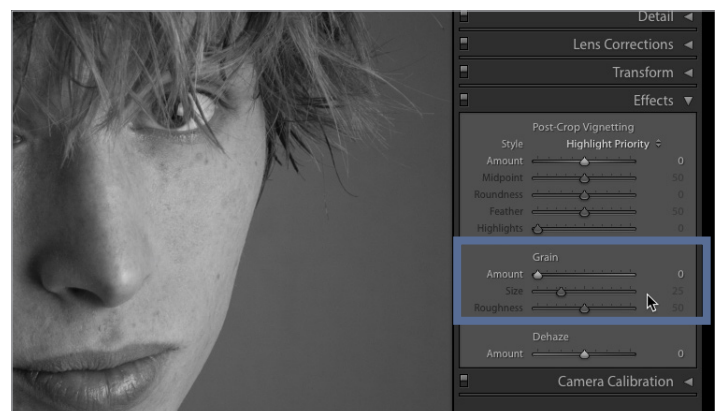
1 The key to creating an attractive film grain effect is starting off with a suitable image. It is most commonly seen in high contrast black and white images, so choose an image that will look good in monochrome, with plenty of deep blacks and bright highlights. This detail shot of local musician Oli Syrett should do nicely.



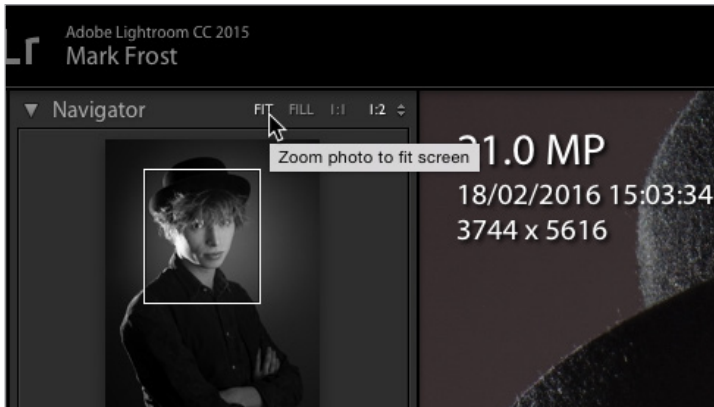
3 If you're in a hurry then there are presets available for adding film grain too, which can be found in the Lightroom Effects Presets list. The Grain Heavy preset does look particularly good on this image. However, for this tutorial we want to find out how to add grain manually, so let's ignore the preset and take a look at the grain controls.



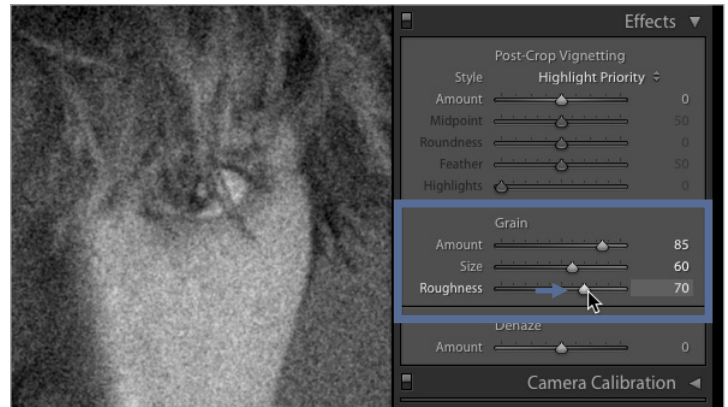
2 The first thing we need to do is to turn the colour image into monochrome, while maintaining its high contrast appearance. The quickest and easiest way to do this is by using one of Lightroom's black and white presets. We'll use the standard B&W High Contrast preset, which is just about perfect for this particular image.



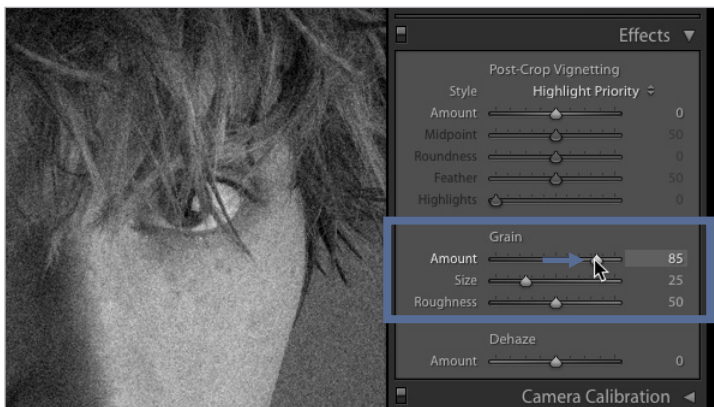
4 You can find the Grain controls in the Effects panel, near the bottom of the right-hand sidebar in the Develop module, along with Post-Crop Vignetting and Dehaze. It's a simple panel, with just three sliders controlling the amount of grain, the grain size and the grain roughness. When the amount slider is at zero the others are greyed out.



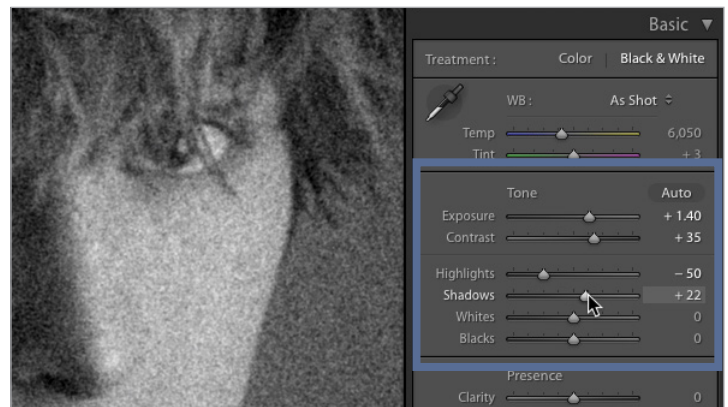
5 Since we're interested in the aesthetic effect of grain over the whole image rather than any close-in detail, this is one occasion when zooming in to the image would be counterproductive. The best view to judge the results is the whole-image Loupe view, so in the navigator panel, click on Fit, to view the entire photograph in one screen.



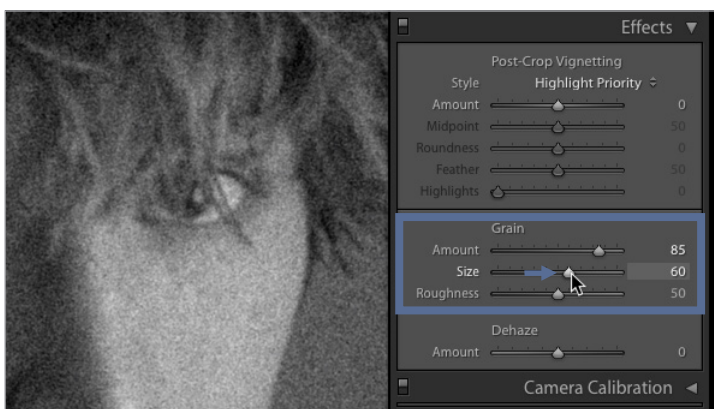
8 Grain smoothness is the key to mimicking particular types or brands of film. For example, Kodak TMAX 400 film has a very smooth grain structure ideal for portraits, but the one you're trying to replicate is Ilford HP5+, which has a rougher grain structure. Move the Roughness slider up to 70 from its default setting of 50.



6 The effect we're going for is a high-contrast, high-grain image, mimicking the appearance of a print made from push-processed high-speed black and white film such as Ilford HP5+. Start with a relatively high value for the grain amount and push the slider up to 85; immediately you can see the grain effect on the image.



9 You should have the film grain looking almost perfect. All you need to do now is make a few adjustments to the tonal balance of the image to improve the contrast and exposure. If you move over the Basic panel, you can tweak the tone control sliders to boost the highlights slightly and recover some of the lost shadow detail.



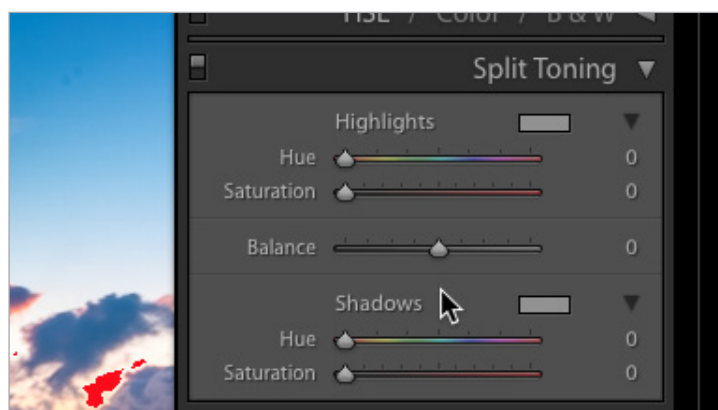
7 One of the characteristics of push-processed film is that the silver grains are very large, which is what gives prints made from such film their distinctive appearance. The default value for the Size slider is 25, so increase that by moving the Size slider up to 60; you can see that the grain takes on a much stronger appearance.



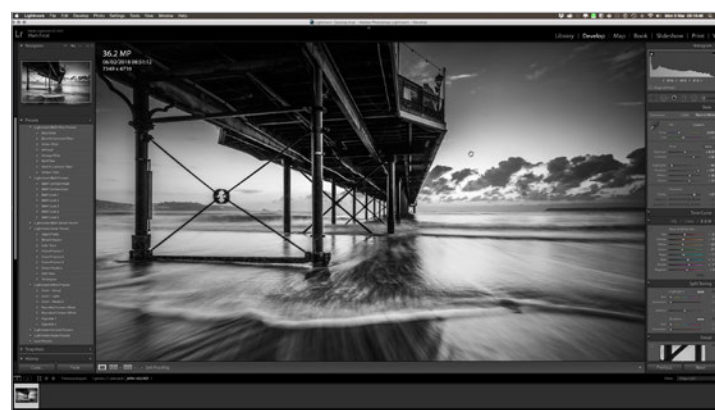
10 The finished image has all the characteristics of a high contrast high ISO push-processed black and white photograph. When printed out, it would take a trained eye to detect the difference from a scanned film negative. You can try the same controls with low contrast shots too, for that real vintage photojournalism look.

Split Tone Processing Effects

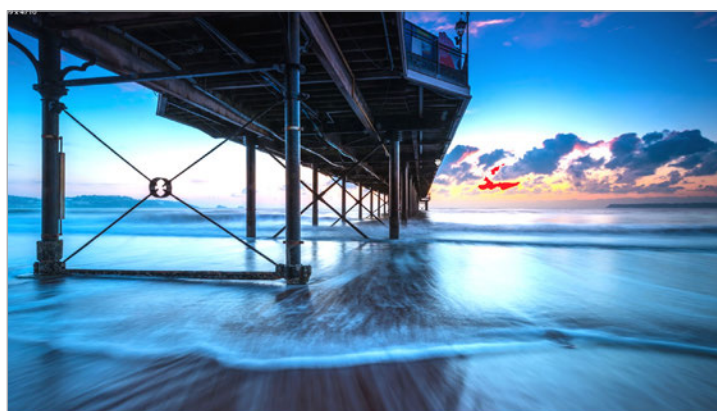
Many of Lightroom's photo enhancement tools replicate the effects that can be achieved in traditional darkroom processing. Split Tone processing is another such feature; it's a method of adding different tones to both the highlights and the shadows of an image.



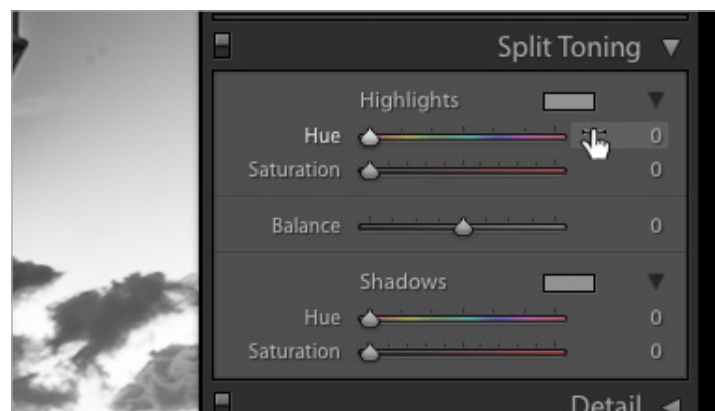
1 Split Toning is a process whereby the image is divided into highlights and shadows, and different tones are applied to each. It was a popular print processing technique in the 1970s and was used to create psychedelic pop-art posters. You can replicate the effect in Lightroom using the controls found in the Split Toning panel, located in the right sidebar.



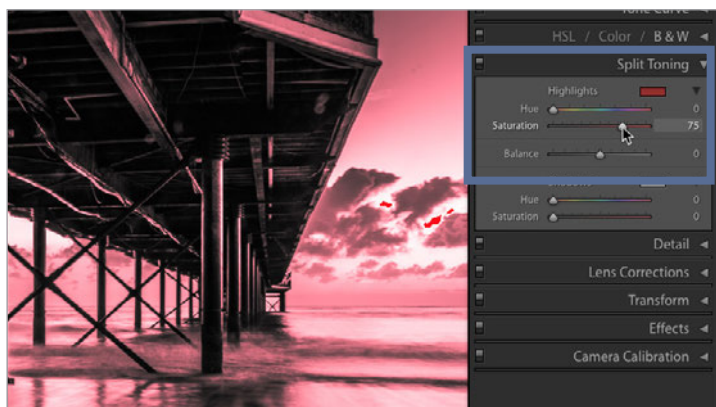
3 As with the darkroom techniques upon which it is based, Lightroom's Split Toning works best on high contrast monochrome images, so use the techniques that you learnt earlier to convert this image into a suitable candidate. The B&W Contrast High preset, plus a bit of extra contrast from the Tone Curve will work perfectly.



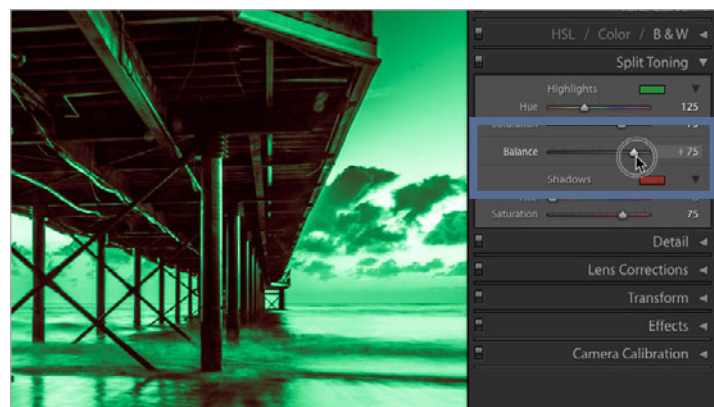
2 Before we get started, we need to choose a good base image. Split Toning can produce abstract results, so it's a good idea to work on an image that is already fairly abstract to begin with. You need an image that has both light and dark areas and preferably some interesting detail and texture. Our example should do nicely.



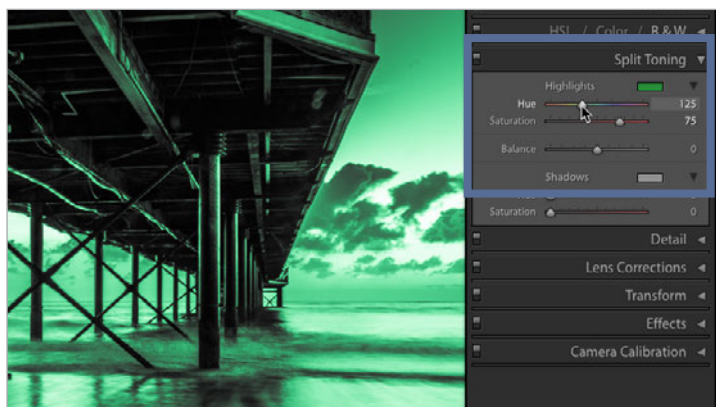
4 The Split Toning panel has just five sliders, divided into three sections. At the top is the Highlights section, with Hue and Saturation sliders; at the bottom is the Shadows section, also with Hue and Saturation sliders; and in between them there's a Balance slider. There is also a small grey rectangle in the top and bottom sections.



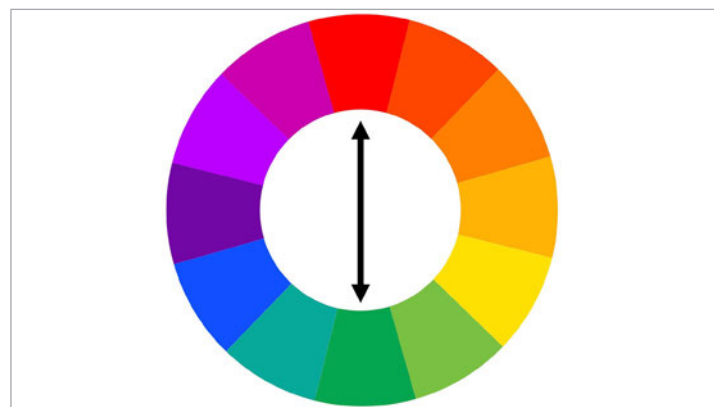
5 Now it is time to add some tone to the highlights. Move the Highlights Saturation slider to a reasonably high value, 75 should do to start with. You can see immediately that the lighter areas of the image have taken on a strong red tint. This is because the Hue slider is still in its default position at the far left of its track.



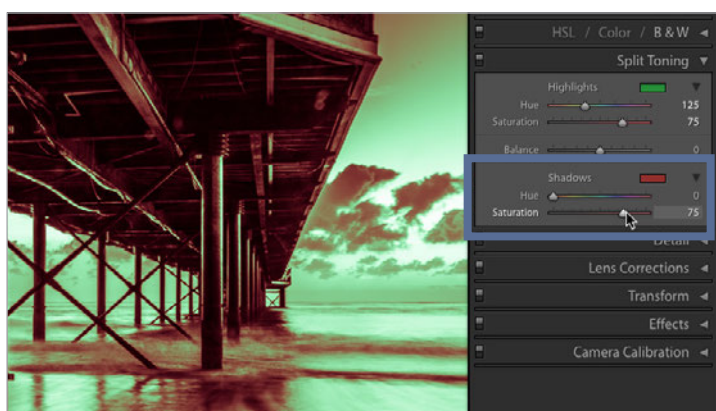
8 The Balance slider adjusts the balance between the highlights and shadows and the point at which one merges into the other. By moving the Balance slider you can adjust the distribution of the toned areas, reducing one and increasing the other. The correct position is subjective, so pick whatever looks good to you.



6 Next, move the Highlights Hue slider to the right. Note that the tint of the lighter area changes, fading from one colour to the next. Set the slider to a value of 125, which is a strong mid-green colour. Now all the lighter areas of the image should be bright green, whilst the darker areas are still their original colour.



9 The key to successful Split Toning is the use of complimentary colours. If you know your colour theory you'll be familiar with the colour wheel shown here. Any two colours that are opposite each other on the wheel, such as the red and green (that we've used here) are complimentary. Other examples are blue and orange or yellow and indigo.



7 Now move the Shadows Saturation slider to the right, a value of 75 should be enough to start with. You can see that the darker areas of the photograph have now taken on a red tone. Like before, this is the default setting of the Hue slider at the left end of its track. For now, leave the Hue slider where it is.



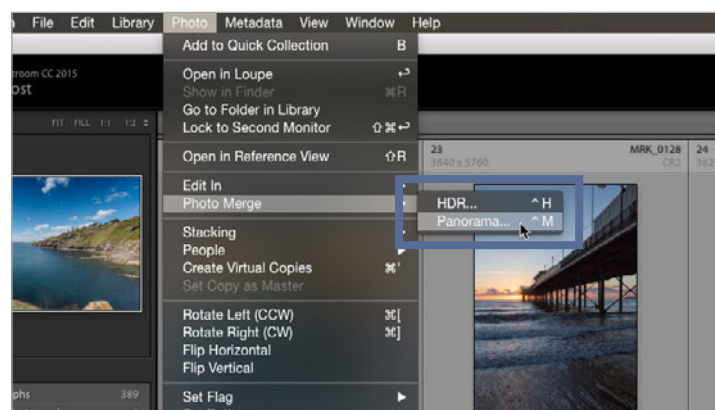
10 Split Toning can also work well in non-abstract photographs such as portraits; again, convert them to high contrast monochrome images for best results. Tones such as amber and teal work well for portrait shots. Use lower saturations than you would for abstract shots. It depends on the images used but some great effects can be achieved with Split Toning.

Create Panoramas with Photo Merge

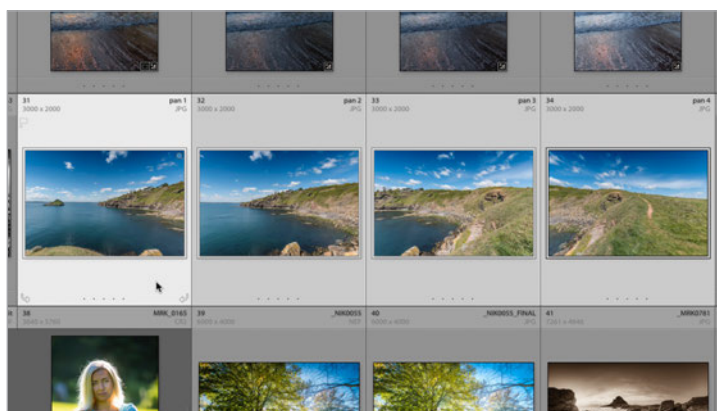
Even with a wide-angle lens, you sometimes find panoramic scenes that just won't fit into a single frame. With Lightroom's Photo Merge feature, you can stitch together a sequence of frames into a single ultra-wide panoramic image that captures the whole scene.



1 To create a good merged panorama, it's vital to start with a suitable sequence of images. First, to avoid distortion don't use extremely wide angle lenses. It's better to use a focal length of around 25-50mm. Second, use a tripod to help you to pan around smoothly. Finally, make sure that there is some overlap between successive frames.



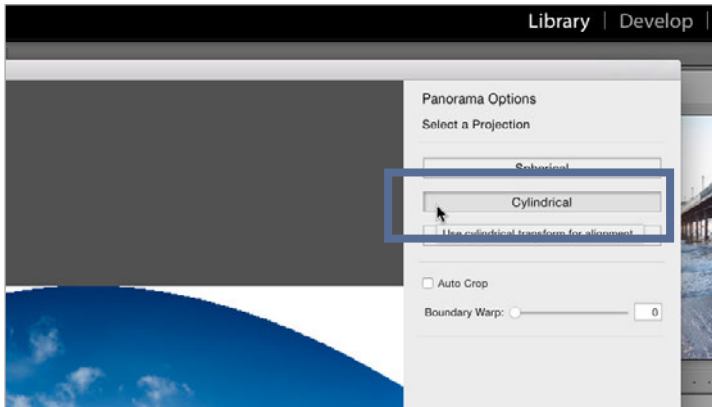
3 Still in the Library module, with the sequence highlighted, go to the menus at the top of the screen and click on Photo. Move down to Photo Merge (about half-way down the list) and a fly-out sub-menu will appear: select Panorama. Alternatively, use the keyboard shortcut CTRL+M to go straight to the Panorama Merge preview.



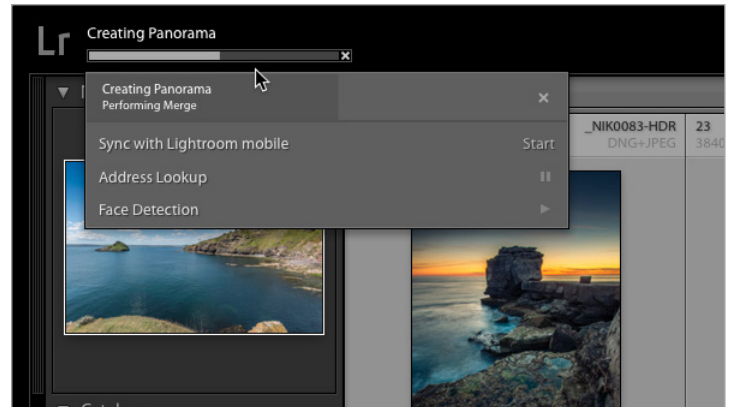
2 Once you've imported your sequence of frames into Lightroom, locate them in your library and highlight all the shots that you want to merge, by holding down the CTRL (CMD on a Mac) key and clicking on each one. Note that the sequence doesn't have to be in the right order, the photo merging process will match them up automatically.



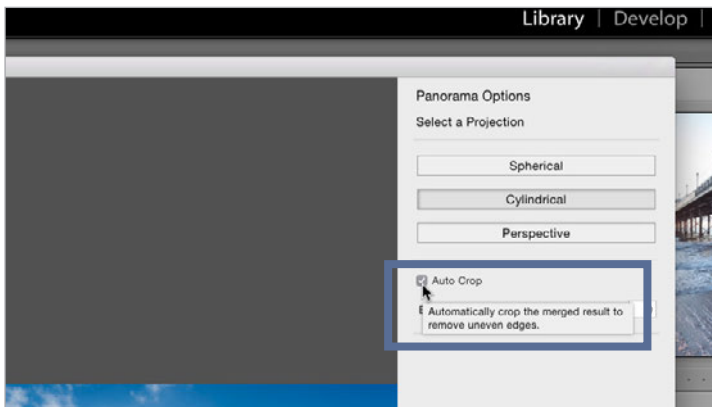
4 The Photo Merge feature in Lightroom is very similar to the one found in Photoshop but works much more quickly and efficiently. Once you have activated the menu option (or used the keyboard shortcut), it creates a preview of the merged panorama in a process that, for sequences of four or five shots, will only take a few seconds.



5 There are several options on the preview panel. At the top are buttons to select the Projection. Spherical places them as though they were on the inside of a sphere, Cylindrical as though they were on the inside of a cylinder and Perspective as though they were on a flat surface. For a horizontal row of shots like this, Cylindrical is best.



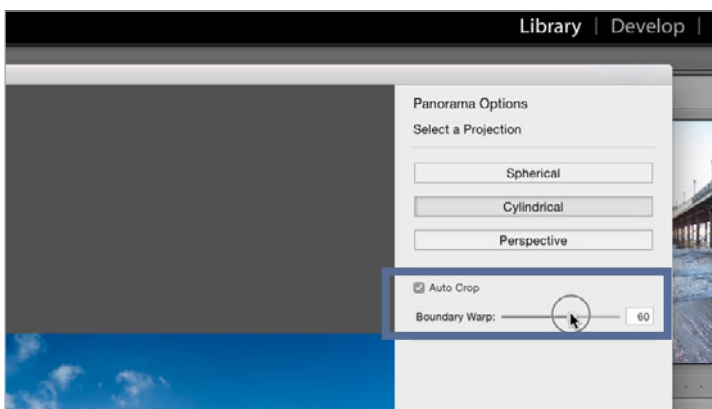
8 When you're happy with your options settings, click on the Merge button at the bottom of the panel. The panel disappears and you can see a progress bar in the top left corner of the Library screen. The merge process is fairly quick and should only take a few seconds. The merged panorama image will be added to your library.



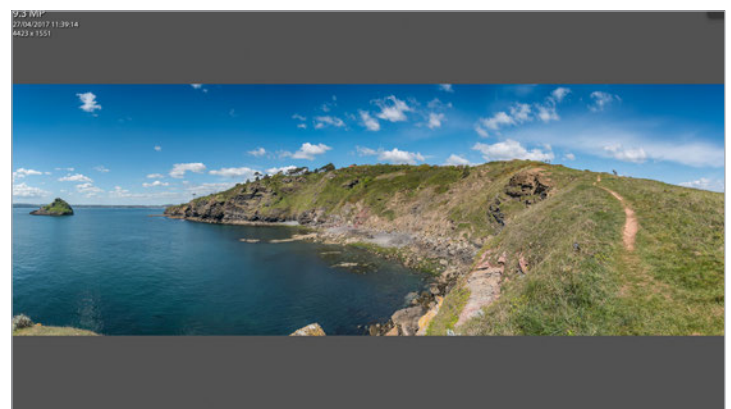
6 The Auto Crop option will automatically crop out the blank space around your merged frames. If all your shots are perfectly level and properly aligned then it's OK to use this option for a quicker result; but since you're going to need to level the horizon in our example, leave this unchecked when you process the merge.



9 Once the merging process of the various images is complete, open the merged panorama in the Develop module, and use the Crop tool in the editing tools bar to level the horizon and crop out the blank spaces around the edges of the frame. Don't forget to unlock the aspect ratio of the crop to maximise the size of the frame.



7 Boundary Warp is kind of the opposite of Auto Crop. It warps your merged panorama to fill the available space in the frame bounding frame. If you need your panorama to be an accurate representation of the scene that you shot then don't use this; otherwise it does maximise the size of your merged image.



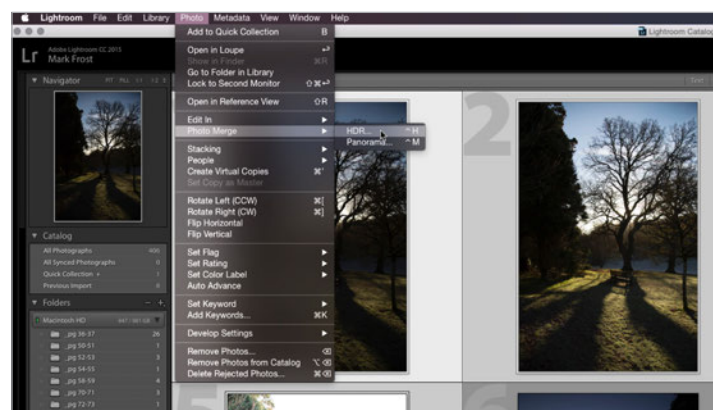
10 Once you've cropped and straightened your merged panorama you can further develop it just as you would with any other image. You can use the Panorama Merge feature to do more than just stitch together horizontal strips; try using Spherical Projection and add in shots above and below the horizon too!

Enhance with HDR Photo Merge

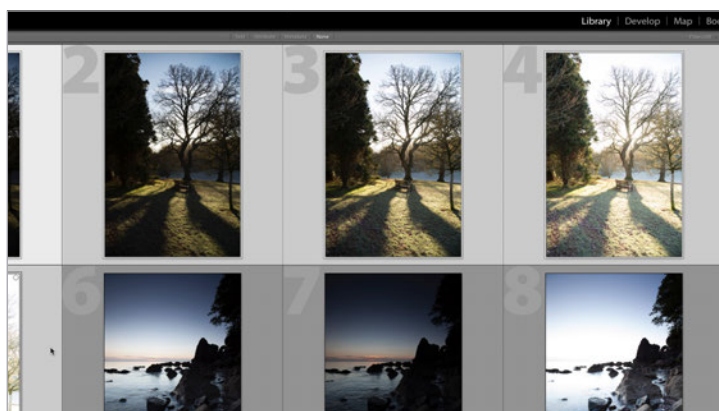
HDR images are created by merging two or more images with different exposures, taking the shadows from over-exposed shots and the highlights from under-exposed ones and combining them to make one image. It's useful for expanding dynamic range in difficult lighting situations.



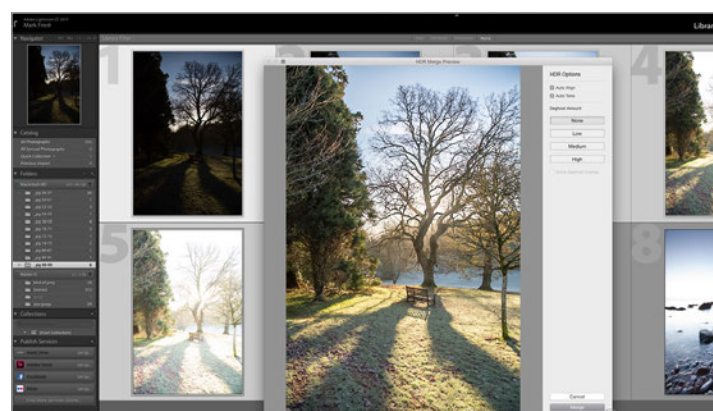
1 To get started with HDR Merge you need a sequence of photos of the same scene, with varying of the exposure between shots: some under-exposed, some over-exposed and one of the “correct” exposure. It's best to use a tripod to make sure that the shots are properly aligned. You get the best results if you use three or more shots.



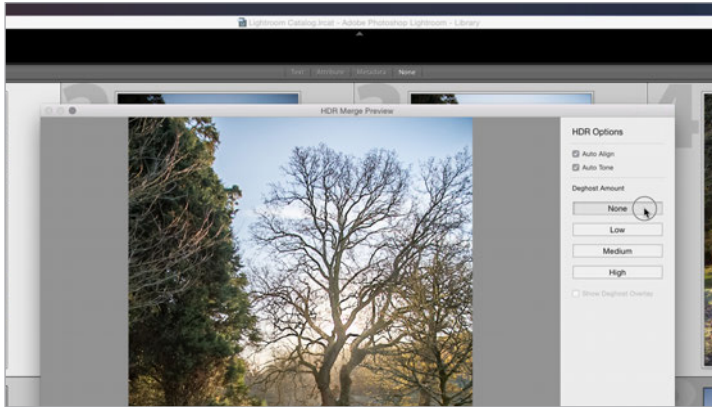
3 Staying in the Library module, with the candidate shots highlighted, go to the menus at the top of the screen and click on Photo. Move down to Photo Merge (about half-way down the list) and a fly-out sub-menu will appear. Select HDR or alternatively, use the keyboard shortcut CTRL+H to go straight to the HDR Merge preview.



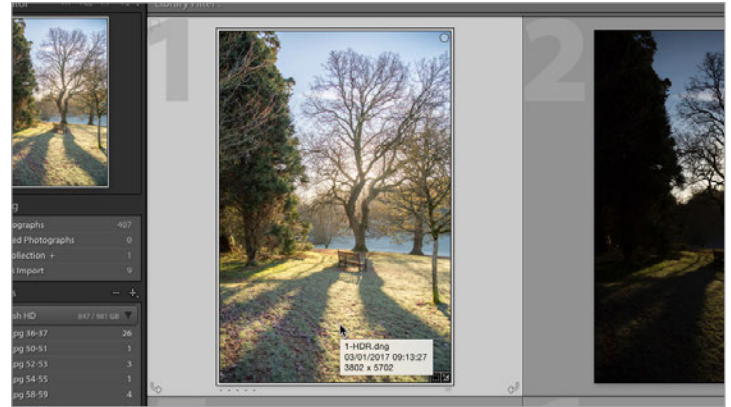
2 Import the images for HDR merging into your Lightroom library and then highlight them all by holding down CTRL (CMD on a Mac) and clicking on each of them. Alternatively, click on the first one, hold down SHIFT and click on the last one. You should see all of your selected images highlighted, as shown above.



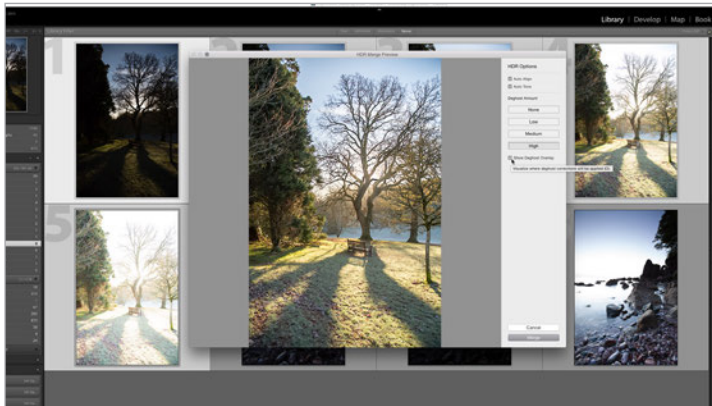
4 Building the preview should only take a few seconds and then the HDR Merge Preview panel will appear. The default window size is rather small but it can be resized by dragging the sides or corners to expand the view. Note however, that the preview image size is limited, it is just a preview of the final image after all.



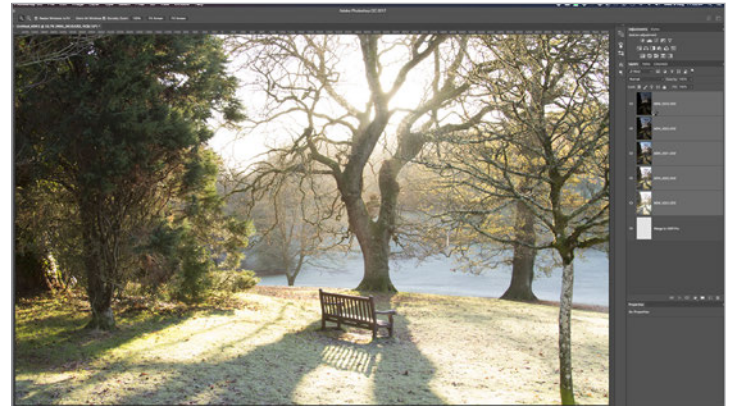
5 There are several options on the HDR Merge Preview panel. Auto Align is useful if you captured your shots without a tripod, as it attempts to match up the images and align the frames automatically; so you may as well leave it checked. Auto Tone is also useful: it attempts to automatically correct any tonal differences between the frames.



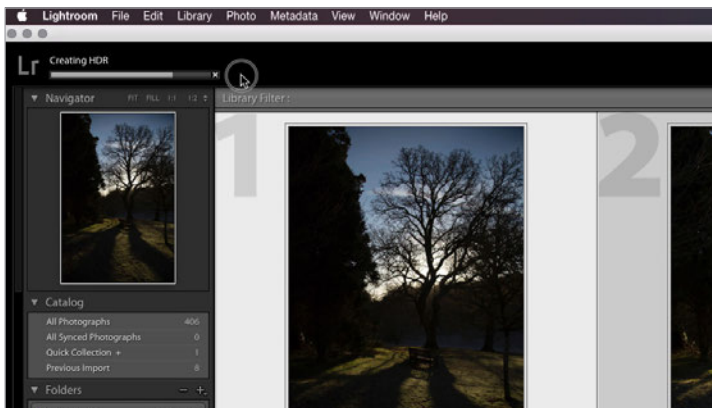
8 Once the HDR Merge is complete, it will appear in your Library. If you compare it with your base source images you'll see that it has combined the highlight detail of the under-exposed image with the shadow detail of the over-exposed image, resulting in clear detail right across the image, with no burned-out highlights or murky shadows.



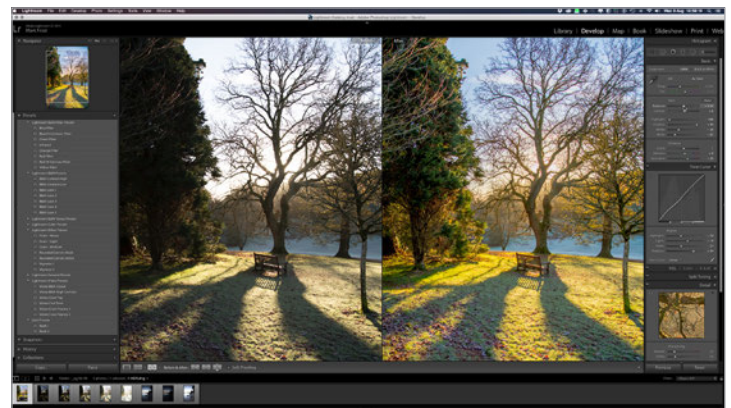
6 Sometimes, even if you use a tripod, details may change between exposures, such as people moving about. The Deghost Amount options attempt to minimise this. If your scene is static you can leave it set to None. If you use any other option, use the Show Ghost Overlay option to see what changes have been made.



9 Lightroom's HDR Merge function differs from the similar function in Photoshop in one crucial way. Where Photoshop generates a pixel-based document from JPEG images, Lightroom can create HDR images from raw files, retaining all the extra bit-depth and editing flexibility. That gives you a lot more scope when editing the merged image.



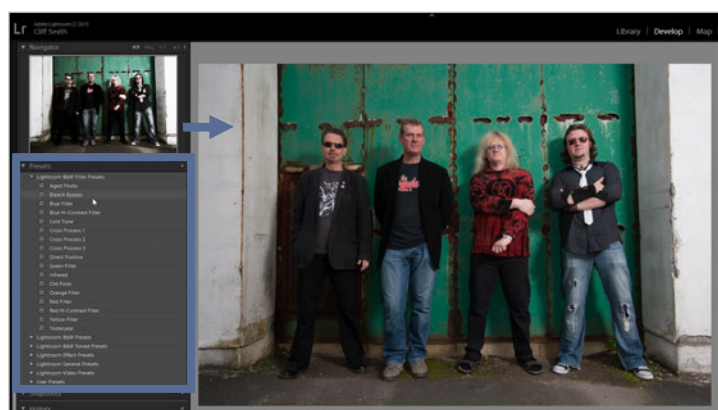
7 Once you're satisfied with your selected options, click on the Merge button and Lightroom will begin processing your images into a single HDR image. The process is fairly quick and even if you've used five or six large files it will only take a few seconds. You can see a progress bar in the top left corner of the screen.



10 If you open your HDR Merged image in the Develop module, you can see that it has much greater flexibility in exposure latitude than the source images; and you can perform the same editing functions on it as any other image. Used in this way HDR imaging becomes a useful tool rather than another trendy filter effect.

Instant Edits with Lightroom Presets

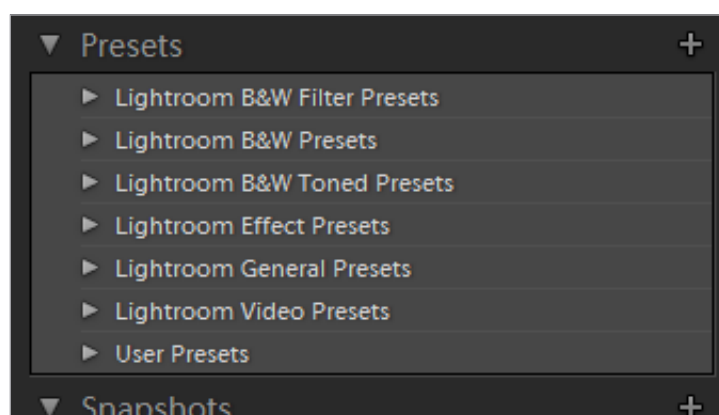
We've covered some of the presets available in the Develop module and how they can provide quick solutions and starting points for your own edits. Lightroom features a wide selection of preset development options that can instantly improve your photos.



1 You can find the Presets panel near the top of the left-hand sidebar. When selecting presets to use, the Navigator panel is very useful, because it shows a preview of the effect that the preset will have on the image. It's a good idea to pull the left sidebar out to its maximum extent to maximise the size of the Navigator preview window.



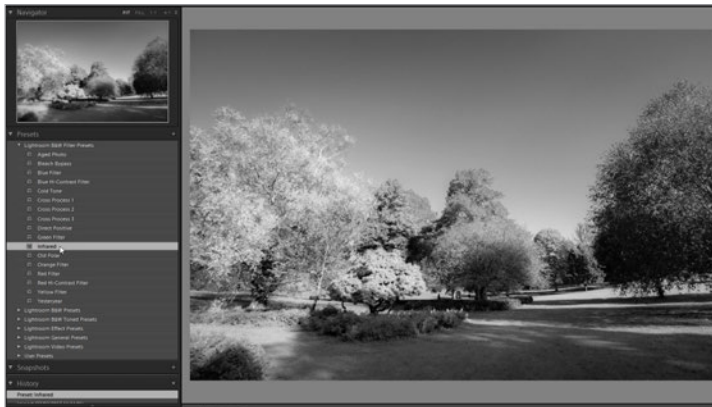
3 The largest and most varied category is B&W Filter presets. About half of these produce colour effects, simulating different film and print processing techniques, including some that simulate aged photos of different types. For this photo of a group of middle-aged rockers, the Yesteryear filter simulates an aged colour negative print.



2 Lightroom's built-in presets are divided into seven categories. The first three are labelled as B&W presets, although not all of them are strictly for monochrome images as you'll see shortly. The Effect and General presets produce a wide range of results, while the Video presets, as the name suggests, are for editing and improving video clips.



4 Other filters in this category produce monochrome effects, most simulating the effect of colour filters applied to black and white images, which photographers often use to produce different contrast effects. In this case a green filter helps to make the band stand out against the green metal door in the background.



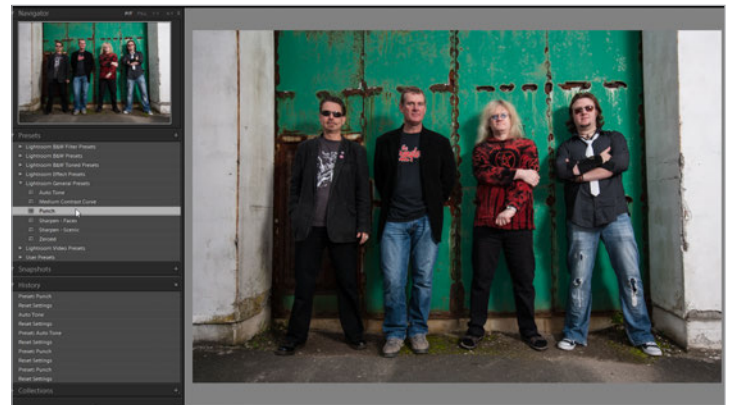
5 Some filters are more appropriate for different types of shot. For example, the Infrared filter produces a surprisingly accurate simulation of shooting monochrome images through an infrared filter, and looks great when applied to scenes containing a lot of foliage. The blue sky is darkened and the green leaves become brighter.



8 Moving on, we come to the Effects Presets category. As the name suggests, these are mainly presets that use the controls found in the Effects panel. We already looked at the film grain effects earlier but two 'rounded corners' and two vignetting options use the versatile post-crop vignetting options also found in that panel.



6 Returning to our previous example, we move on to the B&W Presets category. These all produce monochrome effects, with high and low contrast effects at the top of the list, followed by five different B&W looks. These make variations to the Basic panel sliders and the Tone Curve to produce various exposure and contrast effects.



9 The final photographic presets category is General Presets. Here you can find a small selection of miscellaneous presets that adjust settings in the Basic, Tone Curve and Detail panels. Auto Tone applies the Auto setting from the Basic panel and Zeroed zeroes all sliders, removing any previous processing settings from the image.



7 The third B&W Presets category includes a wide range of special monochrome processing simulations. The ever-popular sepia toning process is found here and you can also find selenium toning, cyanotype and creamtone, as well as two different 'antique' effects and a selection of four different split-tone processing options.



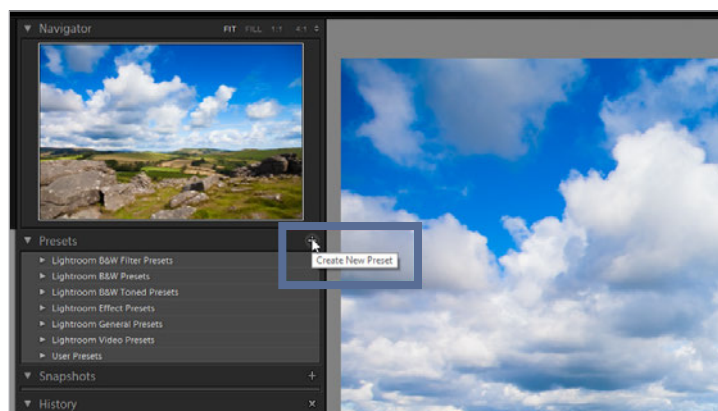
10 The Video Presets category is an oddity, since video clips can't be opened in the Develop module. Instead, you can apply these presets to your video clips using the Presets drop-down menu in the Library module's Quick Develop panel. There are two B&W options, two colour options and two cross-process special effect options.

Saving Your Own Processing Presets

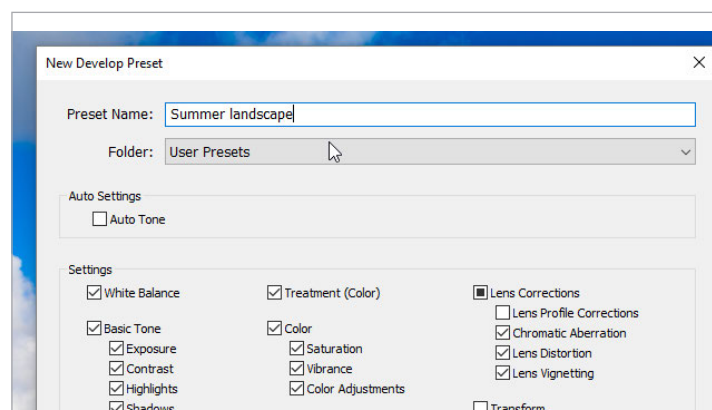
If you regularly process similar types of photos using the same settings, you can turn your settings into a user-defined preset that can be saved and reused on other photos. It's quite easy to do but does require some explanation.



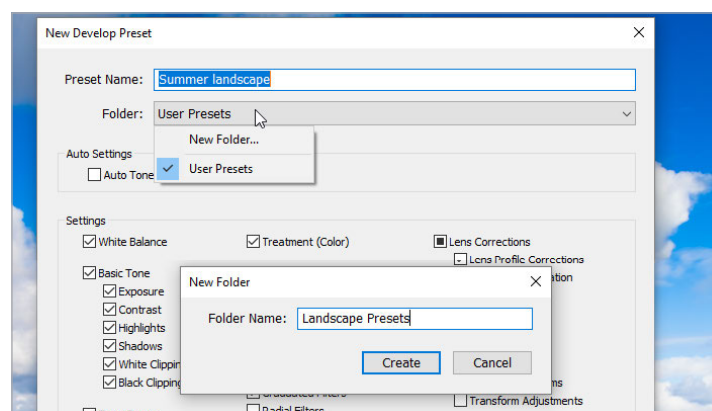
1 If you have a set of processing steps that you use regularly, or if you need to perform the same operation on batches of photos, it makes sense to turn that operation into a preset. To get started with this, open an example image in the Develop module and carry out the processing steps on it that you want to save as a preset.



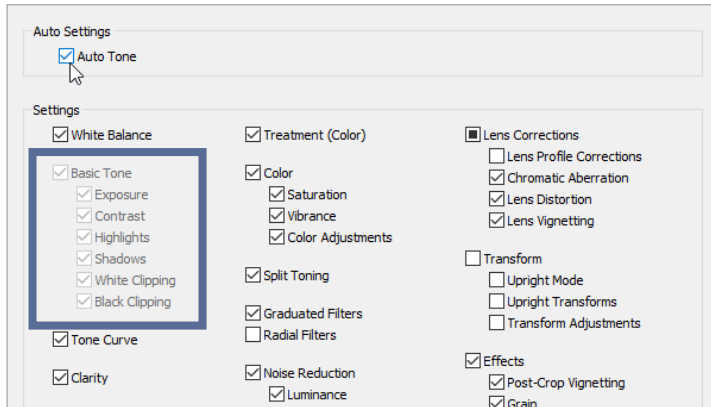
2 Once you're happy with your processing settings, take a look at the left-hand sidebar. On the right-hand end of the title bar of the Presets panel, you can see a small button with a + symbol; if you mouse over it you can see the tooltip text Create New Preset. Click on this button to go to the New Develop Preset window.



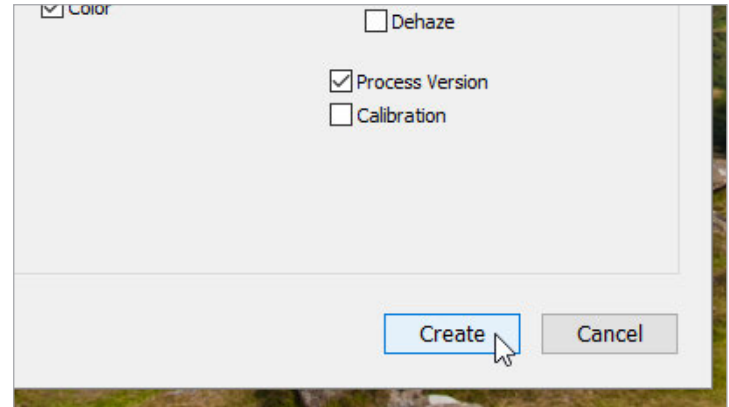
3 The New Develop Preset window is one of the most complicated screens in Lightroom, involving multiple options, so let's go through it step by step to break it down for you. The first thing you need to do is give your new preset a name. Here we're enhancing a typical summer landscape shot, so it is named appropriately.



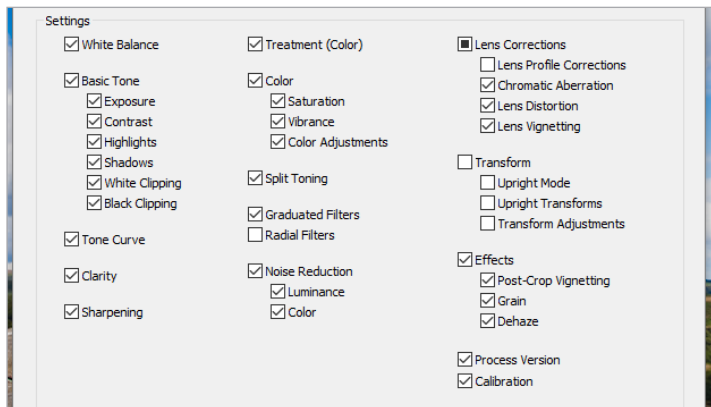
4 Next, we decide where we want to save our new preset. Click on the Folder bar and you can see a drop-down menu. The default option is to save it in the existing User Presets folder but you also have the option to create your own new presets folder. If you plan on creating several different presets this may be useful.



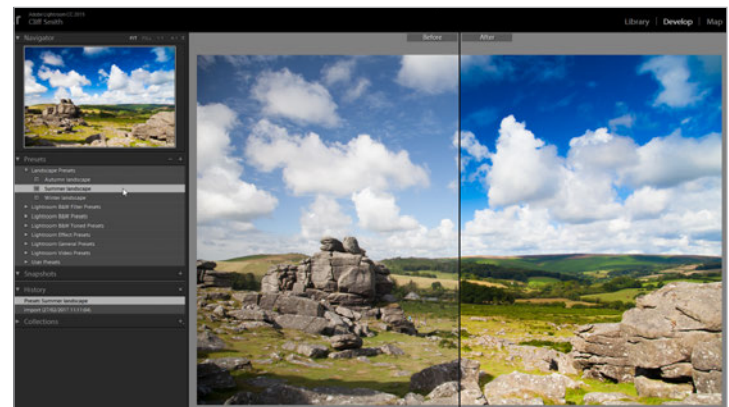
5 Above the main options panel in a box by itself, you can see the Auto Tone check box. If you click in this box you can see that all of the Basic Tone options immediately grey out, because Auto Tone overrides all other tone settings. If your preset includes specific Basic Tone settings, as our example does, leave Auto Tone unchecked.



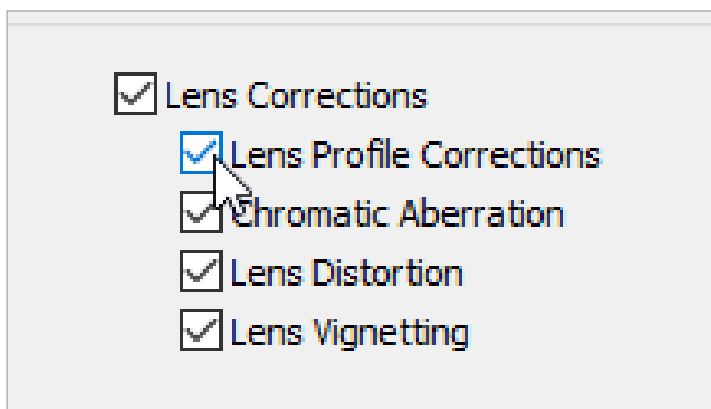
8 Once you're happy that you've checked all the appropriate boxes, click on the Create button at the bottom of the screen. The preset will now be saved, either into the User Presets category or into your own named presets folder, both of which are found in the Presets panel. Take a look there just to check that it has saved correctly.



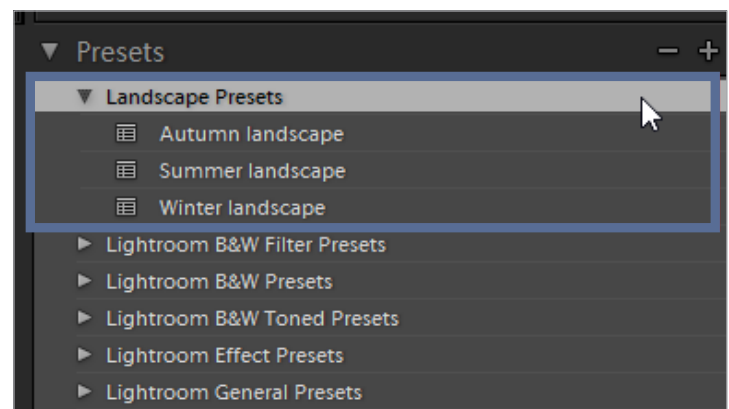
6 Next, go through each of the check boxes in the Settings panel. Essentially, if your processing formula changes any of the settings listed, you need to check the box for that setting so that it is included in the preset. Although many are pre-checked by default, this does not automatically correspond to your current settings.



9 You can now use your saved preset to copy the same settings to a new photo. Simply open the photo in the develop module, open the Presets panel and click on the saved preset just as you would with the built-in default presets. The settings that you saved will be applied to the new photo. You can also batch-process in the Library module.



7 One setting that it is worth paying closer attention to is the Lens Corrections section. By default, Chromatic Aberration, Lens Distortion and Lens Vignetting are checked, but Lens Profile Corrections is not. If you want your preset to make use of Lightroom's lens profile database, you need to check this option as well.



10 By creating and properly organising your presets, you can speed up processing immensely, especially if you regularly shoot large batches of similar shots that you want look a particular way. Remember that you can use presets as a starting point and that you can tweak and adjust preset settings to suit individual shots.

Advanced Effects

Lightroom's extended features and effects are probably some of the best you'll come across in the design and editing software world. Our example here shows just what can be done and as we've seen with the other elements of Lightroom, these effects can be applied relatively easily.

Here's an example image that is in need a little creative makeover. Film grain can look great on the right kind of image, giving a nice gritty journalistic look to high-contrast black and white images. In this case, it's a fairly simple transformation. We just converted the image to monochrome, reduced the exposure and boosted the contrast a bit, and then added the film grain effect from the Effects panel. The result is a great study in texture and contrast.

AFTER





You are Here: The Map Module

The satellite systems employed by governments and companies are so accurate, they can pinpoint your location to within a couple of metres anywhere on the planet. Most mobile devices incorporate global positioning, as do many compact cameras. Lightroom can use satellite positioning data embedded in the metadata of your photos to log the location where the photo was taken, and all via the Map Module.



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103 Selecting the Map View

103 Access the Metadata Panel

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109 Location Data Privacy

110 Before and After: Advanced Processing

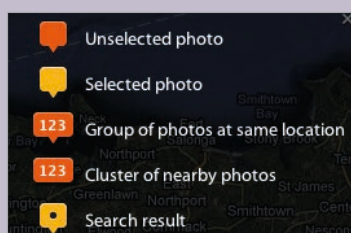
Introducing the Map Module

The Map Module is where you can organise your photos based on the location in which they were shot. By using a combination of satellite location data and location tagging, it can plot your photos on a map of the world. It's not just a useful way to catalogue your photos, it's a great way to see where you've been in the world!

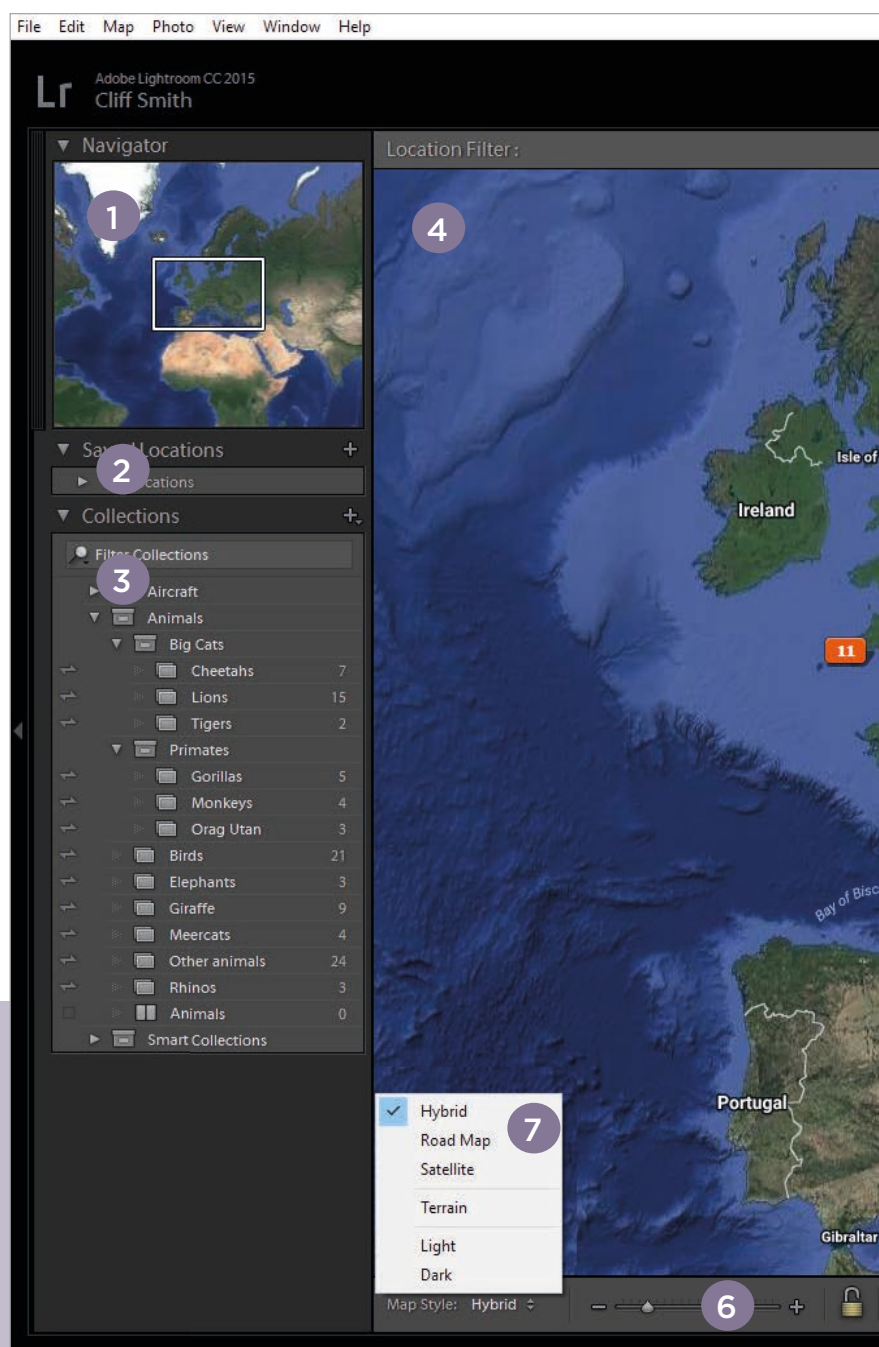
The Map Module is an interesting part of Lightroom but not everyone will find it useful. If your camera isn't equipped with satellite positioning and you don't regularly tag your images with location data then you may not need to use it at all, and if so you can just skip ahead to the next section. However, you may find that it's worth your time to learn a bit more about the Map Module, because it provides another great way to organise your image library and find images based on their location.

The main part of the Map Module is, not too surprisingly, a map. This is based on Google Maps terrain and satellite data, is fully zoomable and draggable, and shows the whole world complete with satellite imagery. The left sidebar holds the Navigator thumbnail to help you navigate around the main map, as well as a Saved Locations panel and the Collections panel. The right-hand sidebar only has the Metadata panel showing the key information of any selected image.

The Key to Map Module Preview Pins



Most mobile phone cameras, including iPhones, record GPS coordinates in metadata. If your camera doesn't record GPS coordinates you can add it in the Map module or import a track log from a GPS device.



1 Navigator

The navigation tool shows a zoomed-out view of the current map location. This enables you to see more clearly where in the world you're looking.

2 Saved Locations

In this panel, you can save a number of bookmarks for locations that you have found. It's a useful tool for accessing locations you want to keep returning to. We'll look at saving locations later on.

3 Collections

While you can't view the full library from the Map Module, you can access your Collections and organise location specific shots into new collections.

4 The Map View

This is the main part of the Map Module display. It shows a zoomable, draggable world map with all the locations of your geotagged photos flagged for easy reference.

5 Preview Thumbnail

Mouse over any of your flagged locations to see a preview thumbnail of the images at that location, with the time, date and exposure data.

6 Zoom Control

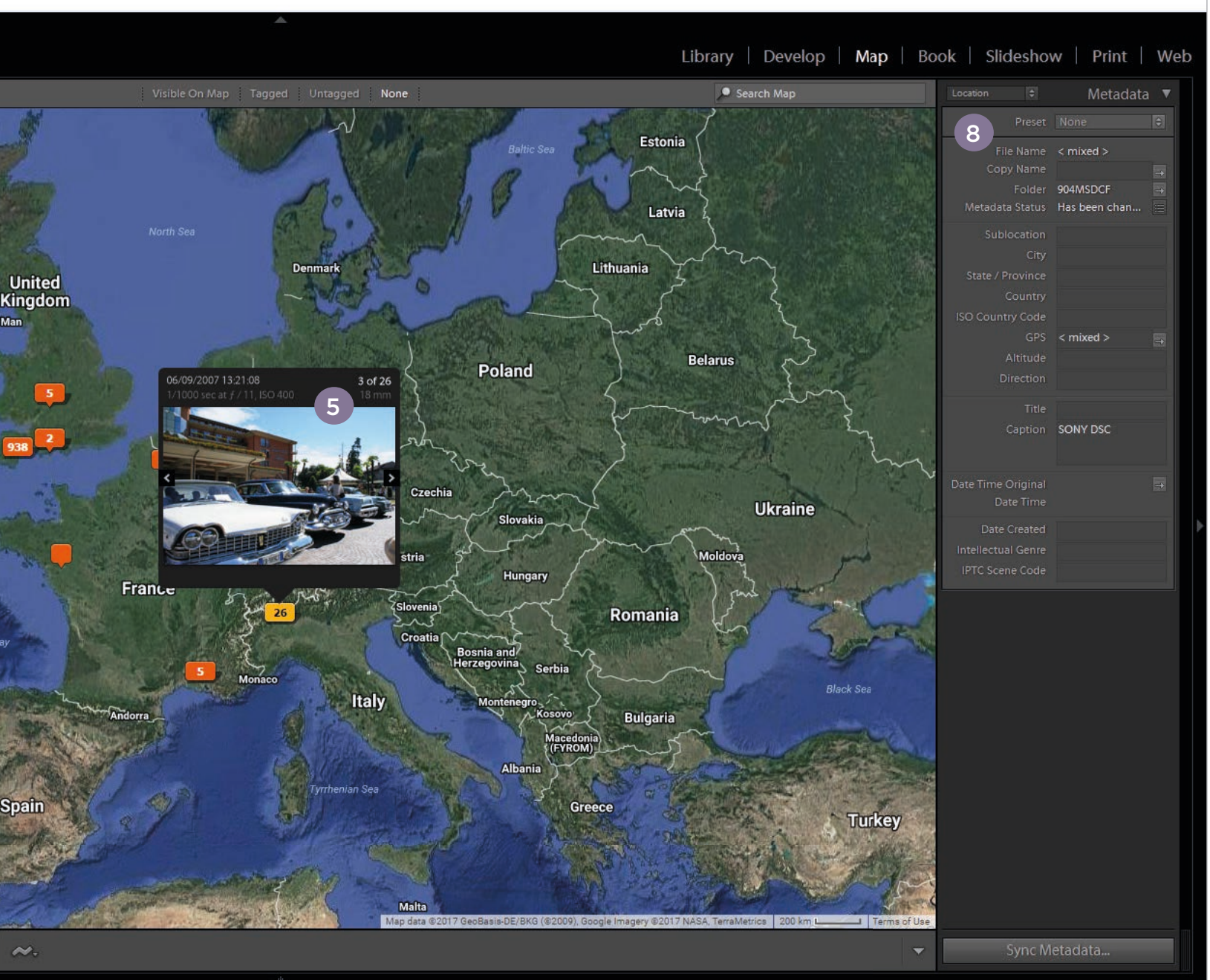
This zoom control slider lets you set the magnification level of the map view. The mouse wheel can also perform the same function. You can also lock the zoom level with the padlock icon.

7 Map View Options

There are several viewing options for the main map, including roads, terrain and satellite imagery. The default is a hybrid that shows political boundaries.

8 Metadata Panel

This is the same as the Metadata in the Library module and shows the data for the currently viewed image. The default option is naturally Location metadata.



Using Image Location Data

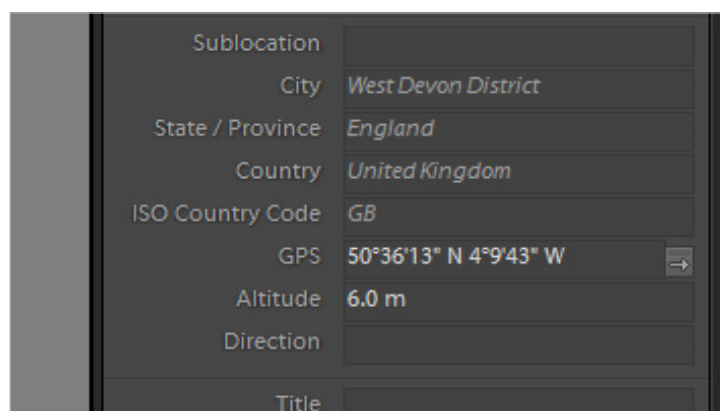
For photographs to appear on the map of the Map Module, they need to have satellite location embedded in the metadata. If the photo was taken using a device with built-in GPS this will happen automatically but how do you add location data in other circumstances?



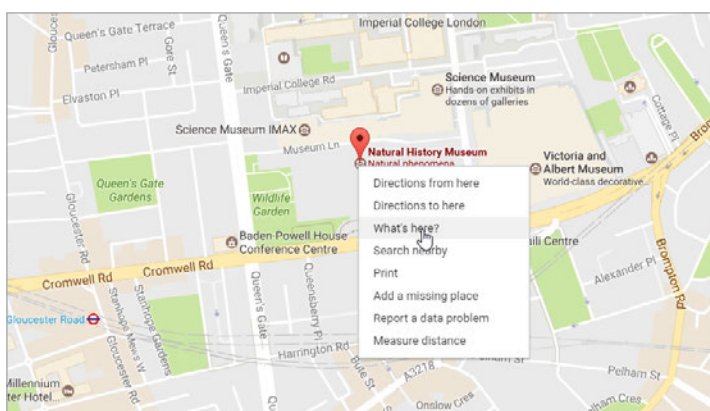
1 Mobile phones, many compact cameras and some other devices have built-in satellite location technology (GPS) and automatically add location data into the metadata of all recorded images. For example, this photo of the Church of St. Michael on Brentor on Dartmoor, was shot using a camera drone that has built-in GPS.



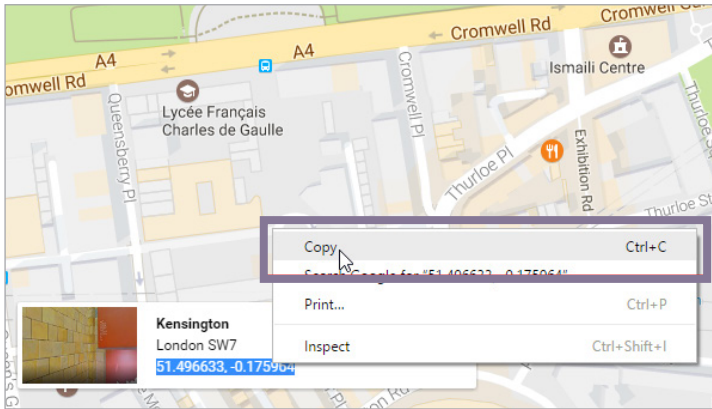
3 As long as you know where a photo was taken, it's relatively easy to find and add location data manually. Let's look at another example. Here we have a photo of Dippy the Diplodocus that was obviously shot in the Natural History Museum in Kensington, London; but as you can see the location metadata fields are all empty.



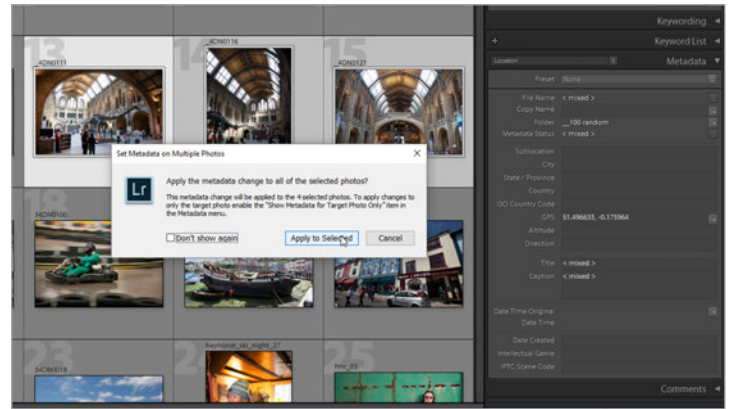
2 If you look more closely at the metadata panel you can see that it includes very precise map coordinates and even an altitude value. Using this data, Lightroom automatically adds the information in the city, province and country fields. However, what if your camera doesn't have built-in GPS, how can you add this data manually?



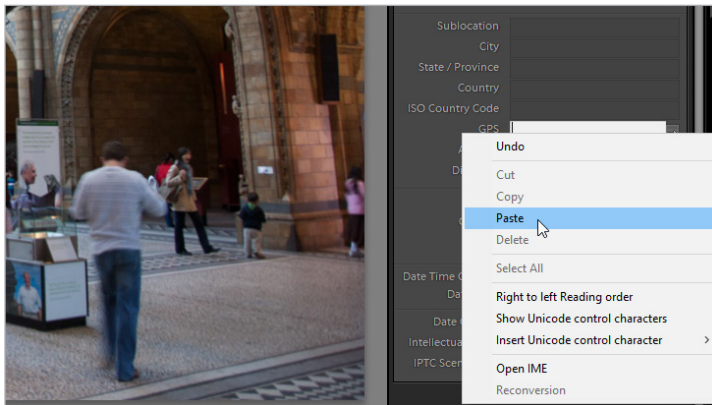
4 To find the map coordinates for the Natural History Museum, we need to turn to Google Maps. Such a well-known landmark is easy to find by searching of course but the following procedure works for any location. Simply right-click on the location and in the context menu that appears, left-click on the third item, "What's here?".



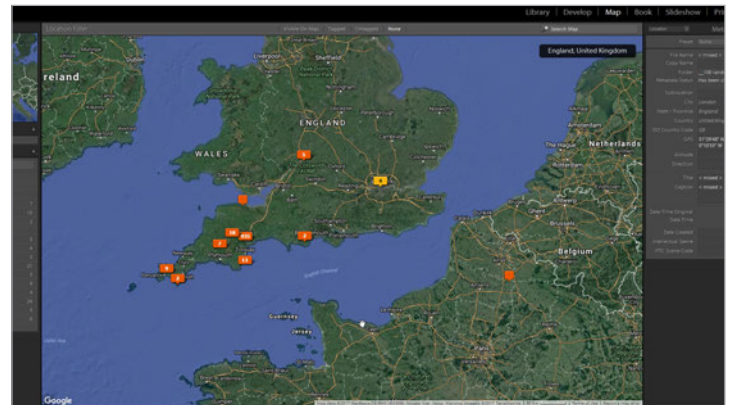
5 At the bottom of the map screen you can see a new notification appear, that gives you the name and postcode of the location, as well as the accurate map coordinates that we need for the location metadata. Simply highlight the coordinates with your mouse (left-to-right only), right-click on it and select Copy from the menu.



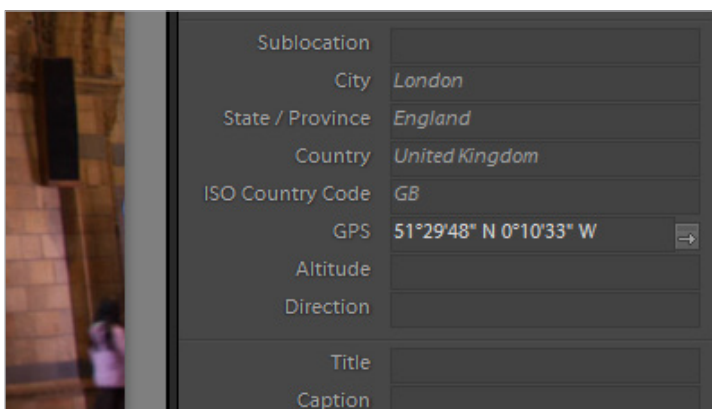
8 If you've got a batch of photos that were all shot in the same location, you can add this location data to all of them at once by selecting them all in the Library Module grid view and then adding the coordinates in the same way as before. You should see a confirmation screen asking if you want to continue: click Apply to Selected.



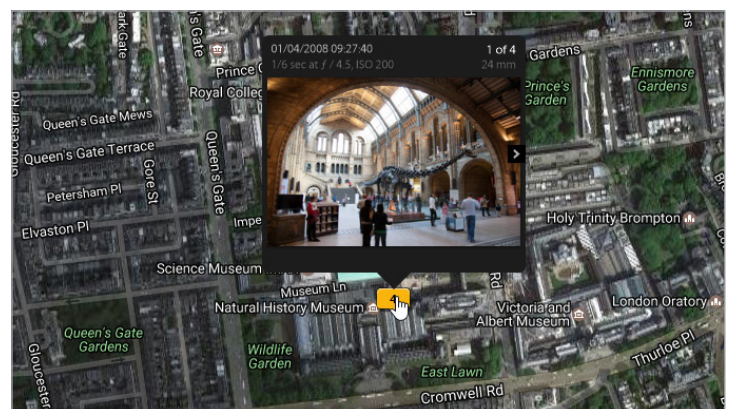
6 Next, we go back to our unlocated image in the Lightroom Library Module. Right-click in the GPS field of the location metadata panel and select Paste from the menu. This will paste the copied coordinates from the Google Maps page into the field. Lightroom can recognise several different coordinate formats.



9 With the images that you just tagged still selected, click on the Map Module tab at the top of the screen. You should immediately see that there is now a new map location, highlighted in yellow, indicating the position of the selected images. You can zoom in on these by using the mouse scroll wheel to check the location.



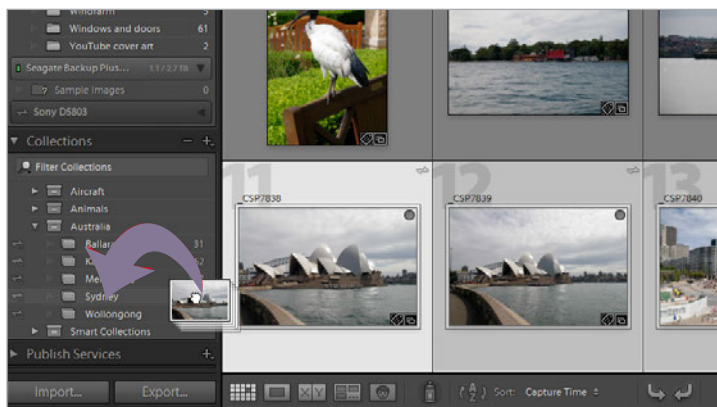
7 Once you've pasted in the copied data, hit the Return key. Lightroom will automatically translate the Google Maps decimal format coordinates into its preferred degrees, minutes and seconds format; and will automatically fill in the information in the city, province and country fields, as well as the ISO country code for Britain, GB.



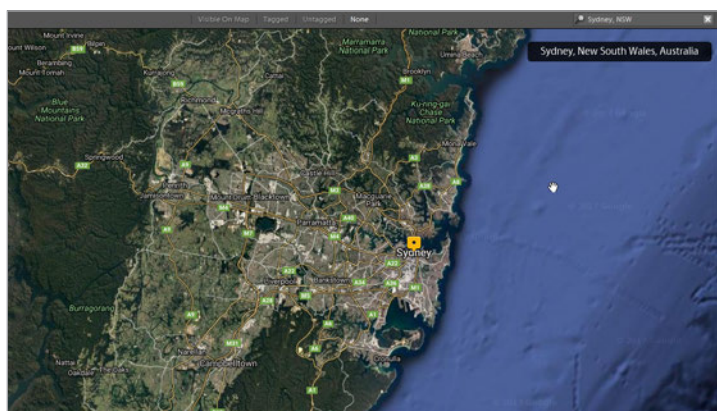
10 Zooming in on the map confirms that your added coordinates have accurately located the photos at the Natural History Museum, and clicking on the flag shows preview confirming they are the right images. As long as you can find the location on a map, you can use this method to add geolocation data to any image in your library.

Organising Images by Location

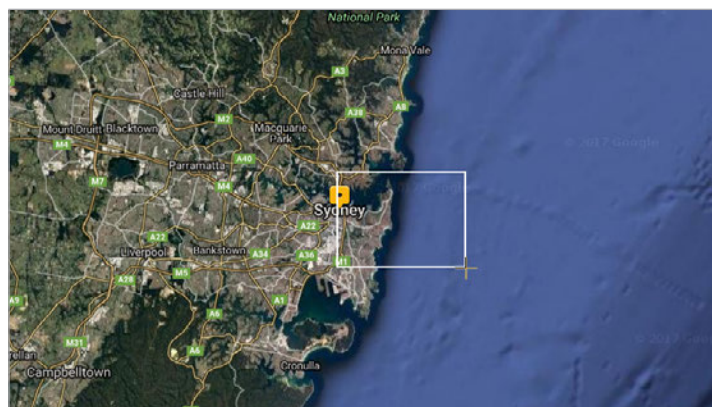
We've looked at ways to add geolocation data to images but the Map Module offers several ways to sort and organise images by location. It's useful to working professionals and equally people who want to organise their holiday snaps.



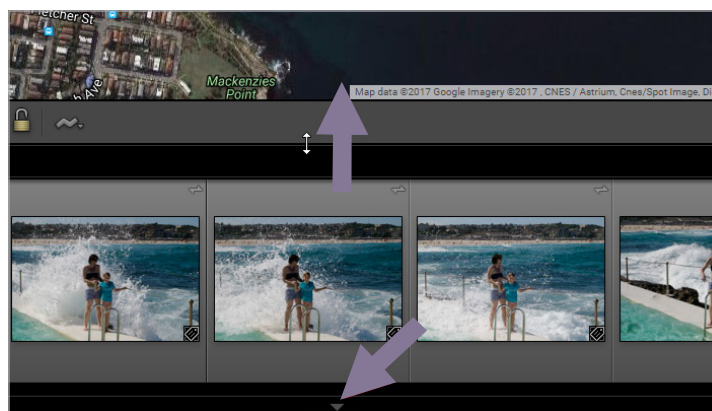
1 If you have photos that were taken in a specific area, for instance on a foreign holiday, you can quickly sort and organise them based on their location using the map module. To get started, it makes things a lot easier if you already have them organised into collections, since the folder view is not available in the Map Module.



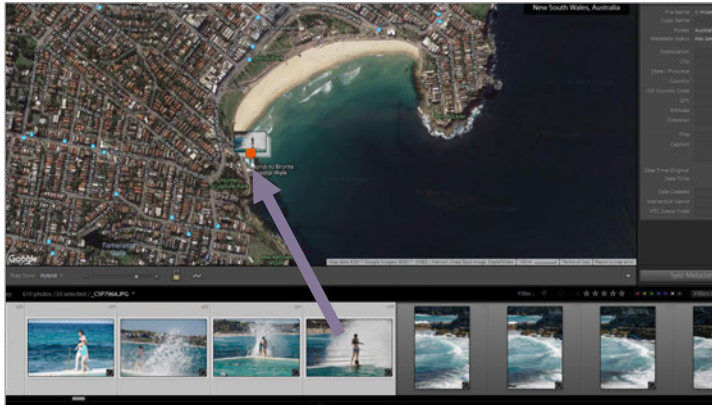
2 For this tutorial, we'll use a collection of photos that were shot on a trip to Australia, specifically around Sydney. Open the Map Module, and in the top right of the main viewing area you can see a search box. We'll type in Sydney, NSW and press return. The map will quickly focus on the Sydney area, with a pin in the location.



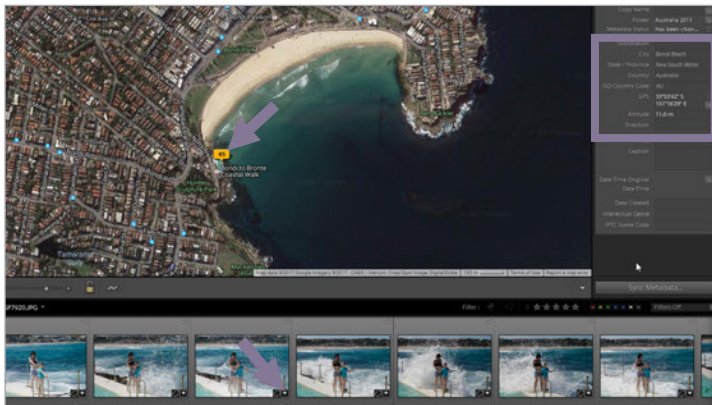
3 To zoom in more closely on a specific area, in this case the area around Bondi Beach, just east of Sydney city centre, you can use the mouse scroll wheel, or hold down the Alt key (Option key on a Mac) and then click and drag a box around the area to which you want to zoom. When you release the Mouse button it will zoom in.



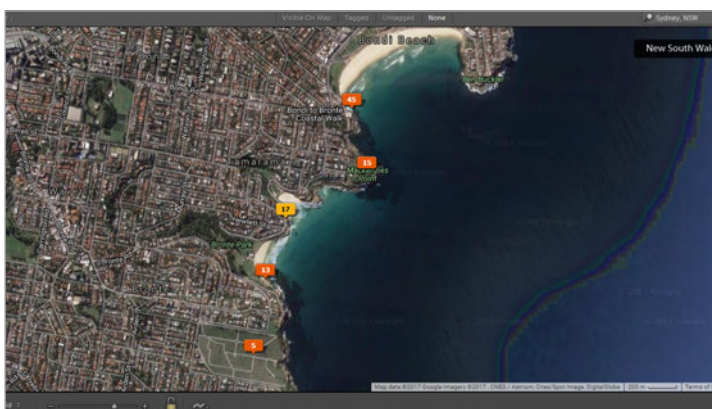
4 The next step will be a lot easier if you have the Filmstrip open. If you move the mouse pointer to the bottom of the screen the film strip will pop up but if you click on the little downward-pointing arrow it will stay open. You can also drag the top bar of the filmstrip upwards to maximise the size of the thumbnails for easier viewing.



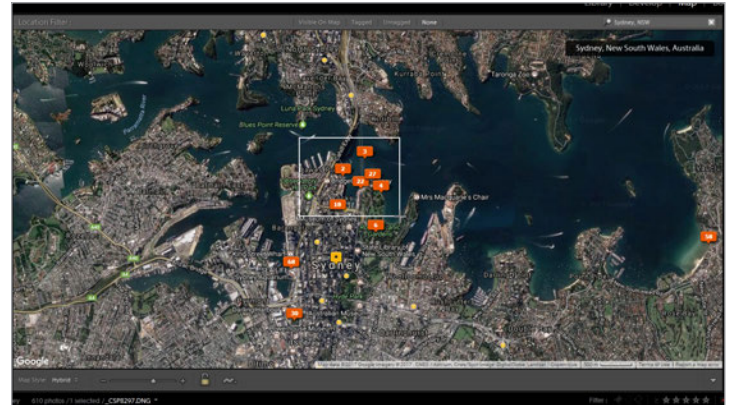
5 We have a group of photos in this collection that we know were taken around the swimming pool of the famous Bondi Icebergs club that is clearly visible in the Map Module's satellite view. To tag these photos to this location, highlight them in the filmstrip and then simply drag them onto the map screen in the location.



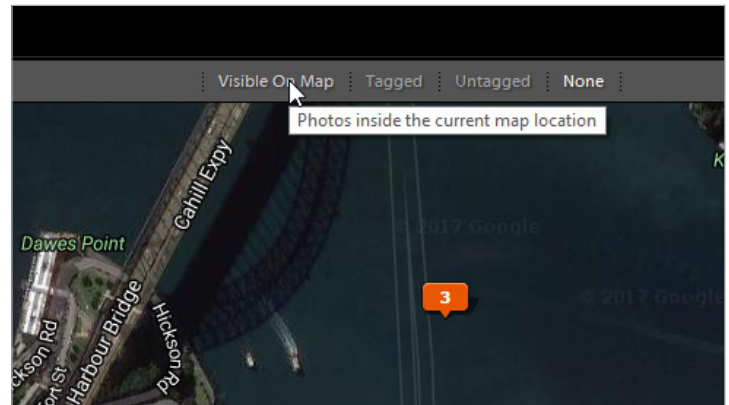
6 You can see immediately that there is now a pin on the map showing the number of shots that you tagged to that location. The shots that you tagged in the filmstrip now have the little sign icon that indicates that they have location data attached; and in the metadata panel on the right, you can now see that location data has been added.



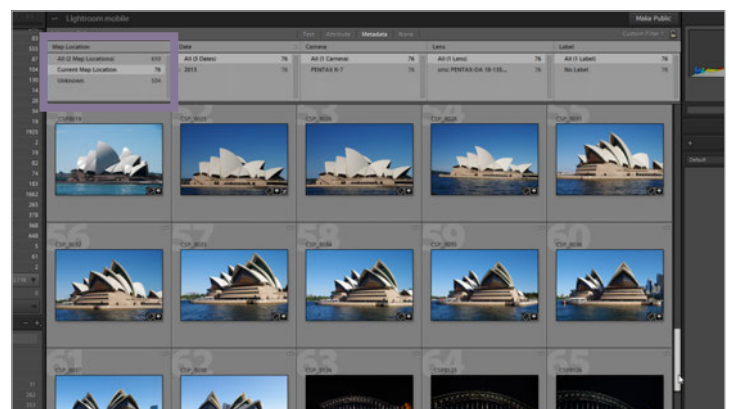
7 You can carry on like this, highlighting and dragging photos onto the map, until you have successfully geotagged your entire trip. To add more shots to an already tagged location, simply drag the new shots onto the existing flag. By the time you've finished your map should show every place you visited on your journey.



8 Once your photos are tagged, you can use the geolocation data and the map to select photos by the area in which they were taken. Let's say that we only want to see the photos that were taken around Sydney Harbour, near the Opera House. Holding down the Alt key and dragging a box around that area zooms in.



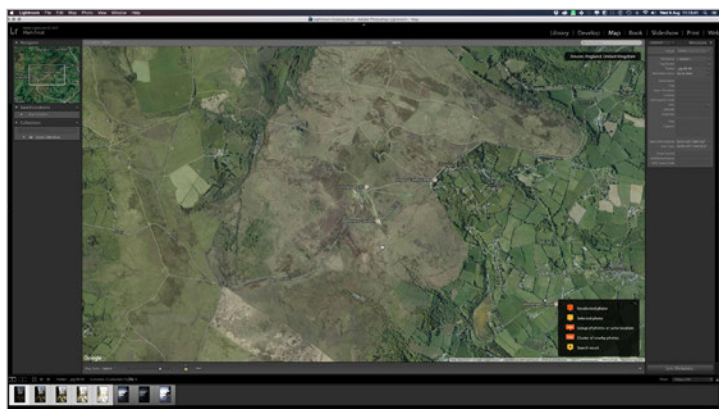
9 At the top of the map screen you can see a row of filter selections. The far left one is Visible On Map, which limits the selection to just photos tagged within the currently viewed area. When you click on this, you can see that the selection of photos visible in the filmstrip changes to only show the photos from the selected location.



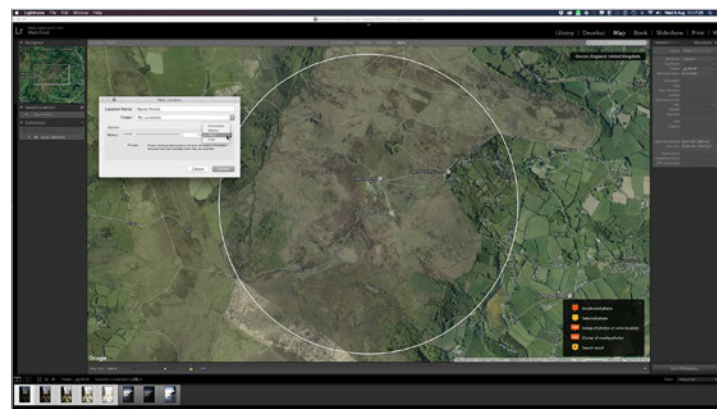
10 If you now return to the Library module, you can see that the photos from the tagged location are selected here as well. The Metadata search filter shows the Map Location filter, with Current Map Location as the criterion and the number of selected photos. Using this feature you can quickly select photos from any location.

The Map Module: Saved Locations

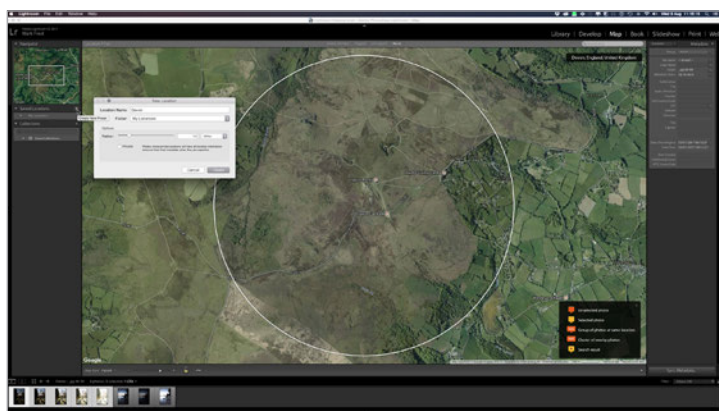
If you travel a lot with your camera, there are probably locations that you visit frequently, whether professionally or for leisure. You can set up locations in the map module like bookmarks, so that you can quickly find them again; but it doesn't stop there.



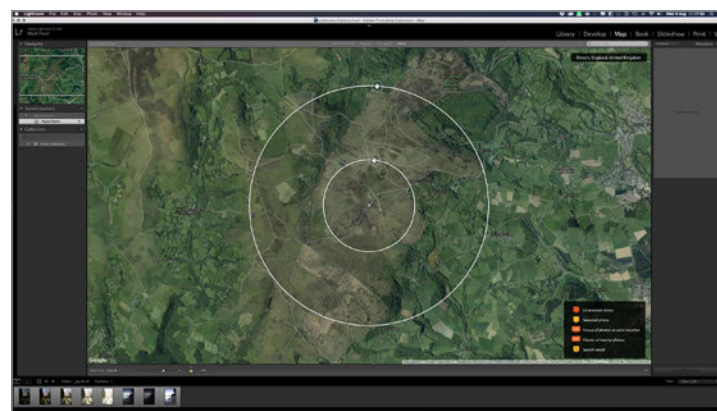
1 Saved Locations is a powerful tool within the Map Module that lets you quickly select frequently used locations, view those locations and tag photos to those locations. To get started, pick a location that you have visited and photographed, in the case of our example shown here, Haytor Rocks, Dartmoor, Devon.



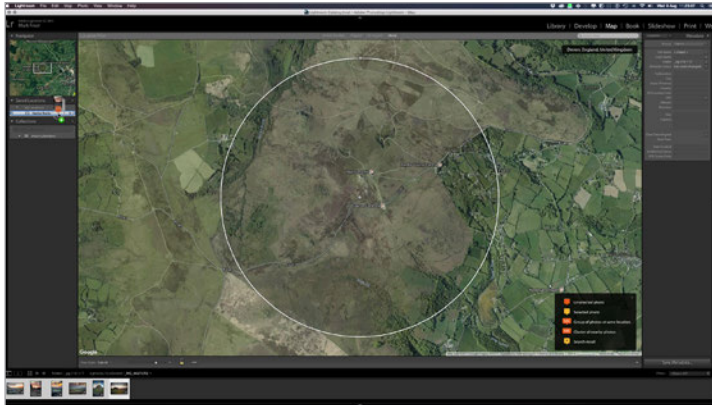
3 The default name for the new location is just the broader geographical area, in this case Devon, so the first task is to rename it. You can also adjust the size of the circle, using the slider and choose the units of the radius of the circle using the drop-down menu. Ignore the tick-box for now, you can come back to that.



2 To create a Saved Location, look at the left-hand sidebar, at the Saved Locations panel. On the title bar of the panel, at the right-hand end, is a + symbol. Click on this and the New Location dialogue box opens up. At the same time, a white circle appears on the map screen, centred in the middle of the visible map area.



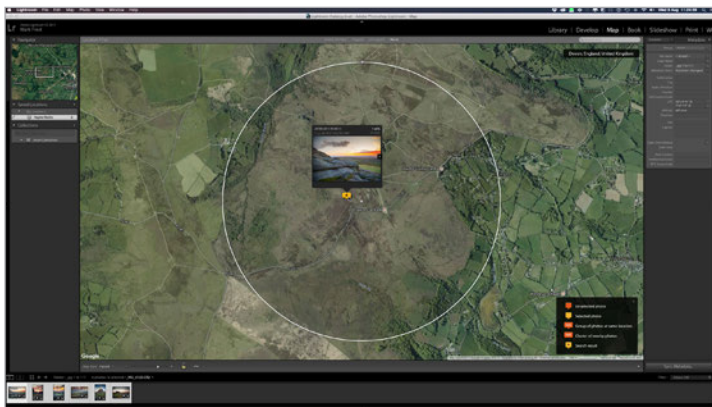
4 You can move the circle by clicking the button in the centre and dragging it. You can further adjust the radius of the circle by clicking and dragging the button on the top edge of the radius. Adjust the size and position so that it encompasses the area that you photographed. Note that the circle can be as small or as large as you like.



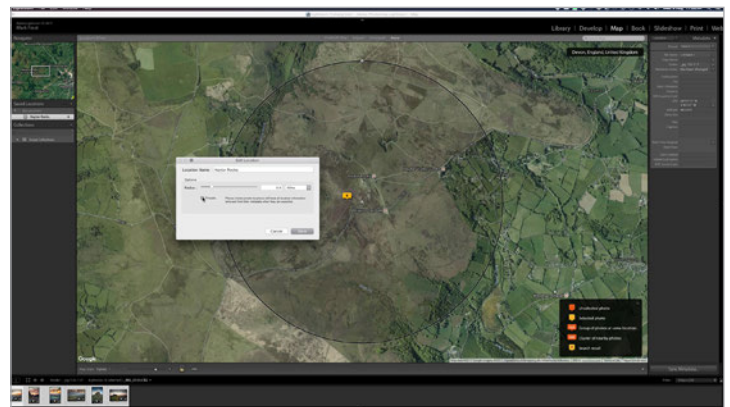
5 To add photos to this location, you can highlight them in the filmstrip and drag them on to the map as on the previous page, but Saved Locations gives you another option. Highlight photos that you want to tag, and then move your mouse pointer over the label for this location in your Saved Locations panel. Now, a check-box appears.



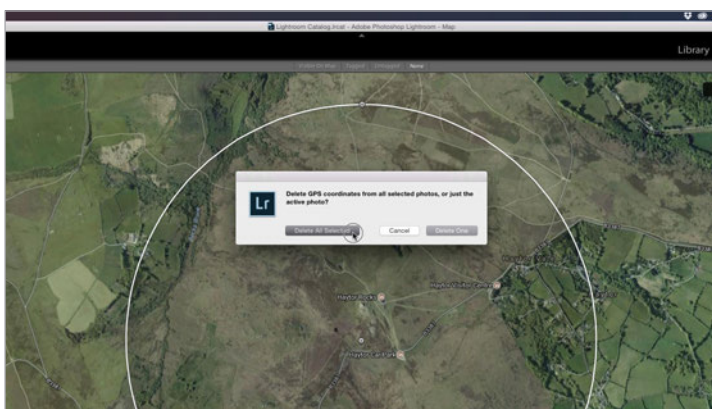
8 You can adjust the size and position of a saved location after you've set it up by dragging the buttons as in step 4. If you want to adjust the settings, right-click on the button in the Saved Locations panel to see an options menu. You can see that you can import and export saved locations too, just as you can with presets.



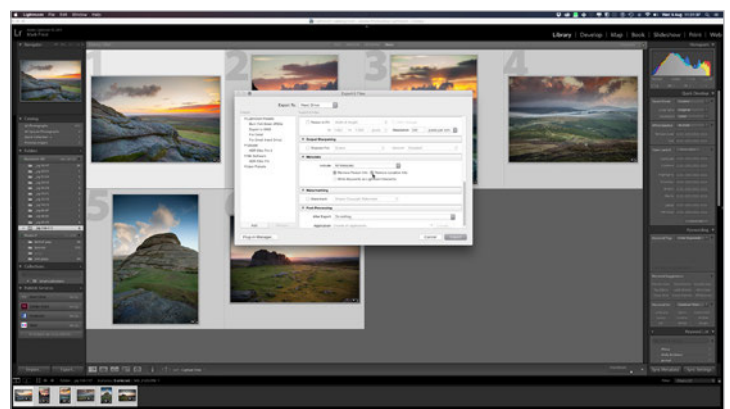
6 When you click on the check-box, your selected photos will be tagged with the saved location. If you look at the map now, you can see that they are represented by a flag placed at the centre of the white circle. The GPS coordinates and place names in the metadata panel have been updated with that location too.



9 In the menu, select Location Options and then see the same screen that you saw in step 2. If you now click on the Private check-box, you can see that the white circle turns black and the area inside it is tinted grey. Now, when you export any images from that area, all the location data will be stripped from them, preserving privacy.



7 It's worth noting at this point that if you want to remove the GPS data from any tagged images in the Map Module, i.e. you tagged them at the wrong place, click on the flag on the map and tap the Delete key. You'll see a confirmation box appear asking if you want to delete the GPS data from one image or all selected.



10 Now, if you select a group of images from within a saved location, with Privacy turned on, then return to the Library Module, when you click on Export you'll see that in the list of options, the check-box for Remove Location Info is automatically selected. That way nobody can trace the location of the image from the metadata.

Advanced Processing

We have seen that Split Tone Processing can lead to some fantastic results, so combine what you've learnt already and apply the Split Tone Processing effect; you can have a completely unique and one-of-a-kind image to present or simply frame and admire.

Split Tone processing is a way of adding separate tints to the highlights and shadows of an image. Like most processing techniques, it's best to use it with subtlety rather than going straight for maximum saturation. It's also a good idea to use complimentary colours that enhance the atmosphere of the image.

AFTER

BEFORE







Hard Copy: The Print Module

There's something special about a well-made print of a photograph that elevates it to the realm of art. Displaying your best photos, framed and hung on the wall, is a wonderful way to enjoy the results of your photography. Framed prints of your best photos also makes for a great gift idea and thankfully Lightroom has an entire module dedicated to helping you get the best out of your prints; in this chapter we explore what it has to offer.



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115	Print Adjustment Panels	122	Creating Custom Print Layouts
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118	Naming Photos with Identity Plates	126	Managing Printer Colour Profiles
119	Using a Graphical Logo Identity Plate	128	Before and After: Dramatic Effects

Introducing the Print Module

Adobe Lightroom doesn't just give you the tools to improve your photos, it lets you present them in the best possible way too. In the Print Module you can find everything you need to create stunning prints from your photos, including custom templates, layout options, colour management and even copyright watermarking.

In the previous chapters we've concentrated on organising, editing and improving your photographs, but now we move on to the Lightroom modules that deal with presentation, starting with the Print Module. In the modern connected world, where photographs can be shared instantly with people all around the world via online galleries, instant messaging and email, many people don't bother to print their photos. This is a pity, because a well-presented framed and mounted print is still one of the best ways to appreciate photography as an art form. Even the best monitors have trouble matching the sharpness and detail of a printed image and there's something about producing an actual tangible object from your photographs that is infinitely more satisfying than posting an image to a website. A printed image has a permanence to it that digital media just can't match, a sense of historical record. Printed photos are still the accepted way to commemorate a big life event. Whoever heard of a newly married couple having a souvenir Facebook album of their wedding photos?



1 Preview

This panel shows a simple graphic outline of the current print layout template that you have selected in the template browser panel below.

2 Template Browser

In this panel you can find dozens of built-in print layout templates, as well as a folder for your own user-defined templates.

3 Page Setup Button

Click on this to go to your printer options screen.

4 Photo Selection Options

Click here to choose which photos you would like to display and print from the film strip view below it.

5 Main Layout Screen

As with the other modules, this is where you can view the results of your Print Module layouts and adjustments.

6 Layout Style Options

Choose between Single Image, Picture Package or Custom Package.

7 Image Settings

This contains options for how you would like to use zoom and rotation in order for your images to fit the page, as well as the option to add a stroke line around the printed image.

8 Layout Panel

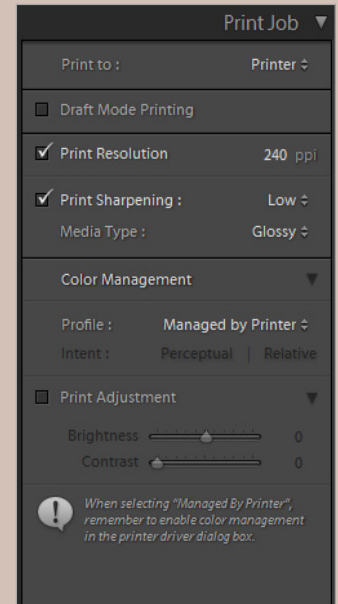
Settings for borders and page grid size, as well as cell size and spacing for multi-image prints.

9 Guides

Options to display guide lines, crop marks, cell borders and rulers.

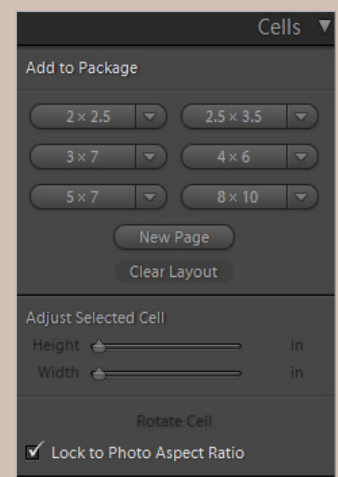
Print Adjustment Panels

As with the other Modules we've looked at, the Print Module comes with its own set of unique adjustment panel contents.



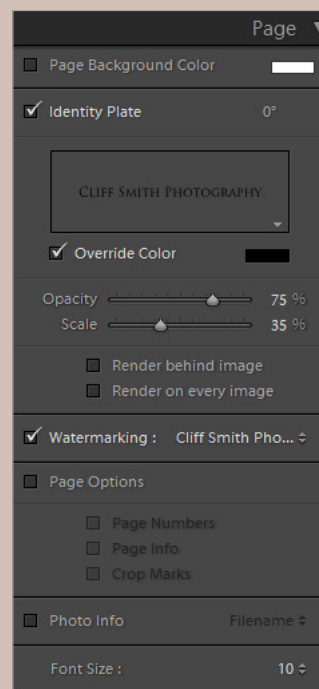
Print Job

Here you can find additional printer and colour management settings, as well as options to adjust the brightness and contrast of the print.



Cells

You only see this panel if you have opted to manually create your own page layout. It allows you to add preset image cells to the page.

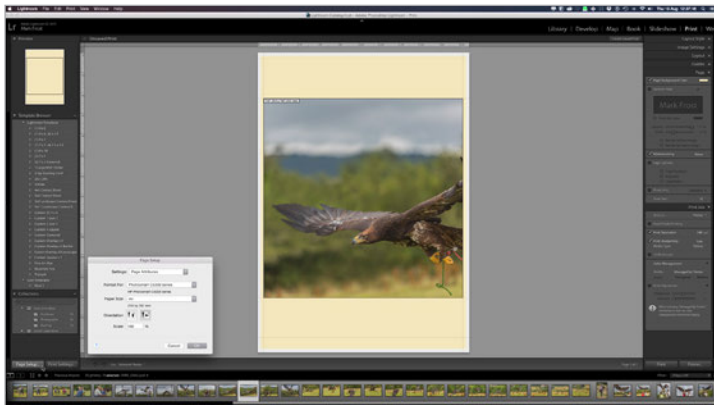


Page Panel

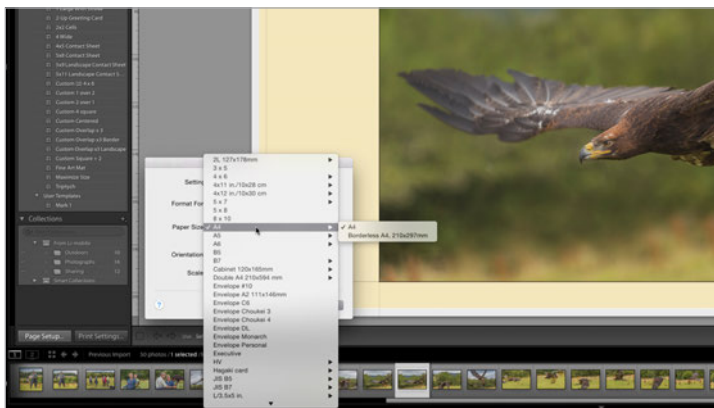
This panel has options for adding your name as an identity plate, page numbers, photo details, crop marks and a copyright watermark. You can alter the font size and choose the opacity and scale of the identity plate as well as its colour and rotation and page background colour. You also have the ability to include several page options such as page numbers, page info and crop marks.

Options and Features

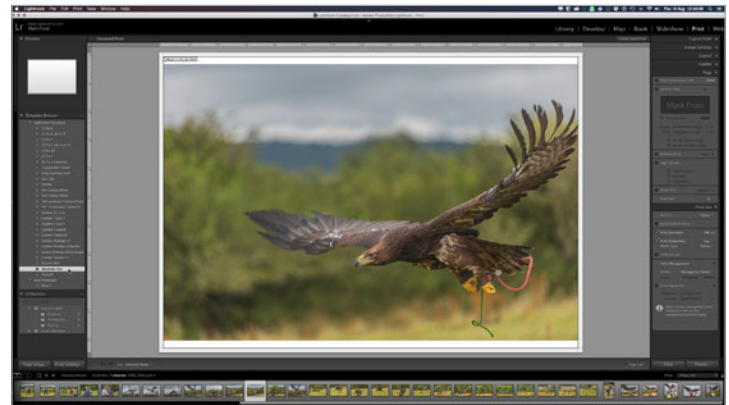
Lightroom's dedicated Print Module has multiple options to help produce stunning photographs that you can proudly display. From framed prints to producing a contact sheet for a client or a page to go in a wedding album, these features offer excellent results every time.



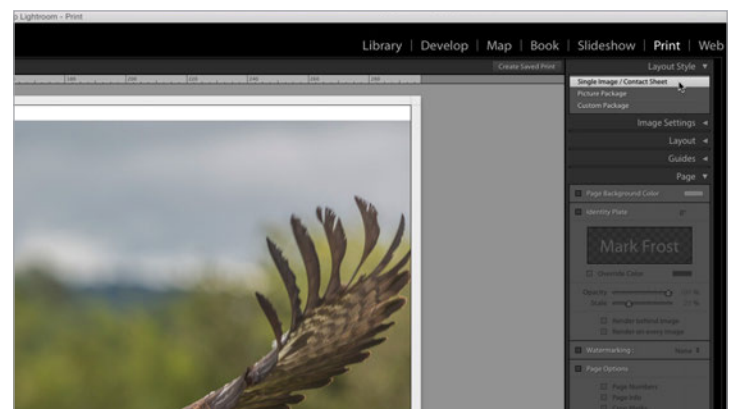
1 Before you start printing, you need to tell Lightroom which printer and what size and type of paper you're using. To do this, you click on the Page and Print Setup buttons in the lower left of the screen, which opens the Print Setup options panel. Note that our screen is on a Mac. It will look slightly different on a PC.



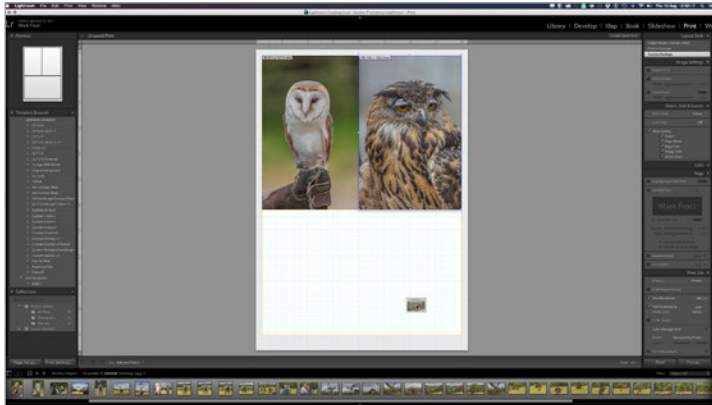
2 Your system's default printer will be preselected but if you have more than one you can choose which one you want to use from the drop-down menu. You can also choose to output to PDF. In the lower drop-down menu you can choose the paper size that you want to use. Lightroom defaults to 8.5 x 11in US Letter size, so do check this.



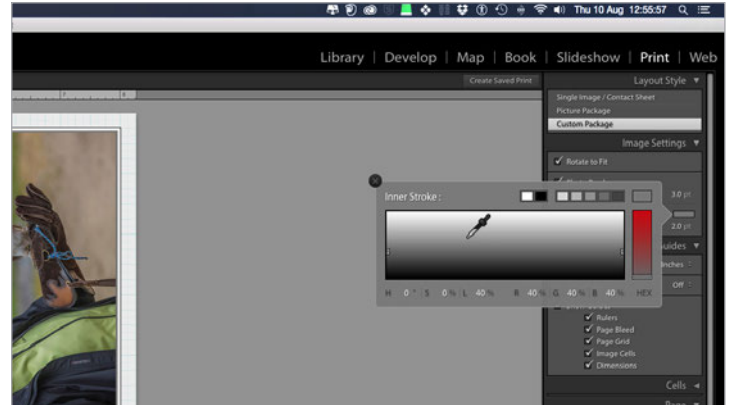
3 The template Browser offers a wide and varied selection of different print layouts, including contact sheets, greetings cards, overlapping collages and many more. One of the most useful, and a good starting point, is near the bottom of the list: Maximize Size, which as the name suggests, fills as much of the page as possible.



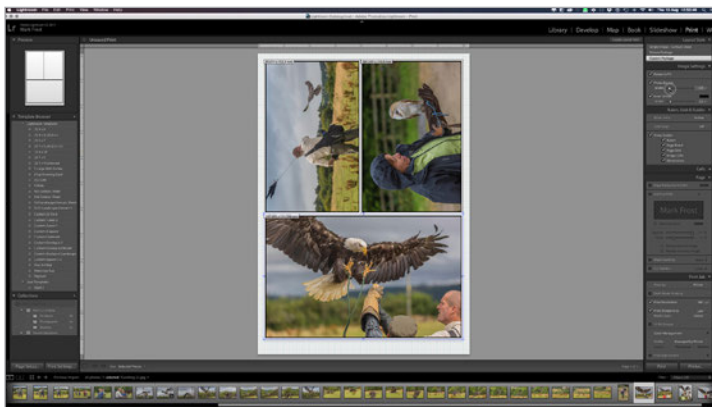
4 If you don't want to use a template, or if you prefer to create your own layout, go to the right-hand sidebar and at the top locate the Layout Style panel. We'll cover creating custom print layouts in more detail later on but if you want to just print a single image, select the top option, Single Image/Contact Sheet.



5 If you choose the Custom Package layout style, the currently selected image is added to the template automatically. With a template selected, to add an image to the page just select an image cell on the page and then drag an image from the Filmstrip into the cell. It will automatically be added to the page in its current orientation.



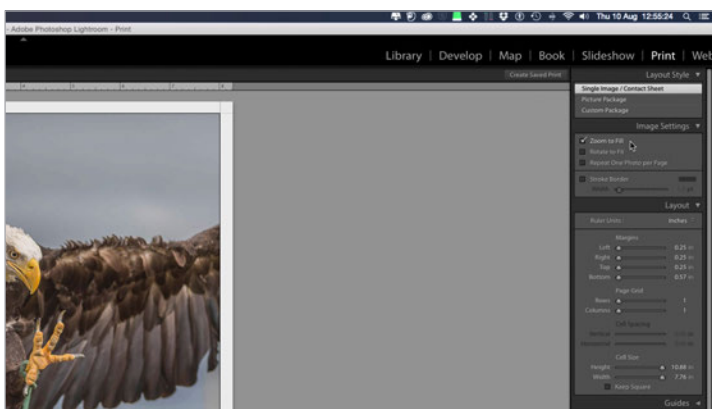
8 The Stroke Border option adds a line around the image, which can look good especially if you're printing a high-key image on a white background with a border. You can choose the colour of the stroke by clicking in the small black box and the thickness by moving the slider. Generally, thinner is better, so less than 3.0pts.



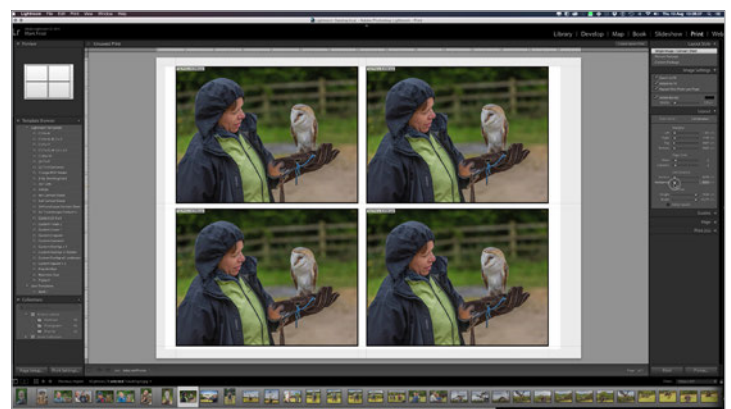
6 If you want to change the orientation of a placed image to fit the template, use the Rotate to Fit option. Note that the available options change depending on what layout style you're using. In our example we don't have Zoom to Fit or Cell Spacing but we do have Photo Borders and Inner Stroke, preset at 3.0 points.



9 In the Layout panel you can see a bank of sliders that let you control the size of the white border around your image. In the Custom Package mode these are replaced by a single Photo Border slider. To add a border around your image, either move the sliders individually or type a value directly into the number boxes.



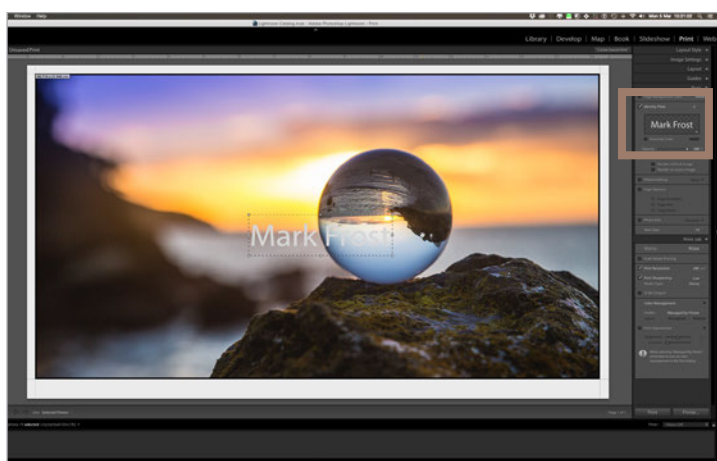
7 You have further options in the right-hand sidebar in Single Image mode. In the Image Settings panel there are a number of check boxes. The top one is Zoom to Fill. If you want to fill the page and don't mind cropping off part of your image, click this box. If you want the whole image to be printed, leave it unchecked.



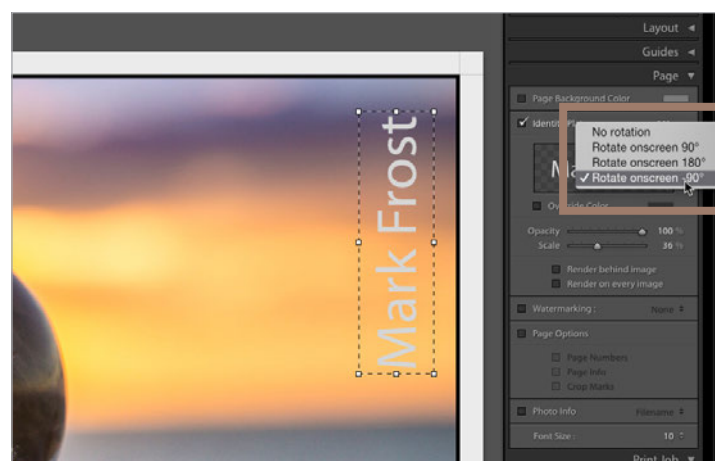
10 Finally you have the Page Grid, Cell Spacing and Cell Size sliders. Using these you can create a grid of cells on the page, adjust the spacing between the cells and adjust the size of those cells. Image settings are repeated for each cell in the grid; you can repeat the same photo in every cell by checking the Repeat One Photo per Page box.

Naming Photos with Identity Plates

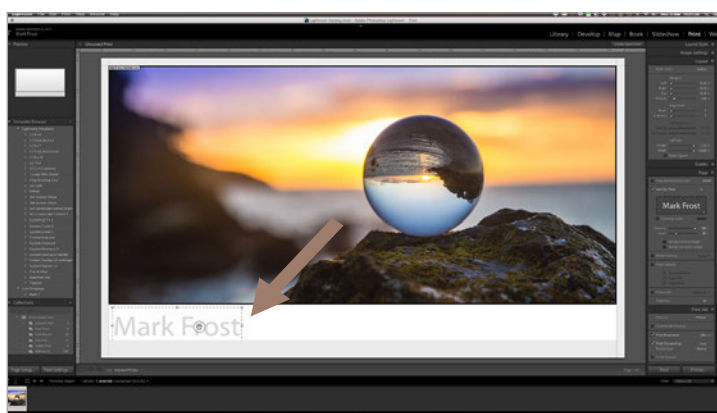
You can add your name, your company or your website address to your printed photographs by using the Lightroom Print Module Identity Plates feature. It's easy to do and adds individuality to your prints.



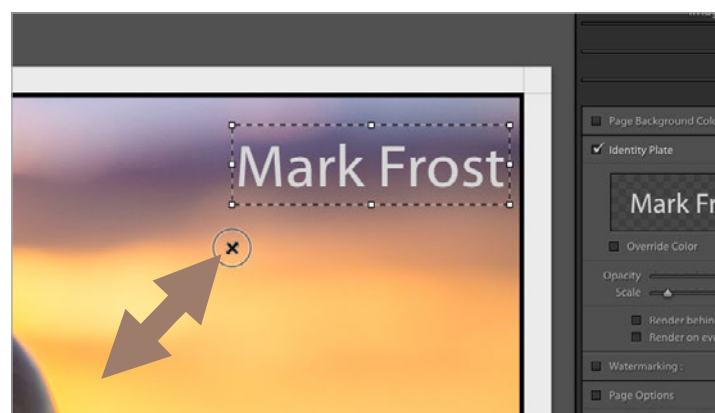
1 Adding a basic identity plate is very simple. In the right-hand sidebar, open up the Page panel and click in the check-box for Identity Plate. The default name that is added is the name on the account that you used to register Lightroom, in large letters in the Tahoma sans-serif typeface, positioned in the centre of the image.



3 You can rotate the identity plate by clicking on the angle menu, which you can find just to the right of the Identity Plate check-box option in the Page panel. The rotation options are limited, either 90 degrees one way or the other, or a 180-degree flip but combined with a wide border it does allow for an arty look to your prints.



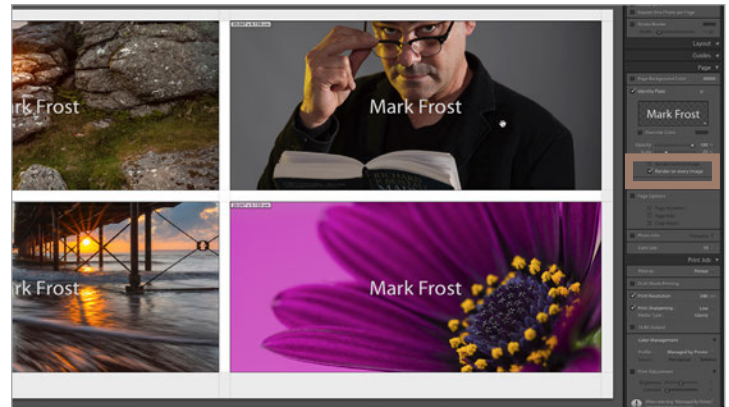
2 You can move the identity plate to anywhere on the page by simply clicking and dragging it; it doesn't have to be on the image itself. If you want, you can increase the size of a border using the sliders in the Layout panel and move the identity plate onto that border, leaving an unobstructed view of your image.



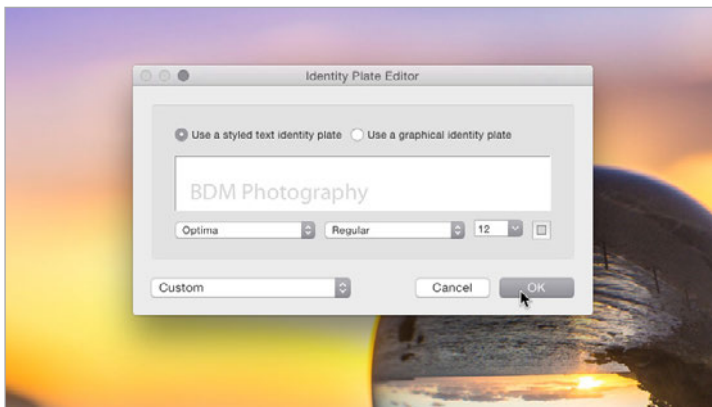
4 You can change the size of the identity plate in two ways. You can move the Scale slider in the Page panel but a more precise and controllable way to change the size is to grab and drag one of the corner handles on the bounding box of the identity plate itself. You can see that the slider moves by itself when you do this.



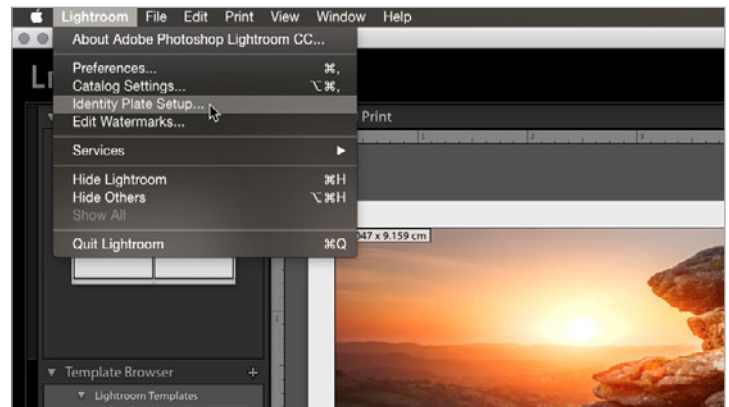
5 The default colour for the text in your identity plate is a light grey. To change the colour, click in the Override Colour check-box and then click on the small black rectangle next to it. This will bring up a colour palette. The default options are all shades of grey but if you want to choose a brighter colour, click on the saturation slider on the right.



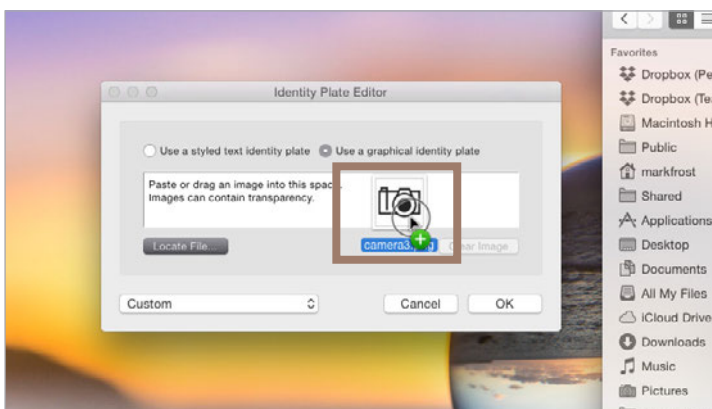
8 If you are printing a multi-image page, there is an option to add an identity plate to every image. Unfortunately, it will place the plate in the centre of the image and it cannot be moved. Alternatively, you can just have a single ID plate but set it to render behind the images. Obviously, this will only work with certain layouts.



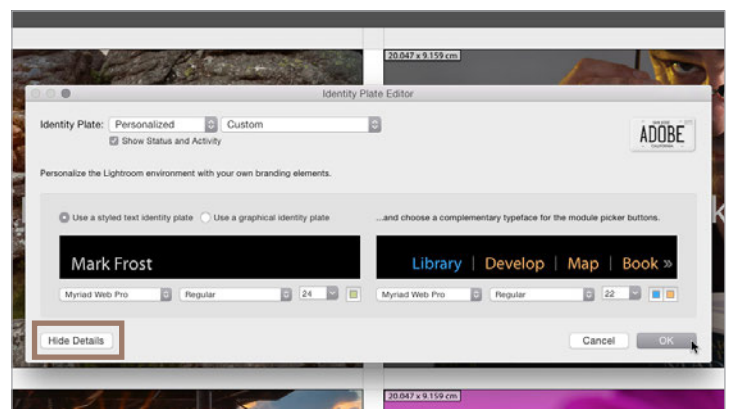
6 You can edit the text in your identity plate. Click in the box on the Page panel that shows your current plate and select Edit from the drop-down menu. The Identity Plate Editor panel will appear, in which you can change the text and font of your plate. You can drag the editor panel out wider if you need to fit in more text.



9 You can personalise more than just your prints with identity plates; you can personalise your Lightroom workspace as well. Go to the Edit menu (PC) or Lightroom menu (Mac) and select Identity Plate Setup. You can see a panel like the one from step 6. If you saved your Identity Plate, you can see it available as an option in the drop-down menu.



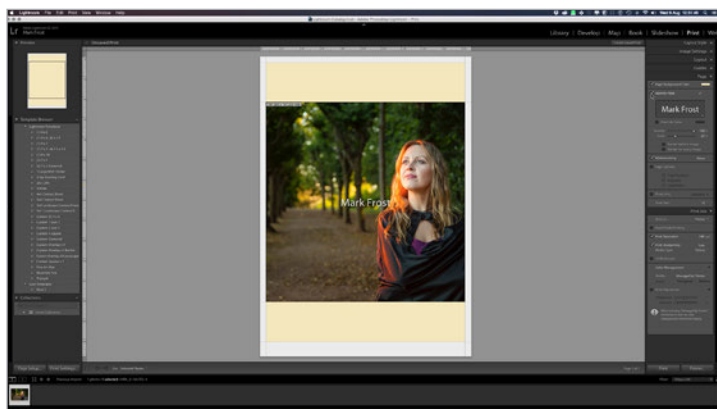
7 If you have a company logo, you can use that as your identity plate instead. In the Identity Plate Editor panel, click on the button labelled 'Use a graphical identity plate', then click on the Locate File button. Navigate to your logo and double-click in to add it to Lightroom. Use a PNG file with transparency for the best effect.



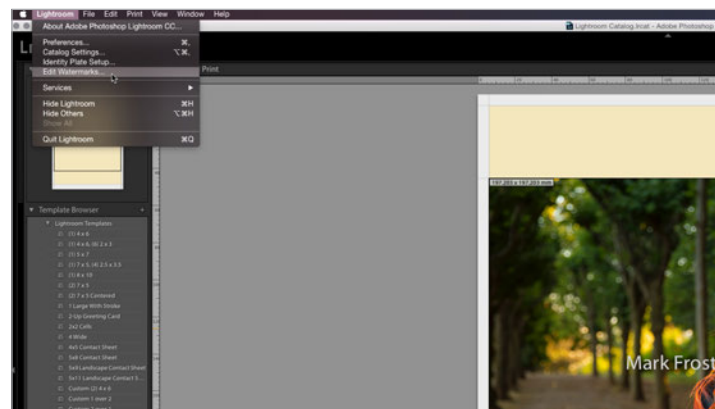
10 If you click on the Show Detail button, you can also customise the module picker buttons. You then have the option to use a graphical logo as the Lightroom identity plate. Using these options, a professional photographer can create a matching company identity for their Lightroom workspace as well as their printed output.

Creating Your Own Watermarks

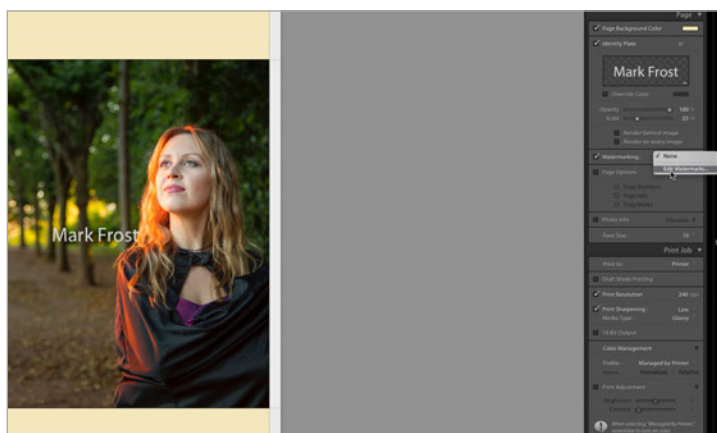
Copyright theft is an increasingly frequent problem, especially in online publishing, so it's wise to take every precaution you can to protect your work. Adding copyright watermarks isn't foolproof but it does help to deter casual theft.



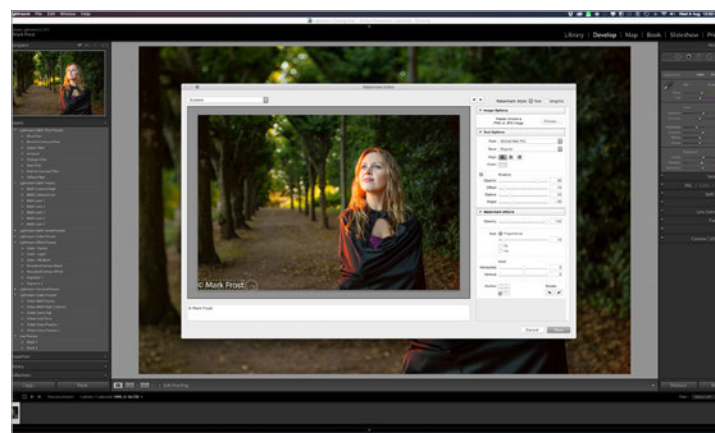
1 We have already covered details about adding an identity plate to your prints in the previous section. Adding a copyright watermark is very similar and can be used in conjunction with an identity plate for additional security; or you can uncheck the Identity Plate option to turn it off and just use your own edited version.



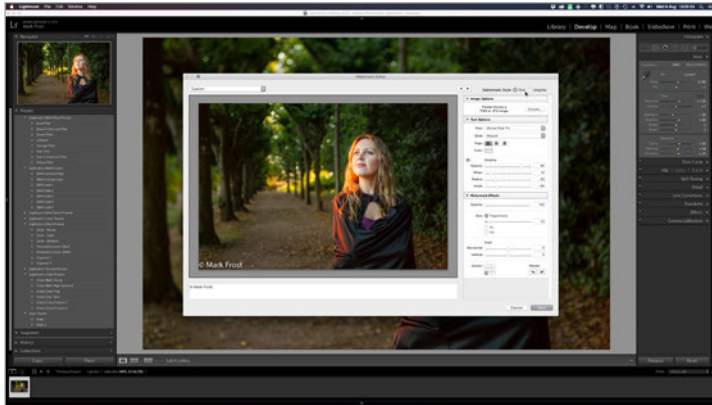
3 Bear in mind you can also access the Watermarks Editor from any module by selecting either Lightroom > Edit Watermarks (Mac) or Edit > Edit Watermarks (PC). Whichever operating system you use, it still calls up the same watermark editor and you can begin to think about what kind of watermark you wish to create.



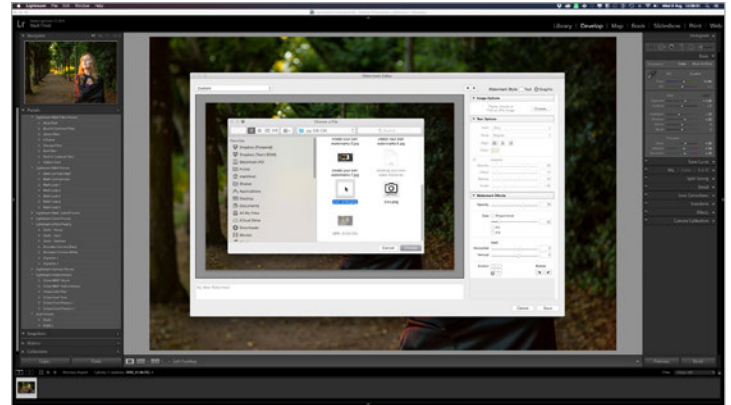
2 If you're in the Print Module, you can find the Watermarking option on the Page panel just below the Identity Plate options. Check the Watermarking box and change the option from None to Edit Watermarks. This will open the watermark editor where you begin the watermarking process.



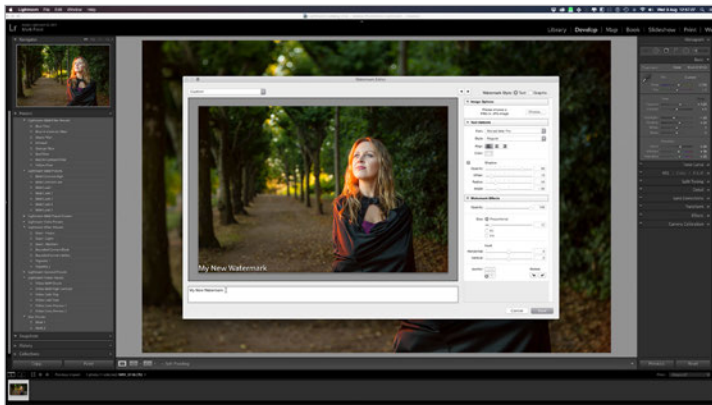
4 The default watermark that is created will be the name under which you registered your copy of Lightroom, plus the copyright symbol ©. Oddly the Watermarks Editor is much more extensive and versatile than the Identity Plate editor; the latter may well be updated at some point.



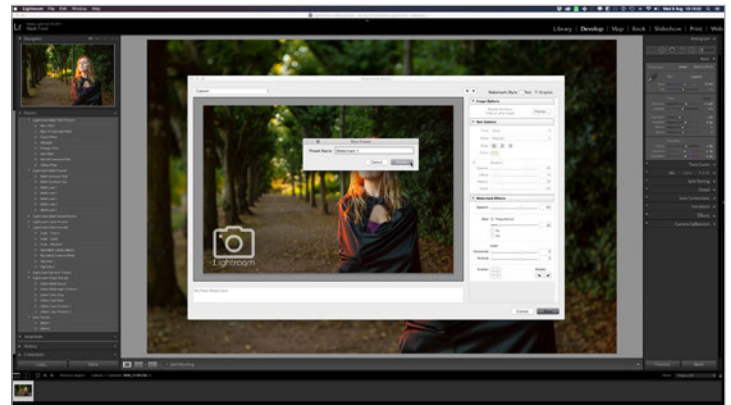
5 You can choose your Watermark Style from the top right of the editor. You have two options to choose from. You can use a purely text-based watermark using whatever fonts you have on your computer, or you can choose to use a graphic such as a JPG or PNG file. This might be in the form of a logo or name style that you have created separately.



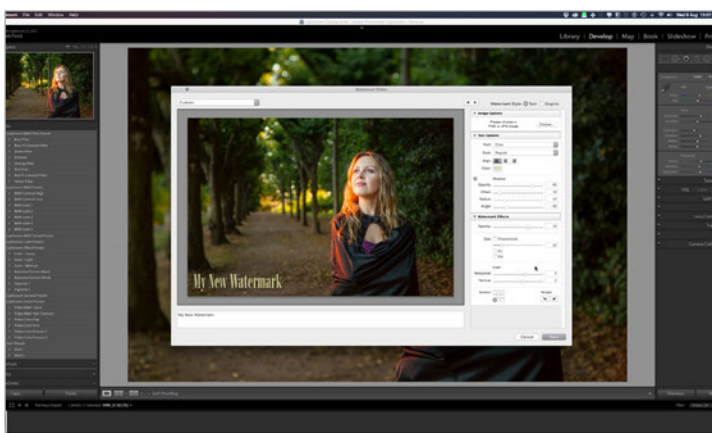
8 Alternatively, if you wish to use an image or graphic, click on the Graphic button on the top right of the editor. A browser window will appear and you are prompted to choose an image file to use as your watermark. We have a simple white icon saved as a PNG file which has a transparent background. Click Choose to use your graphic.



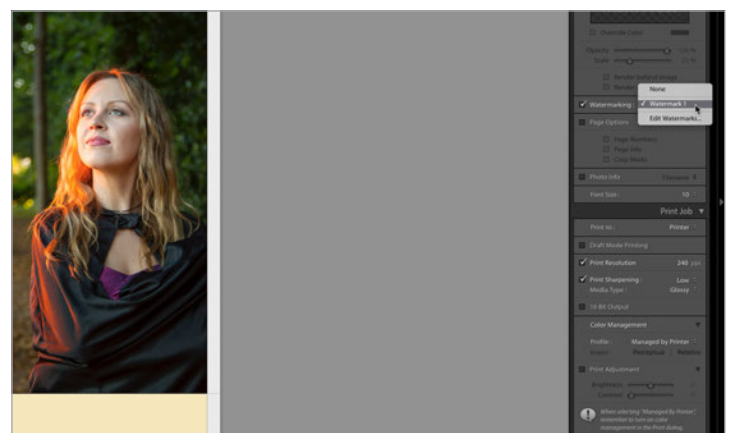
6 If you choose to create a Text watermark, you can enter the text you want to appear on the image by clicking in the text box in the lower left corner of the editor and replacing the default text with whatever you choose. It will use the fonts you have on your computer but be aware that OpenType fonts are not supported.



9 The PNG file you chose now replaces the text. You can alter its Opacity and its Size. Just like the text, you can alter Horizontal and Vertical positioning and choose which corner the graphic is anchored to. When you are happy with the watermark, click Save. You will be asked to save it as a Preset, which we named 'Watermark 1'.



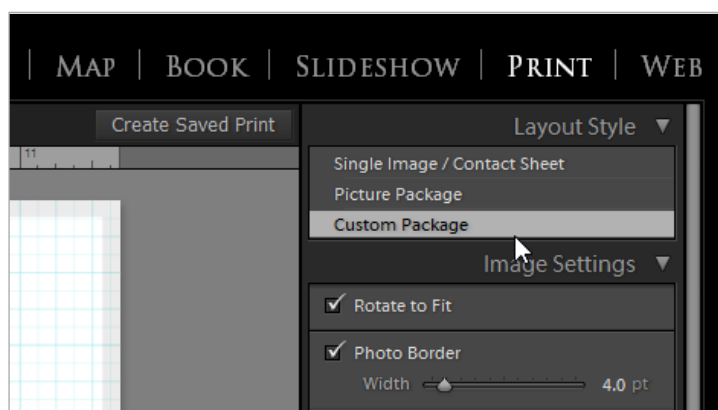
7 You can alter the look of the text by changing its Text Options to a new font and style. You can also add a shadow whose Opacity, Offset, Radius and Angle can all be changed. Under Watermark Effects you can alter text Opacity, Size and Horizontal and Vertical position and Rotation.



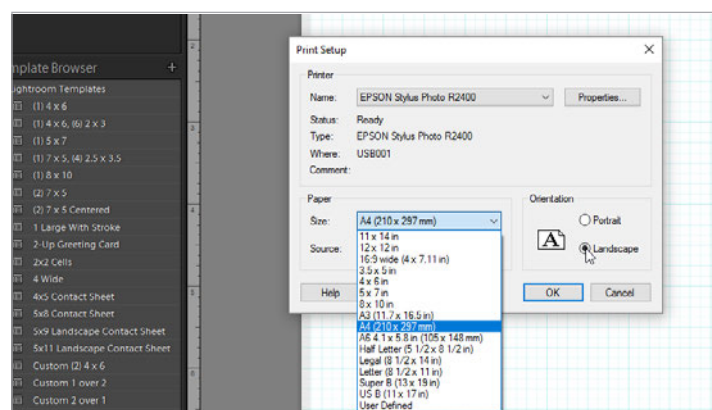
10 Back in the Print Module, if you now go back to the Page panel, next to Watermarking, you can choose the option Watermark 1 as your preferred preset from the menu selector. The watermark you just created will appear on your image and it is ready for print.

Creating Custom Print Layouts

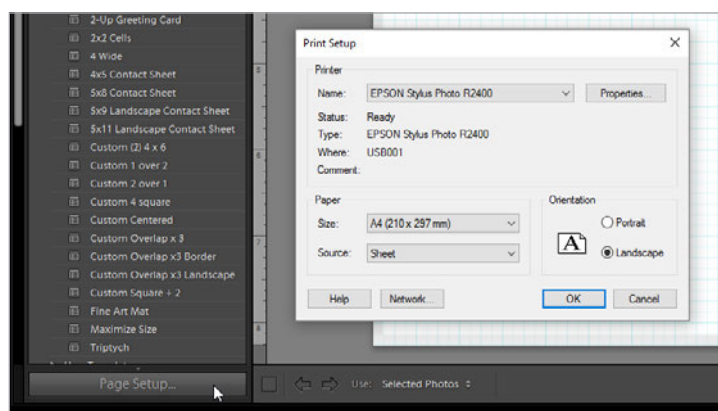
Custom print layouts allow you to arrange your images on a page, resize them, change their orientation and add borders and strokes to help them stand out. Whether preparing a presentation or just making greetings cards, custom print layouts are the way forward.



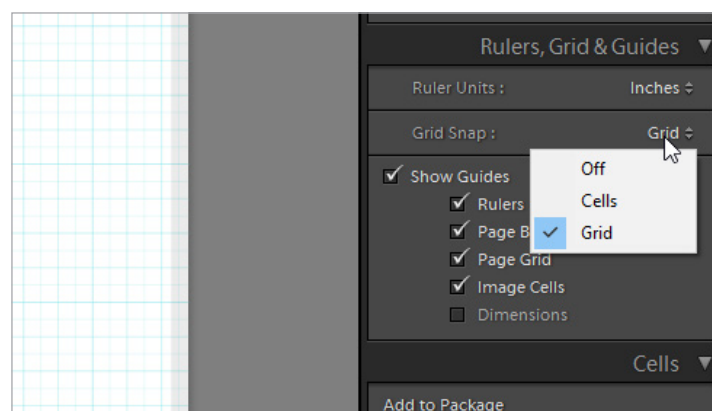
1 To get started with creating a custom print layout, first open the Print Module. At the top of the right-hand sidebar, in the Layout Style panel, click on the third item on the list, Custom Package. This opens up the Cells panels and creates a new project page that appears as a blank page in the main viewing area.



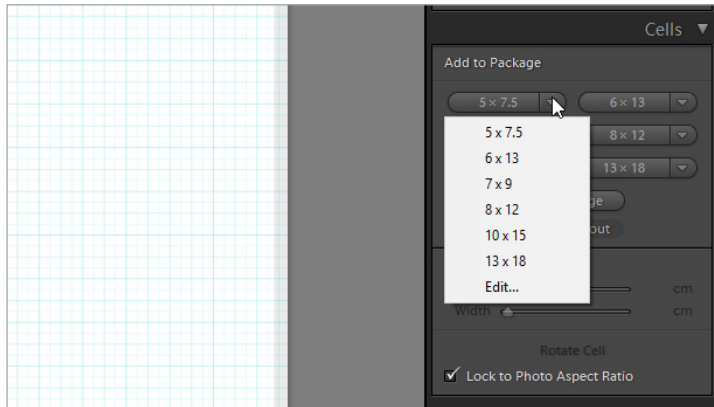
3 In the Print Setup screen, ensure that your printer is selected, select the paper size that you want to use, in this case the standard A4, and choose whether to use portrait or landscape orientation. We used landscape orientation for our example, so that it's easier for you to see what we did. Once you're satisfied, click OK.



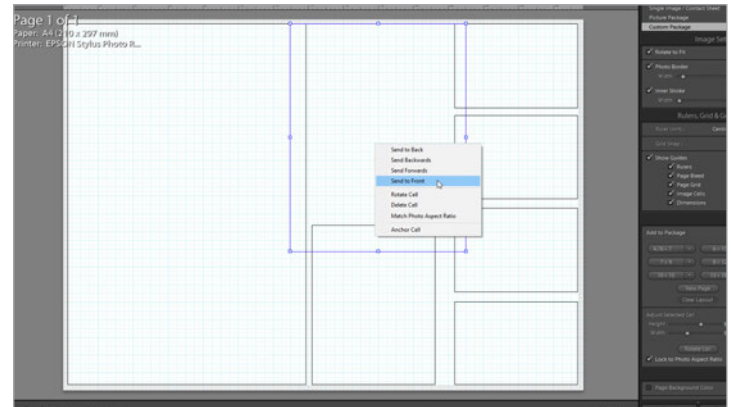
2 Before you can start adding cells to our page, you need to set up the page dimensions and orientation. In the bottom left of the screen, click on the Page Setup button. This will take you to the Print Setup dialogue, showing your installed printer. If you don't have a printer on your system it should show Print to PDF as a default.



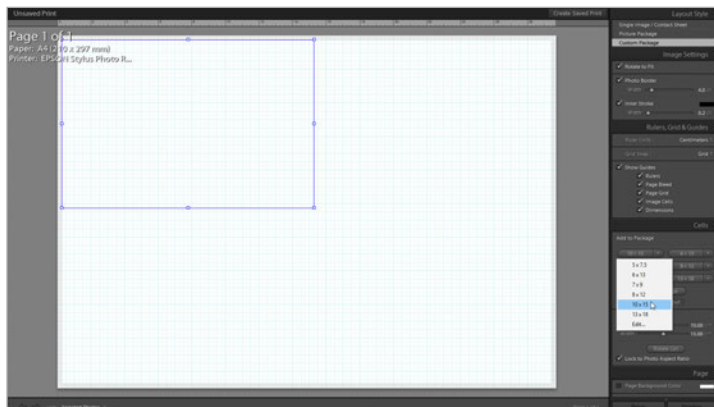
4 Next, go to the Rulers, Grids & Guides panel. In the Grid Snap menu, select Grid and click on each of the check boxes for Show Guides, Rulers, Page Bleed, Page Grid and Image Cells. You can see a grid and bleed borders appear on your page. You can also set the measurement units for the grid and the image cells.



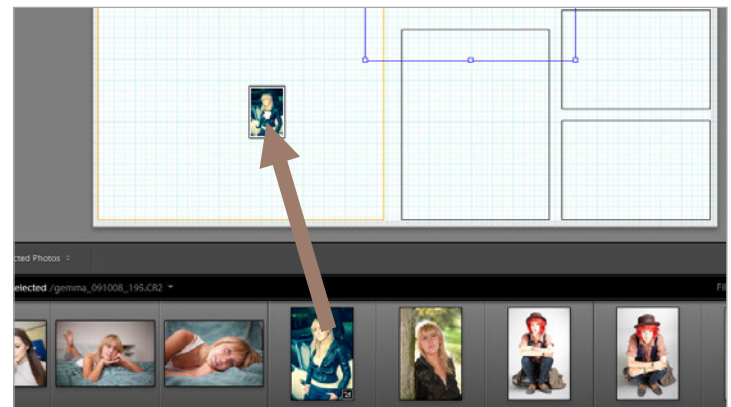
5 Now you're ready to start adding image cells to your layout. In the Cells panel you can see a range of Preset buttons and next to each one is a drop-down menu. When you click on this you can see a list of standard print sizes, in either inches or centimetres. These are only a guide; you can fully customise the size of each cell.



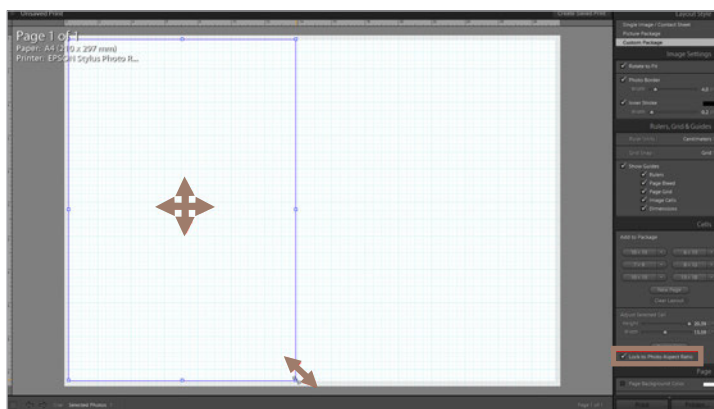
8 You can go on adding, moving and resizing cells until you're happy that you have an arrangement that you like. If you try to add a cell that doesn't fit on the page, a new page will be automatically added; but you can still drag from one page on to another. You can overlap cells and arrange them in a stack by right-clicking.



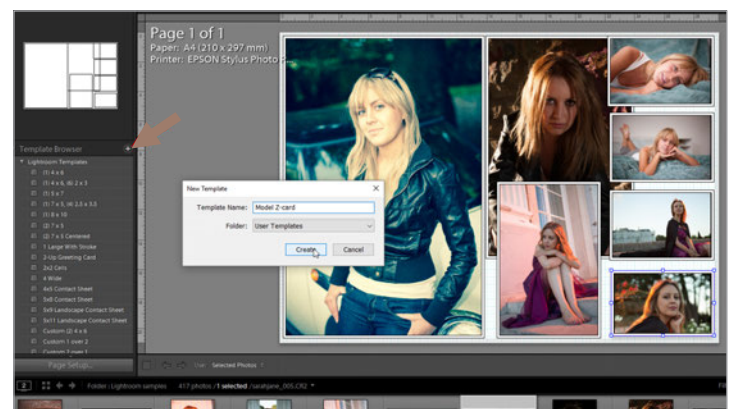
6 Select 10 x 15 from the menu and a cell of that size will automatically be added to your page, aligned to the top left. By default, the cell will be aligned on the horizontal landscape format, matching the alignment of the page. You can click the Rotate Cell button at the bottom of the Cells panel to turn it by 90 degrees.



9 Next, we can add some photos to our page layout. Open the filmstrip and simply drag-and-drop images into the frames. Note that if the aspect ratio of the image doesn't match that of the cell, Lightroom will resize the cell to fit. Unfortunately, there's no way to lock cells to a preset size, so just be a bit careful.



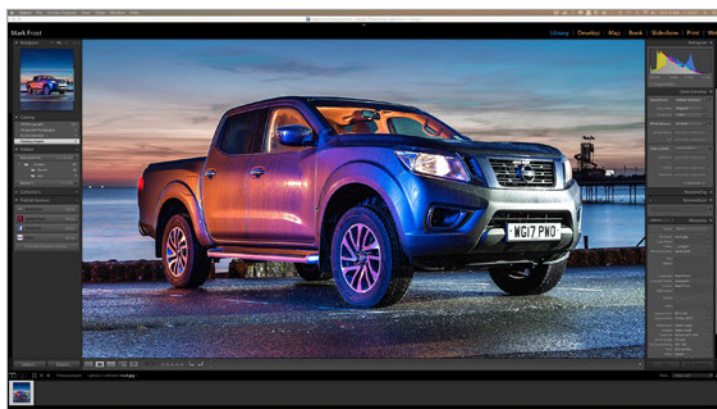
7 You can drag the new cell to any position by clicking anywhere within it, and by dragging the corner handles you can resize it. If you have Grid Snap turned on (step 4) the sides of the grid will snap to the grid lines in the background. To change the aspect ratio, you need to uncheck the Lock to Photo Aspect Ratio option.



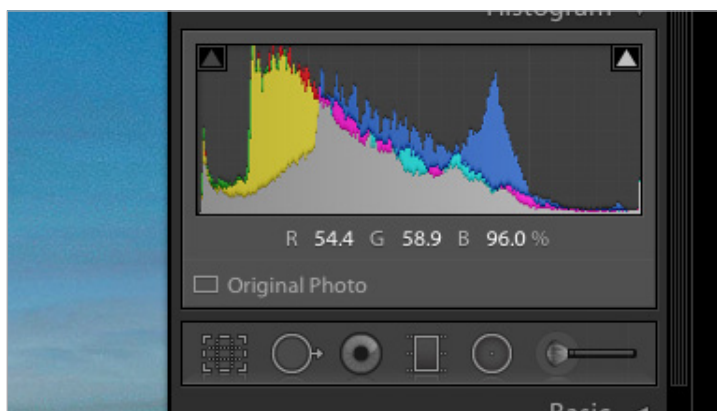
10 By deliberately positioning and selecting the right images, you can create attractive photo collages like this; or simply maximise the amount of printing that you can fit onto a single sheet of paper. Once you've created a custom layout, you can save it for later reuse by clicking on the + button in the Templates Browser panel.

Colour Fidelity with Soft Proofing

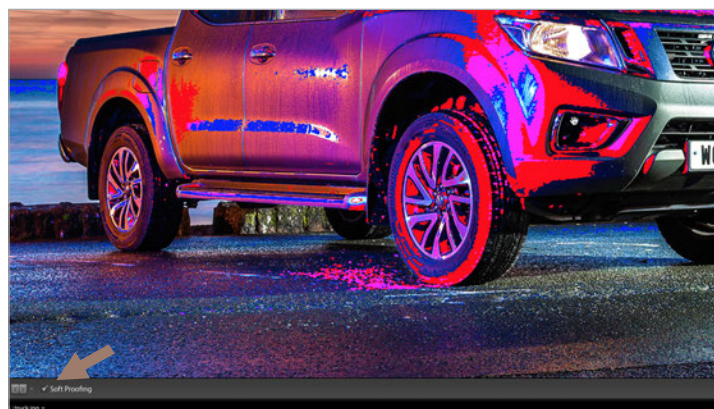
Monitors use 'additive' colours mixed from red, green and blue (RGB) and printers use 'subtractive' colours made from cyan, yellow, magenta and black (CMYK). This causes problems when printing photographs with colours outside the range of the printer. Soft Proofing avoids this.



1 To understand why we need Soft Proofing, it's important to know that there are different 'colour spaces': ways of encoding the colours in an image; and that they can have different ranges of available colours. One of the most popular is 'sRGB', which is optimised for monitor displays. Here we have an sRGB image, which looks fine on a monitor.



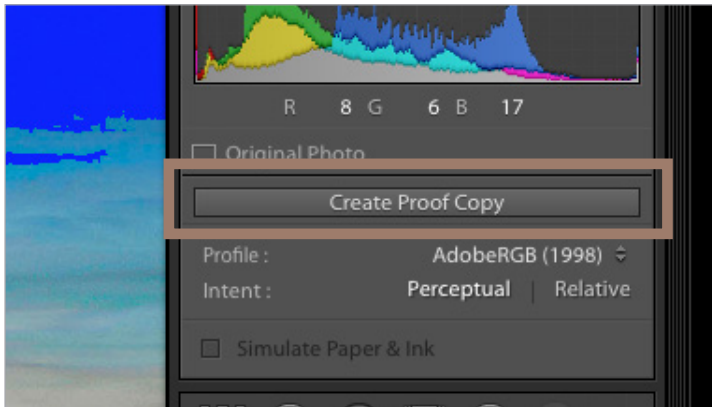
2 With the image loaded into the Develop Module, you can move the mouse cursor around the image, and below the histogram you can see the RGB colour values of the pixel over which the cursor is positioned. For instance, this patch of sky is 54.4% red, 59.9% green and 96.0% blue. CMYK printing has a problem with saturated blues.



3 To see the extent of the problem, you need to turn on Soft Proofing. You can find the check-box for this at the bottom of the Develop Module screen. Click in the box to turn it on and then in the Histogram window, click on the icon in the top right corner to activate the out of gamut warning. Large areas of the image turn red.



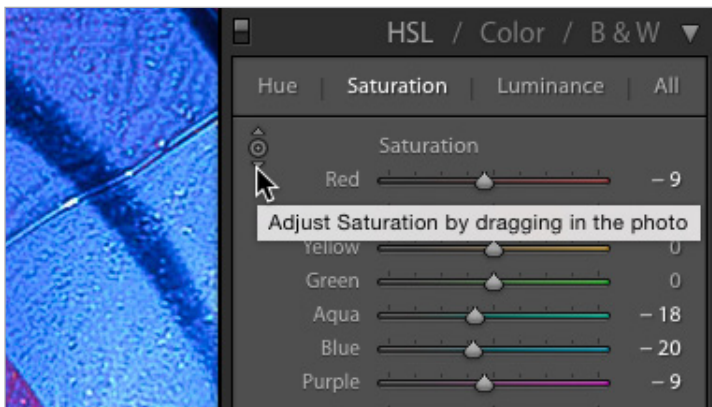
4 The areas of the image that are coloured red represent colours that will be outside of the gamut (the range of available colours) of the CMYK colour space of a printer. As you can see, the affected colours are mostly saturated shades of blue. They look fine on a monitor but simply don't accurately reproduce in print.



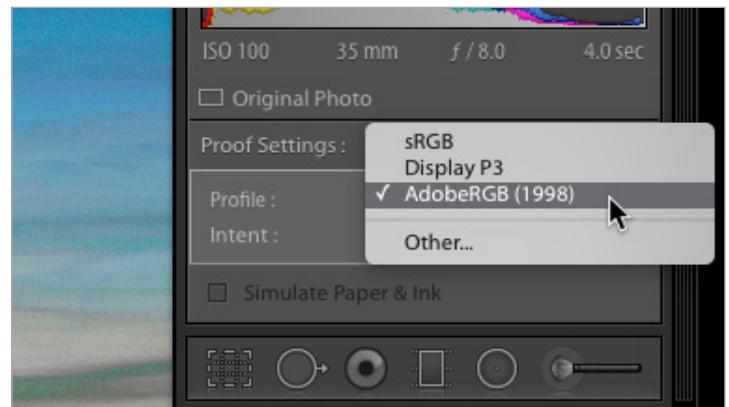
5 Clearly you're going to need to make some alterations to the image in order to get it to print properly but may still want to keep a copy for online display, where the sRGB gamut will not be a problem. Below the Histogram you can see a button labelled Create Proof Copy. Click it and you see a second copy appear in the filmstrip.



8 Once you've finished with this treatment, you can turn off the Soft Proofing function. You can see that the image still looks broadly the same but the colours have been muted. It doesn't look as vibrant on a monitor but at least we can be sure that it will print properly. The colour gamut is now within the range of a CMYK printer.



6 Now that you have your second copy, you can go ahead and make adjustments to the saturation of the colours in the original image. Open the HSL/Colour/B&W panel, click on the HSL tab and then on the Saturation option. Select the targeted saturation tool in the top left corner, which lets you adjust saturation directly from the image.



9 There is an alternative and that is to change the colour space of the image from the monitor friendly sRGB to the printer friendly Adobe RGB. Some cameras have this option when shooting, and it is available as an export option within Lightroom. To change the colour space, click on the option below the Histogram in Soft Proof mode.



7 Move the mouse cursor over one of the red-masked areas, click, and drag downwards to reduce the colour saturation. You should immediately see the red area reduce in size. Keep dragging down until the red has been completely removed. Repeat this process with any other problem colours until all the red has been removed.



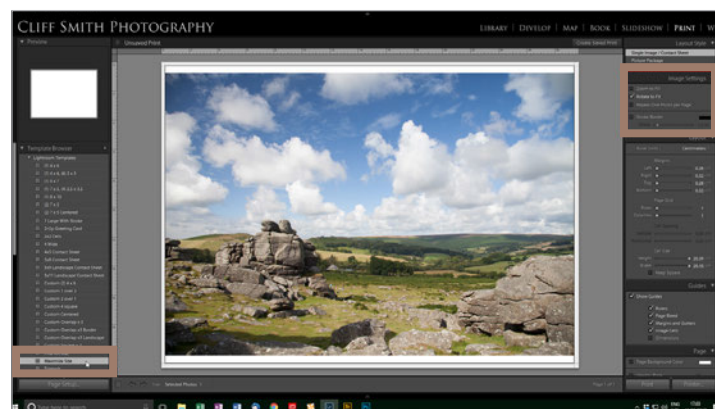
10 You still need to make some saturation adjustments but the printer optimised colour space of Adobe RGB means that the blues and greens are much more saturated than in the sRGB version. It may not show in the image above due (ironically) to restrictions in the magazine printing process, but the colours are much more vibrant.

Managing Printer Colour Profiles

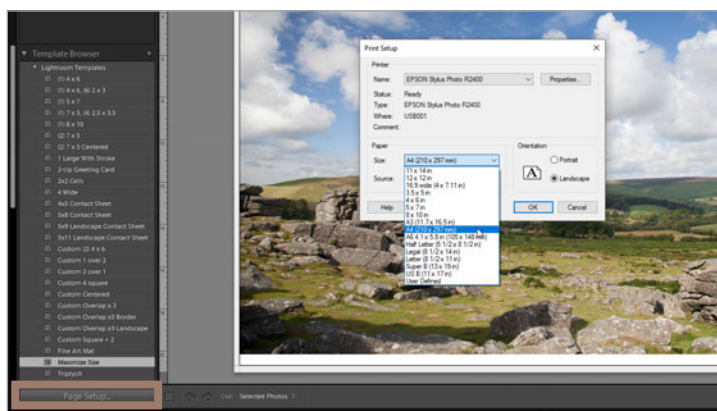
Colour management can be complex, with different combinations of printer, paper and ink producing different results. You can get the best from a printer, and make sure that your photos look as good as they did when you shot them, by using Lightroom's Colour Profile management system.



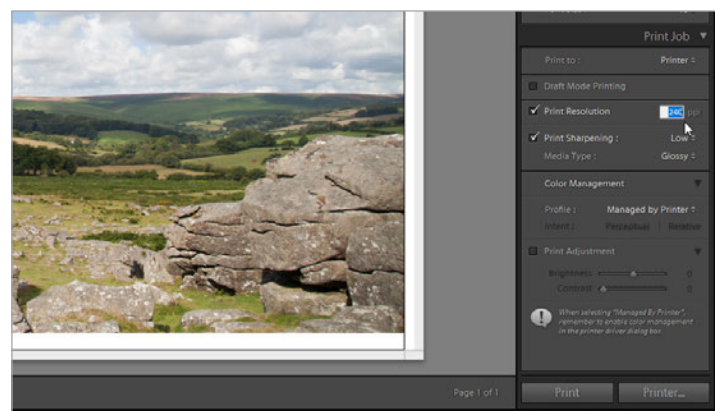
1 For this tutorial, we'll use a bright, saturated landscape image that is in need of colour management. If you haven't already, check out the Soft Proofing tutorial and make sure your image is set to the Adobe RGB colour space. The colour space is shown just below the Develop module histogram at the top of the right sidebar.



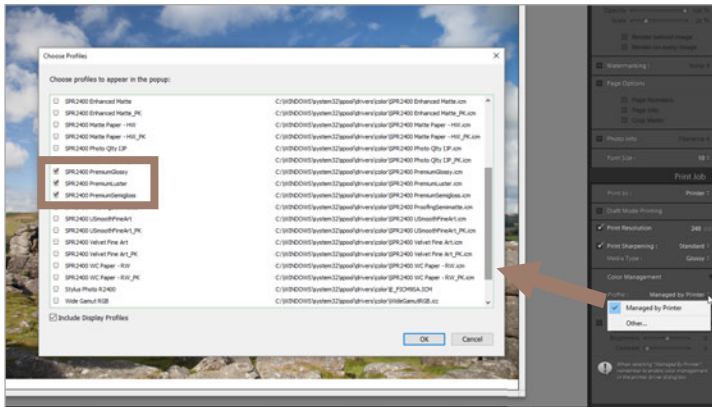
3 You can either select Custom Package in the Layout Style tab in the right sidebar, and set your own margins, or select Maximise Size from the Template Browser in the left sidebar. Whichever you use, you should also uncheck the Zoom to Fill box in the right sidebar, so that you're seeing the entire image on the page.



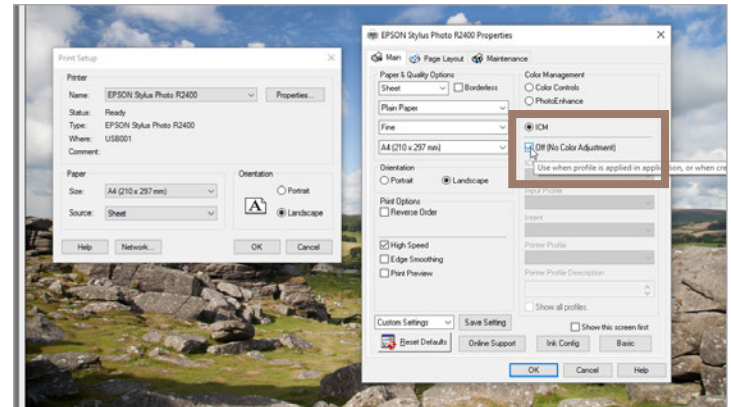
2 Open the Print module and click on the Page Setup button at the bottom of the left sidebar. Make sure that your photo printer is selected, select the size of paper that you want to use, and for the image that you're printing, select landscape orientation. If you're printing a portrait format image you probably want portrait orientation.



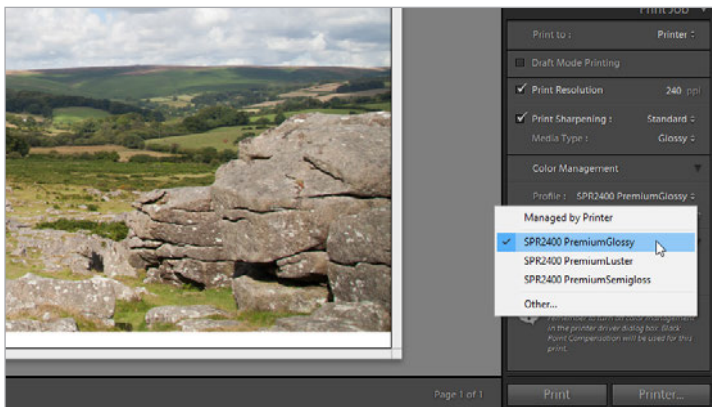
4 At the bottom of the right sidebar you can find the Print Job tab. Open it and make sure that Print to: is set to Printer. You can adjust the print resolution if you want to but the 240 ppi default setting is fine for most subjects. Set the Print Sharpening to Standard, rather than the default Low, to give the image a bit more punch.



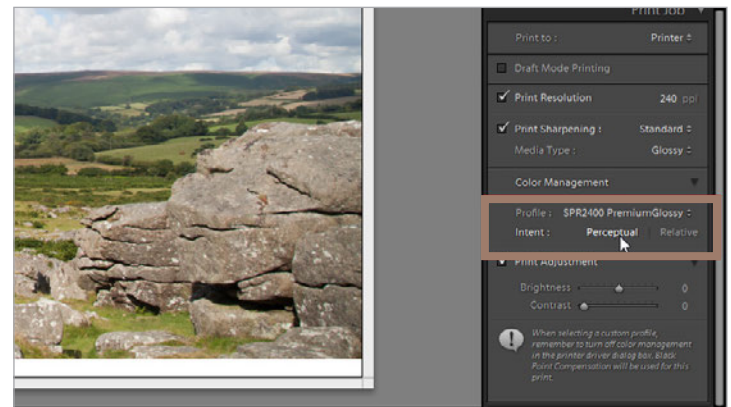
5 You can just let your printer handle the colour management automatically but if you want to use a particular colour profile for a specific type of paper, click on Profile and select Other. You can see a list of available colour profiles, so select the one for the type of paper that you want to use. Here, we've selected three Epson Premium styles.



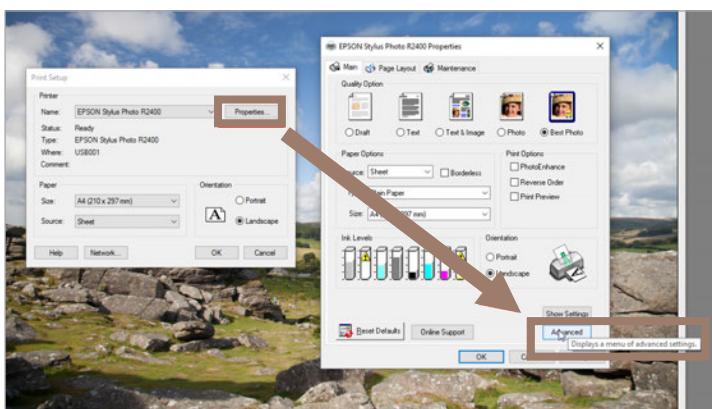
8 In this Epson control panel, we need to click on the button for ICM, which tells the printer to use a specific ICC colour profile and then click in the box below it to turn off colour adjustment. This lets Lightroom manage the printing colour adjustments in accordance with the ICC profile that we selected in step 6.



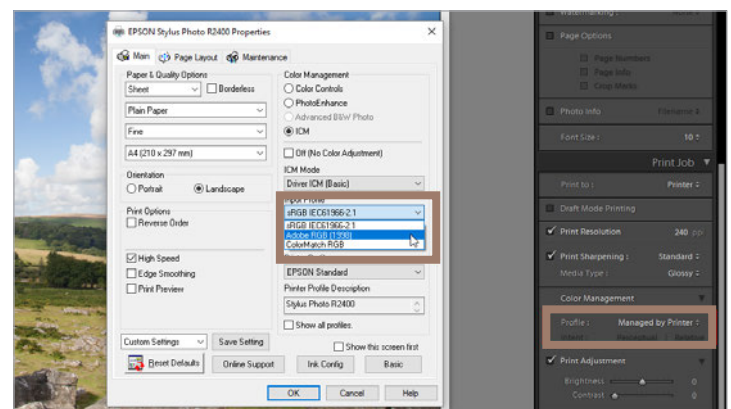
6 Now, when you click on the Profile menu, the options that you've selected will be listed. If you want Lightroom to manage colour when printing, you should select one of these options before printing. Note that the next steps, where we disable automatic printer management, are also vital if you want to do this.



9 The final setting is to choose Perceptual or Relative colour. If you've proofed the image it shouldn't make any difference but Perceptual adjusts out of gamut colours without clipping, whilst Relative preserves colour accuracy, but may clip any out of gamut colours. It pays to do a test print to see what happens.



7 Before printing with Lightroom managing the colour, click on the Page Setup button and then click on the Properties button to bring up your printer's options panel. We're using an Epson R2400 photo printer here but other brands have a similar panel. Click on the Advanced button to access colour management options.



10 Other options for advanced colour management include setting your printer to manage the colour, but specifically telling it to use the Adobe RGB colour profile. In Lightroom, select Managed by Printer in the Profile menu and then in the advanced printer properties panel, select ICM and choose Adobe RGB from the menu.

Dramatic Effects

With Lightroom you're able to tweak and alter any photo and produce an end result that's drastically and dramatically different to its original. There's a lot that can be applied to an image in Lightroom. Of course, you need to know where to go to apply these effects; thankfully, we cover this too.

The Tone Curve panel is one of the most powerful tools in Lightroom's arsenal. It allows you to selectively alter that relative brightness of different tonal ranges within an image, but does so smoothly, blending from one tone into another on a curve. When combined with other effects such as Split Toning it can create some terrific effects, as seen on this dramatic portrait shot. You can find a tutorial on the tone curve earlier in this book.

AFTER**BEFORE**





Show and Tell: Publishing Your Work

Organising, editing and improving your photographs is only part of the story. You'll also want to share your work with others and that's what we're going to look at next. In the Publish Module you have the opportunity to present your finished photographs via printed books, slideshow presentations or online web galleries.

Contents

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133	Histogram and Adjustment Panels	140	Preparing Your Images
134	Introducing the Book Module	142	Publishing to Social Media
136	The Slideshow Module	144	Publish to Your Own Website
138	The Web Module	146	Before and After: Getting Colourful

Publishing Your Work



Lightroom offers the user a wealth of possible choices when it comes to publishing your work. You have the option to prepare it and send it to Facebook or Flickr, you can prepare it ready for web viewing and even create a slideshow.

1 Publish Services

The Publish Services module can be found in the left-hand panels, under the navigator window. It's minimised by default, so you need to click the arrow to the left of it, to expand the module selection and the options within. Doing so reveals the basic, default publishing options: Hard Drive, Adobe Stock, Facebook and Flickr; whilst another box allows you to explore more possible options from the Adobe Add-on store. You then need to drill down to the Lightroom selections to find what you want whilst there.

2 The Lightroom Identity Plate

The Lightroom Identity Plate is also worth looking at when you're considering uploading or creating published works. Use it to create your own unique signature or graphical logo and further personalise your photos, slideshows and potential bestselling books. It's also something worth considering in addition to any watermarks you may be using, to help stop someone else online from stealing your photos and much valued hard work.



3 Book Module

The Book module is found along the top menu strip; clicking it will automatically add the imported and chosen images into a design mode, allowing you to create your own book. These pages can then be uploaded and printed through a self-publishing vendor or printed locally as PDFs.

4 Slideshow Module

The Slideshow module is next to the Book module and when clicked, launches the Lightroom wizard, allowing you to create presentations from your photo selection. There are plenty of options available, such as photo borders, background appearance, title screens and

even an option to insert a soundtrack. What's available is certainly a more entertaining and stylistic collection of tools than that of some other slideshow tools we can think of.

5 The Histogram and Adjustment Panels

The Histogram and Adjustment Panels will be used extensively as you gradually improve your images ready for publishing. Using what you've already learned throughout this book, you can apply your knowledge to greatly improve, prepare and 'fix' any photos that you're planning on uploading to social media or a website. It's worth looking through some of the so far untouched

tools within the Adjustment Panels, as these can add an extra element to the finished product that makes it stand out from the rest of the online photo world. It's also worth considering some elements to further the privacy of an individual in an image, such as blurring out the face of a child in the background of a shot for example.

6 Film Strip

Don't forget the usefulness of the Film Strip at the bottom of the Lightroom interface. The Film Strip really comes into its own when you have multiple images being prepared for uploading to an online source. It's especially useful when you're creating a Slideshow, as you can easily navigate through all the

individual slides and make any amends as you require.

7 Web Module

Finally, the Web module is the last option available along the top menu strip. This, as you assume, will help you create a HTML5 web gallery than can be directly uploaded to your website. Again, there are plenty of options available, which you can look at in a moment.

8 Hide Panels

For easier viewing of your work, uncluttered by the histogram and adjustment panels, click the small arrow icon to hide the panels. Alternatively, you can press the Tab button to hide all panels on both sides of the screen.

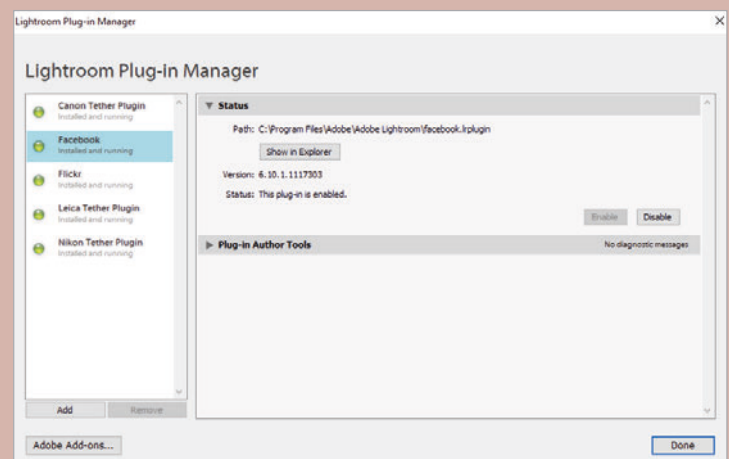


Being Social

Lightroom offers Facebook and Flickr posting by default but there are other social media examples you can install. These come in the form of various plugins and they cover the likes of Instagram, Twitter, PhotoBucket, Tumblr and more. Some examples you may need to scour the Internet for, as Lightroom users can create their own unique plugins, such is the versatility of the software.

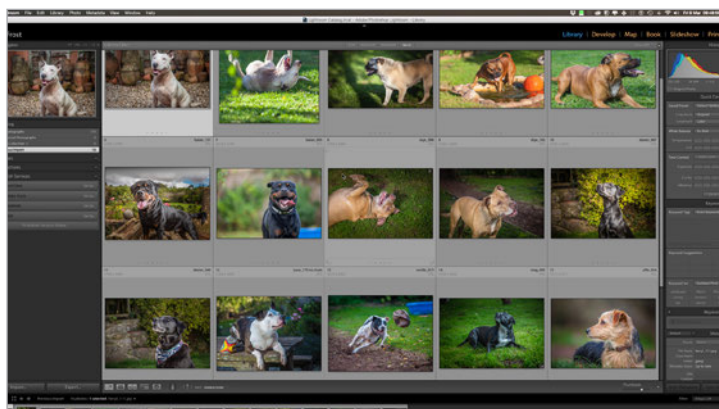
A good place to start looking for Lightroom social media content is Best Plugins, found at www.bestplugins.com/software/lightroom-social-network-plugin.html. Here you can find seven excellent examples that will take you to the relevant sites, with installations instructions if needed. Another excellent source is the Lightroom Plugin Exchange, serviced by Adobe, and found at www.exchange.adobe.com/addons.

Installing a plugin can be done by clicking on File > Plug-in Manager, then click the Add button and point the Explorer (if you're using Windows) window to the downloaded, and extracted if necessary, plugin file.

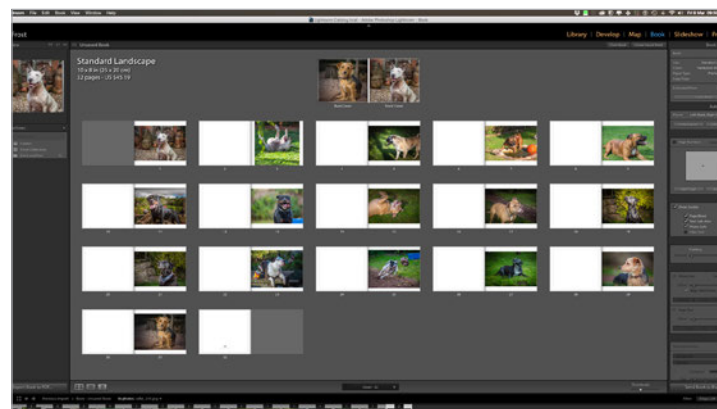


Introducing the Book Module

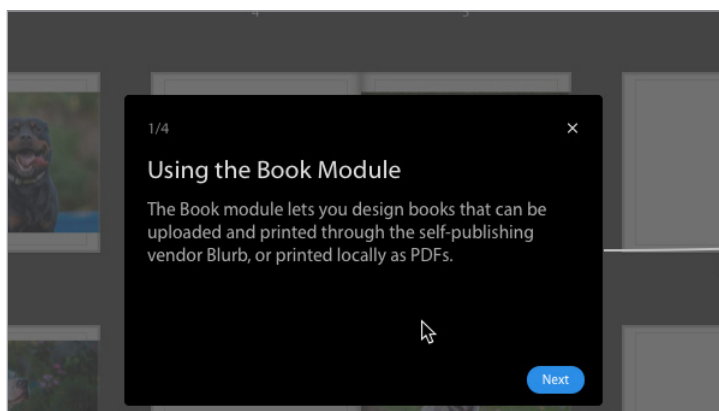
If you're going to use the Book module, it's best to invest some time in the Library module first, selecting the images you want, making any edits and sequencing them, i.e. laying them out how you would want the book to be viewed.



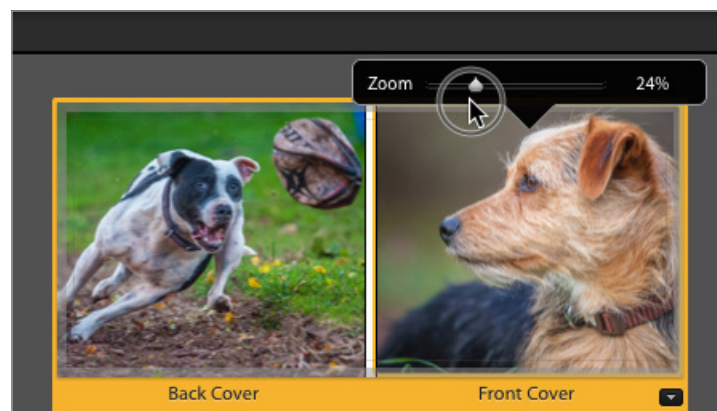
1 As we mentioned, start in the Library module and take some time to choose the images you want in the book. Make any alterations, then expand the Metadata section and enter a Title for each of the images. You can do this after applying the Book module but it's often recommended to make any alterations prior to running it.



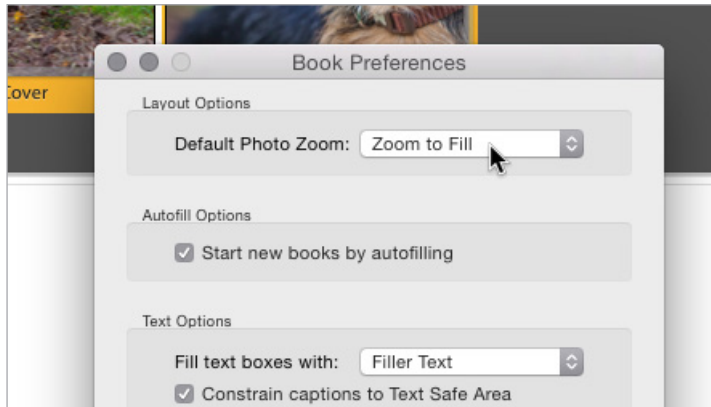
3 Scroll to the top of the book page, where you can see the Front and Back Covers. You can click the left-facing arrow to the very left of the screen and hide the Preview and Collections pane, giving you more room to view the pages of the book. Press the I-key to toggle the Standard Landscape information message on and off.



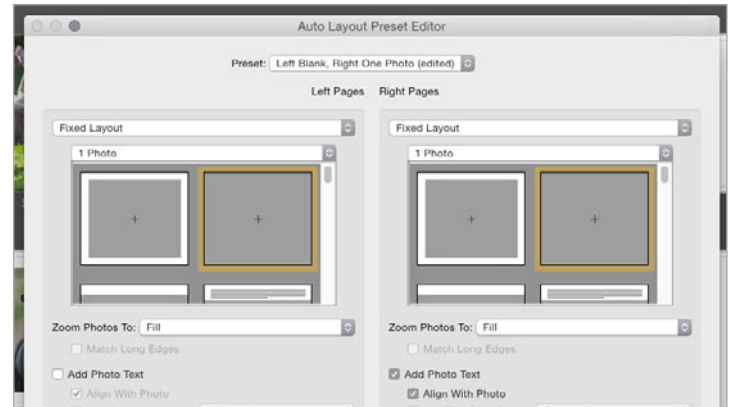
2 Once you've selected the images you want, click on the Book module title from the top menu. If it's the first time you've clicked the Book module, it runs through some starter tips displaying the various sections available and what you can achieve with it.



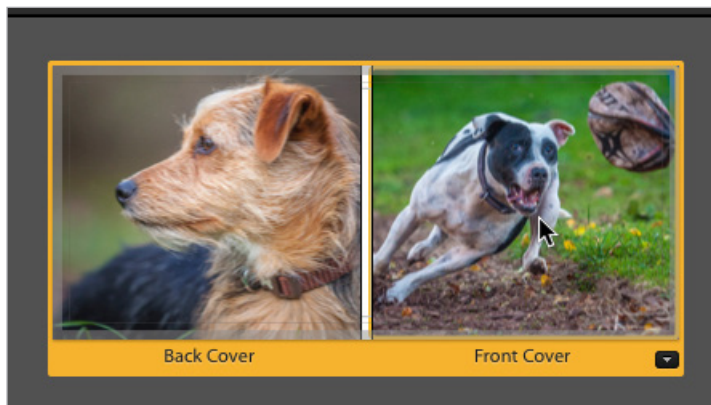
4 If you click to highlight the Front and Back Covers, you can see that you're able to zoom in and out for each of the images; this of course you can do with each of the images on every page that's been auto-filled by Lightroom.



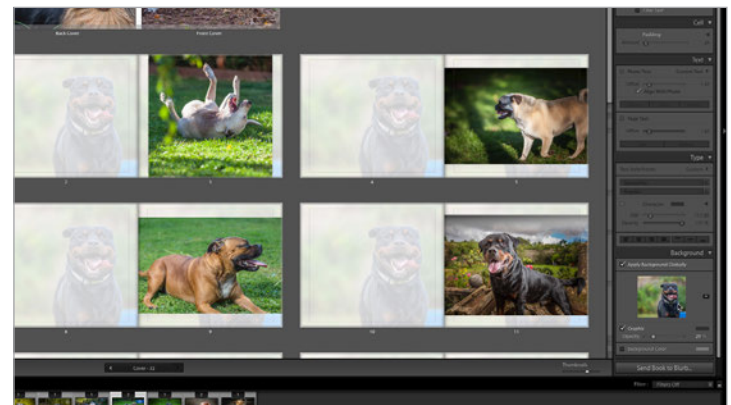
5 If you click Book > Book Preferences in the top menu bar, you can set a Default Photo Zoom across the entire contents of the book. There are autofill options and text filler options as well if you want to specify certain parameters for the book you're creating. This includes Title Metadata for each of the images.



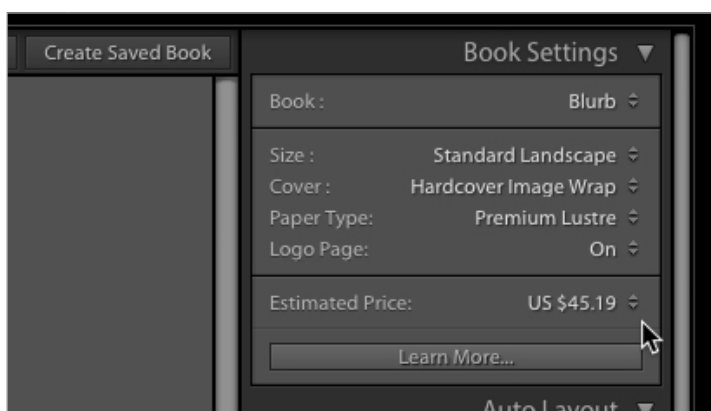
8 Under the Estimated Price option, you can see an Auto Layout option. From here you're able to define the layout for the book. You can select one photo per page, a right-page photo with left blank page or the same again but with a text box. Alternatively, click the Edit Auto Layout Preset option to further define the settings.



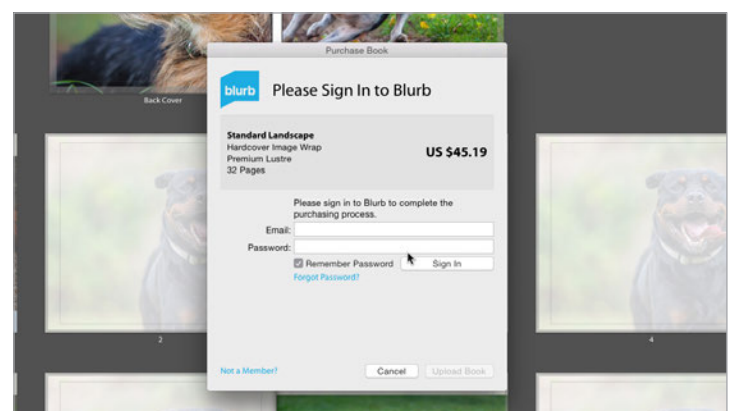
6 Should you choose to do so, it is very easy to change your photographs around for each of the pages. For example, here we want to swap the Front and Back Cover images. Simply click and hold, then drag the image to the new page; in this instance, just to swap the Front and Back Cover images around.



9 There are countless other options available through the Book Settings panel. Dig deeper into the Auto Layout and you can opt for different design templates. There are options for page numbering, text positioning and even a background option that can be applied globally or just on selected pages.



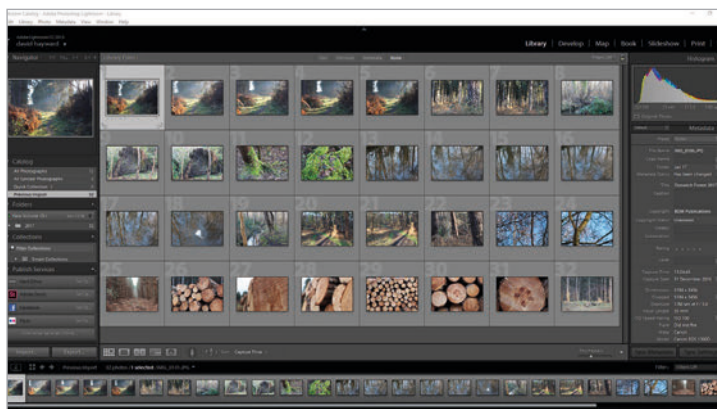
7 The panel on the far-right of the interface is the Book Settings. In here you can view and select options depending on what you want from the book. The first option details how the book will be printed: Blurb, the online printing service. Then further down it displays the sizes, cover type, paper type and an estimated cost for printing.



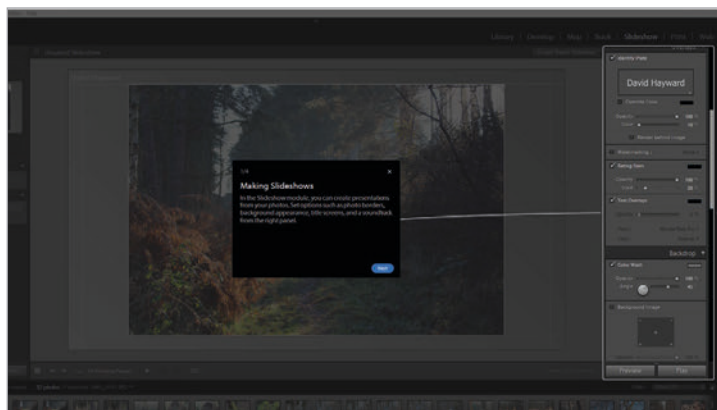
10 Having spent the time in laying out the book, pages, images and text as you want them, you can click on the Send to Blurb button at the bottom of the Book Settings panel. You need a Blurb account, which is accessible via a pop-up window. Alternatively, you can export the book to PDF or JPEG, depending on your preference.

The Slideshow Module

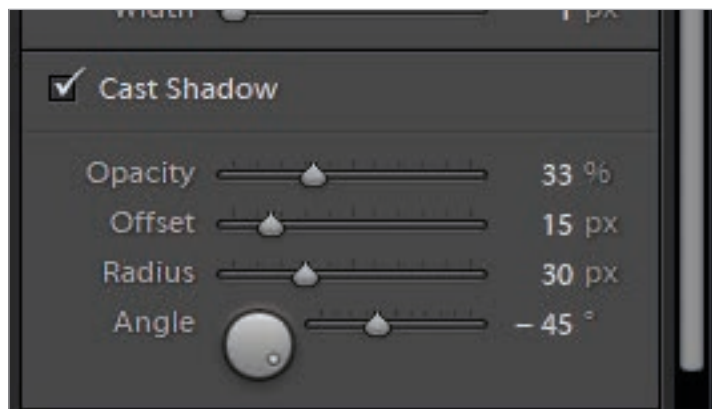
The Slideshow module is a powerful feature that allows you to create some interesting content and presentations. There's plenty of options available, from image manipulation, shadow casting, watermarking and backdrops, to inserting music and choosing preset templates.



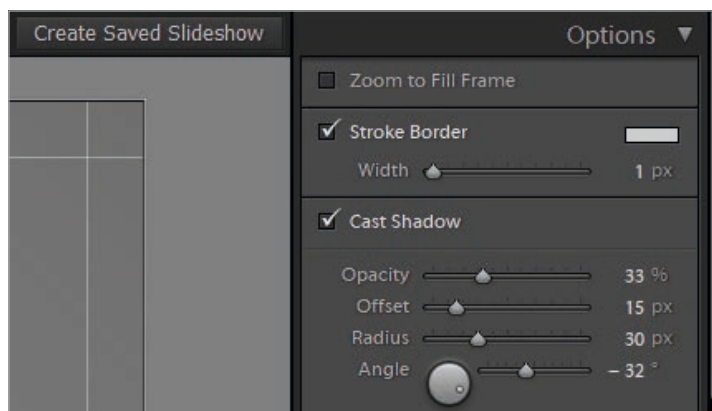
1 Begin the process by starting off in the Library module and take a moment to select the images you want to include in the slideshow. You can add Metadata information at this point if you want but it's not necessary. Then, take a moment to edit any of the images you want to have in the slideshow, as it saves time later.



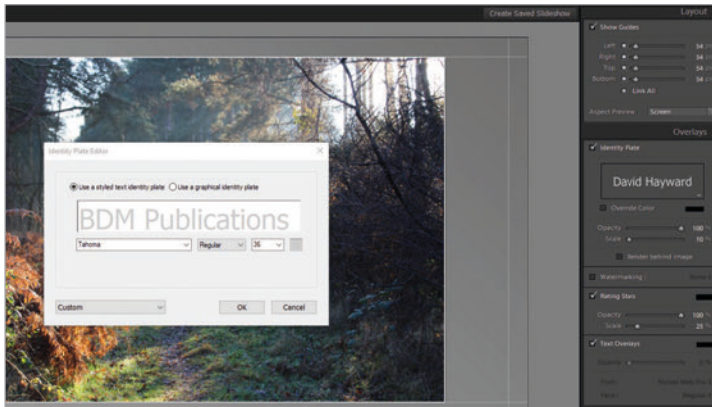
2 The Slideshow module is located along the top menu bar, in between Book and Print. If this is the first time that you've clicked it, you can view a quick four step introduction tutorial to the various features it contains. If you missed the intro, you can click on Help > Slideshow Module Tips in order to start it again.



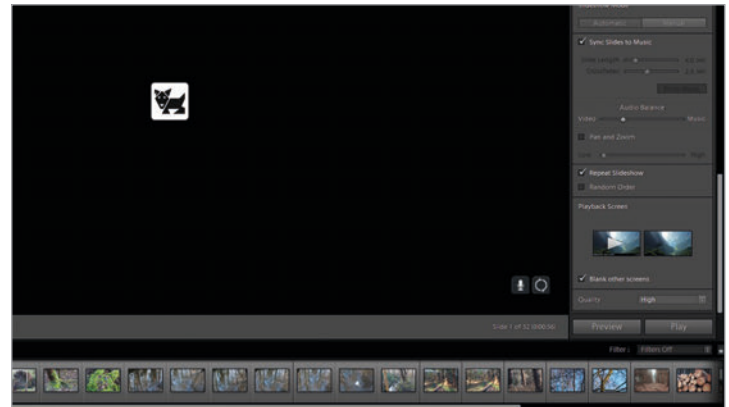
3 To the right-hand panel you can see the Slideshow Options. This extensive panel is where you spend most of the time when using the Slideshow module; it's where you can insert extras such as music, intro screen, ending screen and numerous other options. Take a few minutes to familiarise yourself with what's available.



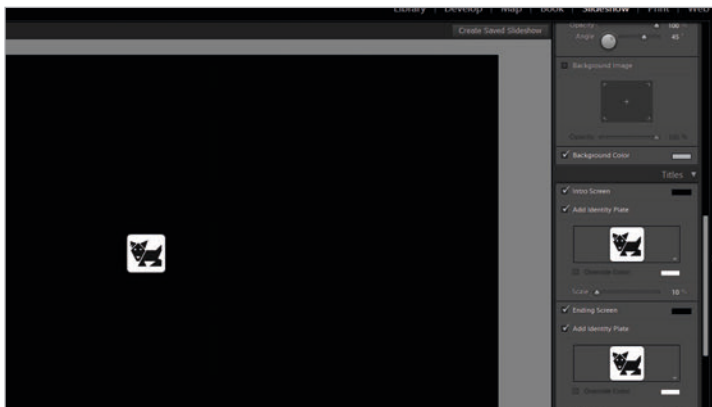
4 The options to the right depend greatly on what it is you want to achieve with your presentation. To begin with you can set a Fill Frame option to zoom images to completely fill the frame, regardless of whether the images in the slideshow would take up the entire screen, or not. Next there's the option to create a Stroke Border and then Cast Shadow.



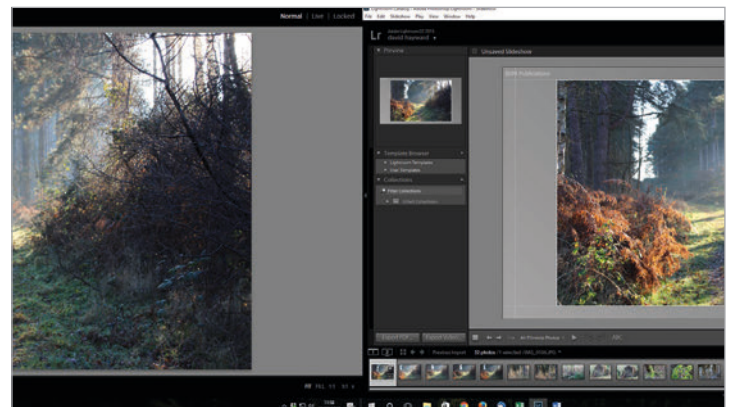
- 5 Further down the options, you can specify the layout and guidelines on the screen as well as the aspect ratio of the monitor or screen you want to present the slideshow on. The Overlays option enables you to enter an Identity Plate that is present on each slide, which can be edited to represent text, or even a graphic.



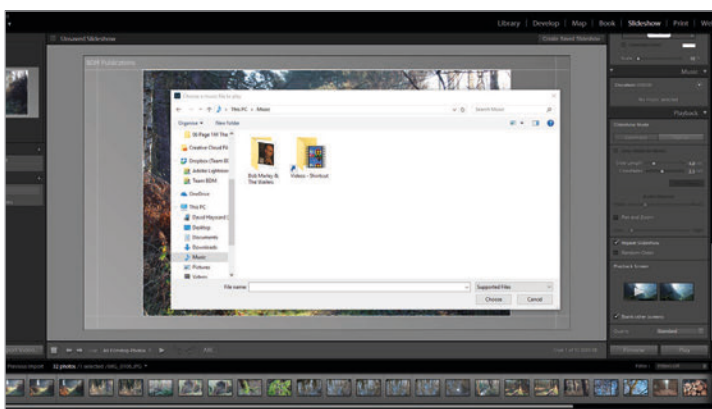
- 8 Last in the Slideshow options pane are the Preview and Play buttons. The Preview button will run through the slideshow, including the music and any graphical additions and intro panes you've added, within the main Lightroom interface. Whereas Play will run through the slides in full screen, as when you play back for real.



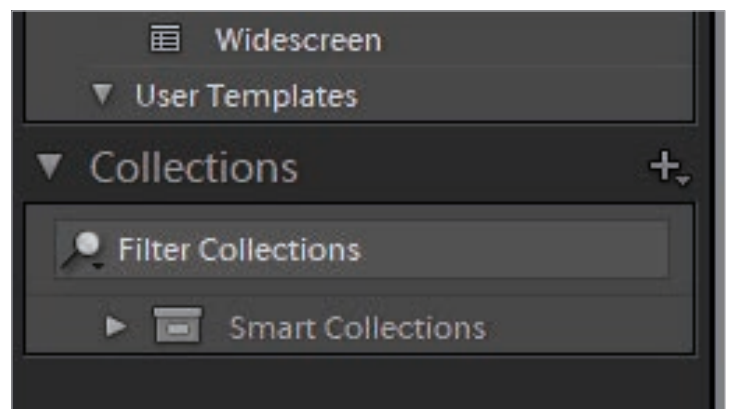
- 6 You can specify a backdrop for the slides or choose an image to use, along with the ability to set its opacity or use a custom colour. Under the Titles section you're able to set an intro and ending screen, and as with the Identity Plate, you can specify whether you want to use text or graphics, such as a company logo.



- 9 To the bottom left of the Lightroom interface, just under the Preview and Template Browser panes, you can see a set of monitor icons. Those of you using multiple monitor setups are able to define which screen will be used for playback and preview and which will contain the Lightroom interface to work on.



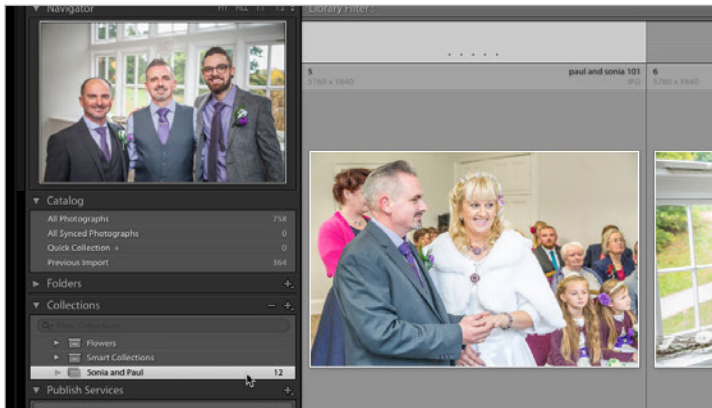
- 7 The Music section speaks for itself. Simply click the Plus icon to choose the location of the music you want to have playing throughout the slideshow. Beneath the Music option you have the Playback options. Here you can detail syncing of the music to the slideshows, any pan and zoom features and quality of the presentation.



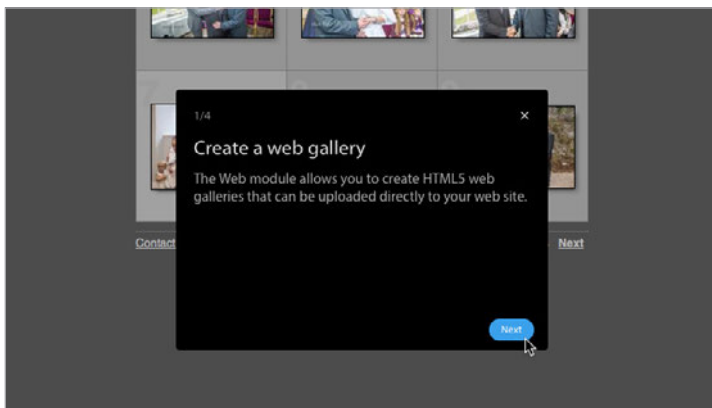
- 10 Finally, the Template Browser, located on the pane to the left of the main UI, contains a number of predefined templates for you to use in the slideshow, along with any user created templates. Just click the arrow to the left of each to expand the selection and mouse-over each to see the result in the Preview window above.

The Web Module

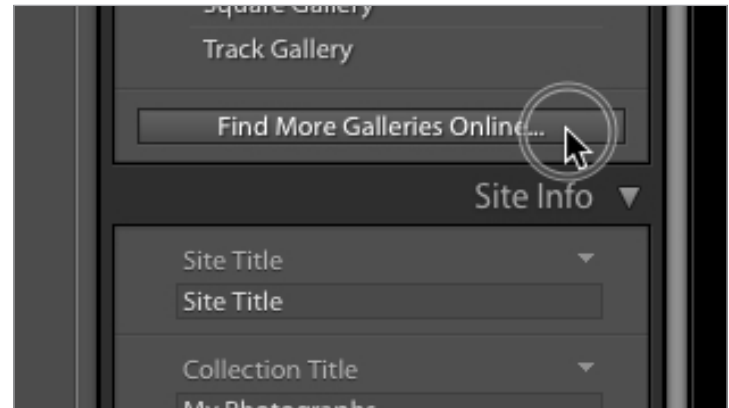
Preparing images ready for upload to a website used to be a long and often hit and miss process. Finding the right balance between quality and page loading times was something most designers hated with a passion. Thankfully, the process is significantly easier these days.



1 Just as we've mentioned before, make sure you take the time to prepare your images prior to clicking on the Web module. Select the ones you want to have as a web page, edit them if necessary to ensure they are looking their best or any unwanted aspects have been removed or obscured and if they're a part of a wider library, save them as a collection.



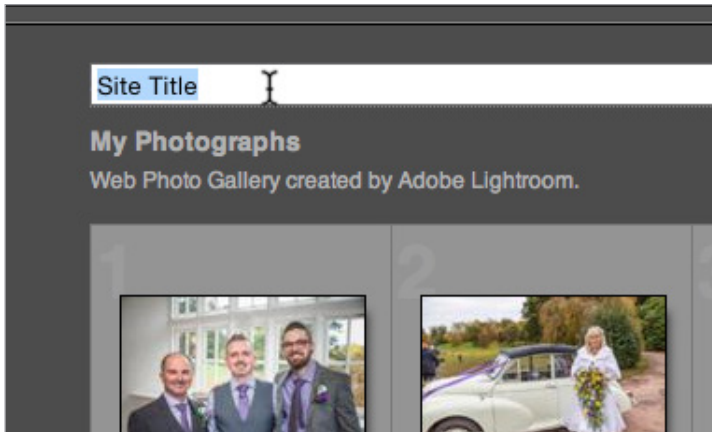
2 When you have the images ready, click on the Web module located in the top menu at the very end of the available modules. The first list will display a series of tips, as with the other modules we've looked at. Take a moment to browse through the tips; if they're not appearing, click Help > Web Module Tips.



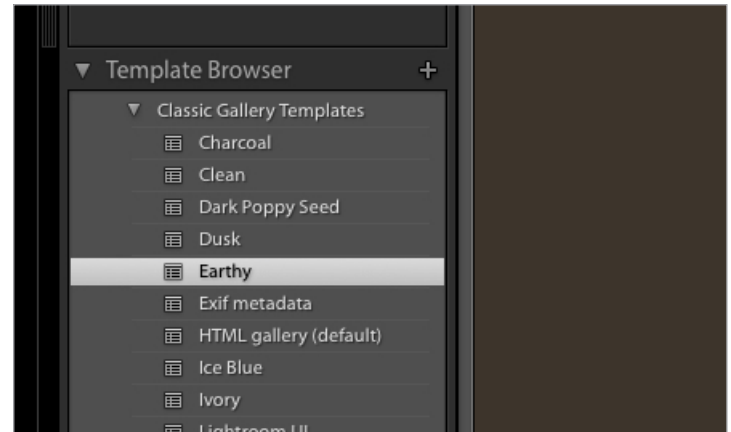
3 If you look over at the right-hand side pane, this is where you can find most of the common options to define the style and presentation of the images for the web gallery you are creating. There's plenty in here to get to grips with; we run through them in the coming steps. For now, just have a browse at what's available.



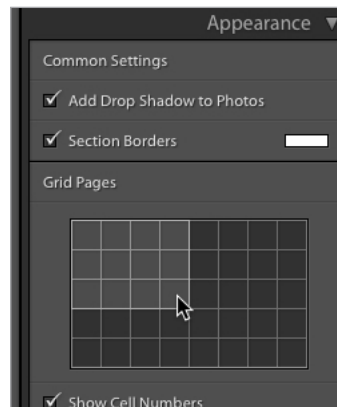
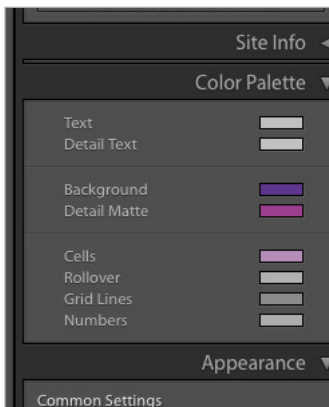
4 The first option available to you is the Layout Style. This is where you can specify the type of layout you want to use, from a basic grid view to something a little more complex. It all depends on which looks best with the images you've selected, and what your end goal is. Below that is the Site Info for you to fill in.



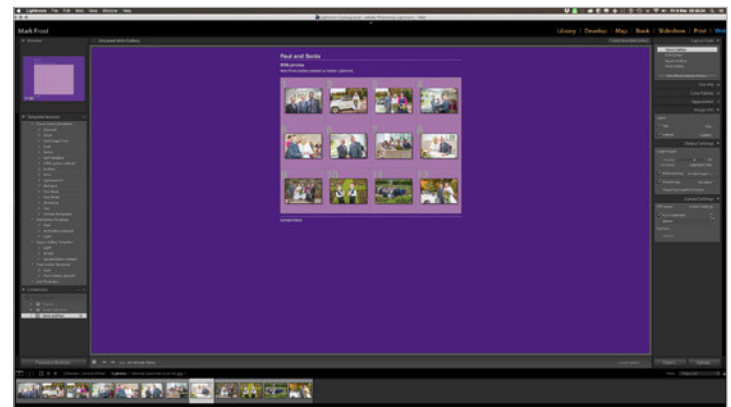
- 5 You can use the Site Info to fill in the relevant details of the site, which automatically fills in the title text boxes on the main Web Gallery centre pane. However, you can also click the text placements in the centre pane and enter the details directly there.



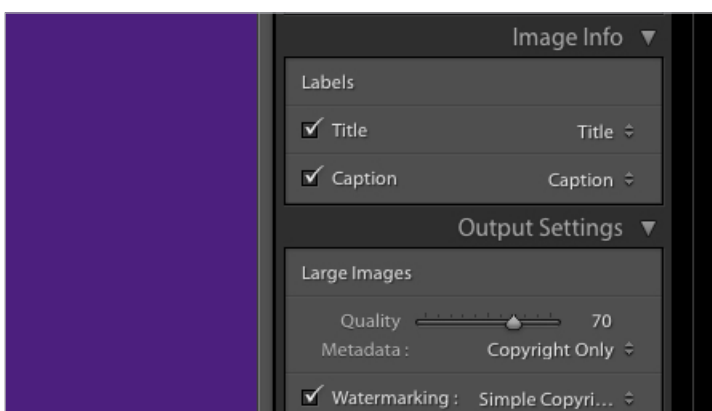
- 8 On the left hand side of the Lightroom interface you will be able to see a number of options in the form of available templates. The Template Browser contains a wealth of predefined templates that can be quickly applied to an existing web gallery.



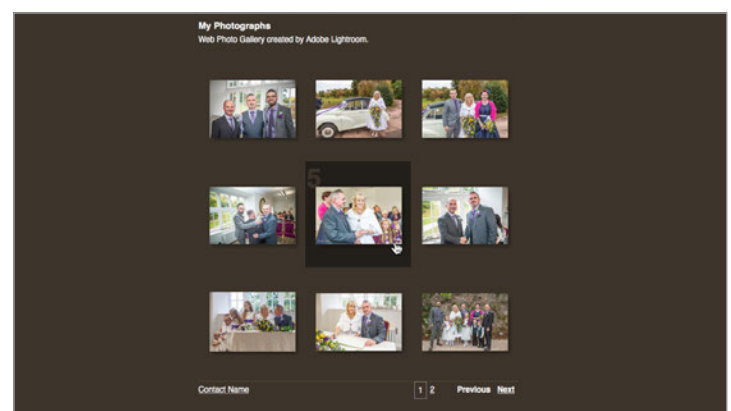
- 6 Below the Site Info section, you can define the Colour Palette and Appearance of the web gallery. You can change the various colours of the sections in the web gallery, and even add drop shadows. The Grid Pages section allows you to change the number of images displayed within the web gallery grid.



- 9 The Preview pane displays a version of your current web design and it will help you decide how the web gallery will look as you hover over each of the templates on offer. The default preview image displays the basic layout and not the additional enhancements you've made or added titles and other text.



- 7 The last few sections provide image information such as a title and captions, the quality of the image as it will be viewed in a browser along with any metadata included. The remaining section allows you to enter details for the web server that the gallery will be uploaded to, including any subfolders for the images.



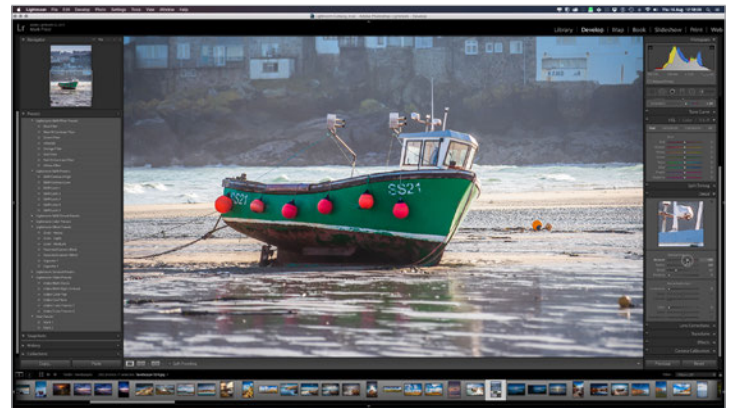
- 10 Finally, in order to be able to test the web gallery in a browser, click the Preview in Browser button at the bottom of the Template pane. Lightroom will prepare the gallery and open it in the system's default browser. If you want to display the gallery in another browser, you need to change the system default to another manufacturer's browser.

Preparing Your Images

Before you upload any images to social media, as a web gallery or for book or slideshow presentations, it's best practise to make sure they're prepared prior to activating a module. We've mentioned this within each module but let's look at some tips to help you prepare your images.



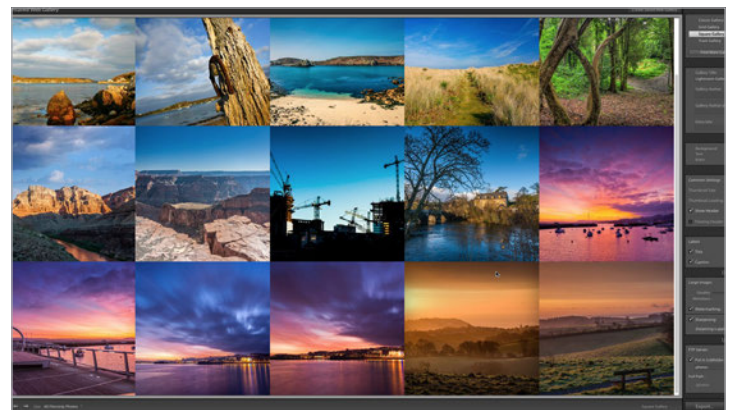
1 Take each image you have chosen to share on social media and enter the Develop module. Now you can examine each one and see where they can be touched up, or have the colour, contrast and exposure settings altered to improve them. Remember, Lightroom is non-destructive, so the original images won't be altered.



3 Don't forget to use the Sharpening tool on your photos. This can help to focus on certain areas of an image that are key to the viewer and will enhance and improve them. There's a lot you can do with simple improvements, and the end result will look better when uploaded to the web or used as an image for a book cover or business presentation.



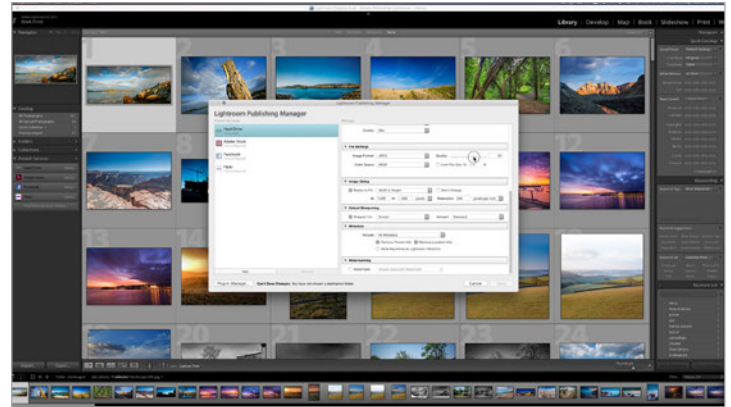
2 Consider cropping unnecessary clutter from an image prior to it being used online or in a presentation. Whilst the entire image may look great, it's often best to fit the relevant areas to the page rather than asking the audience to look to a certain section.



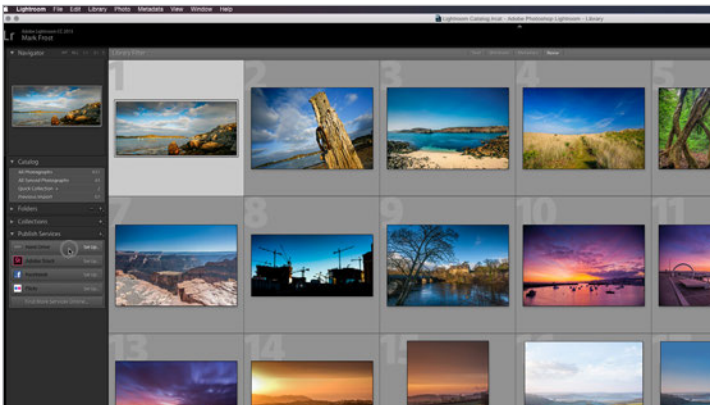
4 If you're uploading any images to the web, social media or preparing them for a book, make sure that faces of individuals are discretely blurred out, or even cropped out if possible. Unless you have permission from the people present. There are various ways to do this in Lightroom.



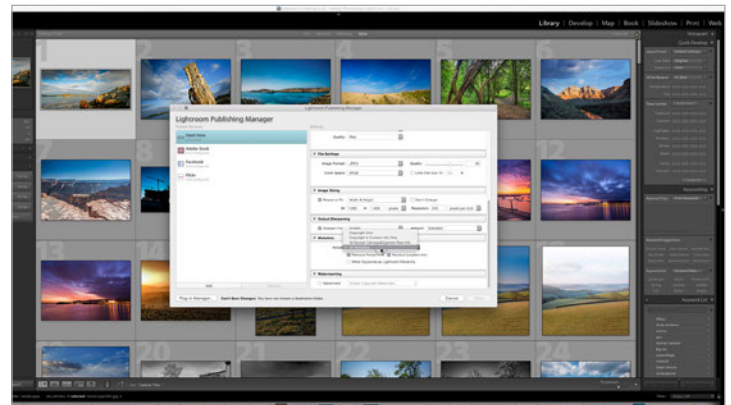
5 Following on from the previous step, if any of the images contain the faces of children or young people, it's probably most appropriate to blur or remove them completely if you do not have permission for them to be seen. If the images are going to be viewed publicly there are child safety issues that need to be considered.



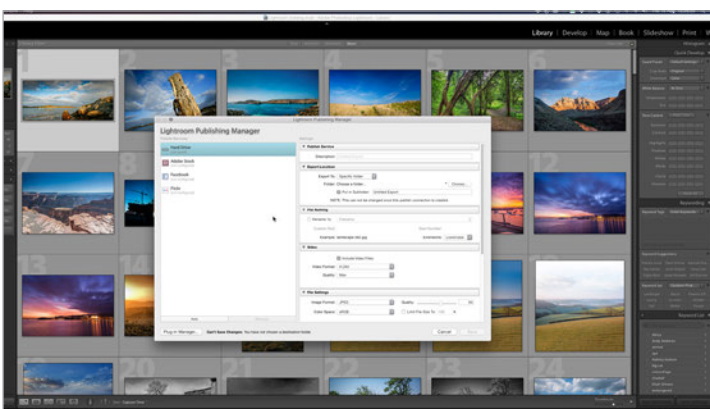
8 For example, a little further down through the LPM Settings, you can see settings that adjust the quality, image format and video format, and image sizing. Depending on where and what you're publishing the image to will affect these settings, as too much quality for web content can lead to a slow-loading page.



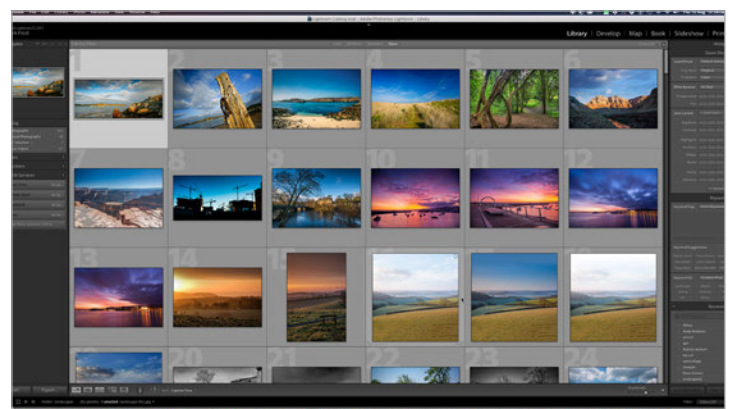
6 If you click back into the Library module, then expand the Publish Services panel to the bottom left of the UI, you can see several options to push the image(s) to different locations. To start with, let's look at the social media options in the next couple of pages: click on the Set Up link in the Hard Drive button.



9 Within the Lightroom Publishing Manager settings you also have the opportunity to include all the Metadata information for each photo or even opting to remove certain sections such as personal information or GPS location data. You can even apply a watermark using the default settings or editing your own version.



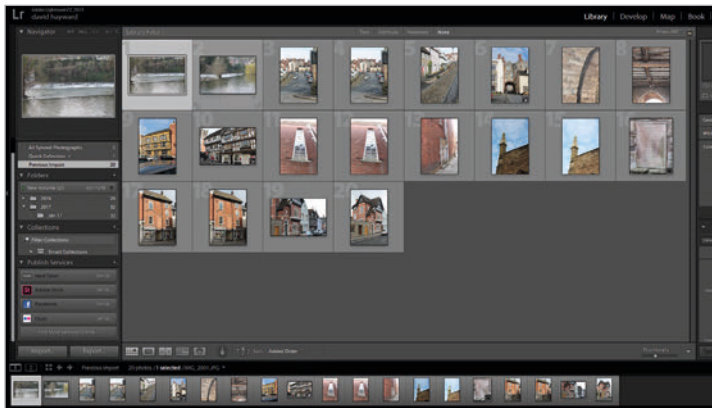
7 The previous step opens the Lightroom Publishing Manager, which you can use in the next section, on publishing work to social media. For now, you can scroll down through the Settings pane and make any adjustments to the image(s) as needed.



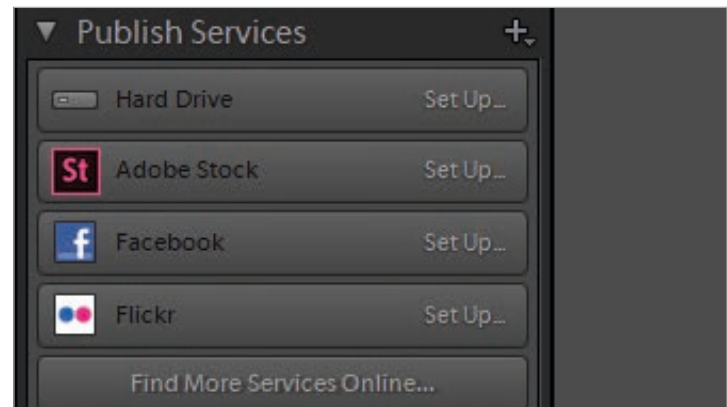
10 With your images prepared for the publishing modules, you can comfortably upload or include them in the various scenarios you've already looked at. Remember though, Lightroom makes it easy to go back and make subtle changes to any image should you want to tweak them further.

Publishing to Social Media

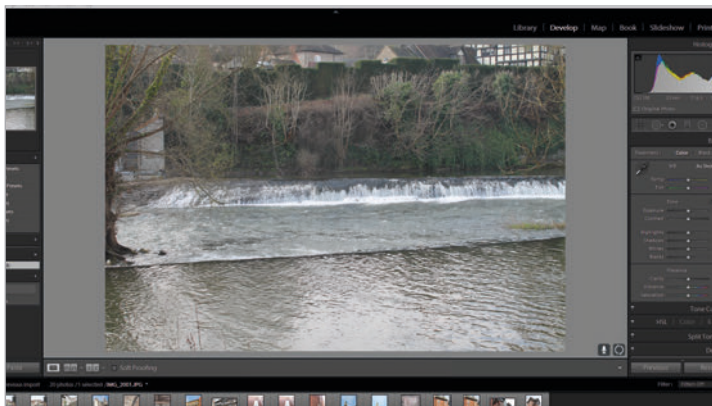
Publishing content to social media is very simple. However, some images are not always looking their best before they're gracing your Facebook Timeline. Lightroom can help you get the best results for your images and make uploading them to the likes of Facebook extremely easy.



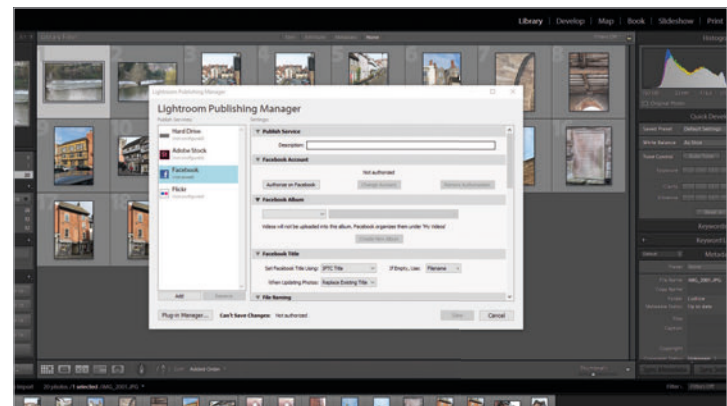
1 Lightroom offers a Quick-upload button to Facebook and Flickr by default but there are more services available from the Adobe Add-on store if you're prepared to trawl through it. Use the Library module to collate the images you plan to upload to your social media platform – let's use Facebook in this instance.



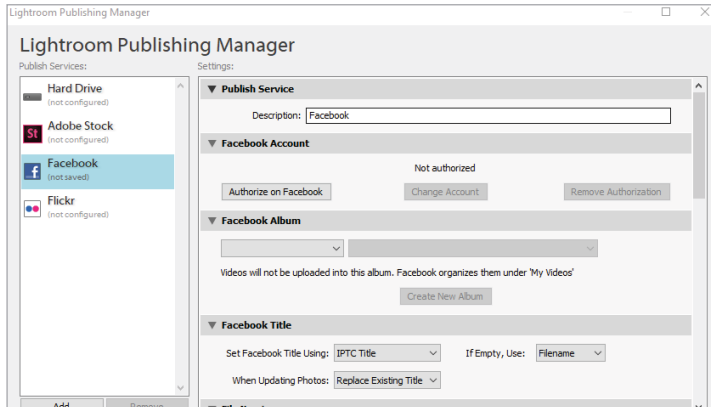
3 When the image is looking its best, click back into the Library module and expand the Publish Services section, in the panel in the bottom left of the Lightroom interface. You can see the buttons available for both Facebook and Flickr, in keeping with this tutorial, click on the Set Up link shown on the Facebook button.



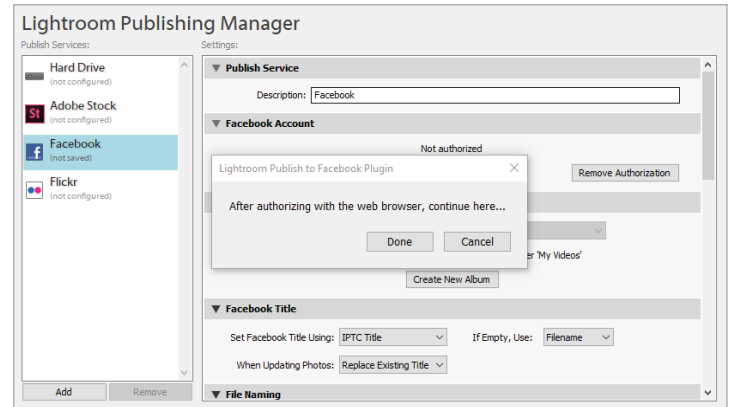
2 Once you have chosen an image you want to upload, it may be necessary drop into the Develop module to make any adjustments and fine-tune the photograph to make it sharper, more saturated and containing plenty of contrast. Remember the tips we looked at in the previous section when applying any updates and edits to an image.



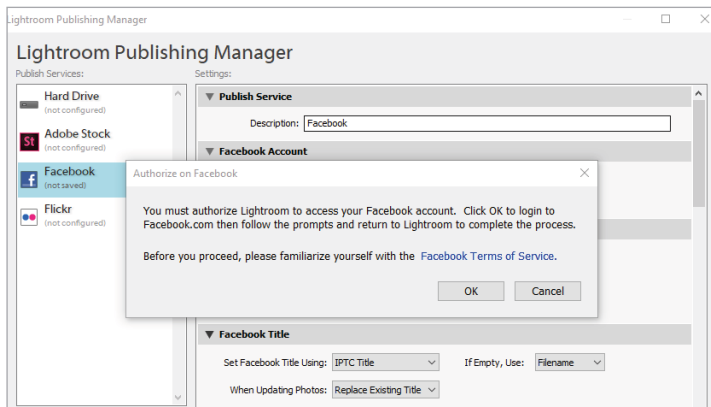
4 This, as we've seen previously, launches the Lightroom Publishing Manager window. This time, however, notice that the Facebook service is highlighted to the left of the main Settings pane. There are a number of settings fields that will need to be filled in.



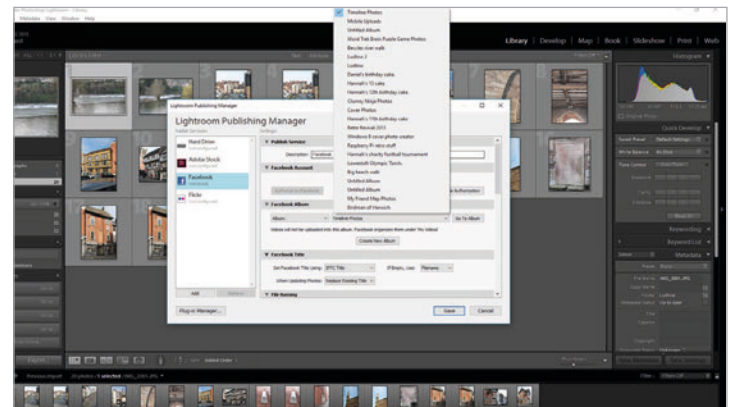
5 You will now need to fill in all the required publish service settings information before you're able to upload anything to Facebook via the Publish Services button. Start off the process by giving the service a Description, something imaginative like 'Facebook' or 'Timeline Photos' will suffice at this point.



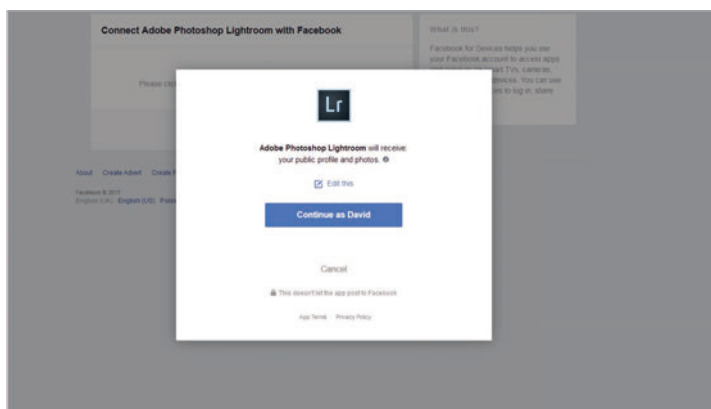
8 Once the process is complete you see a success message on your Facebook page. You can close the Facebook tab in your browser now if you wish. You then receive a message from Lightroom, asking for authorisation to access Facebook when you click on the button. OK all these and click on Done when the process is complete.



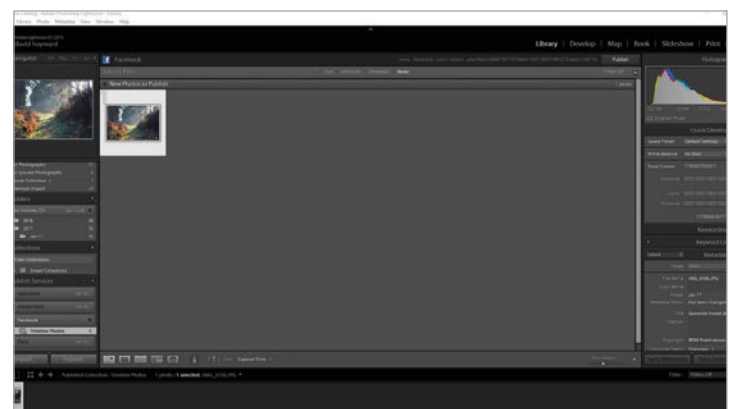
6 You will also be required to enter your details regarding your Facebook account. Start by clicking on the Authorise on Facebook button, this will launch a pop-up window informing you of the Facebook Terms of Service which you will need to agree to. Once done, click on the OK button to log into Facebook.



9 The rest of the Settings available for Facebook in the Lightroom Publishing Manager allow you to choose an individual, or create a new, album on Facebook, set titles, name files and set the image sizes and quality. Browse through the available options to decide how to best publish your images on Facebook.



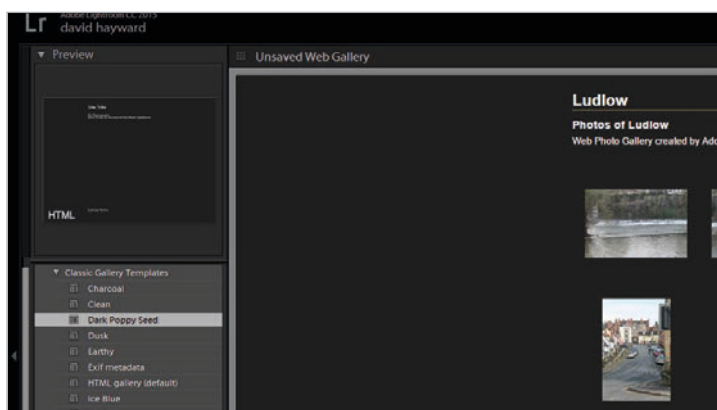
7 Lightroom auto launches your default system browser and opens Facebook, you may need to log in if you haven't already set up the username and password details. You're asked to connect Adobe Lightroom with Facebook, using a Continue button that opens the authentication window. Click on the Connect As... button to continue.



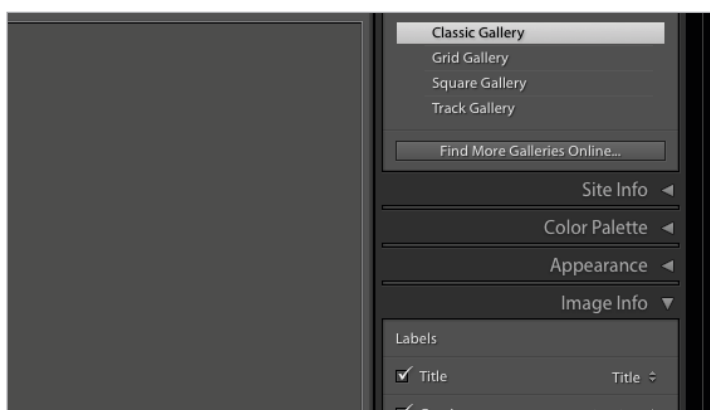
10 You can now drag and drop any number of images into the Timeline Photos or other album link under the Facebook button. This will automatically add the images to the Library filter; from there you can click on the Publish button under the Publish Services pane to start uploading your photographs to Facebook.

Publish to Your Own Website

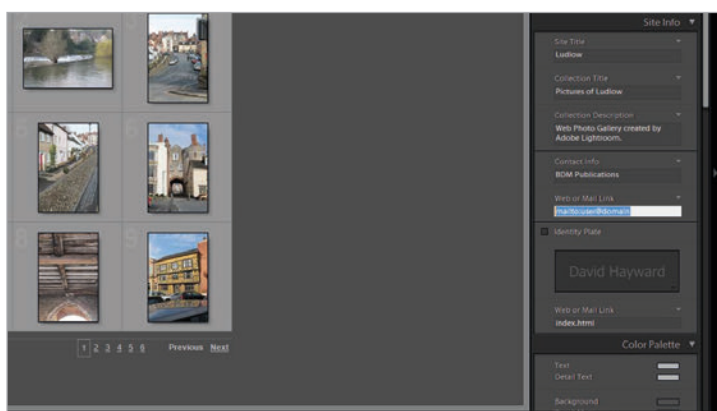
Publishing your photos to social media is all fine and well, but most photographers instead use a dedicated website as a portfolio of their images. Lightroom makes it easy to prepare and upload web galleries to a website, as long as you have the relevant details to hand.



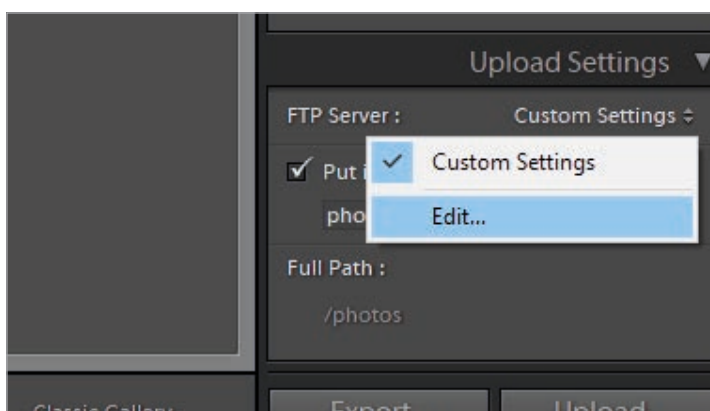
1 To begin with, we are going to assume that you have a beautiful web gallery full of lovely images that is ready for uploading to the web. However, before we start the upload process, we think it's best to recap a couple of crucial elements that can make all the difference. First, ensure you've looked through the various Templates on offer.



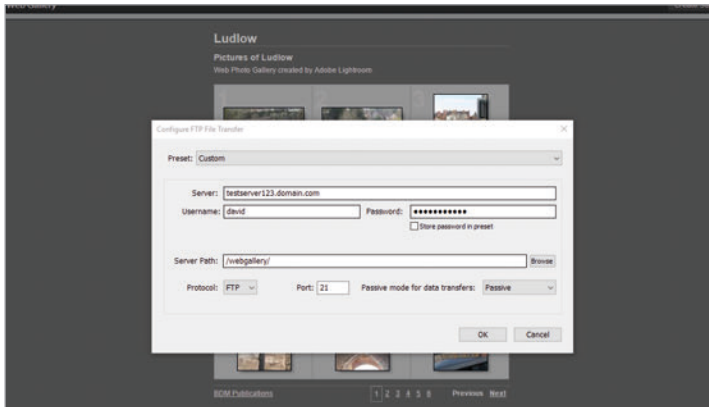
3 If you want to edit your web gallery still further, you can go to the Layout Style panel on the right of the screen and choose from more options such as Classic Gallery, Square gallery and Grid Gallery. There is also an option to discover more gallery styles online if you want them. Consider also the colour palette and appearance of your site.



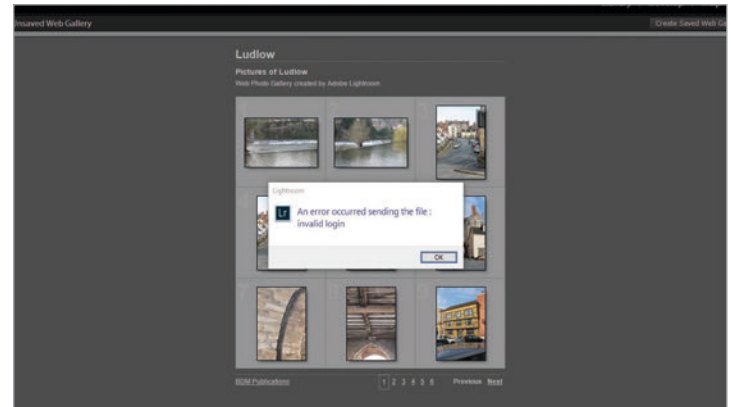
2 Next, make sure you've filled in the relevant sections for the Site Title, Collection Title, Collection Description, Contact Info, and insert a valid Web or Mail Link. These can be done either from the right-hand panel or by clicking on the text box titles on the web gallery itself. The preview pane will update and you can see the changes you've made and how they display.



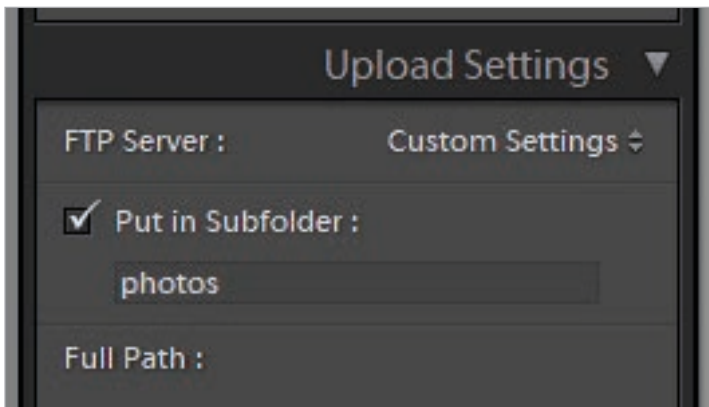
4 If the web gallery is ready to be uploaded, scroll down to the bottom of the right-hand pane to the Upload Settings section. In the FTP Server section, click on the drop-down menu and choose Edit. This calls up a panel where you can configure the FTP transfer settings. Your website host will be able to provide the relevant FTP settings.



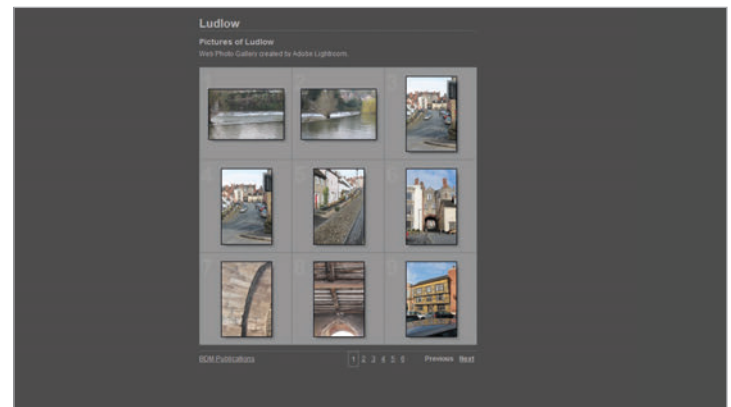
5 With the Configure FTP File Transfer window open, you can begin to enter in the details for the web server you want to upload the web gallery to. As mentioned, you will need the server address and server path, along with the username and password from your web hosting company that has write permissions on the server.



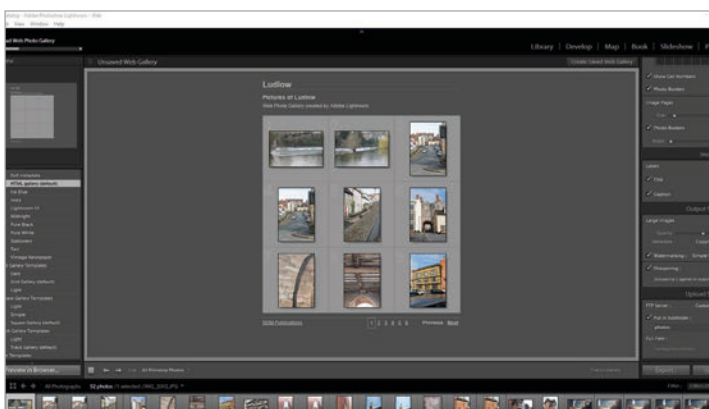
8 Sometimes errors can occur during the upload process. Lightroom will usually display the type of error it has encountered but often the error could simply be a mistyped server address, folder location or password. If an error does crop up, go back to step 5 and double-check your FTP details again just to be sure.



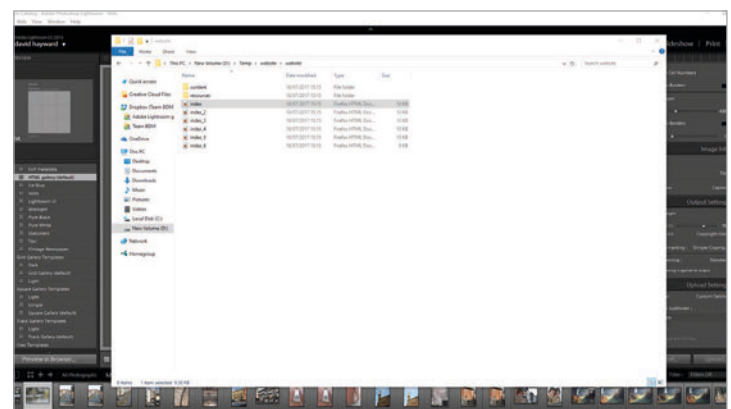
6 When you've entered the FTP transfer details, click on the OK button to save your settings and close the Configure FTP File Transfer window. Next, within the Upload Settings panel, make sure that any Put in Subfolder location information is correctly entered in the relevant box, and that the box is ticked.



9 Providing the upload went well, you should be able to open the site and view the web gallery as you created it within Lightroom. It's best to go through the site and check that all the links are functioning, as sometimes a link can work locally but fail when uploaded to a server, usually due to the FTP missing or failing to upload an image or file.



7 When you're ready, click on the Upload button to connect to the server you entered in Step 5. Lightroom will enter the details you specified, connect to the server and begin the upload process to the folder and sub-folder. There's a progress bar in the top left of the interface that details how far along the process is.



10 Alternatively, if you would rather upload the entire gallery using your own FTP or upload client such as FileZilla or FireFTP, then instead of clicking on Upload, click on the Export button. This will ask you for a location to save all the files and HTML code. All these files can then be uploaded to the server manually.

Getting Colourful

You'd be surprised just how often a great photo is edited using simple, but very effective, techniques. These techniques often centre around the colour options within Lightroom; and through the tutorials in this book you can learn to apply these fine alterations to great effect.

Not all Lightroom effects have to be dramatic. The great strength of the program is that it can be used to make some subtle improvements to images, making great shots even better. The difference between these two images may appear fairly subtle at first glance but the exposure, saturation and colour balance of the main image has been carefully tweaked using the Basic panel, found in the top right sidebar of the Develop module. Sometimes, the key to Lightroom is subtlety.



AFTER



BEFORE





Lightroom CC: Cloud Based Photo Editing

Photoshop Lightroom CC is a cloud-based photo service. It is a much pared down version of its fully-featured cousin Lightroom Classic. There is no doubt it is a faster and more streamlined product for enthusiasts to use across multiple desktop and mobile platforms, with plenty of powerful features so you can stay synchronised and edit your photos anywhere.



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Less is often more

The cloud-based version of the Lightroom program is as powerful an app as you could wish for. It gives you complete control of your images and you can turn a lacklustre Raw file into a colourful and dramatic photograph. We will cover the basics and get you up to speed on the new image processing benchmark.

Photographers as a general rule do not tend to like images that are way over-processed and have every preset and colour effect thrown at them. The truth is, if you want to go crazy with your processing, Lightroom CC has the power to do that but it also has the subtlety when you need it. The adjustments shown here, which we cover in more detail over the following pages, are a good example of less being more; allowing your images to look their best.

AFTER**BEFORE**



Introduction to the Workspace

The Lightroom CC workspace is a more streamlined design than Lightroom Classic CC. It is designed to be quick and simple to use but no less powerful than the desktop version. It is an ideal platform for editing your photos if you are on the move using a tablet or phone.

1 Add Photos

Whenever you want to import new photographs into your Lightroom catalogue or if you are starting from scratch, clicking this button will begin the process of browsing and reviewing any new images you wish to import.

2 My Photos

Clicking this button will reveal the My Photos listings. They are broken down into four main at a glance categories for you to begin to filter your collection by.

3 All Photos

This is simply a complete listing of every photo you currently have in your library. The number of images is displayed on the right of the All Photos icon.

4 Recently Added

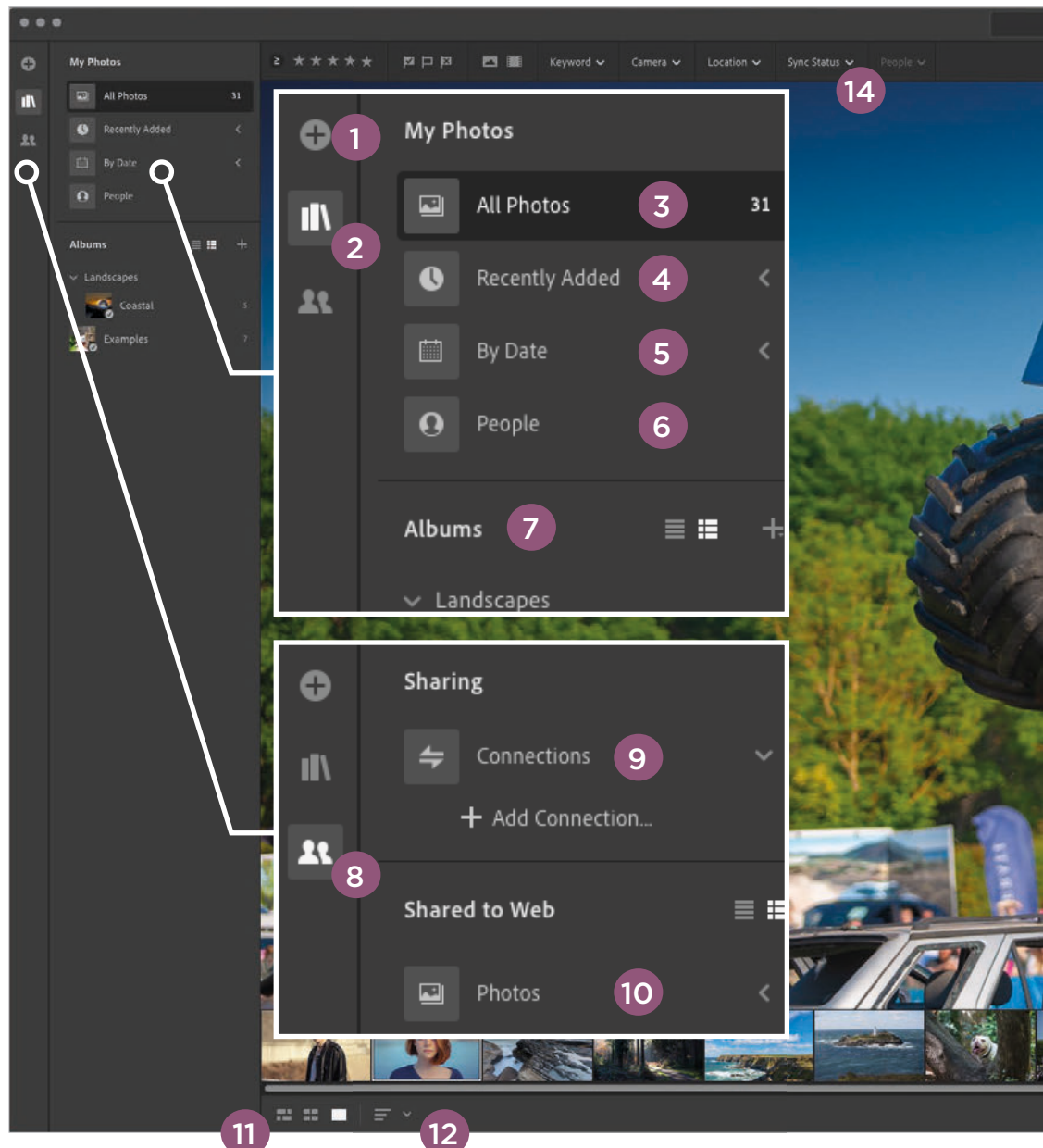
This filters your photos by the date you added them to your collection.

5 By Date

This breaks down your photo collection by the year they were taken, with the number of shots displayed to the right of each year shown.

6 People

Lightroom will scan your images when they are synced to the cloud and can identify any photos with faces in them for you to tag by named person if you wish.



7 Albums

Any albums and folders created are displayed under this tab.

8 Sharing

This section is concerned with how you share your images and albums to the rest of the world.

9 Connections

Connections is a link that connects to Adobe Portfolio, a free website builder.

10 Shared to Web

Images are uploaded to the web and a link is provided at the top of the screen.

11 View Options

You can view your image library either in Photo Grid, Square Grid or Detail view. You can press G on your keyboard to cycle through the view options. Detail view is used when you make edits.

12 Sort

Under this menu are options to sort your photos by Capture Date, Import Date, Modified Date, Filename and Star Rating.

13 Search All Photos

In the Search All Photos panel you can type in any keywords to search your photo collection by. Your photos will need to have keywords added to them in order for this to work.

14 Refine Search

This calls up a panel that lets you search for images with additional parameters such as Star Rating and camera used.

15 Picked or Rejected

These two icons will flag an image, or group of images, as Picked or Rejected. You can also add a Star Rating.

16 Save To

This button lets you save a copy of your image locally on your machine.

17 Help

This button opens a menu where you can view Getting Started tours of the app or view all the What's New features.

18 Cloud Storage Sync

Shows you the current status of your cloud storage.

19 Adjustments panel

This panel displays all the main adjustments and tools you can use to process your images.

20 Toolbar

All the tools you need are docked on the right hand side of the workspace.

21 Keywords

Clicking on this icon opens the panel that lets you add keywords to your images, in groups or individually.

22 Fit and Fill

These five buttons let you scale the image, remove the filmstrip and show a before and after comparison. In All Photos, this will be replaced with a magnification slider.

23 Filmstrip

This is a strip of thumbnail images so you can quickly identify photos you may want to work on.

24 Info

The Info panel carries all information about the image currently selected.



Adjustments at a Glance

If you are new to image processing, some of the tools that are used and the effect they have on your images may be unfamiliar to you. Luckily, Lightroom CC provides some helpful tool tips to explain what each of the major adjustments actually do.



1

Exposure

Controls the brightness of your photo.

Move left to make the image darker; move right to make the image brighter.



2

Contrast

Determines the contrast between light and dark colours.

Move left to flatten the contrast; move right to make the contrast more dramatic.

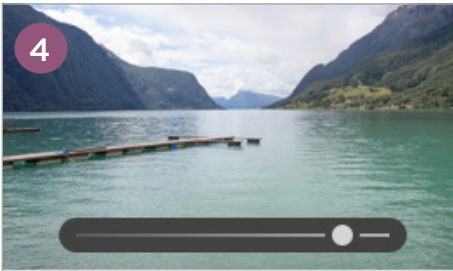


3

Highlights

Controls the brightness of the lighter parts of your photo.

Move left to darken highlights and recover details; move right to brighten them and reduce details.



4

Shadows

Controls the brightness of the darker parts of your photo.

Move left to deepen shadows; move right to brighten them and recover more details.

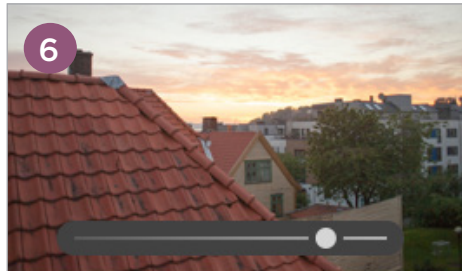


5

Whites

Sets the white point of the image.

Move right to make more colours appear completely white.

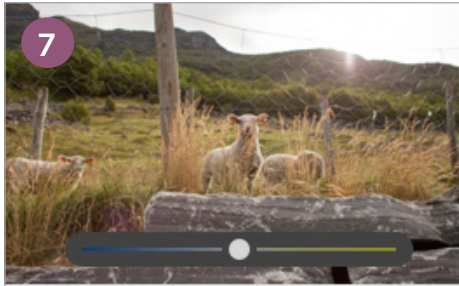


6

Blacks

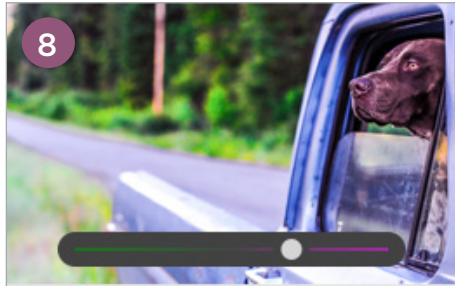
Sets the black point of the image.

Move left to make more colours appear completely black.

**Temperature**

Determines how warm or cool the colours appear in your photo.

Move left if colours are too yellow; move right if colours are too blue.

**Tint**

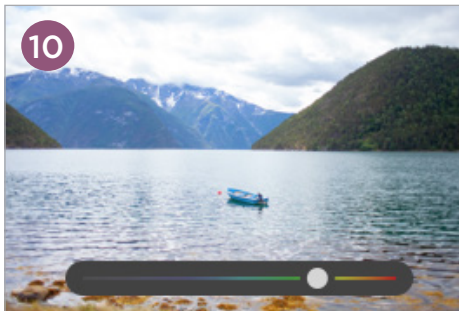
Determines how green or purple the colours appear in your photo.

Move left if colours are too purple; move right if colours are too green.

**Vibrance**

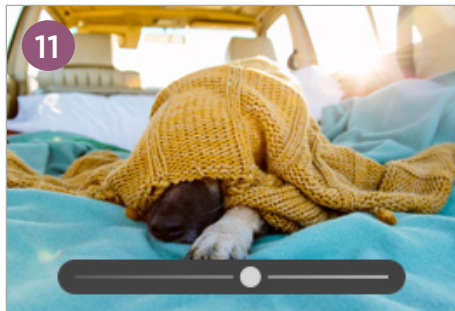
Changes the saturation without causing unpleasant colour casts.

Move right to make colours pop without oversaturation.

**Saturation**

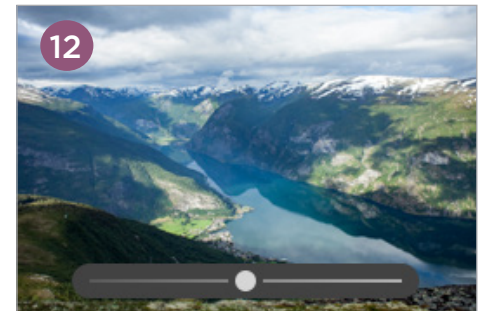
Controls the saturation of all colours equally.

Move left to make your photo grayscale; move right to boost all colours.

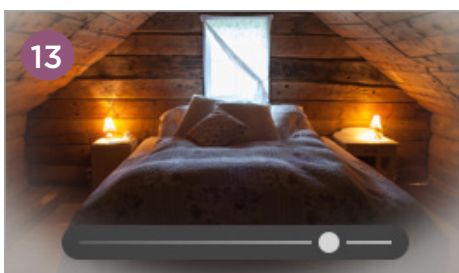
**Clarity**

Changes the contrast around the edges of objects in your photo.

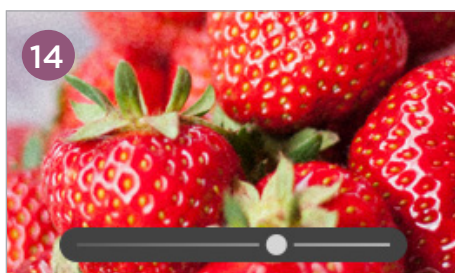
Move left to soften portraits; move right to make landscapes more clear.

**Dehaze**

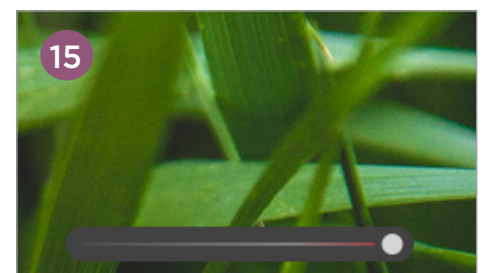
Move left to add simulated haze; move right to remove haze.

**Vignette**

Makes the outer edges of the photo lighter or darker.

**Grain**

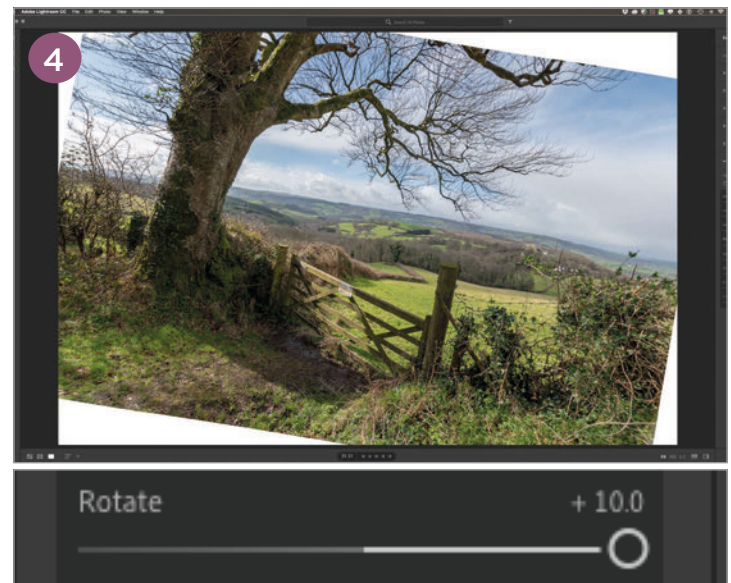
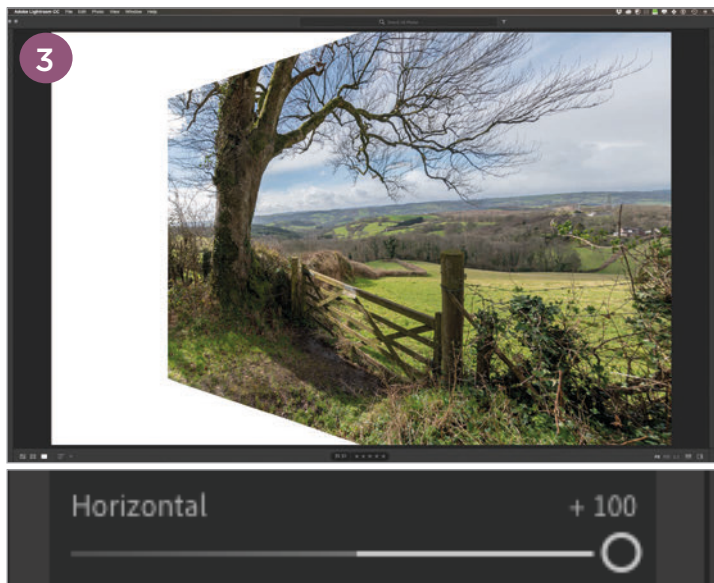
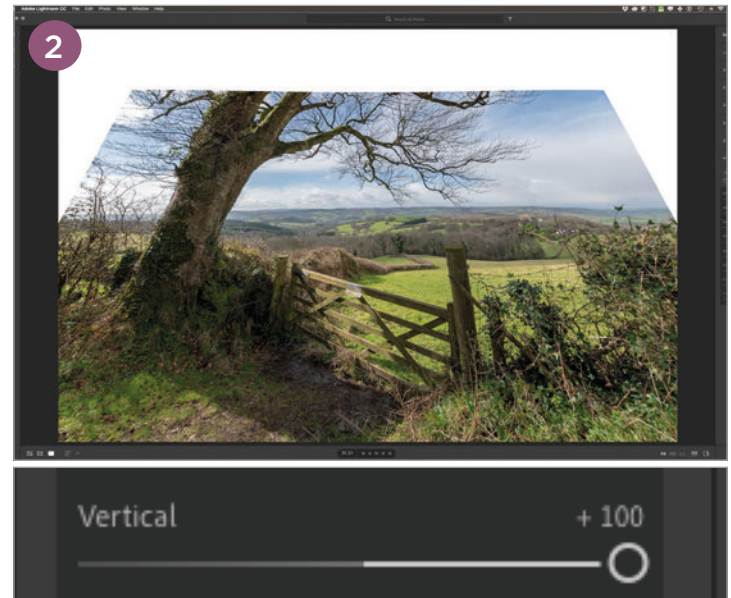
Move right to add film grain.

**Sharpening**

Move right to sharpen details.

Lightroom CC Geometry Editor

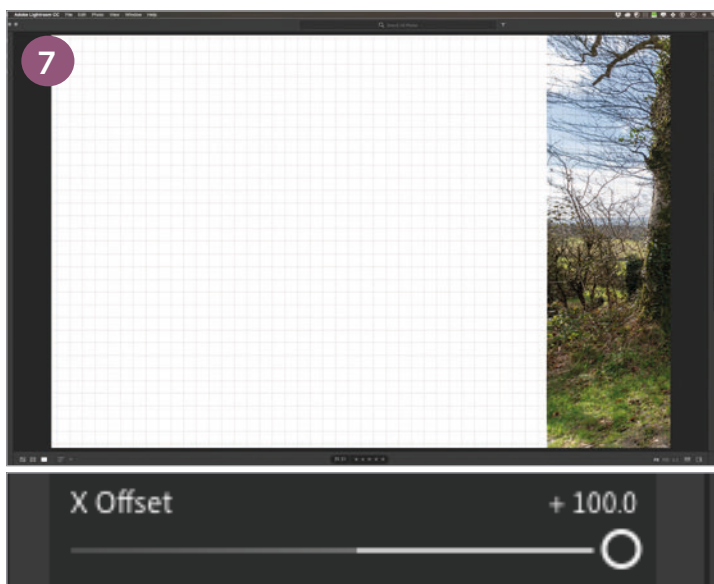
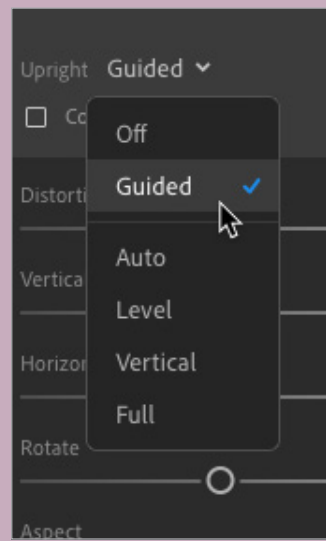
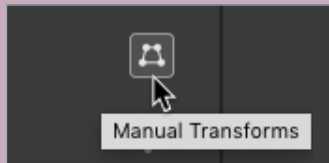
Recent versions of Lightroom offer you more tools that let you edit and manipulate the geometry of your photos. In this case, geometry refers to the proportions, size, rotation and distortion controls that can alter the physical shape of your photo. The eight controls are shown here.



Transformation Guidance

The eight geometry controls allow you to physically alter the shape of your photos. The geometry can be manually controlled by moving each of the sliders between values of -100% and +100% for some extreme transformations.

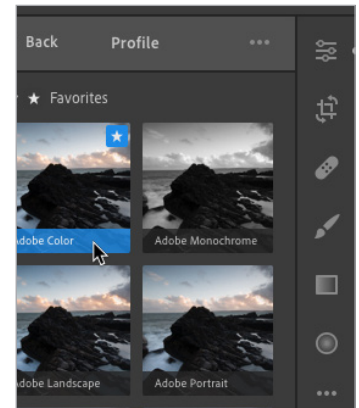
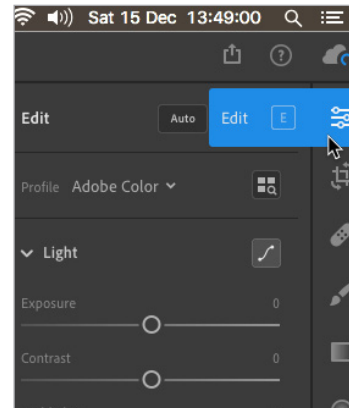
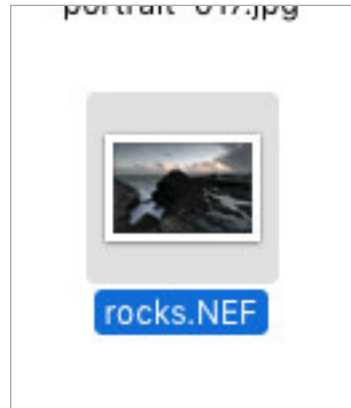
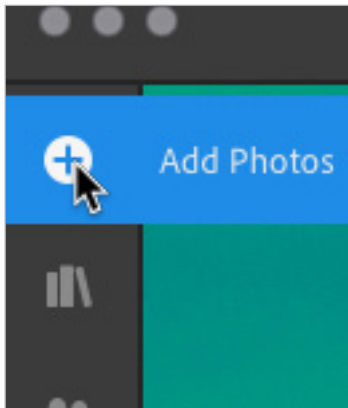
There are also options that let you specify which parts of your photo are level, on either the vertical or horizontal plane, by placing control points and letting the software work out the transformations required to bring those parts of the image back to straight and level.





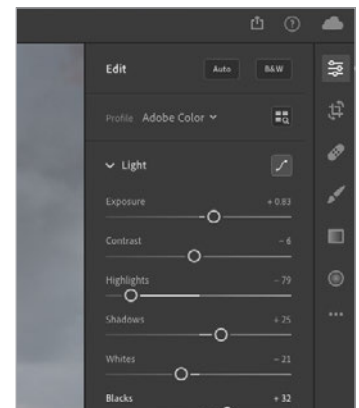
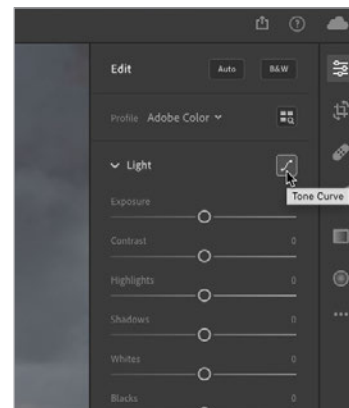
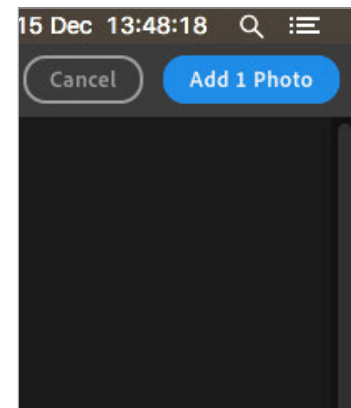
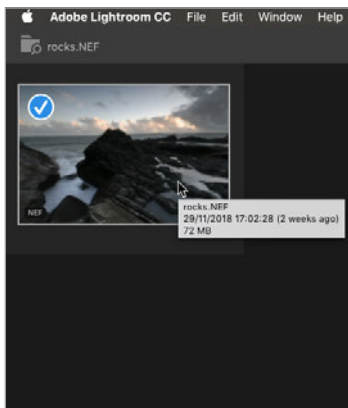
Lightroom CC Workflow Example

All users of Adobe's Creative Cloud Photography Plan get Photoshop CC, Lightroom Classic CC and the latest Lightroom CC in their monthly subscription. Let's take a more detailed look at the mobile focused version and show you what it's capable of.



1 Start the process by opening Lightroom CC and, if you haven't already imported the photos you want to work with, begin to add new images by clicking the plus symbol in the top left corner and then clicking on Browse. For our processing workflow example, we browsed to a Raw file of a rocky seascape and double-clicked it to continue.

3 Ranged down the right side of the screen are the all the main tools for processing your photos. Click on the Edit icon (E) to open the image editing tools. The Profile panel allows you to add a number of preset colour and filter effects to your image. These effects can be added on top of any processing adjustments you may have made yourself.

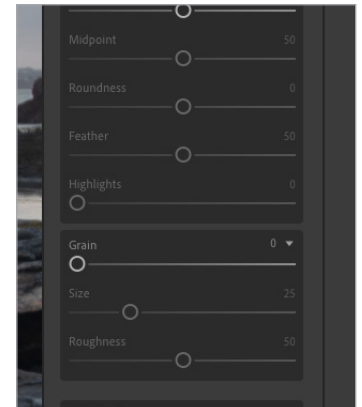
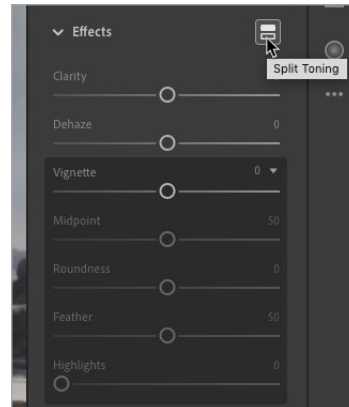


2 The 'rocks.NEF' file will be imported to Lightroom CC. In the top right corner of your workspace, click on the Add 1 Photo button to add the image to your current library. You have the option of importing to any named libraries you may have created if you want. You can view your most recently added images under the Recently Added tab.

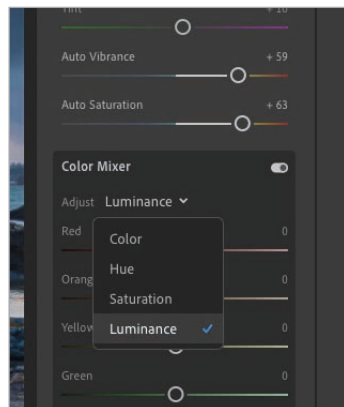
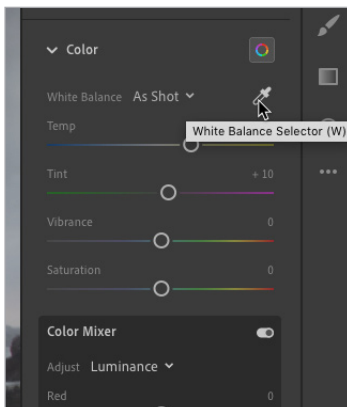
4 Beneath Profile you will find the Light panel. This panel contains all of the main Exposure and Contrast sliders for making basic adjustments to your image. We adjusted the image to brighten it but retained detail in both highlight areas and shadows. You can adjust all the sliders to get the image looking precisely how you want it.



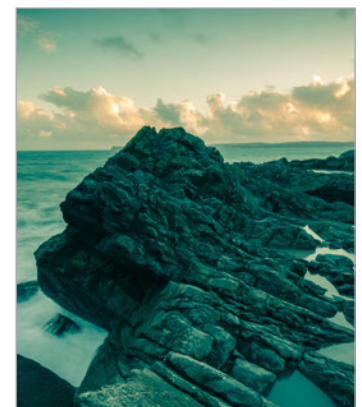
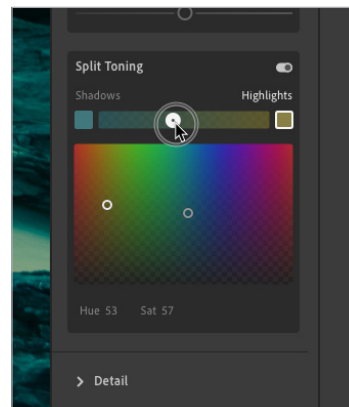
5 You also have the option to use the Tone Curve tool. The Tone Curve tool works in much the same way as it does in Photoshop. Dragging a point on the curve alters Shadow, Dark, Light and Highlight values. You can also affect the values of the individual colour channels of Red, Blue and Green by clicking on the red, green or blue Edit Channel buttons.



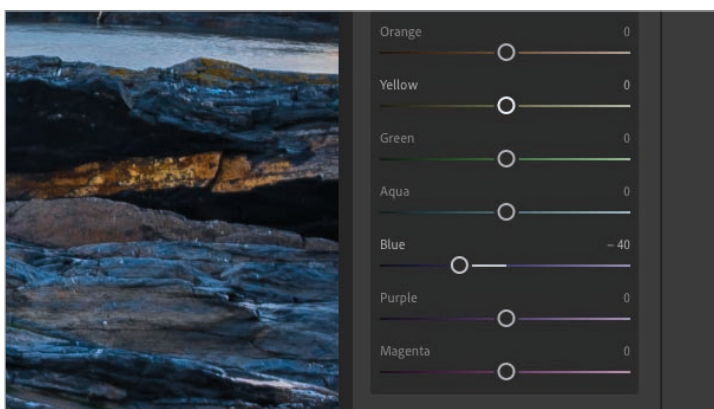
8 Next you can open up the Effects panel. This contains the Clarity, Dehaze, Vignette and Grain sliders. Clarity and Dehaze help control mid-tone contrast while Vignette gives you a number of ways to darken the image edges. Grain lets you add a film grain effect and choose the size and roughness of the grain you are adding to the image.



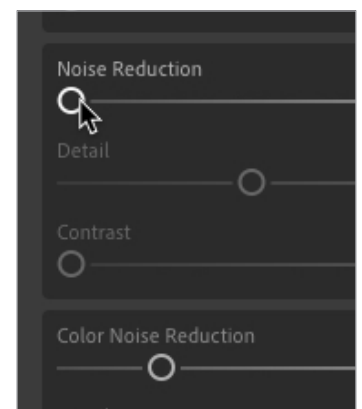
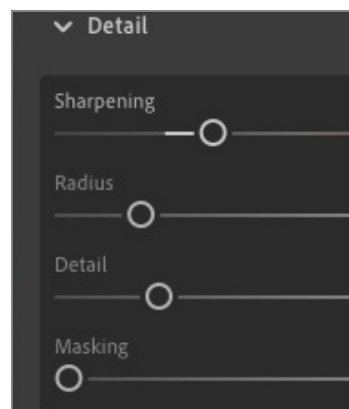
6 Below the Light panel comes the Colour panel. Here you can alter White Balance manually by adjusting the Temp, Tint, Vibrance and Saturation sliders or by using the White Balance Selector (W). You can also use the Colour Mixer and alter the Hue, Saturation and Luminance values to the primary colours to achieve the desired look in your shot.



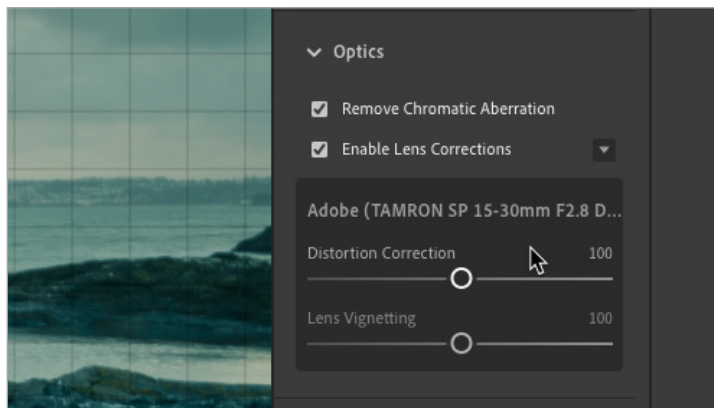
9 Split Toning is a colour control method that lets you add a colour tint to both highlight and shadow areas in your image. You can choose the colour, strength and balance of colours between bright and dark areas by using the Split Toning tools. For example, you can add blue to the shadow areas and then add yellow to the highlights of your image.



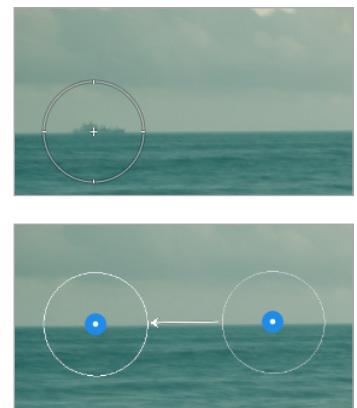
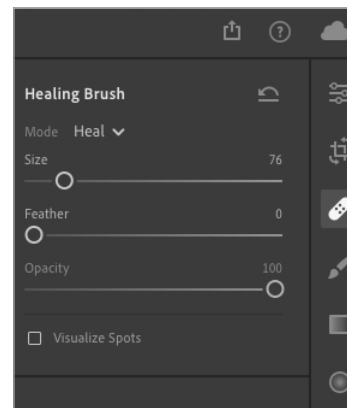
7 You can use the Colour Mixer tool in various ways. You can choose to just alter the Hue of the primary colours, adjust the Saturation of each primary colour or make each primary colour lighter or darker. For our workflow example, we altered the Blues Luminance to make them much stronger and more vibrant.



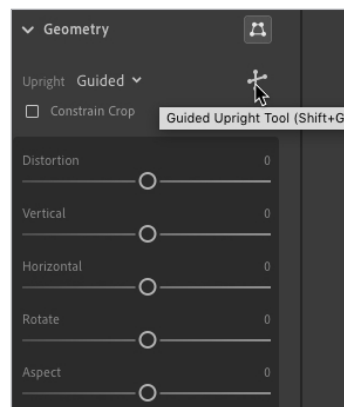
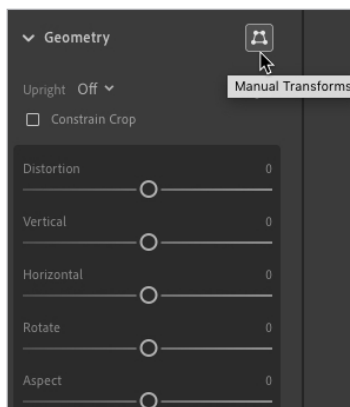
10 The next panel contains Detail adjustments. This is where you can control Sharpening in your image by using the Radius, Detail and Masking sliders as well as using the adjustment sliders for Noise Reduction and Colour Noise Reduction. It is highly recommended that you work with your image at 1:1 magnification to clearly see their effects.



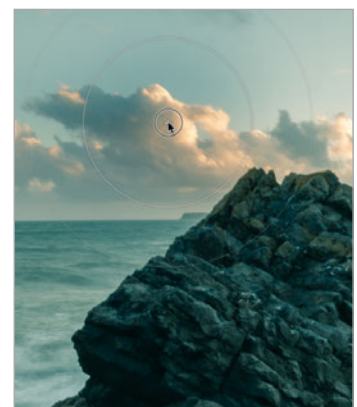
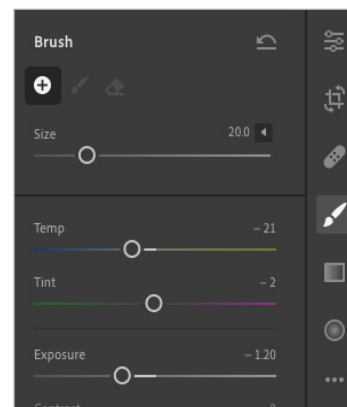
11 Below the Detail panels comes Optics. Clicking on the Remove Chromatic button identifies what lens was used and removes colour aberrations created by the lens used on your camera. These aberrations normally show up as green and magenta fringing. You can also remove any barrel distortion created by that lens and choose to further adjust those settings.



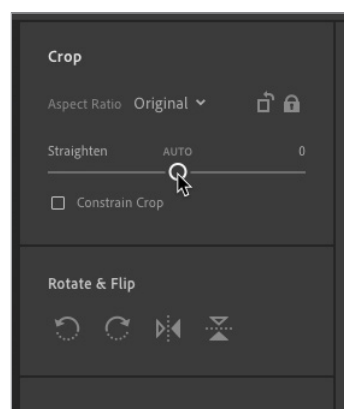
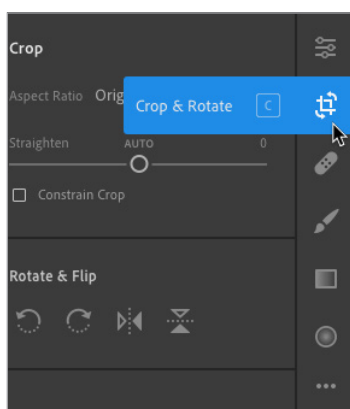
14 The Healing Brush tool (H) is useful for removing any unwanted objects and dust or dirt from your photo. Simply choose the Clone or Heal mode and brush over your target. It will then use nearby image data to remove the unwanted item. You can choose the Size, Feather and Opacity of the brush and click Visualize Spots to help you see any offending blemishes.



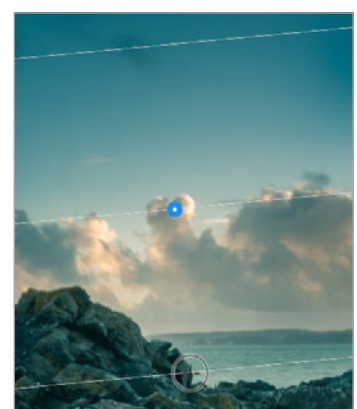
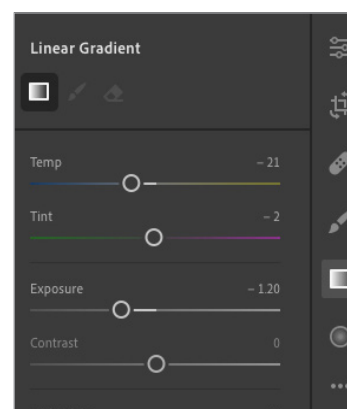
12 The last panel is Geometry, where you can physically alter the shape, size and rotation of the image. It is particularly useful for removing unwanted perspective and converging verticals in architectural shots. You can choose to alter the geometry of the image manually or use the Guided Upright tool to adjust what is level and vertical.



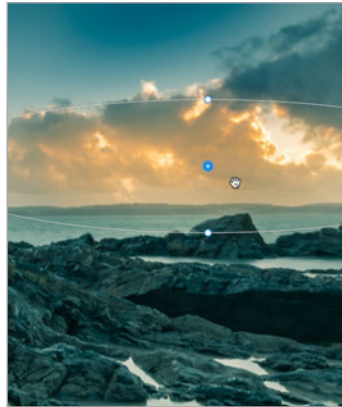
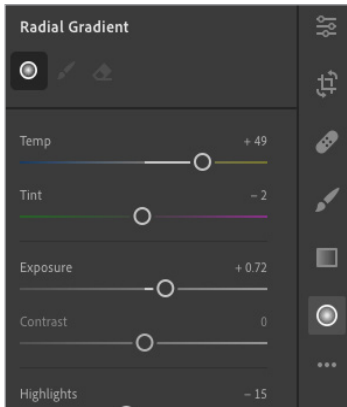
15 The Brush tool (B) is next. This lets you make targeted adjustments by simply adjusting your settings and brushing over the area in question. You can use a Brush to make adjustments such as reducing the exposure in certain areas of the image. You can erase areas of your brush strokes if required and add new brush adjustments too.



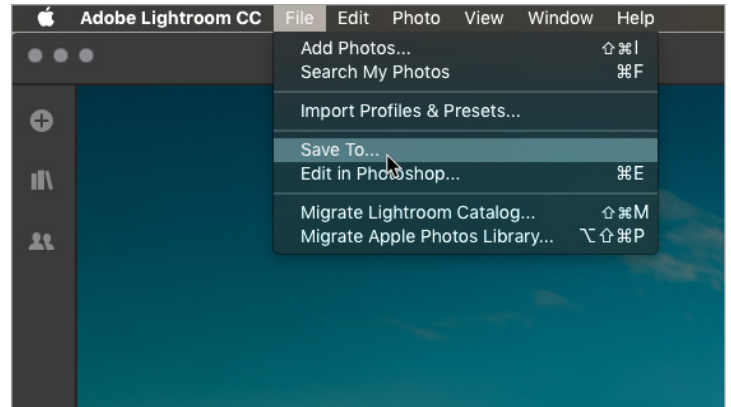
13 Back to the main menu and the next tool is the one for Crop & Rotate (C). You can crop your images manually or choose a preset from a number of popular image aspect ratios. The Crop & Rotate feature also allows you to rotate and flip your images by using the provided slider. You can also Constrain Crop the proportion of the crop once you've set it.



16 Linear Gradient (L) behaves like a digital version of the graduated filters used by photographers on their lenses. You can click and drag a graduated filter across your image, to either darken or lighten areas based on your settings. The effect begins at 100% density at the start point of the gradient and then fades to 0% at the end.



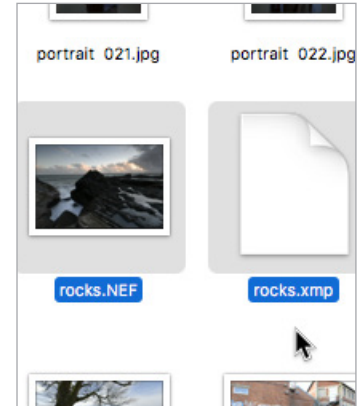
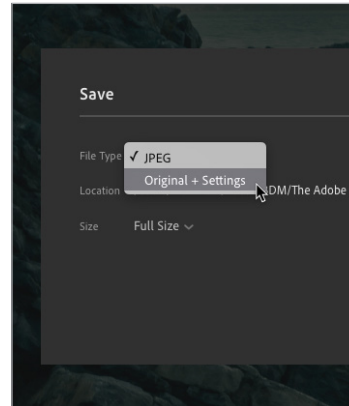
17 Finally, the Radial Gradient Tool (R) is a circular version of the Graduated Filter. It can affect anything inside it or be set to only affect anything outside the area selected. We used a bright yellow Radial Filter to create a pool of warm light across selected parts of the photo. You can add a number of these filters or erase parts of the existing ones.



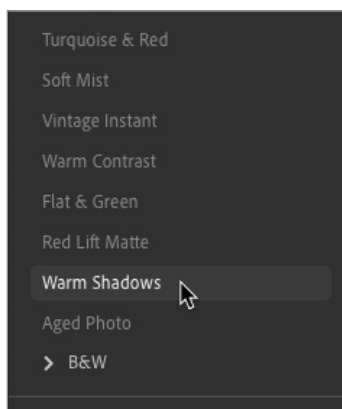
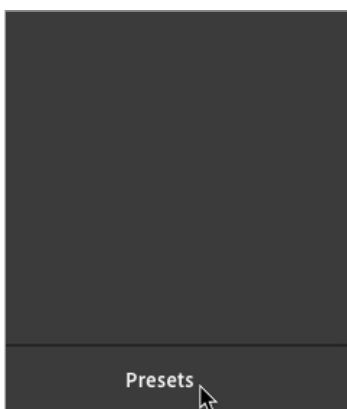
20 Take your time with your processing and try not to overdo it. Once you have your image the way you want it, you can save a copy of it. It will be synced to your cloud storage and you can keep a version on your local storage drives. Go to File > Save To; this will call up the Save panel. Choose from either Original + Settings or JPEG.



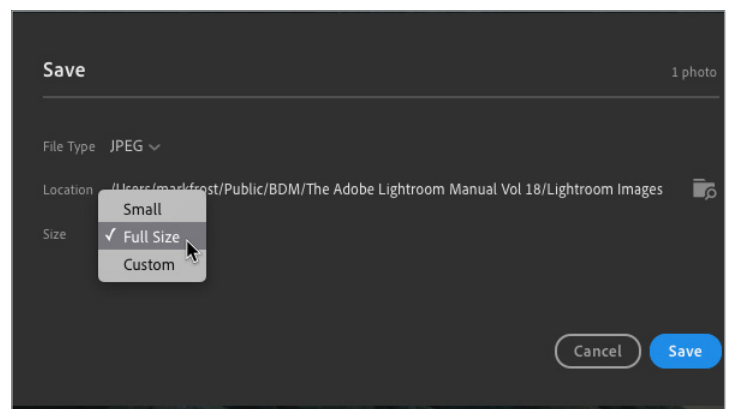
18 You can also the proportions of the Radial Filter effect by dragging the control points around the circumference of the filter. There is also a Brush adjustment you can use to and more targeted adjustments to the image. We added warmth and increased exposure to the water pooling in the rocks near the front of the image.



21 If you choose Original + Settings, your Raw file will be saved locally to your computer, along with an XMP file. This file contains all the non-destructive edits made to your image. This is a non-destructive method that allows you to open the file up again at any time and make new adjustments to the image.



19 Finally, if you click on Presets at the bottom of the toolbar, you can access the full range of filters for a one-click creative effect to dramatically alter your photos. They are presented in thumbnail form and range from Black and White conversions to Aged Photo and even Grain effects. Hover over each one to see the effect on your image in realtime.



22 If you choose JPEG as your image option, you have the ability to select a Small reduced size version, Full Size or a Custom image size as you see fit. When you have chosen the size of the image you want, you can then press the Save button to download a JPEG to your machine with all the edits you have made in place.



Lightroom On Your Mobile Devices

The mobile version of Lightroom allows you to access, edit, organise and share your photos on your iPad, iPhone or Android device. With it you can sync any changes, so updated images are available for further editing in the Lightroom desktop program.



Going Mobile

Adobe's reach to the mobile app world is one of the best examples of the collaboration between devices and standard desktop systems. There's plenty you can achieve in the mobile version of Lightroom but thanks to some clever development on behalf of Adobe being able to get to the mobile images is remarkably easy from the desktop version of Lightroom.

The Lightroom mobile app is frequently updated, with tweaks to its use, interface, how it interacts with the device and battery life considerations, and how it syncs with the desktop version. For example, with the Lightroom app you can create collections, just as you would with the desktop version, to help you better organise your images.

You're able to add existing photos taken on your device prior to installing the Lightroom app to a collection, or create a new collection for older content. From within the Lightroom app you can open a collection and tap the camera icon to take a picture and instantly add it to the collection.

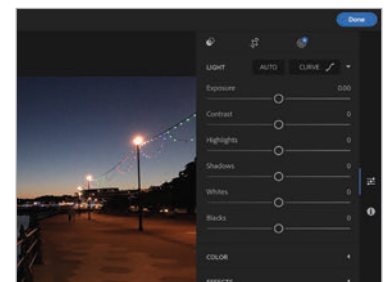
There's both automatic and professional options available when taking a photo. Auto mode will suffice for most users, with the Lightroom app applying any presets it determines will work best with image, its colours and light levels.

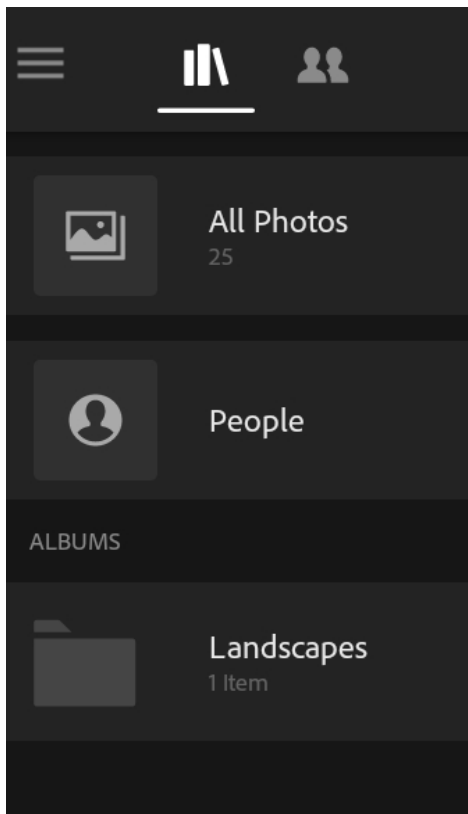
The Professional option will give you access to more settings, such as shutter speed, light levels, exposure and balancing, as well as various filters too.

The Lightroom app isn't just for snapping and storing, with it you're able to edit images. You can crop, apply presets, flag and rate images and eventually sync or share them to the desktop version of Lightroom or your Adobe web cloud account.

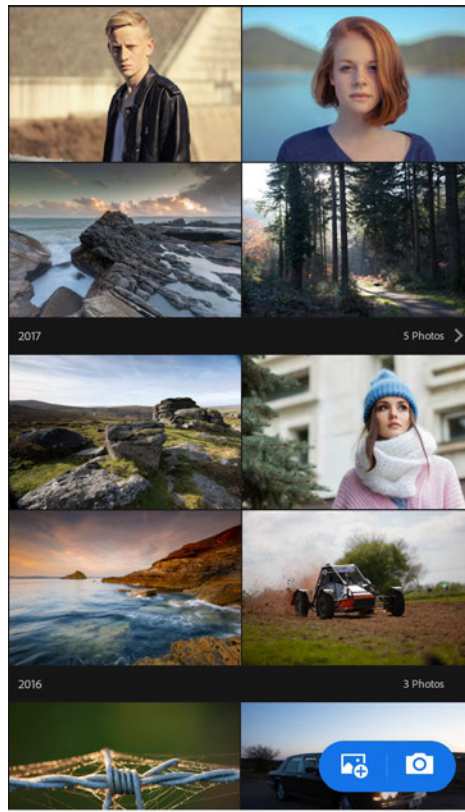
There's plenty to get to grips with here and with the new generation of iPhoneographers armed with powerful cameras built into their devices, there's no excuse to miss out on taking the perfect shot.

We look at some of the aspects of the Lightroom app in the coming pages, detailing how to set up the syncing to the Lightroom desktop version, organising photos in the app, image editing and how to share your photos.

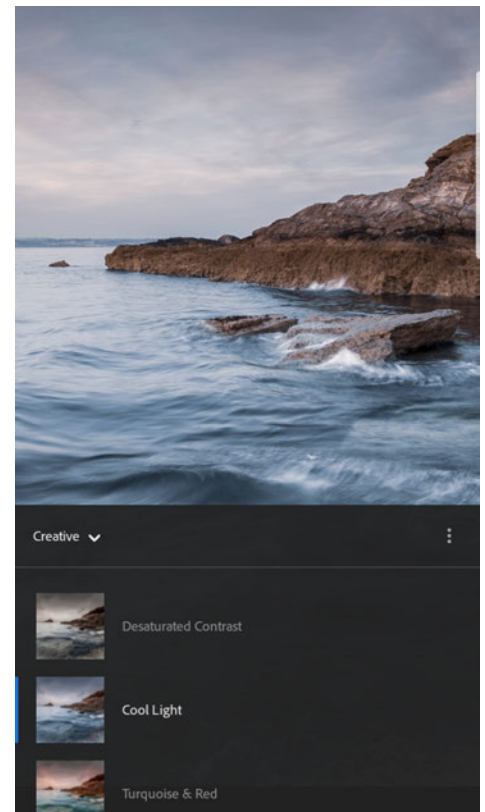




The Lightroom mobile app lets you create Albums for your photos.



Within each Album, you can add previously taken photos or tap the Camera icon to take a new image.



You can easily edit any photos taken, adding a range of effects and alterations before syncing with the desktop version of Lightroom.

iOS 12 Shortcuts

For owners of mobile devices using iOS 12, there are now a couple of handy shortcuts you can download. These let you edit your images, or sets of favorited images, in Lightroom while using the Photos app or actually move your Raw files from the Photos app to the Lightroom app instead. Since the introduction of Shortcuts in the Apple mobile operating system, you can now get on with the task of editing your photos using fewer taps on your screen.

To make sure this works as expected you will need to be using iOS 12 and have a downloaded version of the Shortcuts app. You will of course need to be using the latest Lightroom CC app with support for Shortcuts app. You can access the Shortcut as a widget, as a voice command through Siri or from your Home Screen.



Download the Lightroom app for your Android device from GooglePlay.

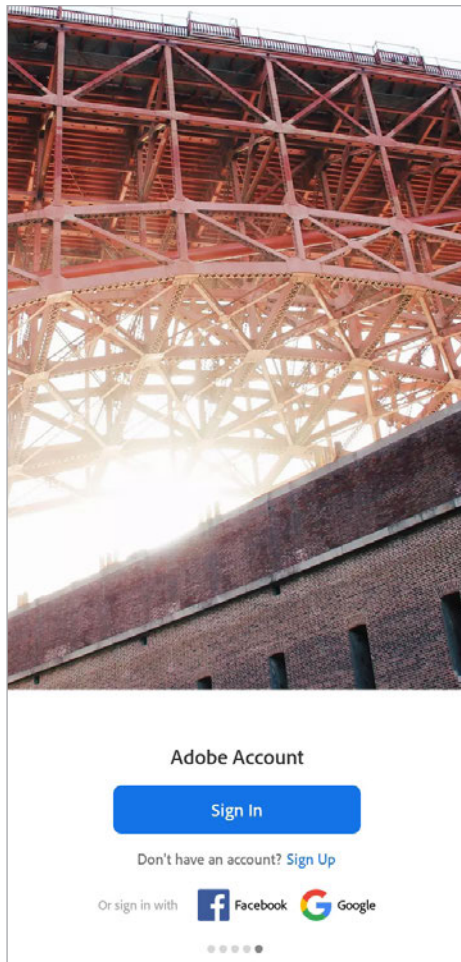


Check the Apple App Store to download this official application for your iPad or iPhone.

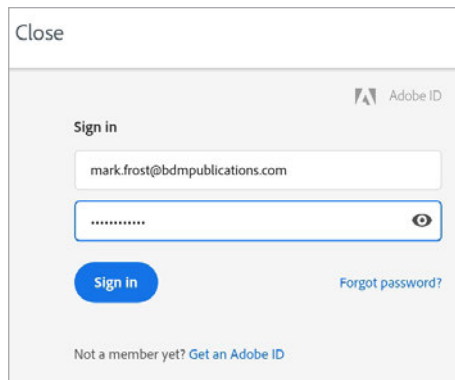


Syncing Lightroom

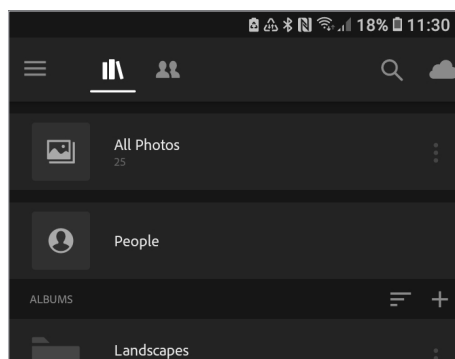
To get the best from Lightroom CC and the desktop version, you need to set up a sync between the two. This way, you're able to easily upload images whilst you're out and about and can apply the more powerful features of the desktop version when you get back to the desk.



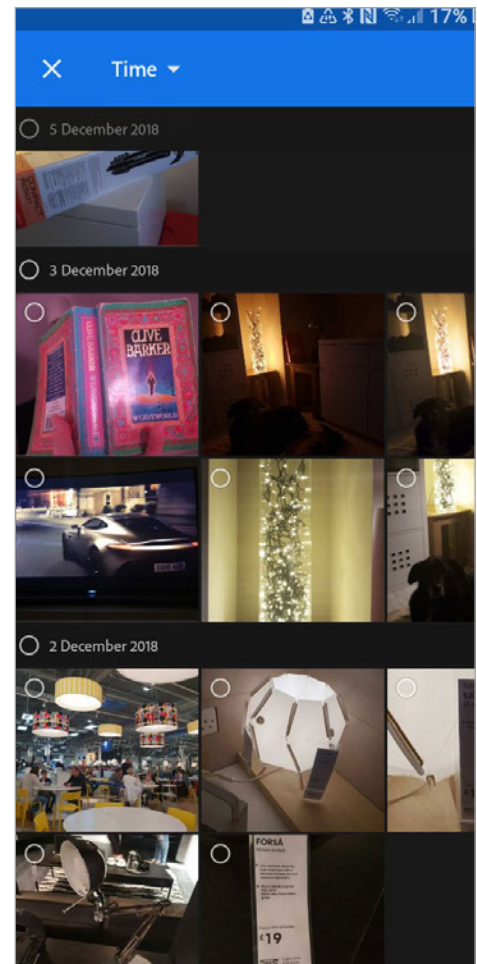
1 You can begin the set up by searching for the Lightroom CC app on your device's application store and tap the relevant button to install it. Once the installation is complete, open the app and you will be prompted to accept the Adobe agreement and tap the Sign In button or Sign Up.



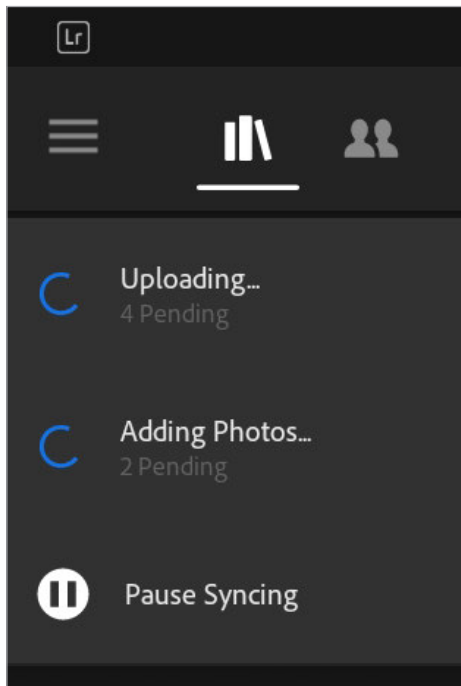
2 Enter your Adobe username and password, the same one that you used when you signed up for Lightroom or the Adobe Cloud. When ready, tap the Sign In button to log in to the Lightroom app and the Adobe Cloud.



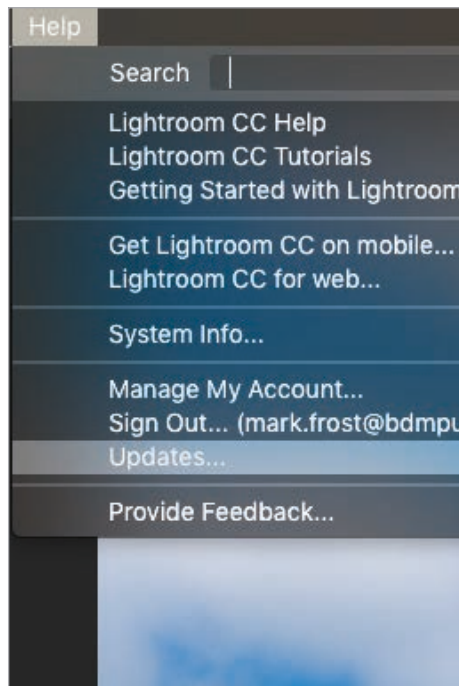
3 After a few moments you should be logged in; if not, double check your connection to the Internet and username and password for any mistakes. The Lightroom CC interface appears a little bleak to begin with. Let's begin by adding photos to a collection for uploading. Tap the Add Photos button at the bottom of the UI.



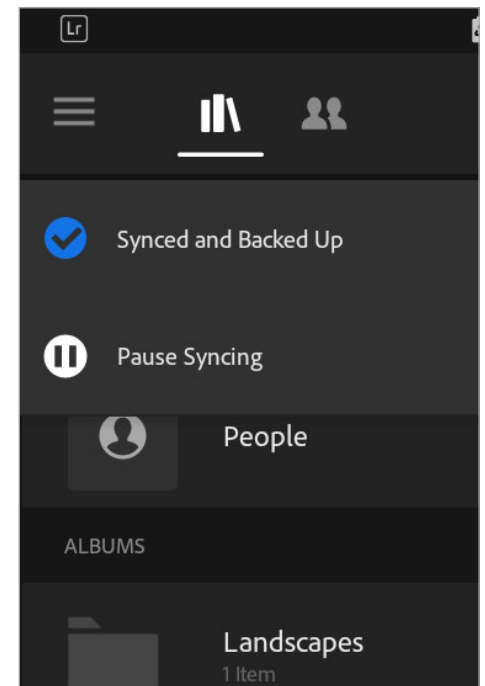
4 You now have a list of all the photographs that you have taken on the device. Now you can scroll through them and select a few examples to test the syncing. You can select them by tapping the circle in the top left of the image thumbnail. Tap Add when you've made your selection.



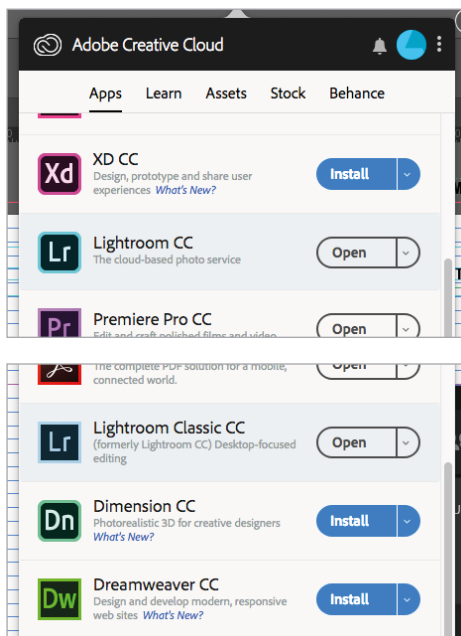
5 You will then be returned to the main Lightroom CC front screen interface. You will be informed of the upload progress of your images. You may need to tap the cloud icon located in the upper right of the UI and re-enter your Adobe login details. We needed to do this just the once, yet another device we were using didn't require it.



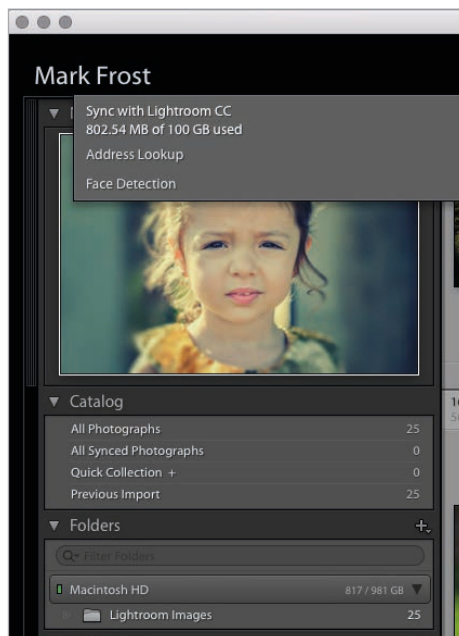
7 Updating Lightroom Classic CC and Lightroom CC versions ensures that both versions are working to valid version numbers. Often, an error in syncing is due to one version not recognising the other because of an update from one or the other. You may need to restart Lightroom. Now, click on your name in the top left of the Lightroom desktop version.



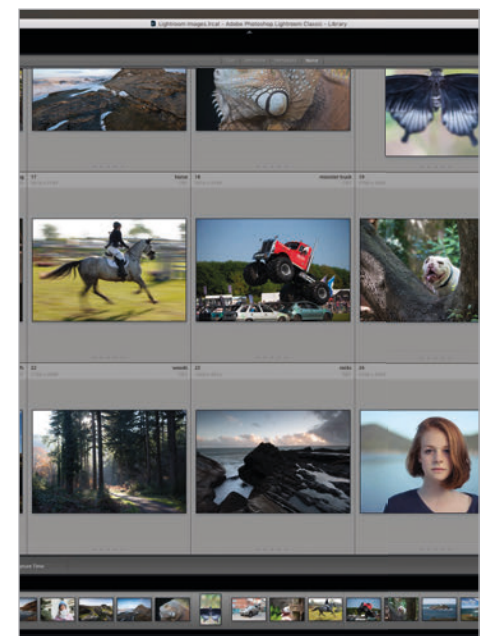
9 Specify the location and any sub folders for the Lightroom images that will be synced between the device and the desktop. Click the OK button and in the Lightroom CC, click on the Cloud icon again to force an update. There will be a small icon with a check mark in it to indicate that your images are now synced and backed up.



6 On the desktop version of Lightroom Classic or CC, click on the Help option from the top menu followed by Updates. This will open the Creative Cloud update manager window. If there are updates for Lightroom, or any other Adobe product you own or have on trial, then click the button to apply the updates.



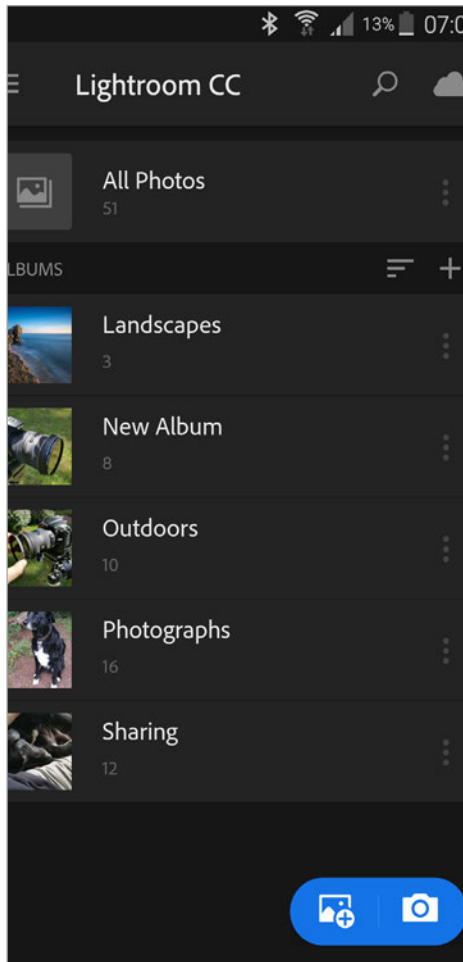
8 The menu expands under your name located in the top left corner of the workspace, so click on the Sync With Lightroom CC option. This may ask for an updated username and password again, so be prepared to enter it. The syncing process will start and it will show you a progress bar.



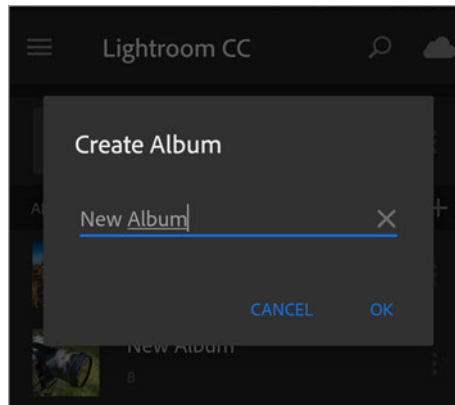
10 Your synced photos from Lightroom CC should now be uploading into the desktop version of Lightroom Classic CC. They can be located in the Catalogue pane, under the All Synced Photographs section. You can see the status of synced photos from the Lightroom CC tab in the Preferences window.

Organising Your Mobile Device

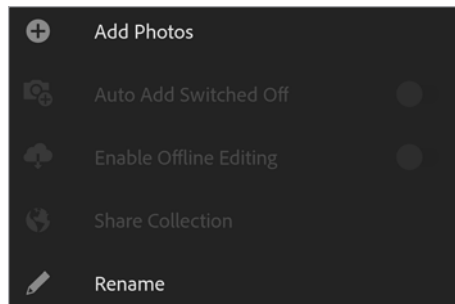
Lightroom in its mobile form uses Albums to help sort and organise your photos; think of an Album like a traditional photo collection. They help split the device's photos into categories, so you can have outdoors shots in one Album and people in another, for example.



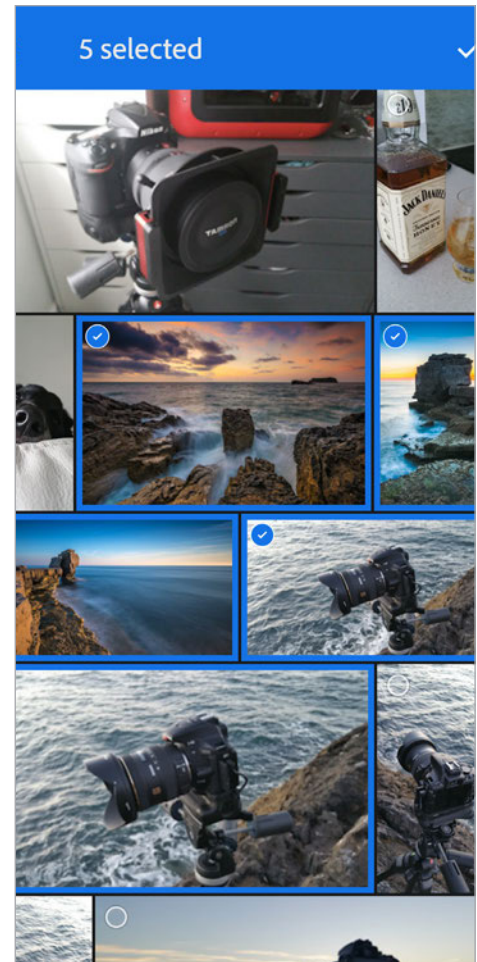
1 We start by firing up the Lightroom CC app on your mobile device and begin with the Lightroom CC front screen. You will see the thumbnail marked All Photos and below that is space for any of the Albums you create. Let's begin by tapping the plus icon to the right of the Album's title.



2 This will open a text box for you to enter the name of the new Album. By default the Lightroom app inserts the current time and date but you can add whatever name you want. Tap the OK button when you're ready to continue. A new album will be created with the filename you've used.



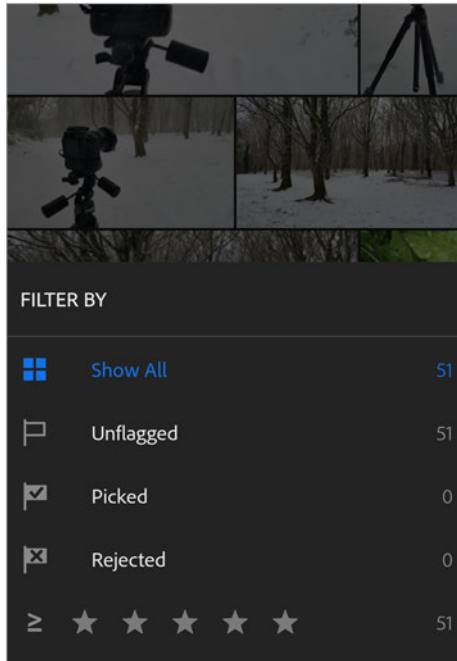
3 With the new Album created and ready for images, you have two ways in which you are able to add photographs to your collection. The first option you can choose is to tap the three vertical dots to the right of the Album and then select Add Photos from the menu that pops up from the bottom of the screen.



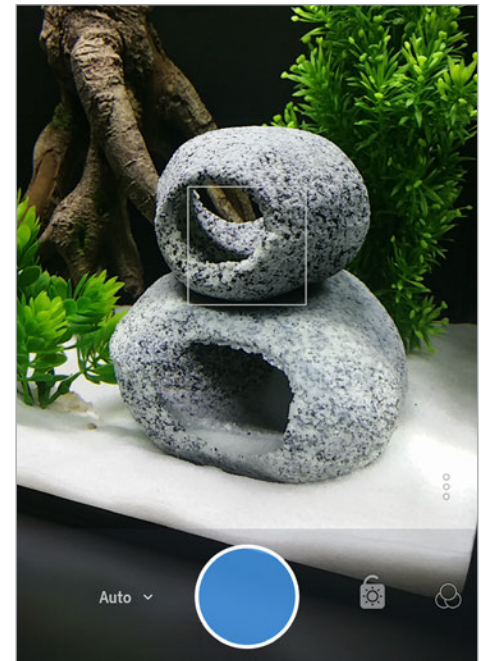
4 The second method available to you is to tap the Album to enter it, then tap the Add Photos button at the bottom of the screen and choose images from there. Either way, you can now select the images you want to add to the new Album by selecting each in turn and tapping the Add button.



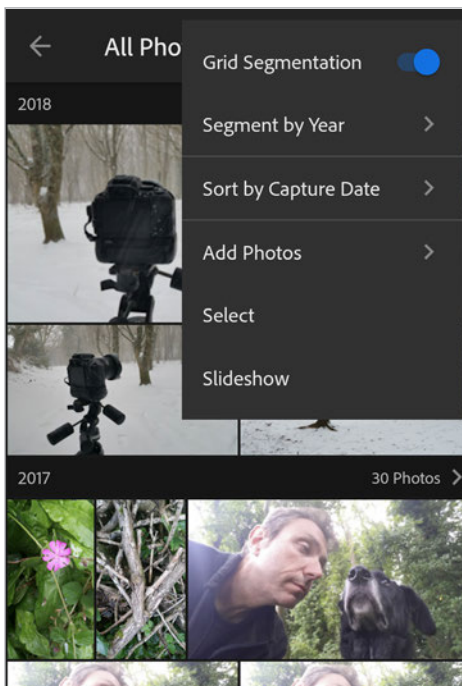
5 The photos can now be added to the Album, and if you have the Lightroom desktop version running, they also begin to sync with the Lightroom app. Notice also, in the Lightroom desktop version, that in the Collections pane you can also select the newly created Album.



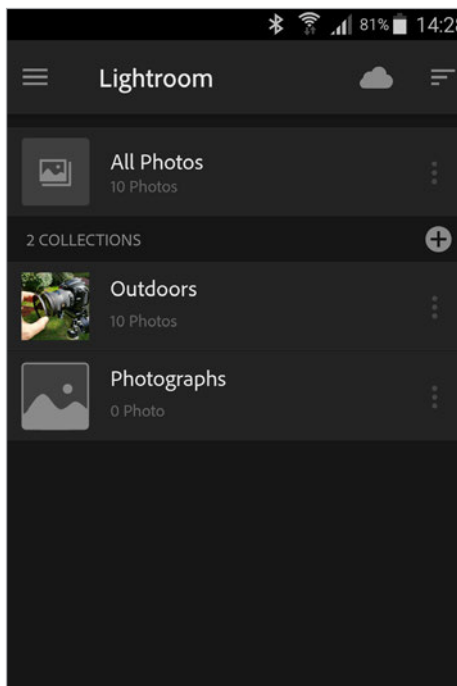
7 To the left of the three vertical dots is a Filter By button. When you tap it the filtering options are displayed and you can choose images based on how they are rated and any that are unflagged, picked or rejected; all depending on how you further personalise each of the images that you've added.



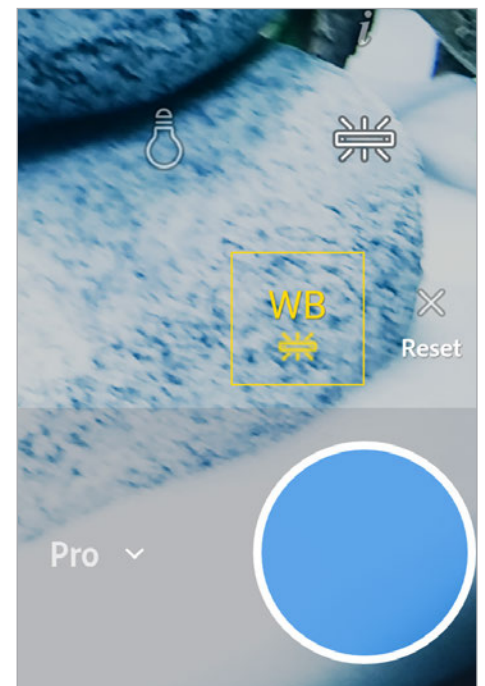
9 At the bottom of the screen, next to the Add Photos button is a Camera button. Tap this and you can activate the device's camera. Use the top right icon to change from the front to rear camera, and vice-versa, the lightning icon to activate the flash and X to close the camera screen.



6 With the content of the new Album displayed in Lightroom CC, tap on the three vertical dots in the upper right corner. Here you can sort the images according to the time they were captured or segment them by Year, Month, Day or Hour. You are also able to sort your images in a Grid Segmentation.



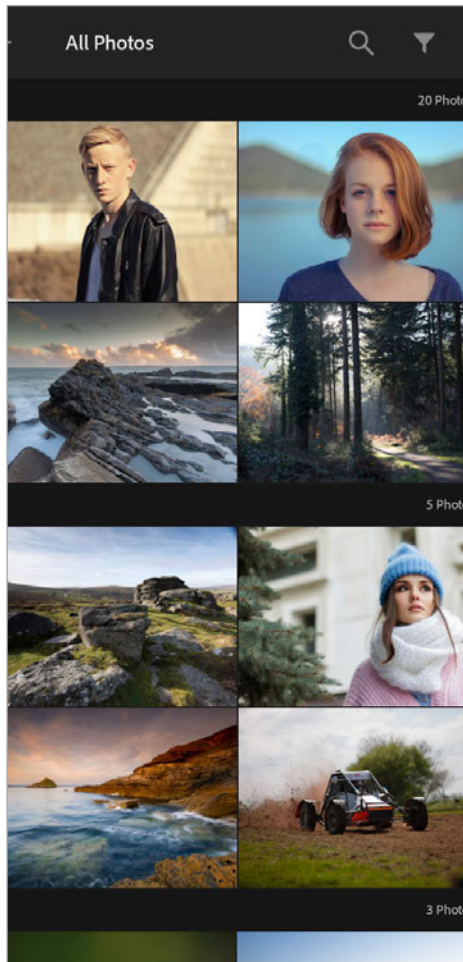
8 If you want to add photos directly from the camera, tap on the back arrow in the upper left of the Album, to return you to the Lightroom start interface. Now create a new Album, and give it a suitable filename and then, instead of adding photos, tap to enter the new Album.



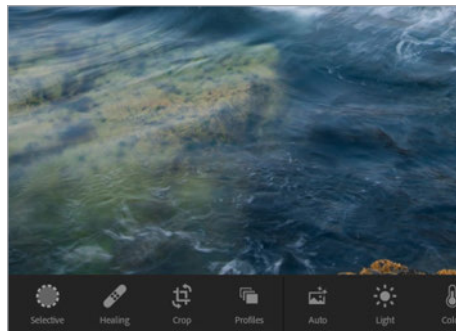
10 The Auto function at the bottom of the screen will automatically make image adjustments. Tap this to open the Professional option, and specify your own adjustments. The other buttons open the auto-exposure and colour modes. To take the picture, tap the blue circle and the photo will be added to the Album.

Image Editing On the Go

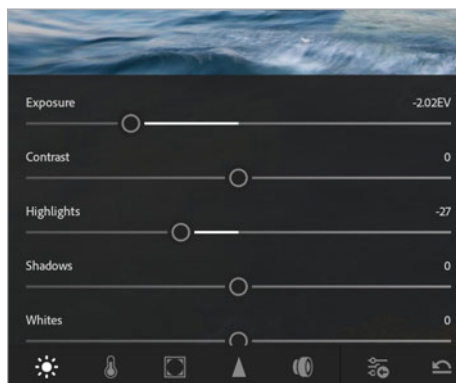
Lightroom CC also enables you to do complex edits whilst out and about. The main editing focus no longer has to be in the desktop version. The mobile focused Lightroom CC version has all the powerful features you need to help you achieve impressive results.



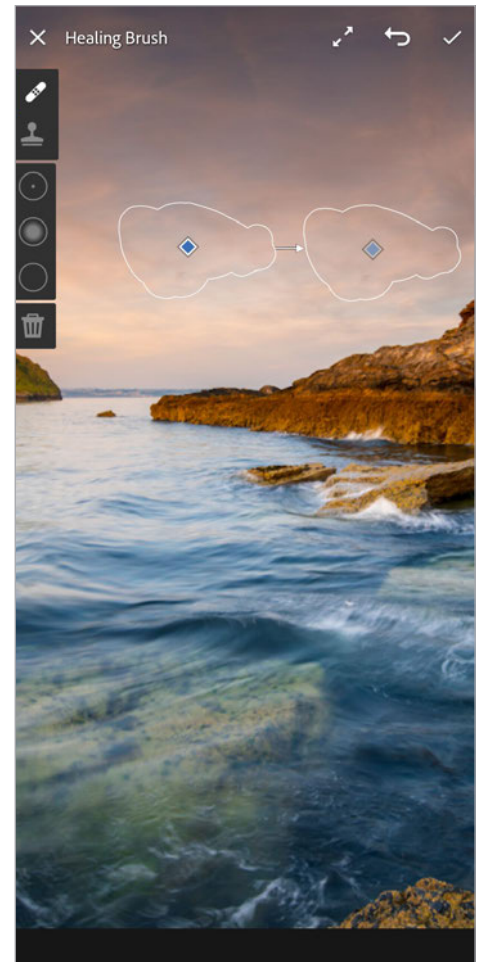
1 First you need to browse your images and find a photograph that is in need of some editing. Pick any from the Albums you currently have, or take a new image via the camera function on your phone and add it to an Album. When you're ready, you can tap the image to select it to begin editing.



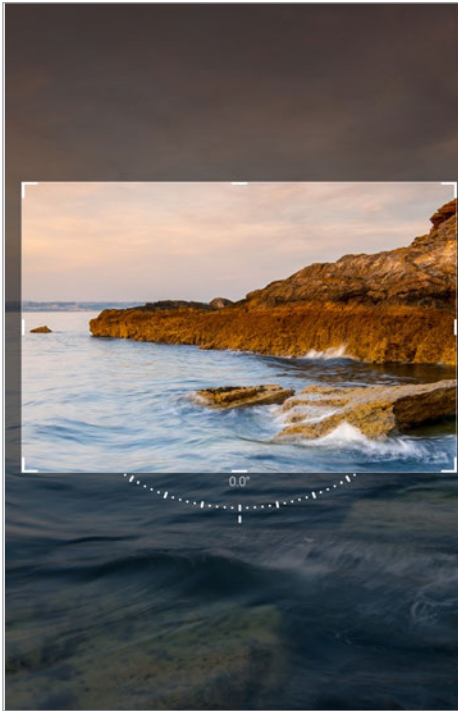
2 When the image is loaded, notice that the editing tools are spread across the bottom of the screen in a strip. You can change images, if there's more than one in the Album, by swiping left and right. For now though, tap on the first editing option, Selective.



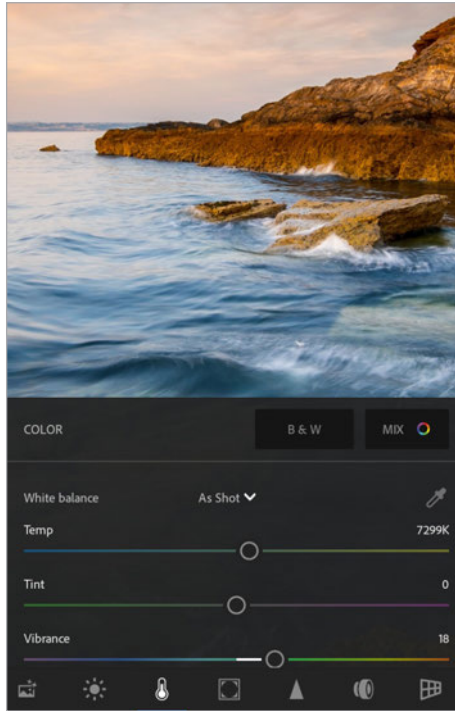
3 The Selective edit enables you to specify an area on the image for enhancing. Pick the area and the options along the bottom of the screen will change. You can apply exposure, contrast, highlights and shadows adjustments. You can easily revert any changes by tapping the Reset button in the bottom right corner.



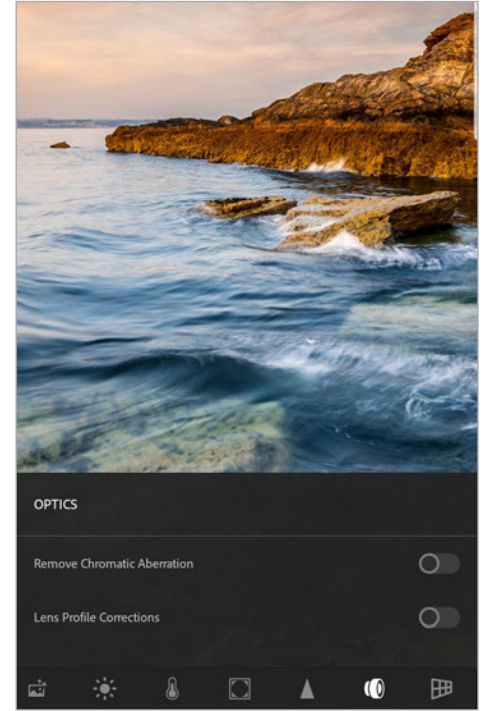
4 The next option is the Healing tool. You can draw on the screen of your mobile device and specify an area you want to clone or heal. This can be used to remove spots and blemishes from an image by copying data from another part of the image and pasting it over your target area.



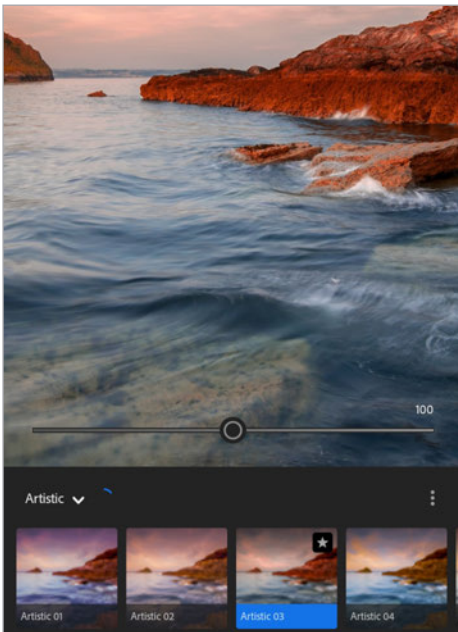
5 The next option, Crop, is self-explanatory. However, it offers more than the simple cropping of an image that some mobile image editors manage. The Crop tool not only crops but also rotates, flips horizontally and vertically and can snap to grid. It's worth playing around with the image to see how it works.



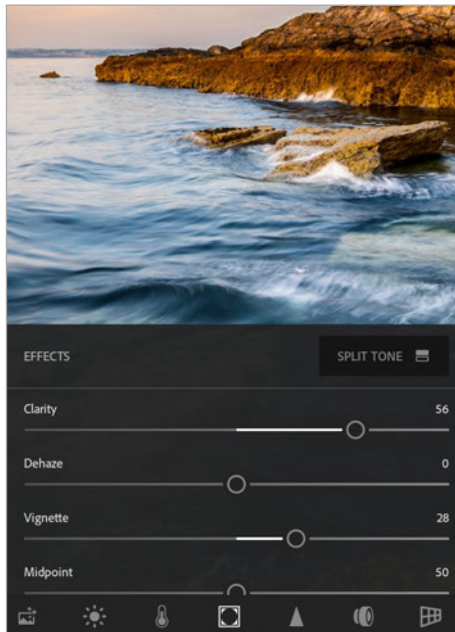
7 The next options are Light and Colour. In the Light section, you're able to adjust the exposure, contrast, highlights, shadows, whites and blacks. The Colour section concentrates on adjustments to colour temperature, tint, vibrancy and saturation. You can also convert the image to black and white.



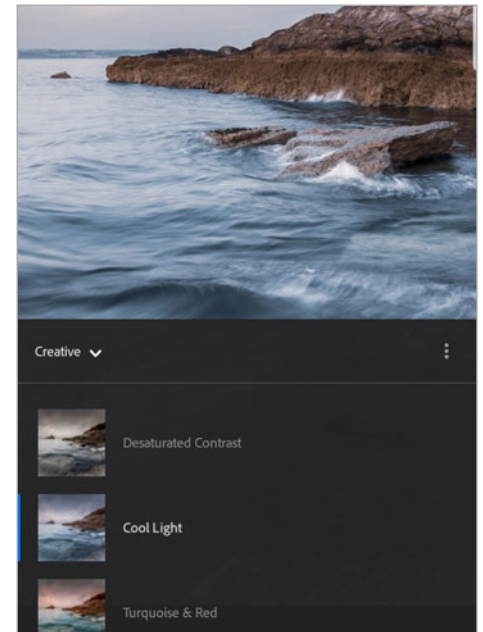
9 The next tool, Optics, is a technique used in most Adobe products. It corrects common lens aberrations such as barrel and pincushion distortion. Next to that is the image Geometry distortion tool. This lets you alter the vertical and horizontal geometry of your image.



6 The Profiles option comes next and here you can apply numerous artistic filters and colour enhancements to your original picture. There are a number of different Presets available, with sub-categories within each. With each Preset applied, you can tap and hold the image to see a before and after shot.



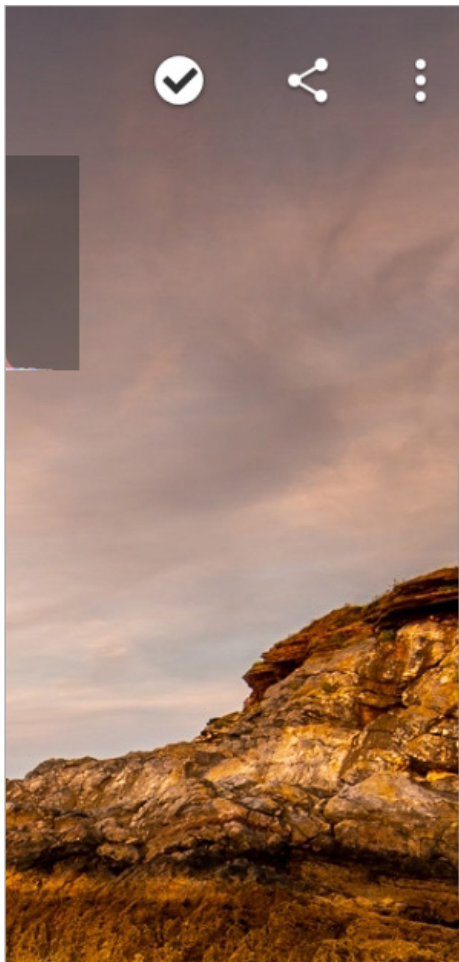
8 The Effects edit option allows you to change the clarity, which is the mid-tone contrast of the image, along with dehaze, vignette amount, midpoint, feather, roundness and highlights for the image. You can also alter the Split Tone and adjust the colour balance using the strip colour charts.



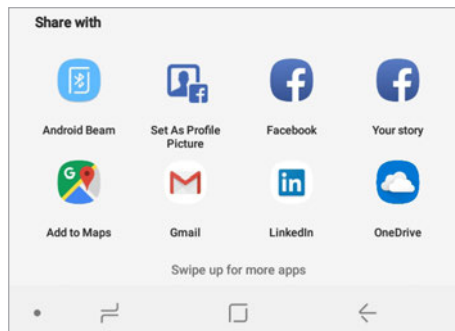
10 You also have options to reset your image, copy settings and create your own preset, show the histogram, save to device and more. You can also flag your images and apply a star rating. Once you've applied the edits, you can sync it to Lightroom on your computer or other devices.

Sharing Your Photos

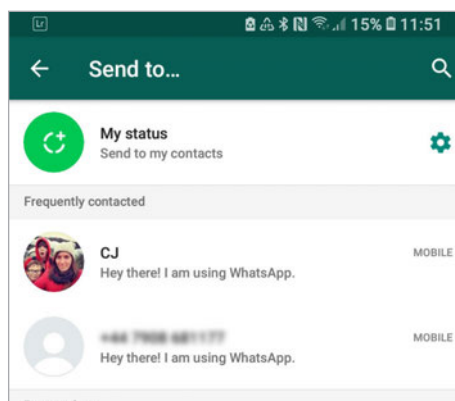
Taken the perfect shot? Edited your original image to something amusing, amazing or inspiring? Then share it with your friends and family via social media, email or other platforms that you've already set up on your device.



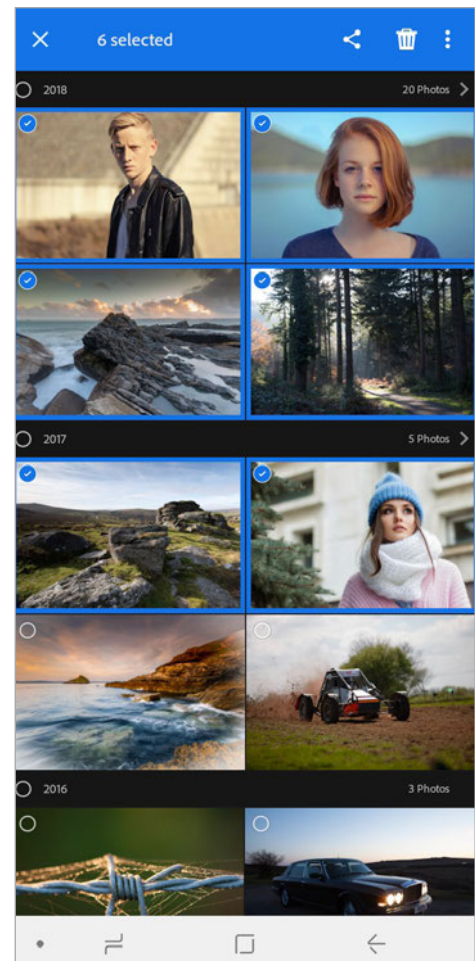
1 The most basic level of sharing is a good place to start this tutorial. To begin with, select an image from within your device's Lightroom app that you want to be able to share. You can see that there's a three pronged share icon next to the three vertical dots in the top right of the interface.



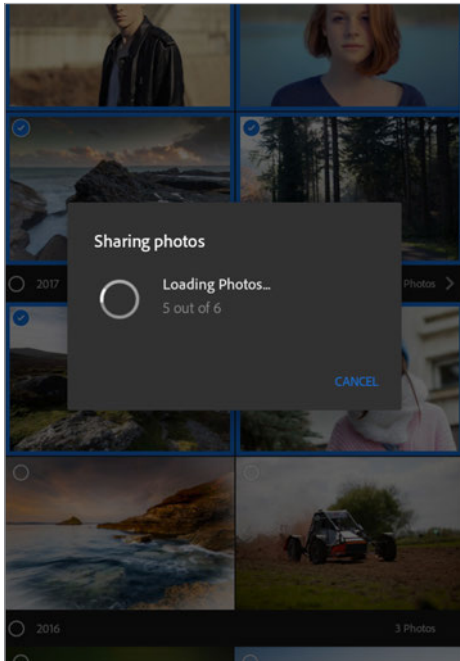
2 When you tap the share icon, the various apps you already have installed on your device open under the Simple Sharing menu. You may need to swipe to the right to display further apps capable of receiving the image.



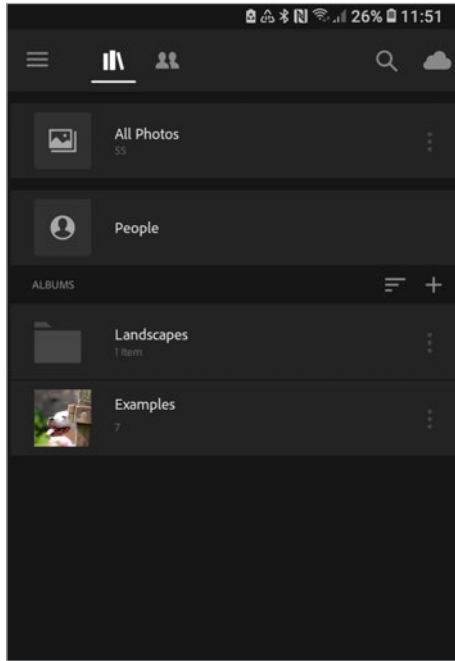
3 Tap the app you want to share the image through. The app will then load, preparing the image in the background ready for sending. If it's an app such as WhatsApp, then you need to specify the person or persons you want to send the image to. It all depends on the app in question.



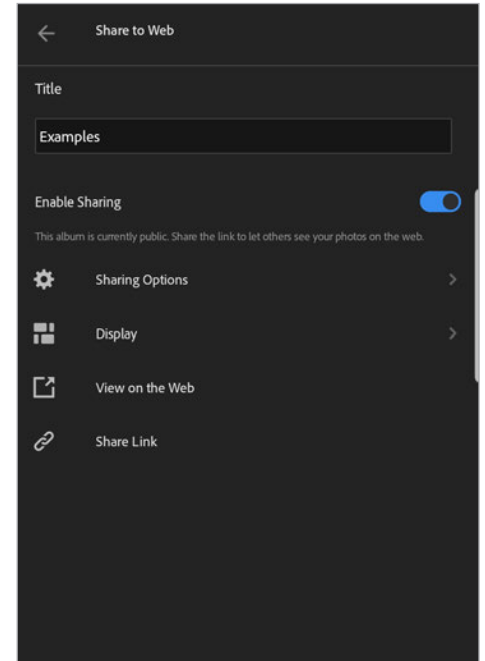
4 It's not a problem if you want to share multiple images. Start by opening the Album containing the images you want and long press the first image to select it. Now tap all of the other images you want to send, selecting each with the tick in the top left of the image thumbnail.



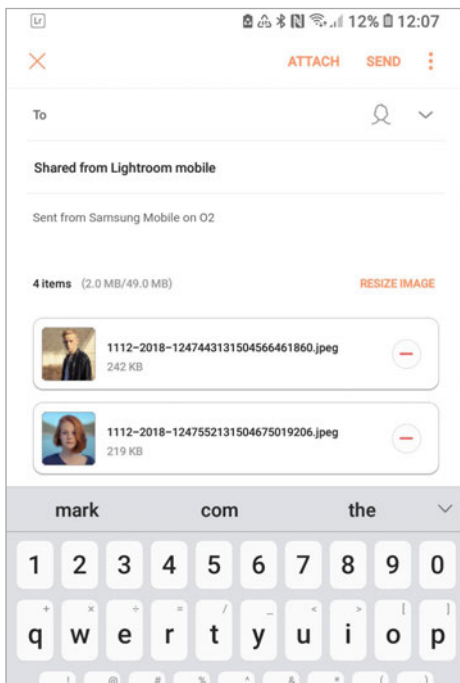
5 Just as before, once you have the images you want to share ready, tap the share icon in the top right corner and select the contacts or apps that you're going to send the images to. Depending on how many images you've selected, it could take some time for them to load within Lightroom ready for sharing.



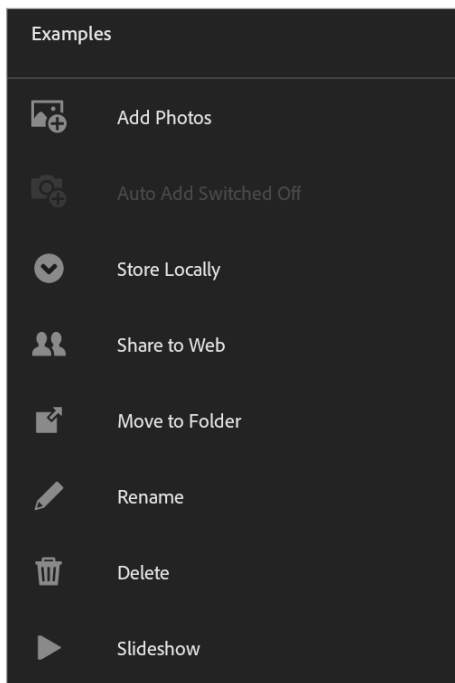
7 You can share entire Albums from the Lightroom app. Start at the Lightroom front screen, where the Albums are organised and tap the three vertical dots to the right of the Album you want to share. We have an album of images that we would like to share on the web for friends and family to see.



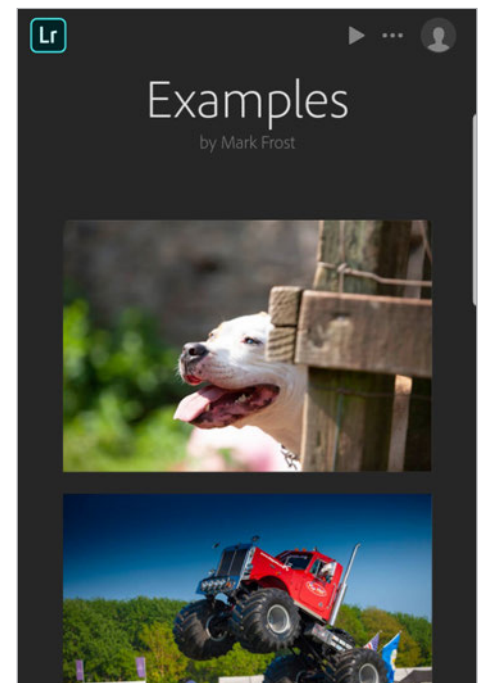
9 The Share to Web panel will open and present you with a few more options. At the moment, the Enable Sharing button is turned off; if you turn it on, your example images will be turned into a mini website that you can view by clicking on the View on the Web button.



6 Be aware that the images you're sharing via email, in this example, could add up to quite a few megabytes. Luckily, the image examples we've used in this tutorial only add up to about 2MB, which is more than okay to send via Gmail or similar. Watch out for those larger image files though.



8 The options window will open next and present you with a number of choices. You can add more photos if you wish or store them locally on your current device. You can also rename or delete images and turn the images into a slideshow. We want to click on the Share to Web option.



10 This opens the Adobe Lightroom Share site, displaying the photos in the shared Album. If you're happy with what's available, tap back out of the browser window. In the Share Photos menu, you can now tap the Share Link and use it like the previous share functions, sending the Web Gallery link to your contacts.



Going Further: Lightroom Projects

Hopefully by now you are feeling more confident about what you can achieve in Lightroom. With that in mind, here are a few more in-depth guides to Lightroom that expand upon what you've discovered so far. We delve a little deeper into landscape processing, as well as black and white conversions and using plugins in your workflow too.



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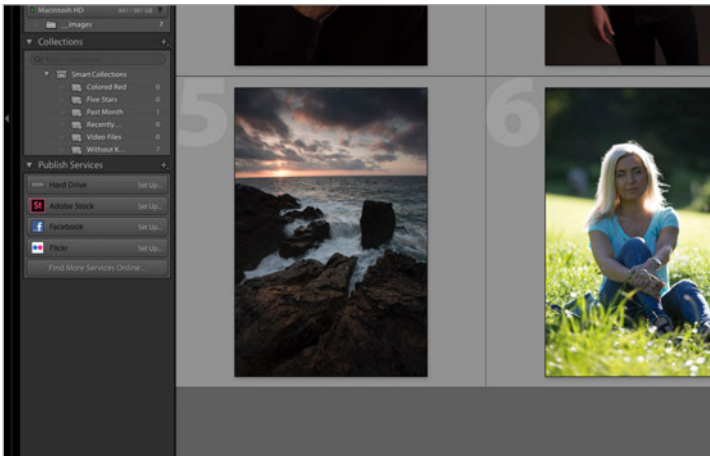
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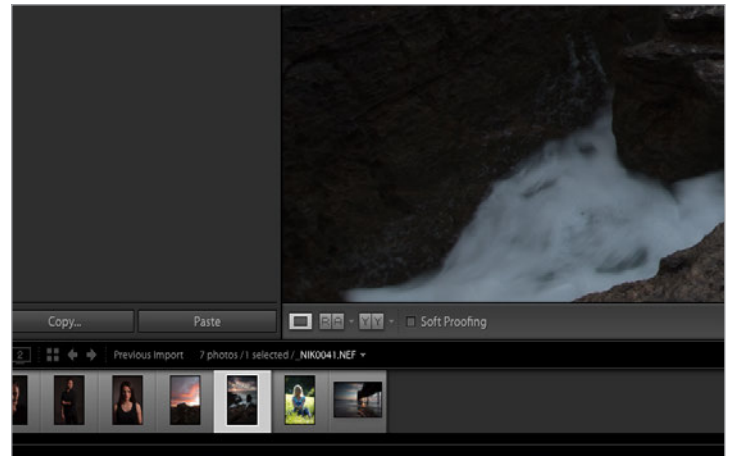
Processing Your Landscape Photos

Shooting landscapes can be a lot of fun, whether you're doing it as a professional job or just as a leisure activity. Always shoot Raw because once you get the image file into Lightroom, you will see how you can transform the original capture beyond what you thought possible.

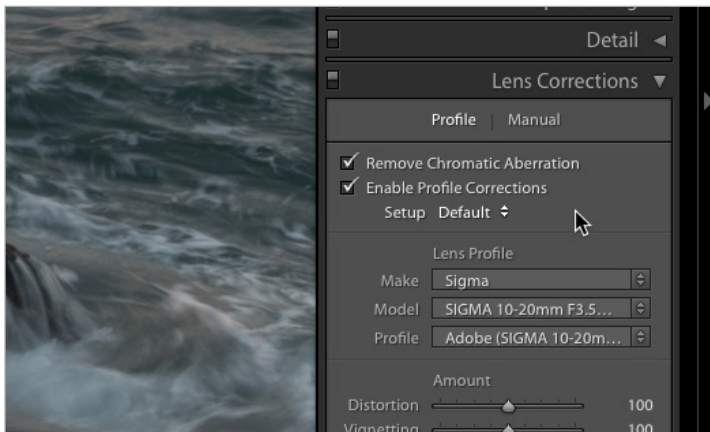




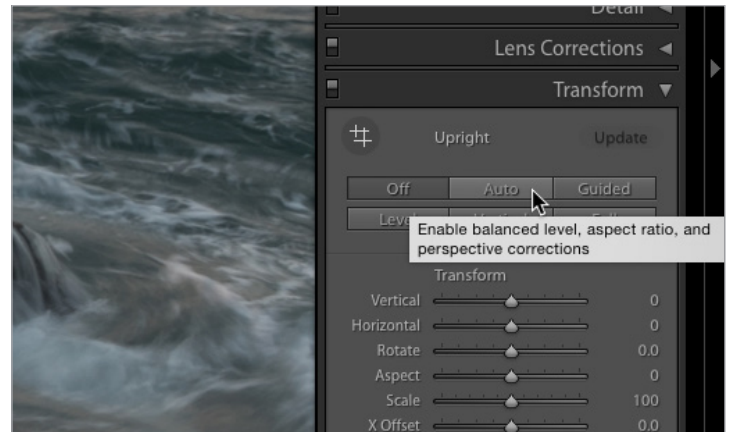
1 The process starts after you have imported the images you want to work on into the Library Module. For this example tutorial we are going to process an image of a sunrise taken by the coast. It is underexposed but the sky has good detail and you can bring out more in the sea and rocks too.



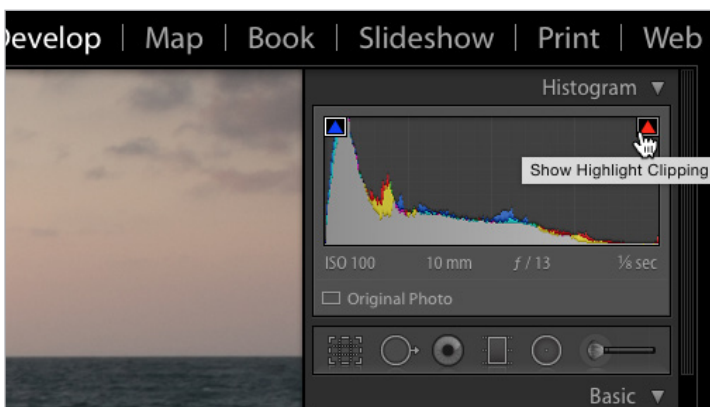
2 When you open the Develop Module, click on the image you want to work on in the filmstrip and view it in the main view window. As mentioned, the example image sky is fairly well exposed but the foreground rocks are underexposed by a fair amount. First though, we can add lens correction.



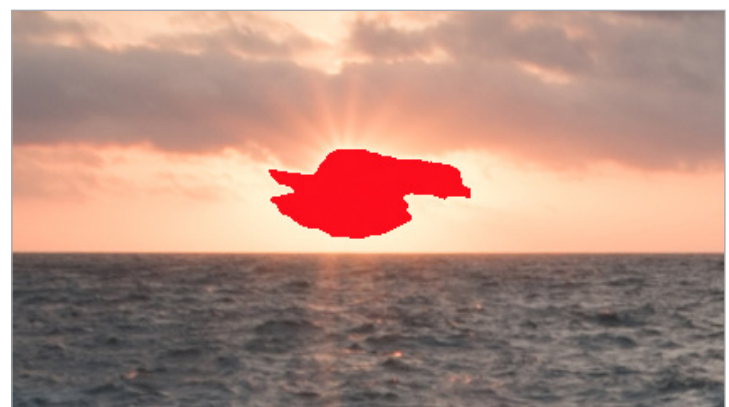
3 Click the Lens Correction tool. Then click on the Profile button to view the options available. If you click the Remove Chromatic Aberration button and the Enable Profile Corrections button, it will automatically detect the lens used and correct any distortions and colour aberrations.



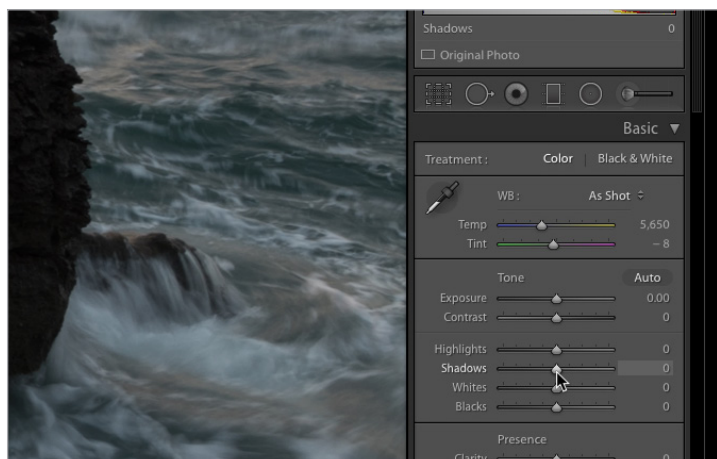
4 Next you can sort out the slightly off-level horizon. Click on the Transform tool and then click on the Auto level tool. This will automatically detect any strong horizontal or vertical elements and adjust the image. For this landscape, it has simply levelled the horizon.



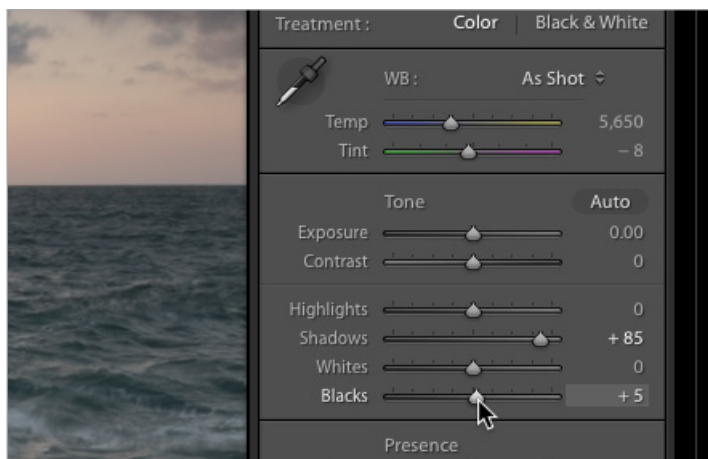
5 A useful aid to use while working is to activate the Show Highlight Clipping and Show Shadow Clipping options in top corners of the histogram. With these two active, you can see whether your image is overexposed to the point highlight details are lost to pure white, or underexposed to solid black.



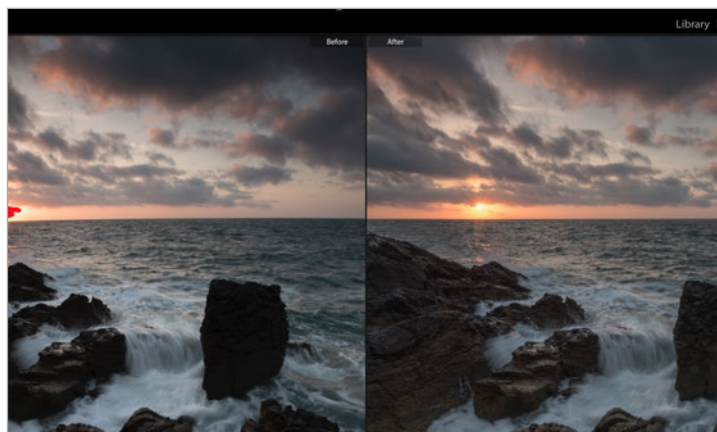
6 Areas of the shot overexposed to solid white will show up on your image as a red overlay. When the amount of lost overexposed detail increases, the red area spreads in tandem to warn you. The underexposed areas will show up as blue to warn you that areas are now solid black and contain no detail.



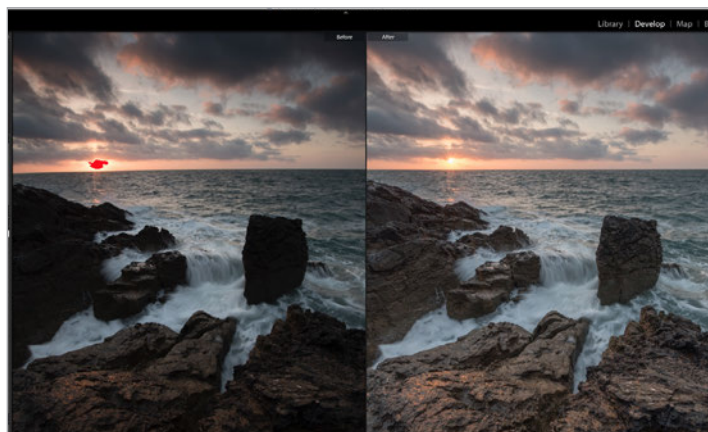
7 Now you can begin with some basic edits to get the image a bit more balanced than it is at the moment. Let's tackle the shadows first since they need the most attention and are in need of a boost. Open the Basic tools panel and start to move the Shadows slider to the right.



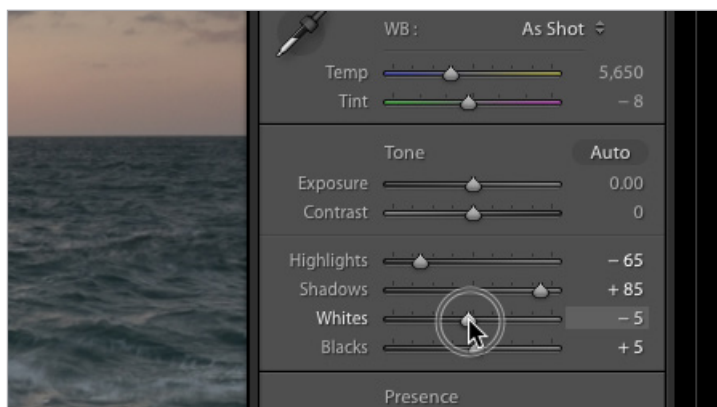
8 You will see the darkest parts of the image start to increase in brightness. Shadows adjustment can be fairly subtle at first but if you push it too far, you risk exacerbating any image noise that might be present in the shot. In this case a +85 adjustment works well. Then, also add +5 to the Blacks.



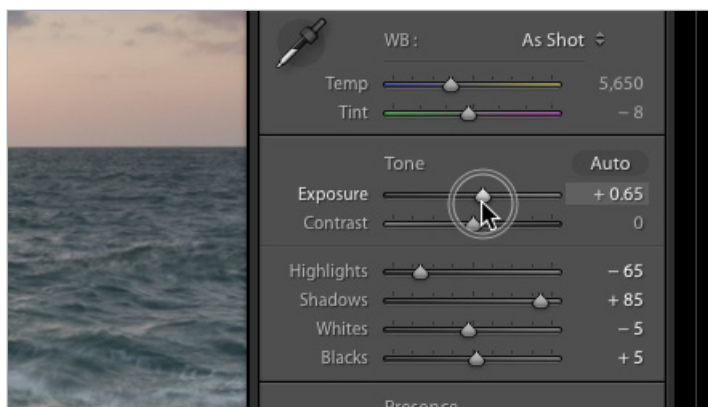
9 It is down to personal taste but it might be a good idea to actually see a comparison to your original so you can judge how much the image is changing. If you press Y you can use a Before and After split screen with your current edit shown on the left.



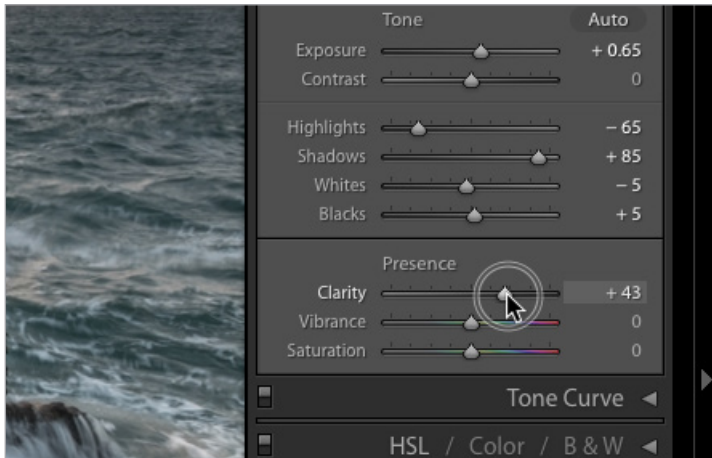
10 Our next edit will remove the small area around the rising sun that is currently lost to overexposure. Drag the Highlights slider to the left and you can see the lightest areas of the image start to decrease in brightness. In effect, this is the reverse of the Shadows adjustment.



11 Depending on the image, pushing the Highlights slider too far left will create a very unnatural looking image. In this case, a -65 value gives us a good sky. Sliding the Whites tab a little to the left also ensures there are no pure whites in the image, if that's to your taste.



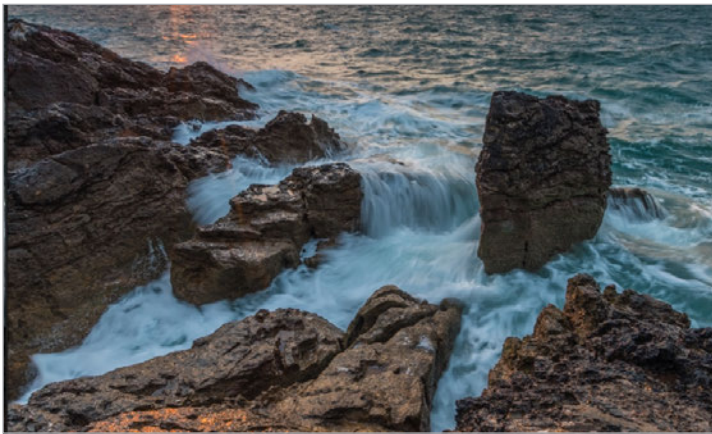
12 Now that everything is a little more balanced, you can bring up the exposure of the entire image, by increasing the Exposure to about +0.65. At the moment though, things are looking a little flat. It could do with some more contrast and a little more colour.



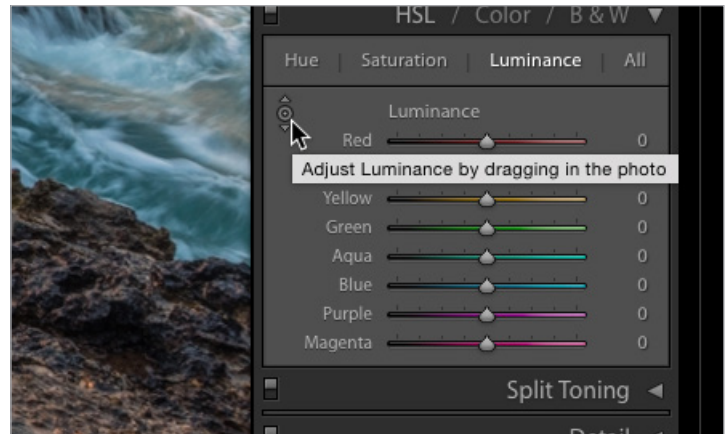
- 13** Rather than using the Contrast slider, you can extract more detail from your image by using the Clarity slider. Found under the Presence tab, it is a way of adding micro contrast to the mid-tone areas of the image. Again, beware of overdoing it. A Clarity value of about +43 brings out detail.



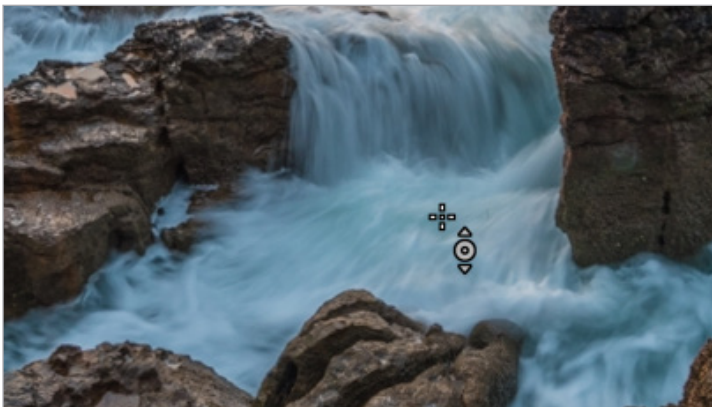
- 14** Now you can address the issue of colour. To make the image more vivid, you can adjust both Vibrance and Saturation. It's best to try Vibrance first as you can increase saturation in the more muted colours before applying a stronger, more global Saturation value to the overall image.



- 15** A nice little trick you can try on your images is to target certain areas of colour and alter their values. For instance, if you want to increase the brightness of the foamy water surrounding the foreground rocks here's a quick and simple way to do it.



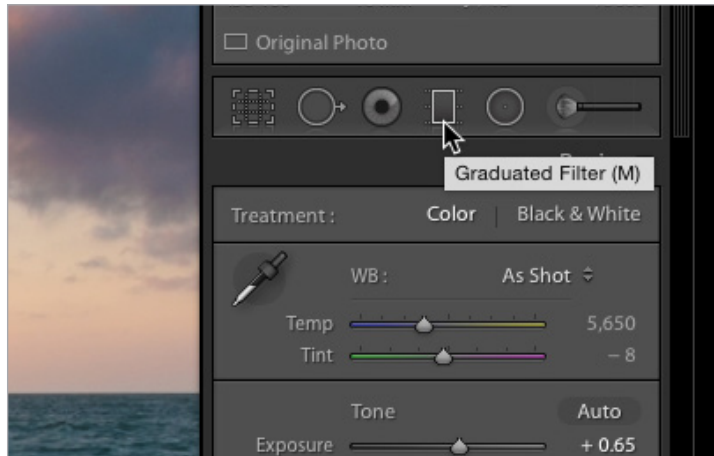
- 16** Open the HSL/Color/B&W tools and click on the Luminance button. Luminance allows you to control the brightness of key colours in your image. Rather than selecting a colour slider, you can actually adjust a targeted area in your image by clicking and dragging on it.



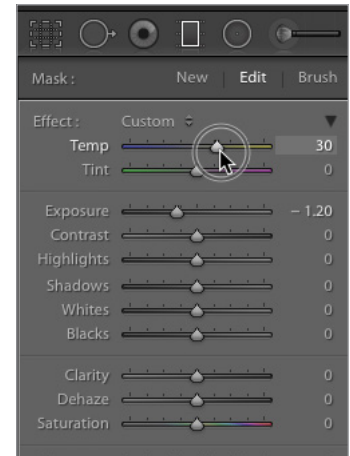
- 17** Click the adjustment icon in the top left of the Luminance panel. Now you can click and drag your cursor on the foam by the rocks; as you do so, you will be able to lighten or darken the colours of the foam. Other colours are unaffected. You will see the Luminance panel sliders change as you do so.



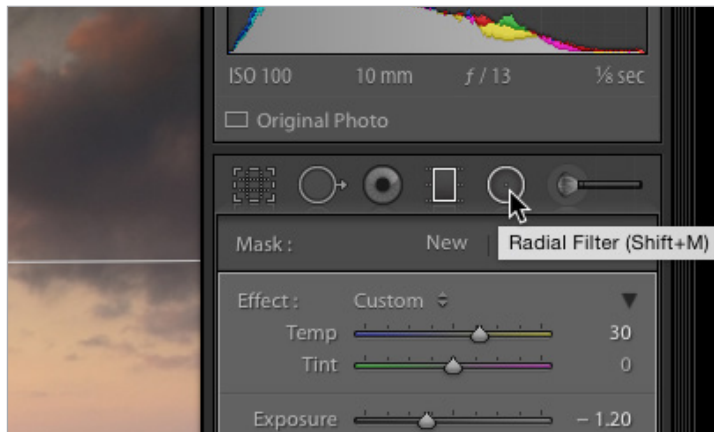
- 18** Again, watch out for heavy-handed adjustments, if you drag it too far in one direction, you will make the foam dark and dirty looking. Dragging in the opposite direction will brighten the blues and aquas of the foam and really make it stand out beautifully.



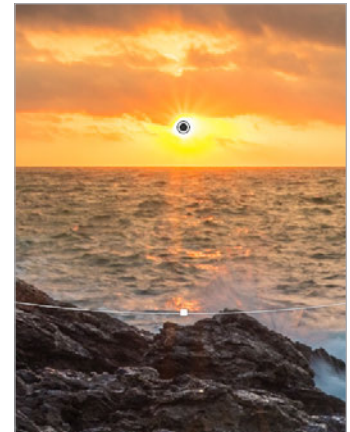
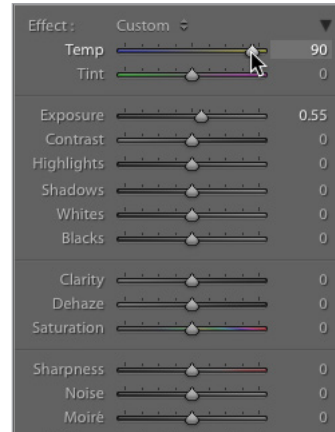
19 Well, so far so good. Let's take a closer look at the sky and target that next. Click on the Graduated Filter tool and drag down from the top of the image to just below the horizon line. If you hold the Shift key, you can constrain it to vertical/horizontal if needs be.



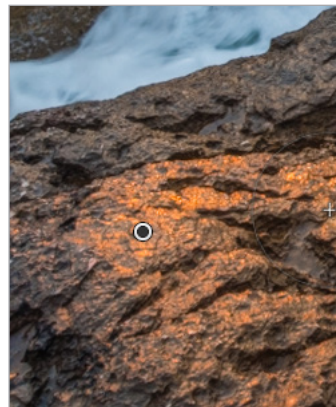
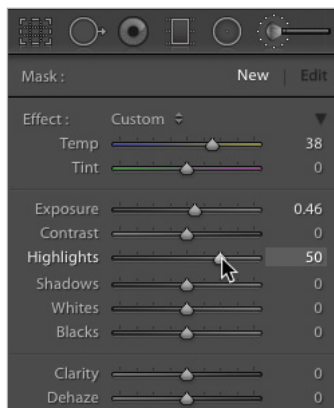
20 The adjustments available to the currently selected filter will drop down and you can add a subtle darkening of the sky using about -1.20 Exposure. You can also enhance the warm tones on the sky by pushing the Temp slider right to a value of about 30 to increase the yellow/orange tones in the sky.



21 A Radial Filter is next, to enhance the sun. You can use it to drag an ellipse around the rising sun and some of the surrounding clouds. Make sure the Invert Mask button is checked so the effect of the filter is inside the ellipse, not outside it. The Feather amount controls how soft it will be.



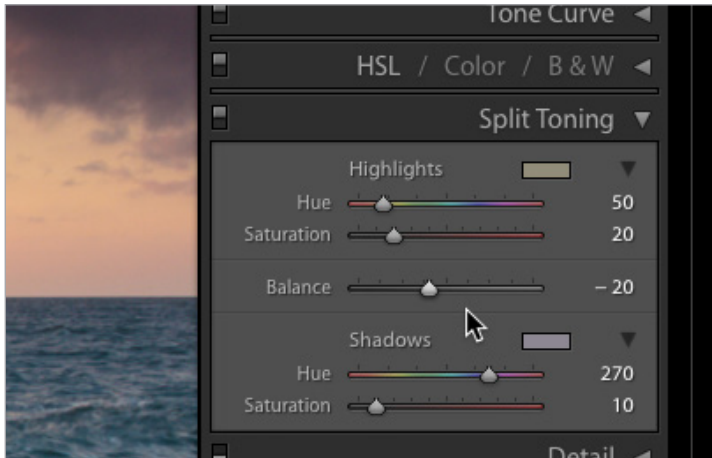
22 Push up the filter's Temp value to 90 and the Exposure to about 0.55. Doing this increases the warmth and brightness of the sun. You can click and drag any of the filter's control points to either move its position or alter its height and width to get it just how you want.



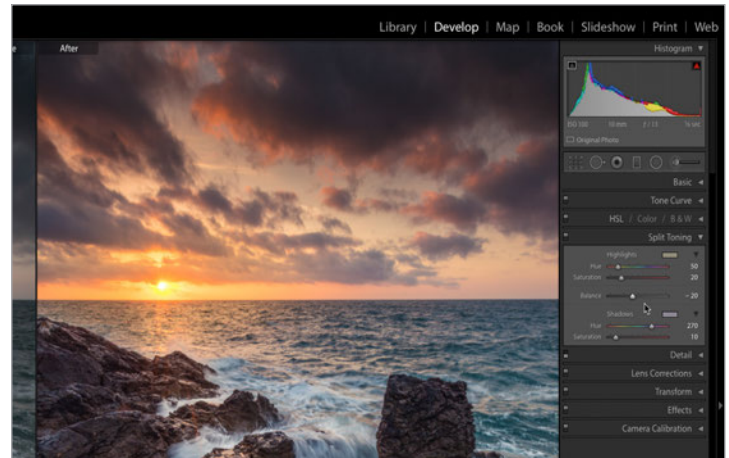
23 An Adjustment Brush can also be used with increased Temp, Exposure and Highlights values and painted over the foreground rocks to increase the highlight brightness and colour tone. The beauty of the brushes is that you can add as much or as little as you like and erase any parts you want.



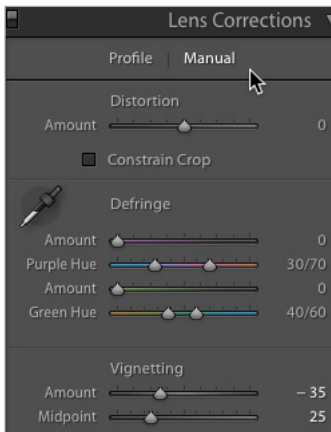
24 A nice touch used by landscape photographers is to use the Split Toning tool to adjust the colours of shadows and highlights. Split Toning is often used to mimic the colour effects seen in cross-processed film stocks in pre-digital times. Click the Split Toning tool to open its panel.



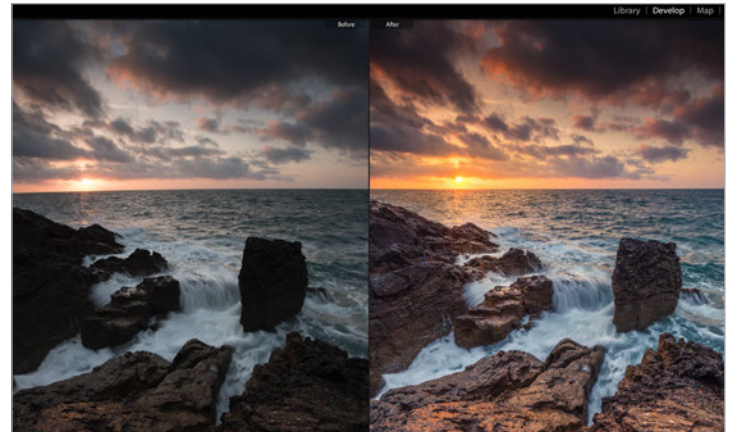
25 Split Toning is a simple process. You choose a Hue for the Highlights and a Hue for the Shadows. Typically, yellow is chosen for the Highlights and blue is used for the Shadows. Then you can adjust the saturation of each colour and use the Balance to control how much either colour dominates the other.



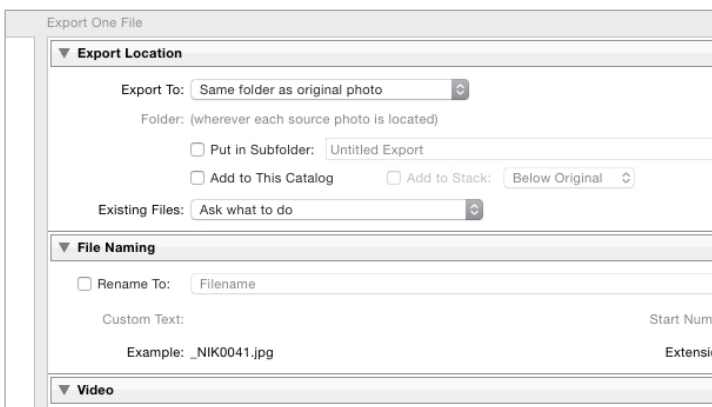
26 For Highlights, use Hue 50 and Saturation 20 and Balance at -20 to favour the Shadows. For Shadows we chose Hue 270 and a Saturation value of 10. The overall effect on the image is to maintain warm tones in the brighter areas but also add cooler tones in darker areas.



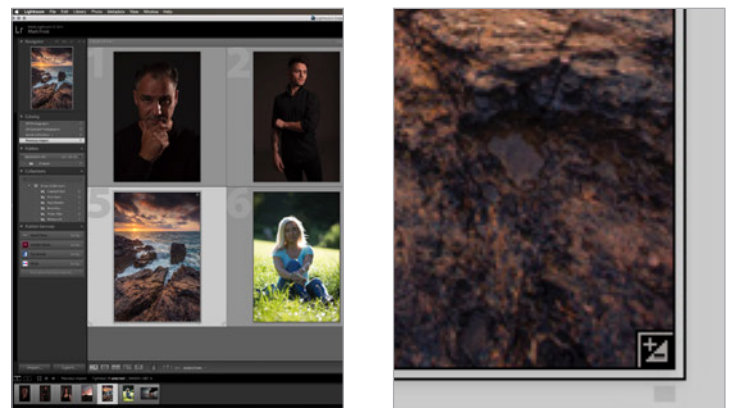
27 One final tweak is to go back to the Lens Corrections panel and click on the Manual button and in the Vignetting section, change the Amount to -35 and the Midpoint to 25. This adds a subtle darkening to the edges of the image to draw the eye to the centre of the shot.



28 Now you can compare the original image to our fully-adjusted version. The difference is simply amazing. The shadows have been brightened, the sky is warm and the sun is glowing and there is plenty of detail wherever you look. An edit like this only takes 10-15 minutes to do but the result shines.



29 Now that the image is complete, you can click on the Export button and save the result as an image format of your choice. The Export options are quite detailed: you can choose where to export the image, what file naming convention you wish to use and what format.

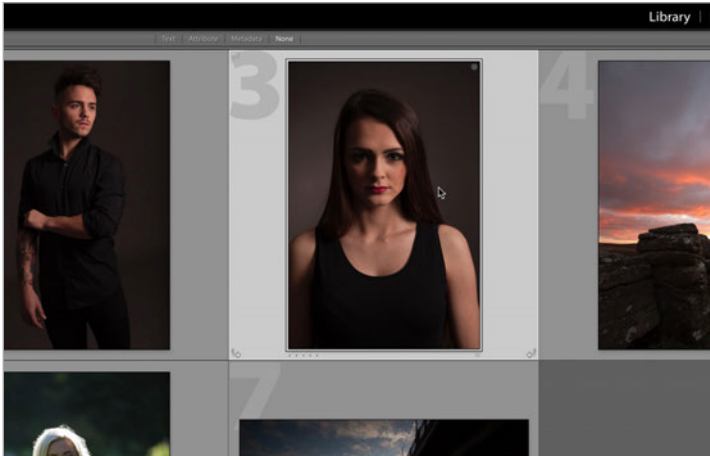


30 Back in the Library Module, your shot now displays the results of your edits. You will note that there is a small icon in the lower right corner to indicate this image has a series of non-destructive edits attached to it. You can go back in at any time and make more amends if you wish.

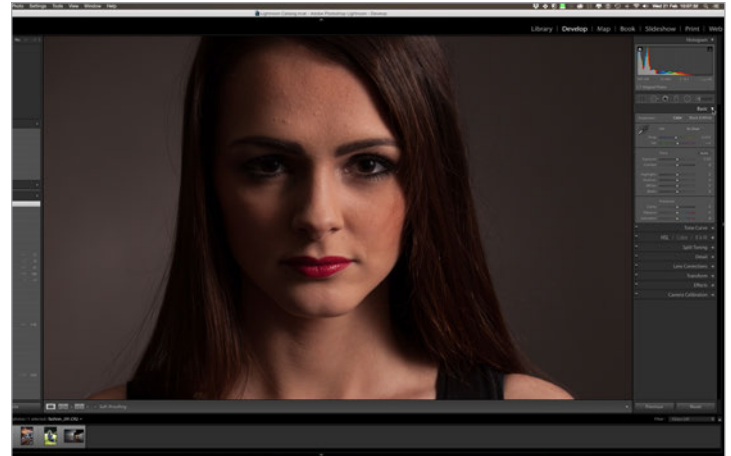
Portrait Retouching

There is something of a debate whether Lightroom is capable of full-on portrait retouching. Many say that to properly finesse a portrait to its fullest extent, you have to complete the job in Photoshop with layers and brushes. While that is true, Lightroom can do more than you might imagine.

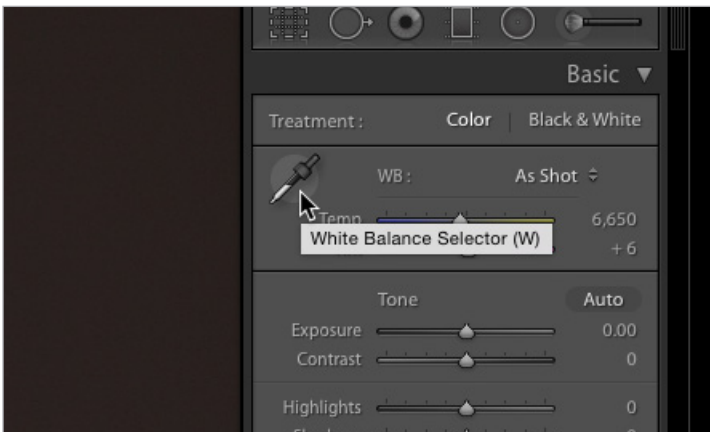




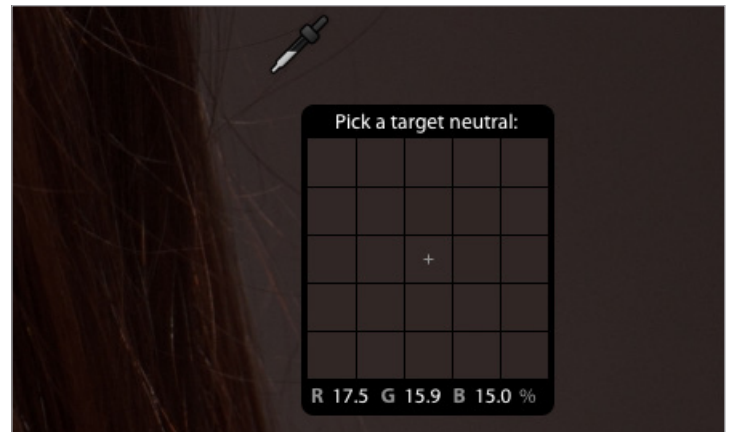
1 We have a simple example portrait in our Library Module that we want to edit. The shot is reasonably exposed as the photographer intended but it could do with a number of edits to really make it shine. The aim of this workflow, is to do as much in Lightroom as possible without the aid of Photoshop.



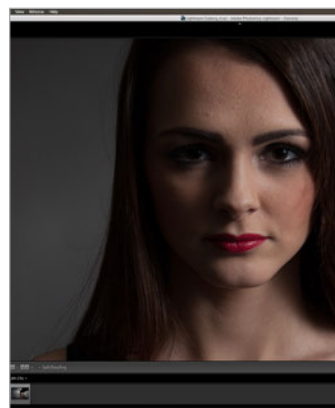
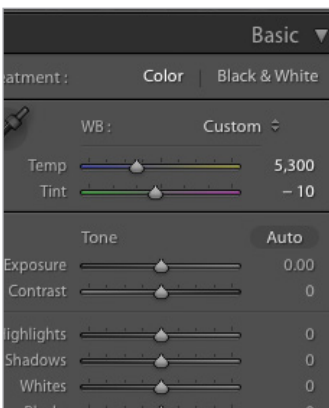
2 Having had a chance to look at the image in the Develop Module, a couple of things are already apparent. The colour balance is a little off since the backdrop was neutral grey and it looks a little warm; also, her forehead has a few blemishes that could do with some attention.



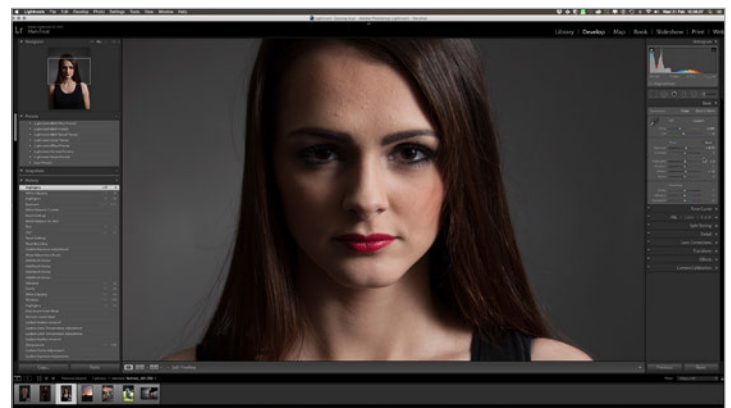
3 You can address the colour balance first by opening the Basic Tools panel and clicking on the White Balance eyedropper tool. Using this tool, you can click anywhere on your image that you know to be a neutral colour; Lightroom will automatically apply adjustments to colour correct the shot.



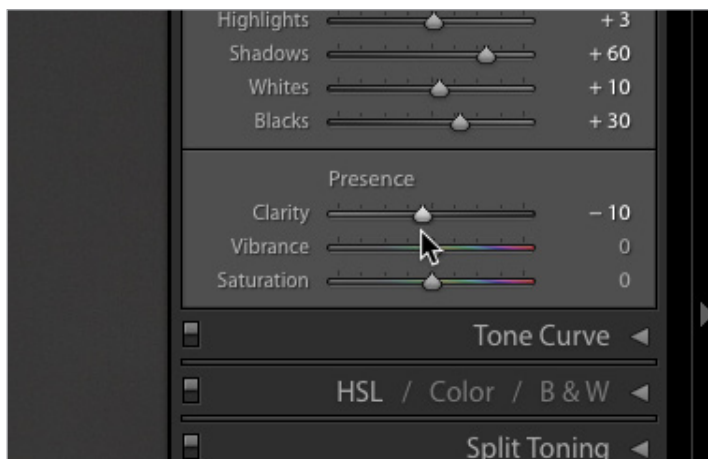
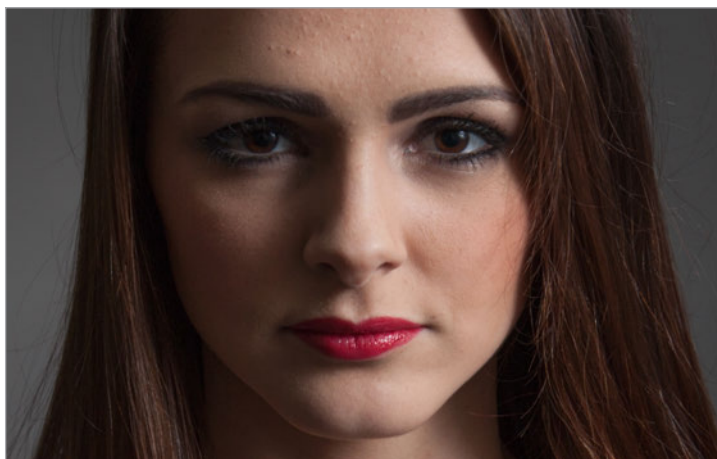
4 In this case, simply move the cursor over the background behind the model's head. A small window shows an enlarged area of the pixels currently beneath your cursor and also the current mix of red, green and blue values that make up that colour.



5 When you click your cursor on that area, Lightroom will calculate what Temp and Tint adjustments needs to be made to the photo in order to bring the area you clicked to a neutral state with red, green and blue of equal colour values. Temp goes from 6650 to 5300 and Tint goes from +6 to -10.

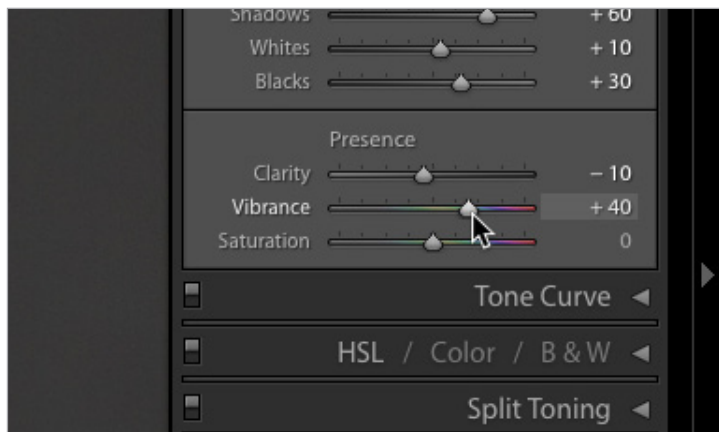


6 Now you can add some basic adjustments to lift brightness, contrast, tone and saturation. First, the Exposure value can be boosted to about +0.55. Highlights can be lifted a little to +3 and Whites can go to about +10 to keep highlights bright without loss of detail.

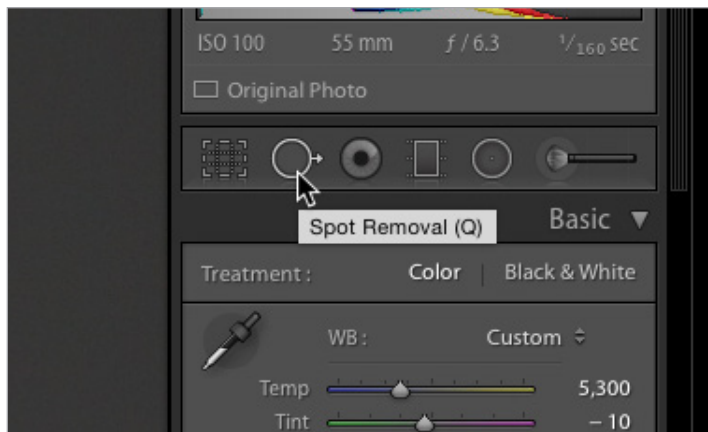


7 Next you can turn to the darker tones in the shot. Pushing the Shadows slider to the right for a value of about +60 injects more light into the darkest tones and helps to reveal more detail. By pushing the black value to about +30 also helps lift the darkest tones for a much clearer image at this point.

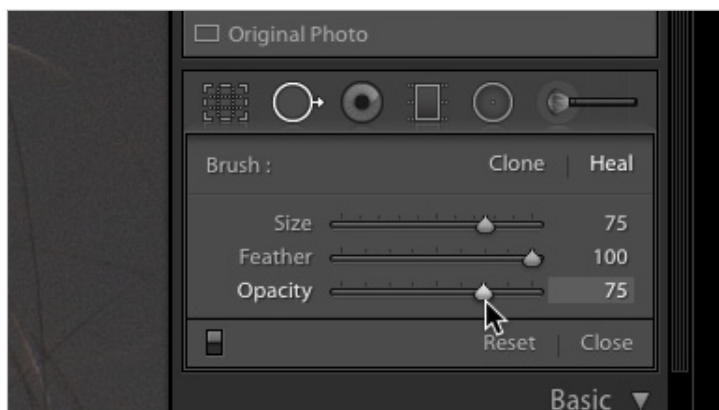
8 Once done, you can go to the Presence panel and actually reduce the Clarity value to about -10. This reduction in mid-tone contrast helps to soften the image, which is a helpful and flattering thing to do for female portraits in particular. Male portraits allow you to push Clarity in the opposite direction.



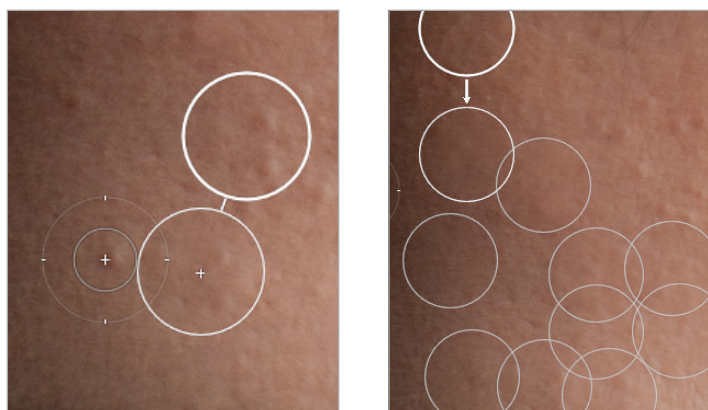
9 One final adjustment at this stage of the edit is to boost the Vibrance value a little to about +40. Vibrance is a more subtle way of boosting the most muted colours in the image first. In the case of a portrait, too much saturation could result in bright orange skin that would look unpleasant.



10 The blemishes are next using Spot Removal. You can choose from Clone or Heal. Cloning is a straight copy of pixels from one area to another whereas Heal uses sampled pixels similar to the area you are trying to remove and blends the new sample attempting to match colour and brightness.



11 Subtlety is key to blemish removal and it is worth taking your time over this next part. Your Heal brush needs to be set to Feather 100 and Opacity between 75 and 100. Your brush size will depend on each blemish you remove. You can alter the brush size up or down by tapping the [and] bracket keys.



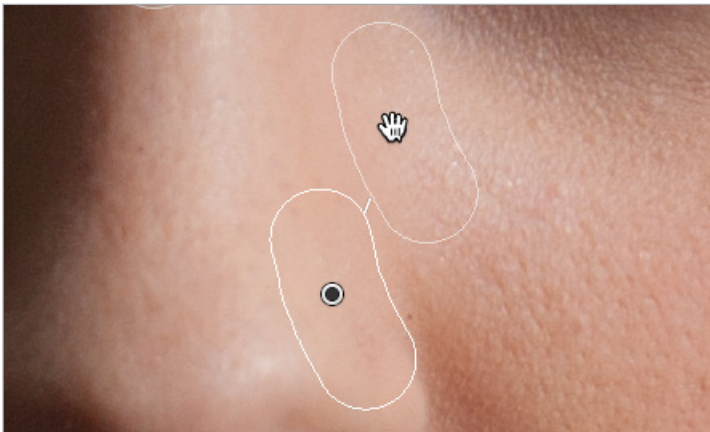
12 With your Heal brush, click over each blemish in turn. Each click will sample another area over the top of the blemish. You just need to methodically click over each blemish in turn and keep going. You will see a build-up of brush marks that indicate each place a healing brush has been applied.



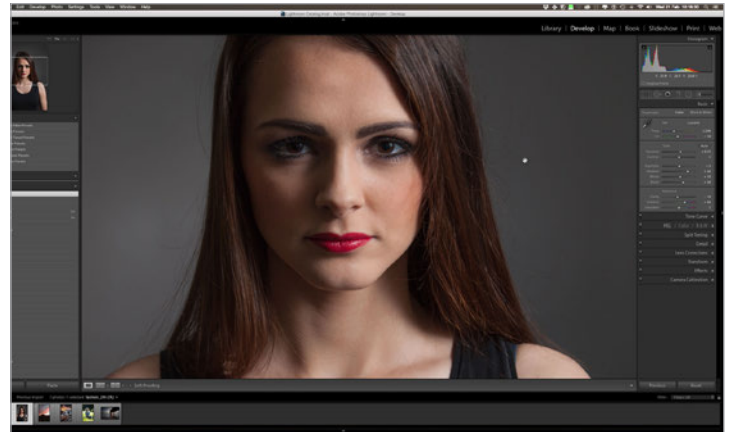
- 13** Sometimes, the area your brush samples may not be correct. If this happens, you can click on the sample target and drag it to a new area that has a skin tone and texture more suitable for your needs. You can actually drag the sample target anywhere in the frame of the image if needs be.



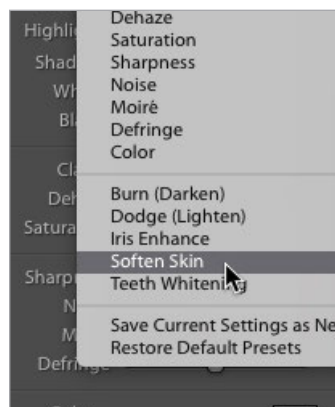
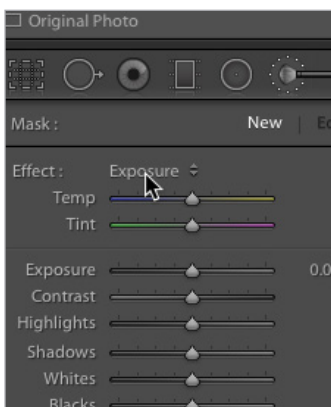
- 14** You are not limited to single brush clicks over your blemish areas. If you want, you can click and drag a longer brush stroke which will be denoted by a white brush stroke. Try to keep these longer strokes fairly small and contained or the sample target it chooses may be completely random.



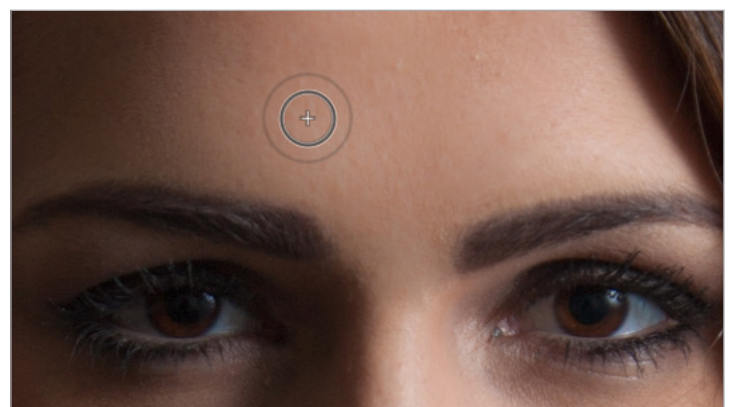
- 15** Just as with single brush clicks, these longer brush strokes can have their original point of application moved; or you can click and drag the sample target to another area of skin. The original area will update in real time to show you how the new sample will look before you deselect it.



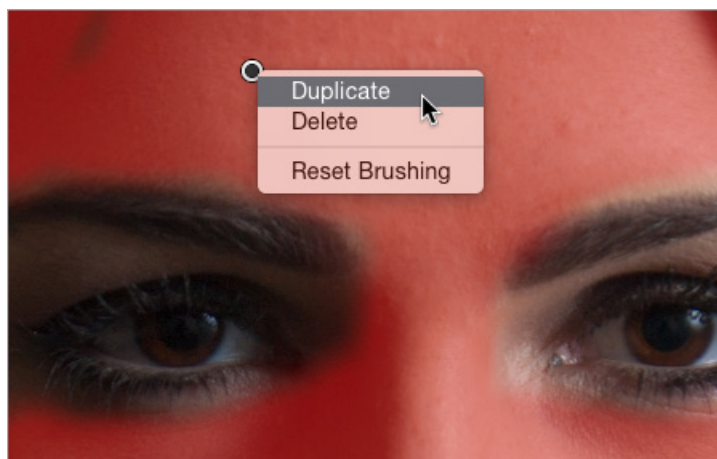
- 16** You have your basic edit. The colour has been adjusted, the exposure has been tweaked to show more detail in the darkest areas of the shot and the main blemishes have been reduced, but not completely removed. You may notice a slight mottling of the skin. There is a useful remedy to that too.



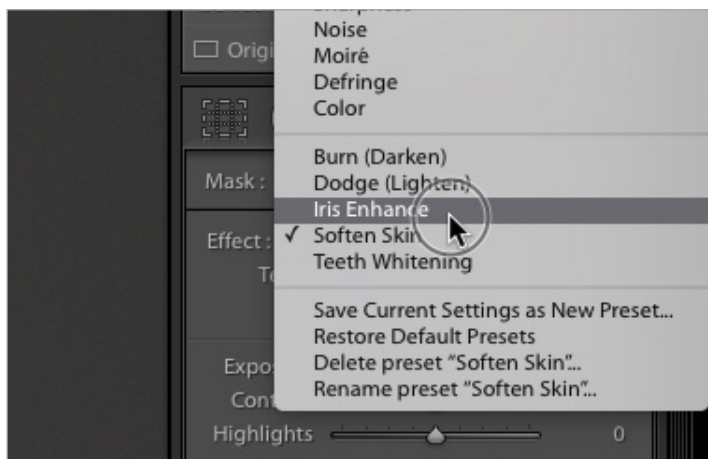
- 17** Click on the Adjustment Brush Tool and open its properties panel. Click on the small dropdown list next to Effect. The dropdown menu that appears has a number of useful presets that you can apply to your new Adjustment Brush. In this case, you can select Soften Skin.



- 18** Use this new skin softening brush and paint over her forehead to soften her skin even more and remove more of the mottled areas. It does this by reducing the amount of mid-tone contrast by -100. You can also use it elsewhere on her skin. It is not a magic bullet but it can help.



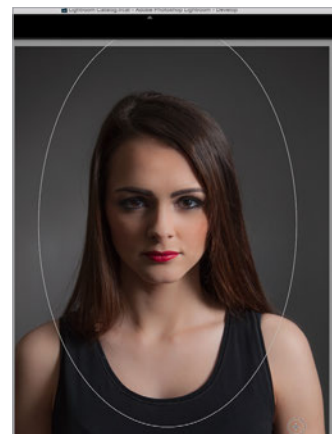
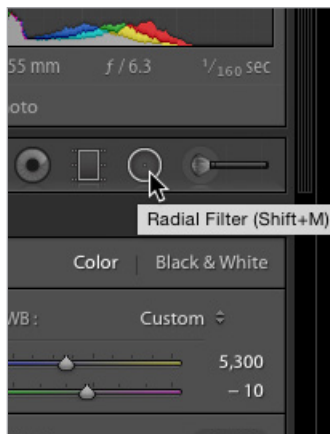
19 If you happen to feel that the skin softening is not enough to suit your taste but your settings are already maxed out, you can right-click on the control point for the active adjustment brush and select Duplicate from the list. This will double the effect of the softening.



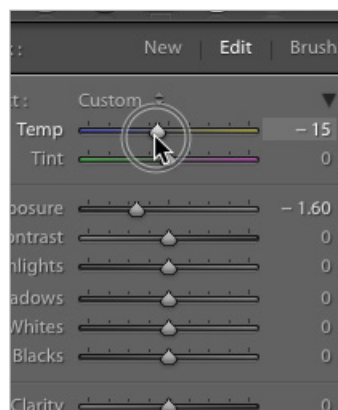
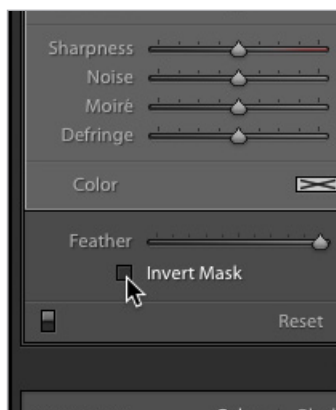
20 Now you can add a new Adjustment Brush and choose Iris Enhance from the Effect dropdown list. This has a preset applied that is a good start for brightening a subject's irises if they are too dark. Again, we would suggest a subtle approach to avoid overly bright 'devil eyes'.



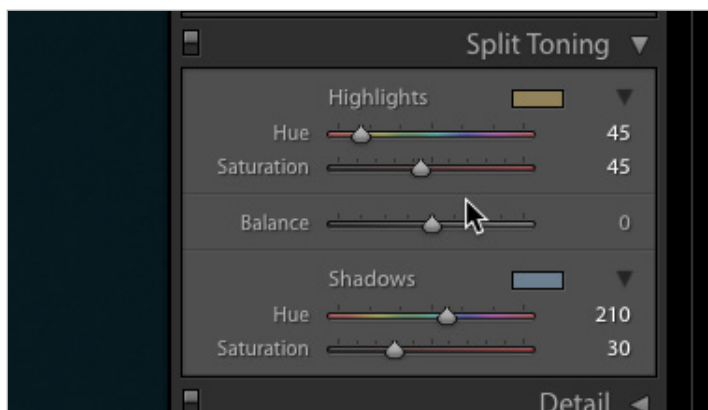
21 We edited the preset by adding more Exposure and reducing the strength of the Shadows. This is just enough to reveal the brown of the model's eyes without going over the top. The whites of her eyes are fine as they are. Any brightening of the whites would look unnatural.



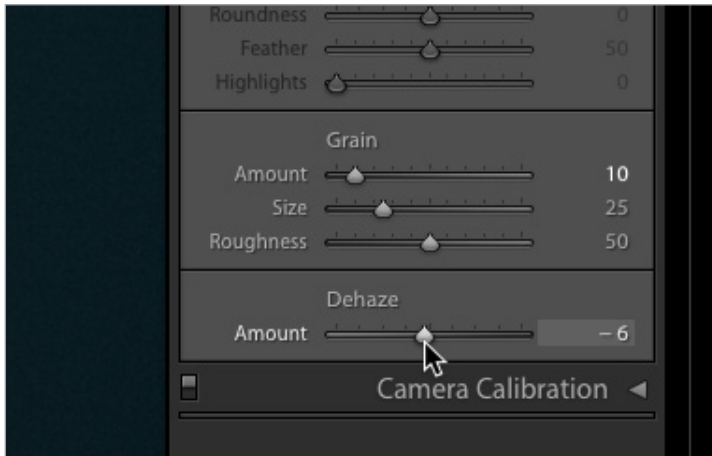
22 To add a little more mood to the image, you can add a Radial Filter to create a tight vignette around the model. Click on the Radial Filter tool, drag an ellipse that encompasses the model's head and shoulders. You can always move and scale the filter later if you wish.



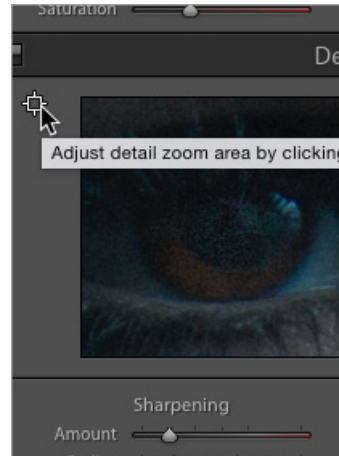
23 In the properties panel, make sure the Invert Mask button is not checked, click on the exposure slider and drag it to the left to about -1.60. Then, drag the Temp slider a little to the left to about -15. This creates a cooler toned vignette that darkens the background but keeps Courtney's face unaffected.



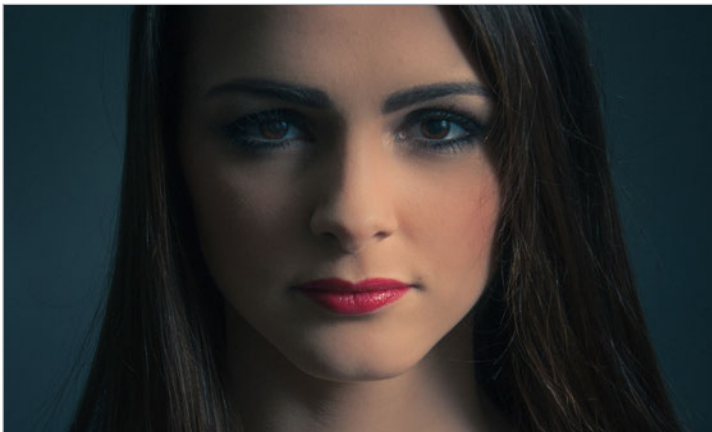
24 Under Split Toning, you can also opt for a yellow Hue with saturation of about 45 to the Highlights. Shadows have a blue Hue with Saturation of about 30 to give the colour tones of the portrait a more contemporary feel to them. Watch out for making the skin too yellow.



25 We also opened the Effects panel and added a small amount of Grain, with Amount set at 10, Size is 25 and Roughness 50. In the Dehaze panel, the value has been altered to -6 to give a slightly soft-focus feel to the shot, again to help with the flattering female portrait.



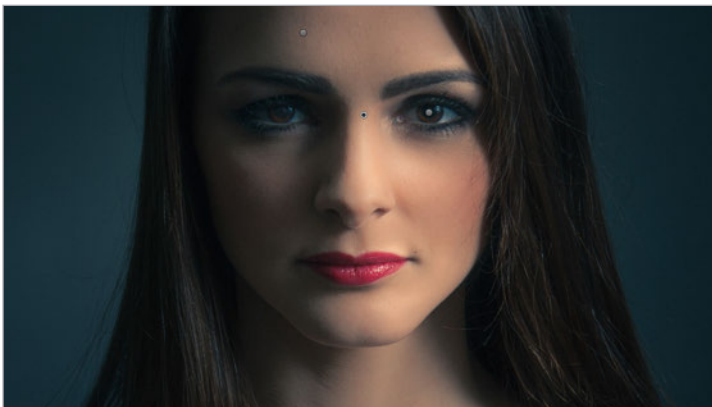
26 If you wish, you can open the Detail panel and apply Sharpening. You can target a zoomed preview by clicking the Adjust Detail Zoom button and placing your cursor over an area you want to preview as you apply sharpening. Once again, do not overdo it, too much sharpening can ruin an image.



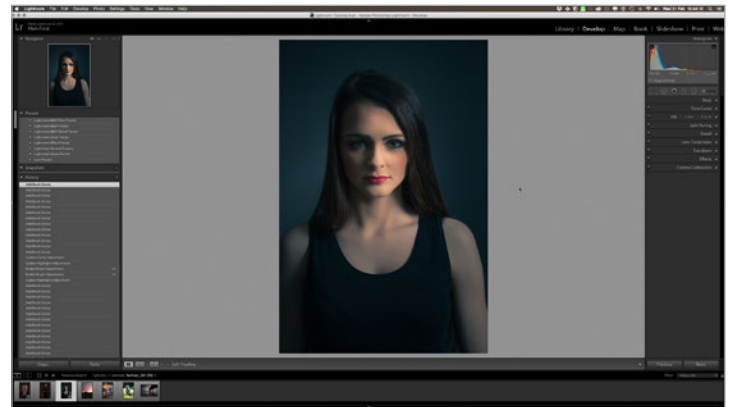
27 One adjustment you can add is targeting the brightest areas of her face and gently accentuate them by using a process called Dodging. This is a reference to the days of film negatives where you would prevent areas of photographic paper receiving too much light and making that area too bright.



28 You can create a new Adjustment Brush and set its Exposure Value to about +0.25 and Highlights to about 85. Make sure the Feather is set to 100 and Flow is decreased to about 40. This means you can build-up the effect gradually without overdoing it too quickly.



29 Concentrate the brush on the bright parts of the skin on her face and neck and follow the shape of obvious facial contours. Like before, if this looks a little over the top, you can adjust the Highlights value down to about 30, or until the effect is as strong as you want it.



30 With that final edit, this portrait is completed. You can of course take it onwards to Photoshop and do any more fine tuning or skin retouching if you need it, but in this case, Lightroom has done most of the heavy lifting for you and as ever, you can go back in and alter the adjustments at any time.

Black and White Processing

Black and white images can create truly stunning photography. A good black and white image needs plenty of detail and a strong composition for it to stand on its own merits without the aid of colour. There are a number of ways to do this in Lightroom and we show you how.

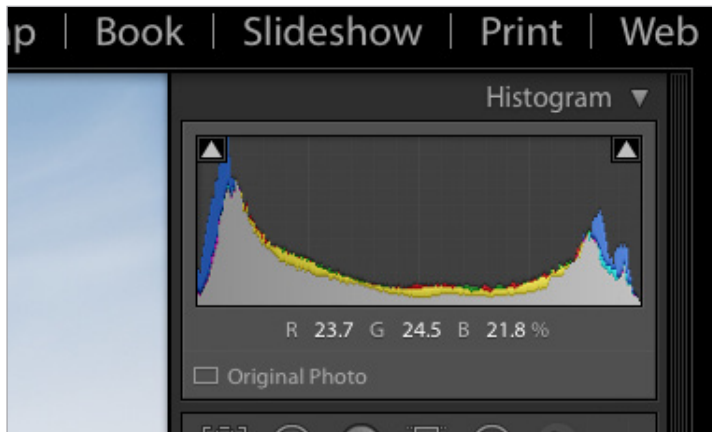




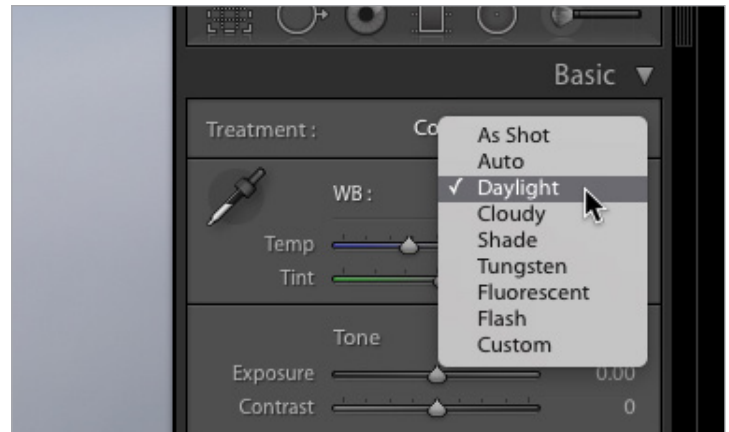
1 We have a couple of example images we are going to convert to black and white using a number of methods including Lightroom itself, some presets and going further afield by using Lightroom in conjunction with a compatible plugin that is a dedicated black and white conversion program.



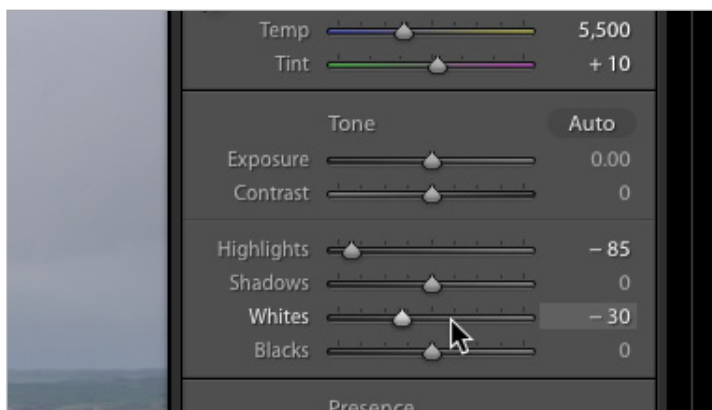
2 It begins with a simple landscape photo of a tree and fields taken on a crisp clear day. It is reasonably well balanced, certainly the sky is not too overexposed and there is still detail in the shadows, even in its unprocessed Raw state. This is a good starting point for the conversion.



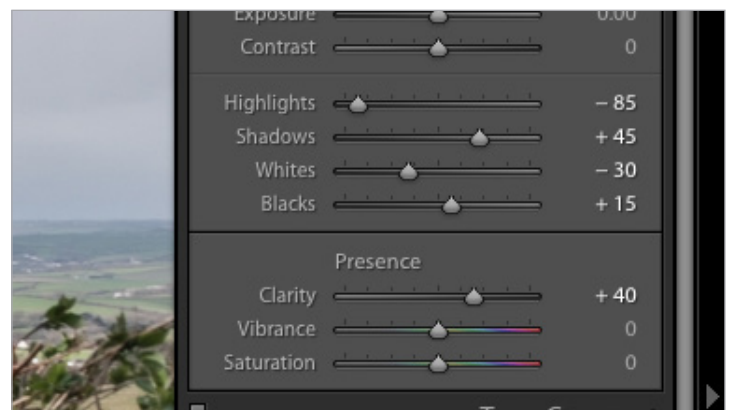
3 A look at the Histogram in the top right corner of the Lightroom workspace will confirm this. The right side of the histogram represents the spread of the lightest tones, whilst the left side shows the distribution of the darker tones. It shows a small amount lost to underexposure but nothing drastic.



4 People choose to edit their images in different ways but we tend to get the image looking as balanced as possible in its colour state before switching to black and white. The first thing we did was to change the White Balance to Daylight to accurately portray colour as our starting point.



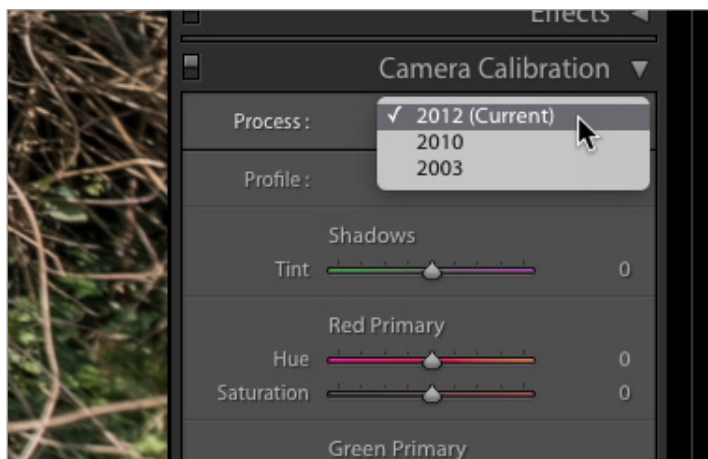
5 Next, there came a series of edits done in the Basic panel to balance the image as much as possible. Highlights were set at -85 to darken the highlight areas and increase as much visible detail in the sky as possible and the White value was dropped to -30 for the same reason.



6 Then it was a case of boosting Shadows to +45 and Blacks to +15 to make sure nothing was solid black in the image which can potentially decrease detail. In the Presence panel, the Clarity can be boosted to +40 for more mid-tone contrast. Do not worry about Vibrance and Saturation at this point.



7 We would always recommend, if you are using a Raw file, go to the Lens Corrections panel and under Profile, check both the Remove Chromatic Aberration and Enable Profile Corrections buttons. Any lens distortions and colour fringing will be automatically removed from your image.



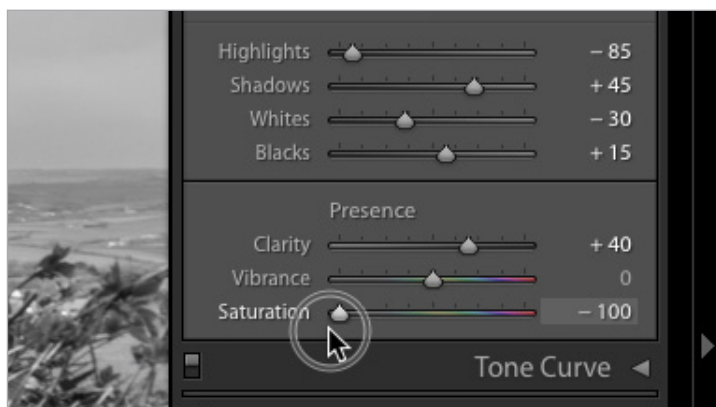
8 It is reasonable to assume you might want to boost Saturation at this point. There is an alternative method that works very well for Raw files. Under Camera Calibration, make sure the Process value is set to 2012 (Current) and Profile is Adobe Standard. Then you can proceed to the next part.



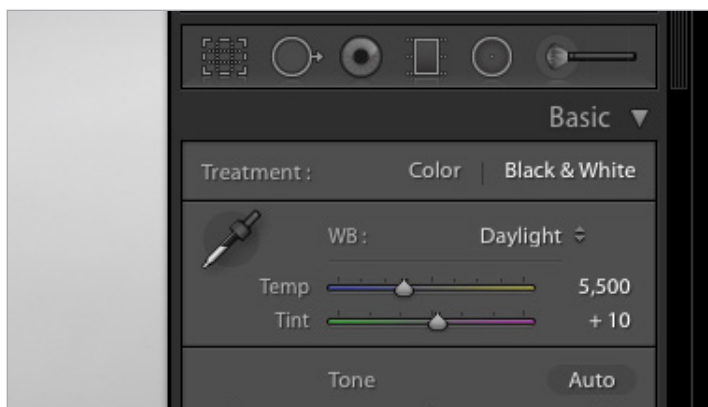
9 In the same panel you have Red, Green and Blue Primary Hue and Saturation sliders. If you adjust these sliders, you will see you can have a huge impact on the colour rendition of your image. You can get the grass looking bright and lush and the sky a more vivid blue. Try not to be too heavy-handed.



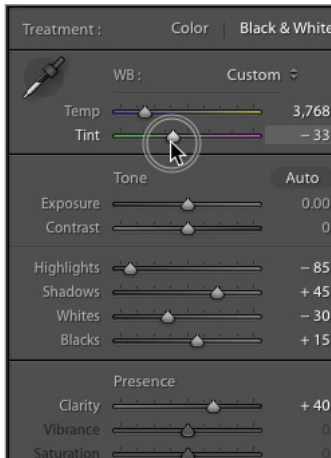
10 You may wonder why it's worth worrying about colour so much since it will end up as a black and white image. Well, many would argue that a good black and white image needs a better colour image to give you more tonal values to play with when it comes to converting to black and white.



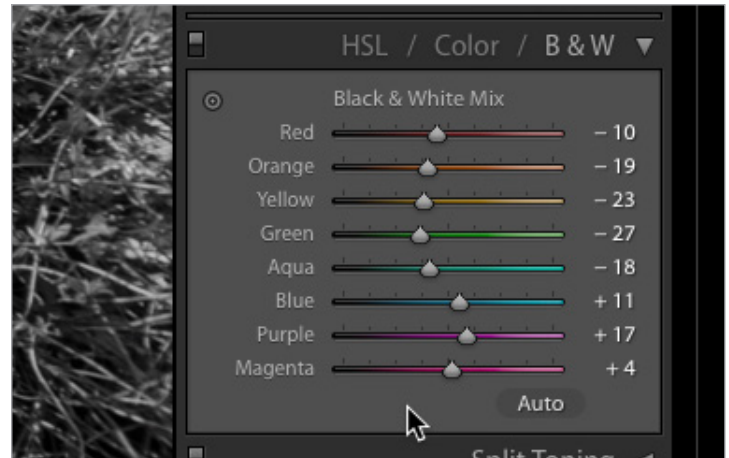
11 The simplest things you can do to turn your image to black and white, is to go to the Saturation slider under the Basic panel and just move it all the way to the left so it reads as -100. This is fine for a quick conversion and to be fair, it doesn't look half bad. There are other options though.



12 In the Basic panel, next to Treatment, are two options. There is Color, which you are already using and there is also the Black & White treatment option. Clicking on this, removes certain options like Vibrance and Saturation which means you have to control the look of your image in a different way.



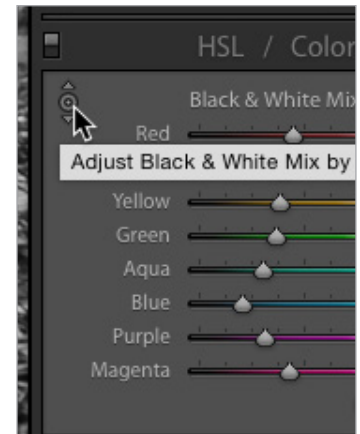
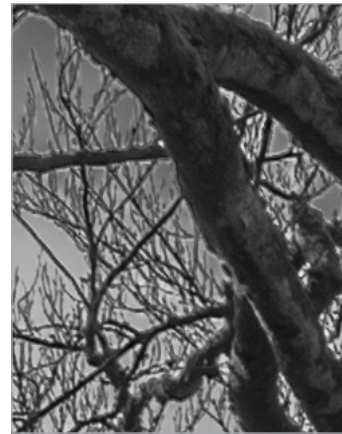
13 You can alter the Temp and Tint options which will have a small impact on the look of your black and white image but bear in mind, that you are still working on a colour original. What you are seeing, is the effect the Temp and Tint is having on the colour image that is displayed in black and white.



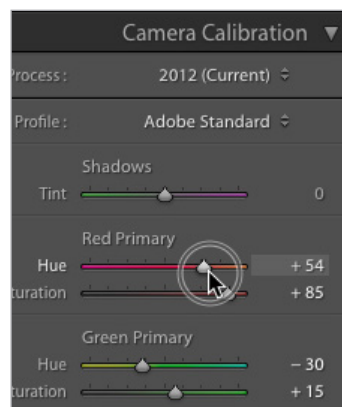
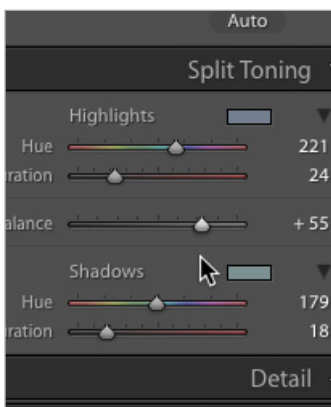
14 Now you are altering colour as well as basic brightness and contrast to hide and reveal detail in your image. If you go to the HSL/Color/B&W panel, the B&W panel is the only active one. Altering the range of colour sliders here will have a marked impact on your photo.



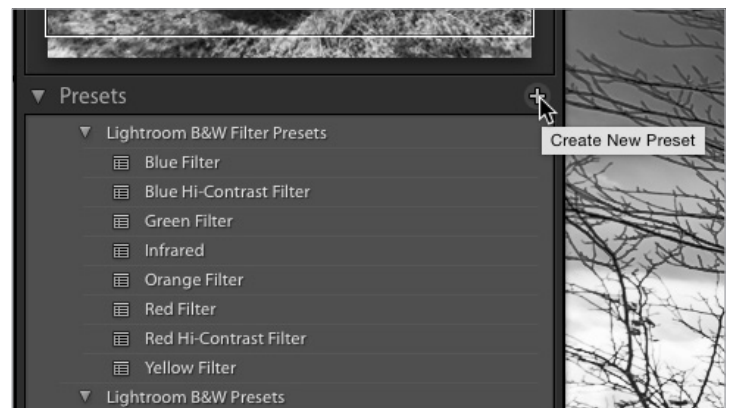
15 If you slide the Yellow slider to the right, all the green and yellow tones in the shot will become much brighter. The same is true of the Green slider, although not as pronounced. This is how you use your colour image and these colour sliders to control how it looks in black and white.



16 If you take the Blue slider and push it to the far left, all the blue tones present in the sky and clouds will darken. You can also target specific areas in the shot by using the dragging mixer option in the top left of the panel. Click on it and then click on an area in your shot and drag your cursor up and down.



17 If you go to the Split Toning panel, you can actually tint your photos or create duotones. Using the Camera Calibration panel, you can also have an effect on the look of your black and white conversion by altering the Hue and Saturation of each of the Primary colours.



18 After some Basic panel tweaks, you have your final mono conversion in place. If you want, you can go to the Presets tab on the left of the workspace and click on the small + symbol to create your own new preset. You can name it and choose which settings are actually applied to subsequent images.



Glossary

Any book on a technical subject like Adobe Lightroom is bound to include a few unfamiliar words and concepts. Here at BDM we try to keep our guides as jargon-free as possible but there are going to be words that may stump you; here we try to explain them a bit more fully in this handy glossary.

Adobe Bridge

Bridge is a browser application produced by Adobe Systems as part of the Creative Suite and is usually installed alongside Photoshop. Its main function is as the file management hub of the Creative Suite. It can also be used to locate, open, manage, rate and rename files as well as edit their metadata.

Adobe Camera Raw (ACR)

ACR is the Raw processing application that comes supplied with Adobe Photoshop. At its core, it behaves much the same as the Develop module in Lightroom but with less features.

Adobe RGB

A device independent colour space developed by Adobe. It provides a relatively large range of colours, i.e. grey-balanced and perceptually uniform. It is widely used for image editing.

Anti-Aliasing Filter

This is an optical filter, known as low-pass filter, which is placed on the camera sensor to create a slight blur that helps counteract aliasing or Moiré interference.

Backlight

Light coming from a source behind the photographed subject. Very bright backlighting can result in an image becoming very low contrast, if the light source is present within the frame of the composition.

Batch Processing

Performing one or more tasks to a group of files at the same time. In Lightroom, this could be the contents of a folder in your Library or a selection of disparate images created using the Quick Collection function.

Bit

A contraction of binary digit, the smallest unit of information storage or digital information that can take on one of two values, 0 and 1.

Bit Depth

Defines how many bits of colour data are used to describe each pixel or channel. For example, 2 bits per pixel only allows for black or white. 8 bits provides 256 colours. When referring to an 8-bit colour image, 256 is multiplied by the three primary channels (red, green and blue)

to create what is commonly called 24-bit colour, with a possible 16,777,266 colours.

Black Point

In image editing, the black point is a tonal adjustment that sets the point at which the deepest shadow detail in the histogram is clipped to black.

Burning

The selective darkening of a part of an image.

Camera Raw

Proprietary raw file formats designed to hold image data and metadata generated by digital cameras. These formats are non-standard and undocumented, although they are usually based on the TIFF/EP file format standard.

Catalogue

Within Lightroom, the Catalogue is a database that contains the information about all the photographs and media that you currently have on your system. It can track their location and when you edit, rate and add keywords to them, this is all stored in the Catalogue database.

CCD (Charged Coupled Device)

A type of image sensor found in digital cameras and scanners. It is a light-sensitive chip that converts light into an electrical charge that is then processed by an analogue to digital converter. CCD differs from the other common sensor type (CMOS) in the way that it processes the electrical charges captured by sensor elements.

Chromatic Aberration

Known also as colour fringing, chromatic aberration is caused when a camera lens does not focus the different wavelengths of light onto the exact same focal plane. The effect is visible as a thin red, green or purple coloured halo around objects in the scene, often the border between dark and light objects.

Clarity

Clarity is found in the Develop module. Look under the Basic panel and there you will find the Clarity option. It behaves like an intelligent version of Contrast and only alters contrast within the middle tones of your image.

Clipping

The loss or either highlight or shadow details when tone information is forced to pure white or black. For example, over-exposure can produce clipping by forcing highlights that should contain detail to register as pure white. Clipping can also be caused either intentionally as a creative effect or unintentionally because of excessive corrections. Saturation clipping can occur when colours are pushed beyond the range of a colour space.

CMOS (Complementary Metal Oxide Semiconductor)

A type of image sensor found in digital cameras and scanners. It is a light-sensitive chip that converts light into an electrical charge, which is then processed by an analogue to digital converter. CMOS differs from the other common sensor type (CCD) in the way that it processes the electrical charges captured by sensor elements.

CMYK

Also commonly referred to as process colour, CMYK is a subtractive colour model using cyan, magenta, yellow and black inks in colour printing.

Colour Profile

Also known as an ICC profile, the Colour Profile defines the information required to by a colour management system (CMS), to make the colour transformations between colour spaces. They can be device specific such as monitors, scanners or printers or abstract editing spaces.

Compression

The process of re-encoding digital information using fewer bits than the original file or source. This reduces transmission time and storage requirements. There are a number of different algorithms that provide either “lossy” or lossless compression. JPEG is a common file format that employs lossy compression to achieve smaller file sizes at the expense of image quality.

Culling

Culling images is a process whereby you narrow down your choice of images that you wish to keep, by rating them or deleting the ones that you no longer want.

DNG (Digital Negative)

An open standard file format developed by Adobe Systems that provides an alternative to proprietary camera raw files. The DNG specification incorporates rich metadata along with embedded previews, camera profiles and editable notes. The DNG format uses lossless compression that can result in a significant file size reduction over the original proprietary raw format.

Dodging

The selective lightening of any part of an image.

DPI (Dots Per Inch)

The measurement of print resolution expressed in how many dots of ink are laid down either horizontally or vertically per inch. A higher number indicates a greater amount of output resolution. Not to be confused with pixel per inch (PPI). There is not necessarily a direct correlation between DPI and PPI.

Dynamic Range

In the context of photography, dynamic range describes the difference between the brightest and darkest light intensities of a scene. From capture to output, there can be a large difference in the size of the dynamic range that each device is capable capturing or reproducing. Dynamic range is commonly expressed in the number of f-stops that can be captured or the contrast ratio of the scene or device.

EXIF

Exchangeable Image File Format. A standard for simplifying the exchange of data between cameras and software. The data may include camera model, date and time the photo was taken, camera settings, shutter speed and so on.



Exposure

The total amount of light that strikes the sensor or film during an image capture. An optimal exposure takes full advantage of the dynamic range of the sensor without under-exposing the shadows or over-exposing the highlights. See also clipping.

File Format

File Format is the structure of how information is encoded in a computer data file. File formats are designed to store specific types of information, such as JPEG and TIFF for image or raster data, AI for vector data or PDF for document exchange.

Filmstrip

A filmstrip is a graphical representation of your images in thumbnail format. In Lightroom, the filmstrip runs along the bottom of your screen and displays all the images you are currently working on.

Filters

Filters is a specific keyword used in Lightroom to search and display images with that keyword assigned to it.

Flat Lighting

This refers to images that generally have very little contrast to them because the photo was taken on an overcast day, with no strong lighting direction; or there was strong backlighting that created a photo of very little contrast.

Gamut

The range of colours and tonal values that can be produced by a capture or output device or represented by a colour space.

Grayscale

A monochromatic digital image file with pixel values that use shades of grey to represent tonal information. The term is often used to describe digital black and white photographs.

Guide Number

Used to describe how powerful a flashgun is. The higher the guide number, the more powerful the flashgun will be.

HDR (High Dynamic Range)

HDR is a process that combines multiple exposure variations of an image to achieve a dynamic range exceeding that of a single exposure. Algorithms

are used to blend the exposures into a high-bit file format such as a TIFF that can then be converted to either 8 bit or 16 bit for digital printing or a web presentation.

Highlight and Shadow

The lightest and darkest colours in an image.

Histogram

This is a graphical representation of the tone and colour distribution in a digital image. This is typically based on a particular colour or working space by plotting the number of pixels for each tone or colour value. It can be used to interpret photographic exposure and reveal shadow or highlight clipping.



History

Each adjustment you make can be recorded by the History function. It allows you to step backwards through your session history as if it were an Undo button. The History panel displays the last nine changes made to your image. You can click on any one of them to jump back to that point.

HSB

This is an abbreviation for the three components of a colour space. It stands for Hue, Saturation and Brightness.

HSL

This is another term for the three components of colour. This stands for Hue, Saturation and Luminance. In Lightroom, the HSL adjustment sliders can be found in the Develop module beneath the Basic and Tone Curve panels.

ICC

ICC stands for International Colour Consortium. An ICC profile is a description of how certain devices such as printers handle colour. This allows software to interpret and convert the profile, so they reproduce

and match colour on different devices as closely as possible.

Impromptu Slideshow

This is a Lightroom technique that allows you to very quickly set up and display a slideshow in the Slideshow module. You highlight all the images in your filmstrip that you want in the slideshow and press the Play button in the toolbar.

ISO (International Organisation for Standardisation)

In photography, ISO refers to the standard for measurement of the sensitivity of film or digital sensors to light.

JPEG, JPG (Joint Photographic Experts Group)

A standard created by the Joint Photographic Experts Group for the compression of photographic images and the accompanying file format. It employs lossy compression that can reduce file size but at the expense of image quality and detail.

Keyword

An element of metadata that is used to make a file more easily discoverable to searches. Keywords can be individual words or short phrases and can have a hierarchical structure.

Lens Corrections

Lightroom is able to analyse your images and determine what camera and lens was used to take the photo. It can then apply lens and chromatic corrections to remove any distortion caused by the lens as well as any optical defects such as purple/green fringing.

Lossless Compression

An image compression technique that prevents image degradation caused by data loss. Lossless techniques usually use lower compression ratios than lossy techniques.

Loupe Overlay

This lets you show or hide different information overlays and guides on top of your currently active image.

Luminance

The intensity of light emitted or reflected by an object. This is usually expressed in candelas per square meter (cd/m²). It is a measurement of the brightness of an object or light source.

Megapixel

A term used to describe digital camera resolution, 1 megapixel equals one million pixels or sensor elements. To calculate the megapixel value for a camera, multiply the horizontal by the vertical pixel counts of the recorded image.

Metadata

Embedded or associated information describing a file's contents, used in digital photography to hold exposure information, GPS location data, copyright information and more. There are a number of metadata formats such as EXIF, IIM, IPTC Core, Dublin Core, DICOM and XMP.

Mid-tone

An area that falls between the brightest highlight and the darkest shadow.

Module

Lightroom has a number of modules that are essentially different workspace areas. As an example, Library is where you manage your database of photos and Develop is where you edit and adjust your images.

Navigator

The Navigator panel in the Develop module allows you to quickly zoom in or out of your image and move around.

Noise

The unwanted colour or luminance variations of pixels that degrade the overall quality of an image. Noise can result from several different sources including a low signal to noise ratio, the use of high ISO settings, long exposures, stuck sensor pixels and also compression artefacts. It can also appear as random colour speckles, a grain-like effect or banding.



Non-Destructive Editing

Any adjustments you make to an image in Lightroom and held as a series of instructions that describe the edits you've made. These are all done without altering the original file in any way. Only when you output the image as a new file will the adjustments be applied at the pixel level to the copy of the original image.

Opacity

Opacity is the extent to which something blocks light. You can change the opacity of layers, filters and effects so that more (or less) of the underlying image shows through.

Overexposure

An overexposed image results from too much light being allowed to fall onto the camera sensor, usually as a result of either a long shutter duration, wide aperture, high ISO sensitivity or a combination of all three. An overexposed image is very light or pure white with the brightest areas often containing no detail whatsoever.

PDF (Portable Document Format)

Developed by Adobe Systems, PDF is an open standard file format for cross-platform document exchange. PDF is highly extensible, preserves the integrity of the original document, is searchable and provides document security.

Pixel

Derived from the term picture element, this is the smallest unit of information in a digital image. It is also commonly used to describe the individual elements on a capture device such as a camera sensor.

Pixelation

Pixelation is an unwanted effect produced when an image is enlarged too much and the individual pixels become larger than the actual detail contained in the image.

Plug-In

A software application or module that provides extended and specific functionality from within a larger host application.

PPI (Pixels Per Inch)

The measurement of image resolution expressed in pixel density relative to inches. PPI

can be used to calculate the final image size by dividing the image dimensions in pixels by the PPI. The resulting numbers would be expressed in inches. Not to be confused with dots per inch (DPI).

Preferences

These are user-defined values that are applied to the main modules within Lightroom and control how it operates.

Preset

In Lightroom, a preset is an action that can be applied to an image or group of images. You save a group of editing settings such as colour balance, brightness, clarity, sharpness, contrast and saturation, which can then be applied to your selected photos.

ProPhoto RGB

This is an internal colour space used by Lightroom with a very wide colour gamut.

PSD

The .psd (Photoshop Document) format is a popular proprietary file format from Adobe Systems, Inc. It has support for most of the imaging options available in Photoshop, such as layer masks, transparency, text and alpha channels. In addition, spot colours, clipping paths and even duotone settings can be saved if you are preparing images for press or digital printing.

Quick Collection

You can create a temporary collection of different images by clicking each one and pressing the B key. That image is then added to the collection. There is only one Quick Collection and you can clear its contents by pressing Shift+Cmd+B.

Rating

In Lightroom, you can apply a subjective rating to your images in the form of stars ranging from zero to five stars.

Raw Files

A Raw file is the unprocessed data captured by a digital camera sensor. In most cases, cameras write Raw files using a proprietary file format. Raw files give the photographer the advantage of managing image processing during post-production rather than letting the camera make the processing decisions, as happens when

shooting in JPEG format. See also: DNG.

Recovery

This is a powerful tool to use if you are trying to recover detail in the brightest highlights in a photo. Bear in mind that if the detail is lost to pure white, then there is nothing to recover from these areas. Only areas darker than pure white have the chance to recover detail.

Resolution

A measurement of the ability of an optical, capture, or output system to record and reproduce detail. It can be defined in several different metrics such as Line Pairs, PPI, DPI, SPI and LPI. Also see DPI and PPI.

RGB

A colour model that uses the three primary additive colours (red, green, blue) that can be mixed in different ratios to make all other colours.

Rule of Thirds

If you divide an image into three equal sections both vertically and horizontally, where the lines intersect is commonly regarded as good placement for the subjects in your photos.



Saturation

One of the three components of colour. Saturation refers to the purity of colour present in an image. When a colour is at maximum saturation, it is the purest form of colour it can be.

Shadow Detail

Refers to the amount of detail that can be seen in the darkest areas of a photograph.

Sharpening

The process of increasing or emphasising contrast around the edges of details in an image, to give the impression that the image is sharper than it really is.

Soft Proofing

This shows you how an image on your computer screen will look when printed. You can optimise the image for a particular output device.

Split Toning

This option lets you alter the colour of both the shadow and highlight areas of your images. For example, you can add a blue colour cast to the darkest areas of your photo but make the brightest areas of the same image more orange.



sRGB

A reduced gamut colour space used by many digital cameras, colour labs and on the web. When processing your photos, a wider gamut colour space is preferred by photographers and digital artists such as Adobe RGB.

Tags

Tags are similar in their application to keywords.

Thumbnail Image

A small, low-resolution image preview used on the web to link to a high-resolution version of the file. Thumbnails can also be embedded in file formats such as TIFF and PSD.

TIFF or TIF (Tagged Image File Format)

An open standard file format specifically designed for photos and images. TIFF can incorporate several types of compression, including LZW, JPEG and ZIP. The format is suitable for the storage of high quality archive images. The DNG format is based on the main TIFF standard.

Tone Curve

A Tone Curve is used in image editing software. It is

a graphical representation of the relationship between the input and output values for the brightness levels of pixels, that can be used to adjust the contrast of the image.

Transform

This panel has a number of controls that let you alter the aspect ratio of your image, rotate and scale it as well as apply vertical and horizontal transforms to counter perspective shifts in the image, such as converging verticals.

Underexposure

An underexposed image results from too little light being allowed to fall onto the camera sensor, usually as a result of too short a shutter duration, narrow aperture, low ISO sensitivity or combination of all three. An underexposed image is very dark, with the darkest shadow areas often containing little or no detail.

Vibrance

Vibrance is a form of intelligent Saturation. As you increase the Vibrance in an image, only the middle tones of your image are altered first.

Vignetting

An effect in which the edges of an image gradually fade

out, usually to black or a very dark colour.

Virtual Copy

If you have processed a colour image and have it at a point you consider finished but wish to experiment on it a little, you can create an exact replica of the image with all its adjustments applied and alter the copy without affecting the original.

Watermarking

Allows you to add copyright symbols, text and graphics to protect your images from theft. The Watermark function can be accessed from any module.

White Balance (WB)

In digital photography, white balance establishes the colour balance of the image in relationship to colour temperature of the lighting conditions. Most digital cameras have several built-in white balance presets (tungsten, daylight, cloudy, fluorescent, etc.) along with an auto setting and the ability to set a custom WB.

White Point

A reference point used to represent white. This reference point is used to calculate all other colours in the image.



IBC

OBC



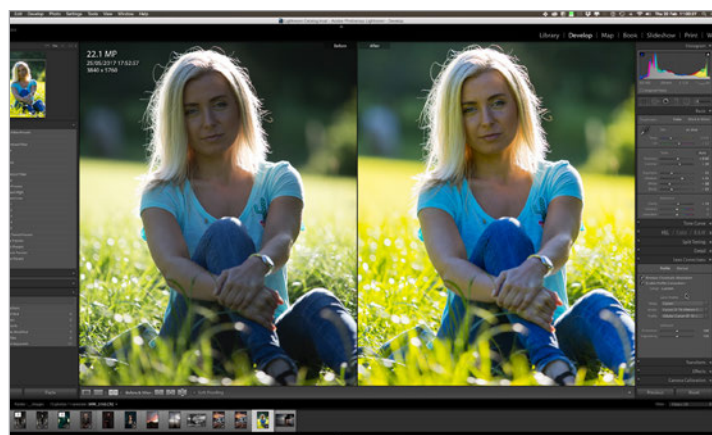
Black and White Processing

Part 2

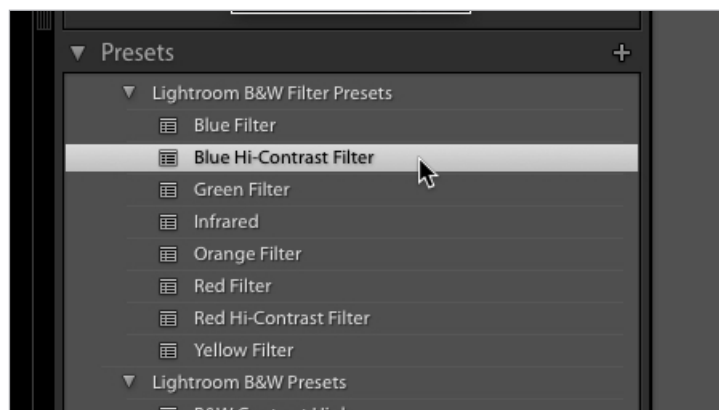
Having explored some of the main methods in Lightroom that let you convert your images from colour to black and white, we continue with another example that delves into more ways to create monochrome photos. Rather than a landscape, we are going to use a portrait photo this time.



1 In this example, we will process a sunny portrait photograph and then use some presets and a technique that involves bringing other image processing applications into the workflow and using plugins to process the image to create your monochrome masterpiece.



2 We have our example photo to convert. The photograph is a Raw file which has had some Basic panel edits done such as boosting Highlights and shadows as well as an Adjustment Brush tool to lighten her face and enhance the glow of her hair a little more.



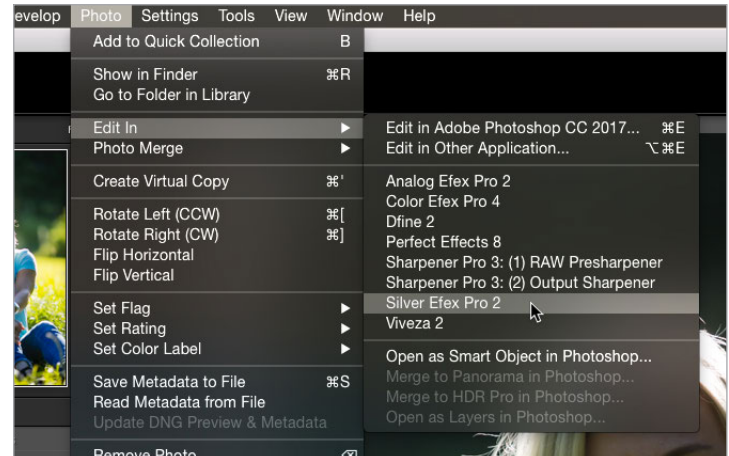
3 Over in the left hand part of the workspace, you will see the Presets panel. The Top two preset groups are of interest to us. There are the Lightroom B&W Filter Presets and next to that are the Lightroom B&W Presets. Both sets contain ready-to-go one-click applications of mono conversion effects.



4 One note that is worth bearing in mind: if you have a human subject in your photo that you're converting to black and white, you will need to steer clear of the Blue Filter and the Blue Hi-Contrast Filter. As this example shows, it has a drastic effect on light coloured skin. Use it at your peril.



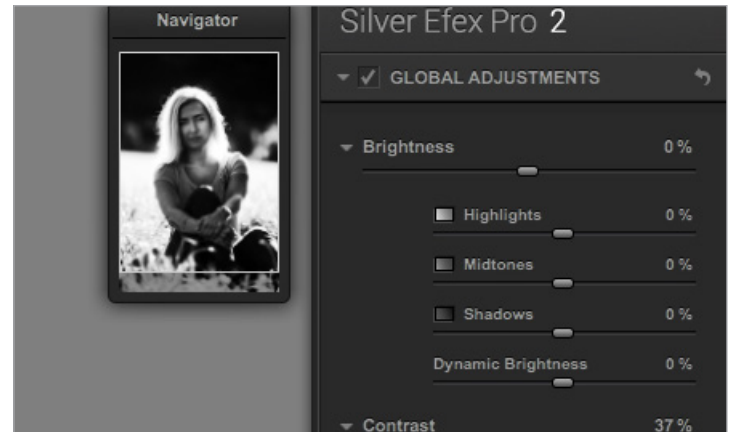
5 The Green and Red filters provide a good starting point that you can choose to build upon, as do some of the B&W Look presets. If you do want to tint your image then the next set of Lightroom B&W Toned Presets offer some of the most commonly used colours such as Sepia and Cyanotype.



6 This is the point we use the technique of handing off the image to an external program, you can go to Photo > Edit In > Silver Efex Pro 2. This is a free to download plugin from Google and Nik Tools. Silver Efex Pro 2 is one of the favourite mono conversion apps used by photographers.



7 Make sure to use a copy of the image with your adjustments in place and click Edit to continue. Silver Efex Pro 2 will open in its own window. On the left of the workspace are a number of presets much like in Lightroom, but the power of this plugin lies on the right hand side.



8 Arranged down the right of the workspace are the main tools that let you hone your black and white image. You have wide range Global Adjustments to adjust exposure and micro contrast in the Shadows, Highlights and Midtones of your image. You also have filters and Levels and Curves adjustments.



9 You can spend a lot of time finessing your conversion to extract everything you need to make it a great mono image. Once you are happy with the work you've done, you can simply click on the Save button in the lower right of the screen. The image is saved and passed back to Lightroom.



10 In order to preserve your Raw file edits, 16 bit TIFF is created which is added to your Library Module and stacked next to your original. You can continue to make additional edits to this TIFF as required until you have the perfect black and white conversion.

The Photoshop Lightroom Manual

Lightroom is an essential program for photographers of any kind. In its desktop and cloud based versions, it is packed with features that keep it head and shoulders above the vast array of other photo processing programs out there. Although packed with many tools and processing capabilities, it is still an easy program to get to grips with. You can unleash the power of Lightroom and realise your creative vision and create truly spectacular images with the help of this manual.

Learning Lightroom

With the aid of this manual, we can show you how Lightroom works and how all its essential features can help you bring out the very best in your photos. We start at the beginning and walk you through what you need to know to get yourself up and running while exploring the Lightroom workspace.

Master the Modules

The desktop version of Lightroom comes with a set of unique modules. Each one is a workspace in its own right and contains specialised tools that are designed to maximise your workflow and minimise the amount of time you need to spend doing it. We go through these modules and explore what they can do for you.

Image Processing

Within the pages of this manual are many tutorials that can show you how to process, adjust and edit your photos. Do you want to learn how to convert an image to black and white? Maybe you would like to understand more about split-tone processing or creating high dynamic range images. We show you all this and more.

Desktop to Cloud

Lightroom is not restricted to the desktop of your computer. Now, thanks to Lightroom CC, you can be a master image manipulator on the go. Your phone or tablet can now be as powerful as your desktop thanks to the streamlined power of the Lightroom CC app. Wherever you may find yourself, you have the image processing power you demand.

