

Lightroom Classic CC and Lightroom CC

**An introduction to the two new versions of
Lightroom and how to decide which is best for you**

By Martin Evening

When Lightroom first came out it integrated Camera Raw into a file management and raw processing program. Lightroom CC now takes Lightroom's evolution a stage further by offering a cloud-native workflow that can sync your desktop/laptop computer with the Web and all your portable devices. The Lightroom you have grown accustomed to has been renamed Lightroom Classic CC and remains unchanged in providing a local storage file management system via a closed desktop or laptop file management solution. Lightroom CC, meanwhile, is a fully fledged cloud-native system. Lightroom CC includes Lightroom CC for mobile (iPad, iPhone and Android), Lightroom CC for Web, Lightroom CC for Apple TV and lastly a Lightroom CC program for desktop and laptop computers.

Lightroom customers who prefer to manage all their files locally will find that Lightroom Classic CC will continue to provide for all their needs. Lightroom CC though will suit photographers who are happy to start afresh using a cloud-based storage system, or are happy to migrate their current Lightroom catalog to Lightroom CC and work exclusively in Lightroom CC from there onwards. The benefits of Lightroom CC are you don't have to think about how and where your files are stored, or about backing them up, and the Develop edit controls are the same as Lightroom Classic CC. You'll also have access to machine learning and artificial intelligence (AI) technologies that are currently able to offer improved auto tone adjustments and image searches. The Best Photos feature in Lightroom CC for Web can even use AI to shortlist your best-looking photographs.

Lightroom customers are advised to weigh their particular needs and pick the product that best suits their workflow needs. While it is still possible to sync Lightroom Classic CC to the cloud, full sync support isn't possible and won't be. However, despite such limitations there are a number of ways cloud syncing can prove useful. In fact, the standard Photography CC plan includes cloud access and 20 GB of storage. This means Lightroom Classic CC customers can continue to straddle between the two, but for the general public the best solution will be to pick one product or the other and stick with that. With Lightroom CC getting all the love right now it is reasonable to enquire whether this spells the eventual demise of Lightroom Classic CC. Well, judging from past activity, Lightroom Classic CC remains one of

the most popular programs within the Creative Cloud. As long as this continues Lightroom Classic CC is unlikely to go the same way as Apple's Aperture. What will be telling though is how well Lightroom CC is received. In principle Lightroom CC makes a lot of sense. Very few photographers I know of have truly managed to establish solid digital asset management workflows. I would say most rely on hope rather than best practice that everything in their system will hang together. Lightroom CC can be seen as a substitute, easier to use version of Lightroom Classic CC, with added reassurance your data is safe. However, to get all those files into the cloud customers will need good solid Internet connections. We are, after all, talking about a lot of data here potentially and that is likely to prove too big a bottleneck for some people. Sure, you can import gigabytes of data to Lightroom CC and it will all be stored safely on each local device and allow you to carry on working. But, if your Internet connection is unable to keep pace with the amount of data you add you won't be able to take full advantage of what Lightroom CC is meant to be about. I'd say this is going to be a big obstacle for many users. But then I can remember a time when I had to transfer everything via Syquest discs. I couldn't even upload a magazine article via the Internet because upload transfer speeds were so slow! By comparison broadband connection speeds are faster today, but it is going to take further leaps forward in global Internet access to make the Lightroom CC proposition fully workable.

NOTE

To sum up, Lightroom Classic CC is a disk storage-based computer application, whereas Lightroom CC is an integrated cloud storage-based, mobile system. Lightroom CC consists of Lightroom for mobile, Lightroom web view, Lightroom web, Lightroom for Apple TV and a Lightroom CC computer application. The above Lightroom CC/mobile components can all link to a single, master Lightroom Classic CC catalog. When you work with Lightroom CC, the cloud is central to everything you do in Lightroom.

Lightroom Classic CC performance

One of the key aims with Lightroom Classic CC has been to improve Lightroom performance. The launch time is faster for larger catalogs and there have been many other speed improvements, especially with regards to the preview management. For example, Lightroom now applies what is known as predictive caching to speed up the preview loading in the Develop module. It does this by loading the Camera Raw cache for two photos ahead and two before the current selected image before then loading the final high quality image into RAM memory. In this respect, the more available RAM memory you have the better and users can also expect to see a benefit in terms of image-loading times while navigating images sequentially in the Develop module. Steps have also been taken to speed up the Library module performance. The way this works is as follows: the Camera Raw cache always stores preview quality negatives and whenever Lightroom renders thumbnails or smaller standard previews for use in the Library module, these preview quality negatives are requested and loaded first. As a result, when working in the Library module Grid or Loupe view the thumbnail/preview rendering is now faster. Exporting is also faster, and this should be particularly noticeable when making bulk exports. File moving performance has been improved, as has backup performance to network attached servers. To improve Lightroom's responsiveness, Lightroom's thread priority queuing system means that high priority rendering tasks, such as Develop module editing take priority over background tasks like exporting images, converting photos to DNG, or building Smart Previews.

Range Masking

In addition to Auto Mask, Lightroom now offers Range Masking with Color and Luminance Range Masking controls. The Range Mask options are located at the bottom of the Adjustment Brush, Graduated Filter and Radial Filter panels. For example, if you apply a localized adjustment and the Color Range Mask option is selected (**Figure 1**), you can add a mask to the localized adjustment based on a sampled color. To do this select the Eyedropper tool (or hold down the **⌘** key [Mac], **Ctrl** key [PC]). With a single click you can restrict the Color Range Mask area based on a sampled color, such as a blue sky. The Amount slider can then be used to adjust the depth of the Color Range Mask selection. Dragging the slider to the left narrows the range, while dragging to the right widens, but you will notice how the Color Range Mask selection becomes smoother and more diffuse as you do this. For more precise masking a lower Amount setting is best. To preview a Color Range Mask you can hold down the **Alt** key as you drag the Amount slider to see a temporary black and white mask preview. To refine a Color Range Mask selection you can click again to sample a new color, or you can marquee drag to make a broader color range selection. To add more sample points, click or drag again with the **⇧Shift** key held down. By doing this you can sample up to five color points. However, as you exceed that number the oldest sample points will be removed. To exit the Eyedropper mode, click the Eyedropper tool button again, or press the **Esc** key. Use **⌘** to toggle the colored overlay.

Alternatively you can select the Range Mask Luminance mode (**Figure 2**). You can then use the Range slider to control the range of luminance tones that are selected within a localized adjustment selection. To do this, drag the shadow and highlight handles to control the range of luminance tones. The Smoothness slider can be used to modify the smoothness of the selection, which is similar to adjusting the Amount slider in the Color Range mode. As with the Range Mask in Color mode, you can hold down the **Alt** key to see a black and white mask visualization here.

The Color Range and Luminance Range mask controls make it much easier to selectively mask localized adjustments. Previously, all that was available was Auto mask, where the mask edges could sometimes end up being quite blocky and you would see edge artifacts. By Comparison, the Range Mask edges are more diffuse and have much smoother edge blends. In extreme cases you are still likely to see some edge artifacts, but this can be mitigated by increasing the Color Range Mask Amount slider, or increasing the Luminance Range Mask Smoothness slider.

If editing a Graduated Filter or Radial Filter adjustment, the best approach is to add a Filter effect, adjust the Develop sliders and select Color or Luminance from the Range Mask menu. Refine the mask as usual by sampling colors/adjusting the luminance range values and then smoothing. Lastly, switch to the Brush Edit mode working in the Add or Erase mode. Adding reveals (dependant on the Filter Mask and Range Mask selection), while erasing hides the adjustment completely. You can do this with Auto Mask on or off.



Figure 1 The Range Mask Color mask controls.



Figure 2 The Range Mask Luminance mask controls.

Range Masking and process versions

Adding Range Masking to the localized adjustment tools has meant introducing a new process version: Version 4. Version 4 and Version 3 are identical except with regard to how selective edits are masked using either the new Range Masking tools, or Auto Mask (because Auto Masking has also been updated). For example, if the edited image in Step 3 were to be changed from Version 4 to Version 3, it will look like the Step 2 screen shot.

Color Range Masking



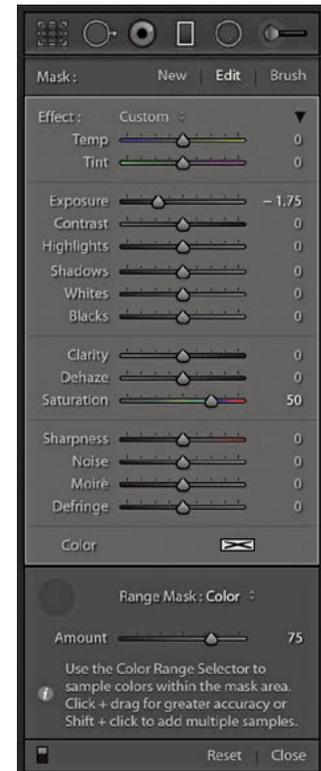
- 1.** With this photograph I wanted to use the Graduated Filter tool to selectively darken the sky, but without darkening the tree.



2. I selected the Graduated Filter tool and added a darkening filter adjustment to the sky using a -1.75 Exposure and a +50 Saturation setting.



3. I went to the Range Mask menu and selected Color. I then selected the Eyedropper tool and clicked and dragged on the blue sky areas I wished to define as being part of the adjustment. This automatically added a mask, based on the sampled colors, that masked the tree from the Graduated Filter adjustment.



Lightroom CC/mobile workflow

Lightroom mobile for the iPad and then the iPhone first came about in response to user requests for a mobile app version of the Lightroom desktop program. Since its first introduction the Lightroom mobile (now Lightroom CC) features have expanded to offer more ways to edit and share photos synced to the cloud and linked to a master Lightroom Classic CC catalog. You can view synced images via an iPhone, iPad, Android device, or any web browser. You can capture photos directly using a smart phone camera, while some specific devices will let you capture in DNG and carry out HDR merges. Using the Lightroom CC program, or Lightroom CC for mobile on one of the latest iPad Pro devices you can import raw files directly and have these sync directly to the cloud from wherever you are in the world. This has the potential to let you travel light with the security of knowing that backups will automatically be uploaded to the cloud and synced to the synced Lightroom catalog back home, or in the office. Meanwhile, you can edit photos on your devices while you are on the road and the edits you make will be synced to the synced Lightroom Classic CC catalog and Lightroom CC application, as well as to collections/albums on other devices that are running Lightroom CC/mobile.

That, in theory, is how things should work, but as I mentioned in the introduction, this will be very much dependent on the speed and availability of your Internet access. While you may have a nice fast connection at home or at work, what matters more is the Internet access that's available to you when you are out and about, which can often be patchy and slow. Furthermore, many hotels place a cap on the amount of data you can download or upload each day. In reality, a high bandwidth workflow is something currently only a few photographers have access to on a regular basis. It may one day become a reality as high bandwidth speeds and high volume data access become more widely available. Certainly, a lot may change over the coming years and it is no bad thing for Lightroom CC/mobile to be ahead of the game at this stage with a mobile ecosystem that's ready for a globally connected world. To help overcome such problems I recommend you sync photos to the cloud during those times when you do have good Internet access. That way you can work more efficiently in places where the Internet connection is not so great. In these situations the Lightroom CC application and Lightroom CC/mobile components only need to download proxy versions for you to work with and the edits you make are uploaded as metadata only.

You can use the Lightroom CC program and Lightroom CC/mobile system to quickly share photos with others via social media, share photos using weblinks, or simply to access Lightroom Classic CC catalog photos on a personal device. I particularly like the ability to share Lightroom CC albums via a Lightroom web view link. As you update individual images these are updated automatically on the album's Lightroom web view page. Therefore, when you share a selection of images with someone, you can continue to edit the photos in Lightroom Classic CC, or any of the Lightroom CC components and the edits are

continuously updated on the Web page. Also, using Lightroom web view, friends or clients can leave feedback by liking or adding comments.

While Lightroom CC/mobile gives you the freedom to work with your photos on personal devices, you can use Lightroom web to access Lightroom mobile shared albums from any computer or device that's connected to the Internet and upload files to the Adobe cloud via the Web browser interface.

Ultimately, the Lightroom CC/mobile workflow is all about making the catalog syncing process as robust as possible so whether you capture photos on your phone, import them from a personal device or laptop or desktop computer, your photos can be shared everywhere. It's also about helping photographers to manage their photos better. Lightroom CC/mobile users will find the Adobe cloud-based servers provide a powerful search engine that can help you find the photos you are looking for by using descriptive terms, just as you would when carrying out a regular Internet search.

Figure 3 shows a summary of the Lightroom CC/mobile family workflow showing the data upload/download paths. The high bandwidth data transfer for the master files is represented by the wide green arrows. The medium bandwidth Smart Preview data transfer is represented by the medium brown arrows and the low bandwidth metadata data transfer is represented by the thin purple arrows.

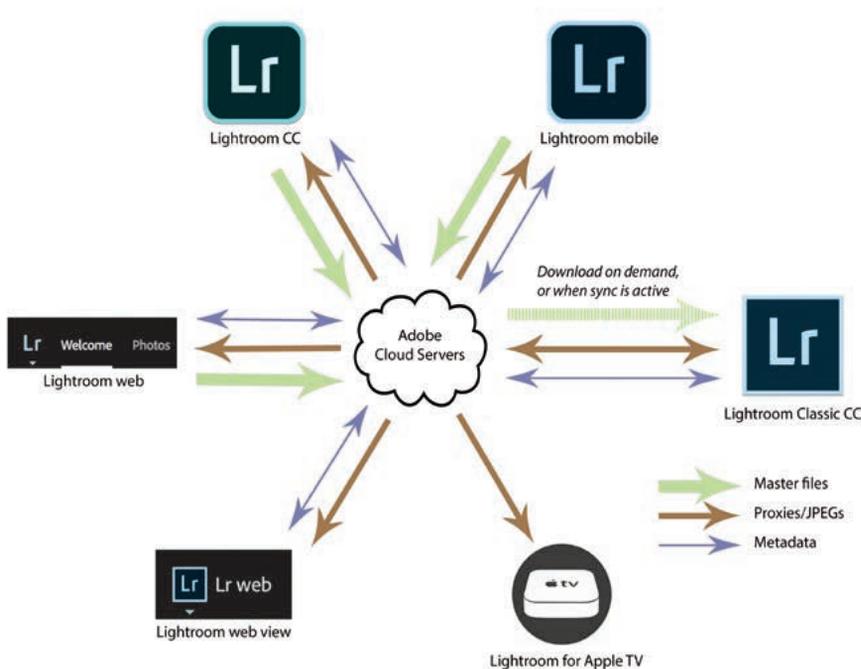


Figure 3 The Lightroom CC/mobile workflow.

Working with Lightroom CC for mobile

Smart Phones can now be used to do so many things. Your phone can connect to the Internet, take photographs, record audio, recognise a finger print or even be used as an impromptu incendiary device. So it is only natural that Lightroom should allow you to extend what you can do in Lightroom to a mobile environment.

Lightroom CC for mobile is available for iPhone, iPad and Android devices (the iPad and Android screen shots will look slightly different to the ones shown here). It provides a limited range of controls to apply global and localized image edits and add flag or star ratings. You can use Lightroom CC for mobile from your phone or tablet while you are away from the computer running Lightroom Classic CC or Lightroom CC. You can edit your pictures and see the edits you apply updated when you get back to the main computer.

Essentially, once you have created a synced collection via Lightroom, you can view it as an album using any compatible device running Lightroom CC for mobile. For example, in **Figure 4** below I was able to use a single-tap to open an album in a Grid view.

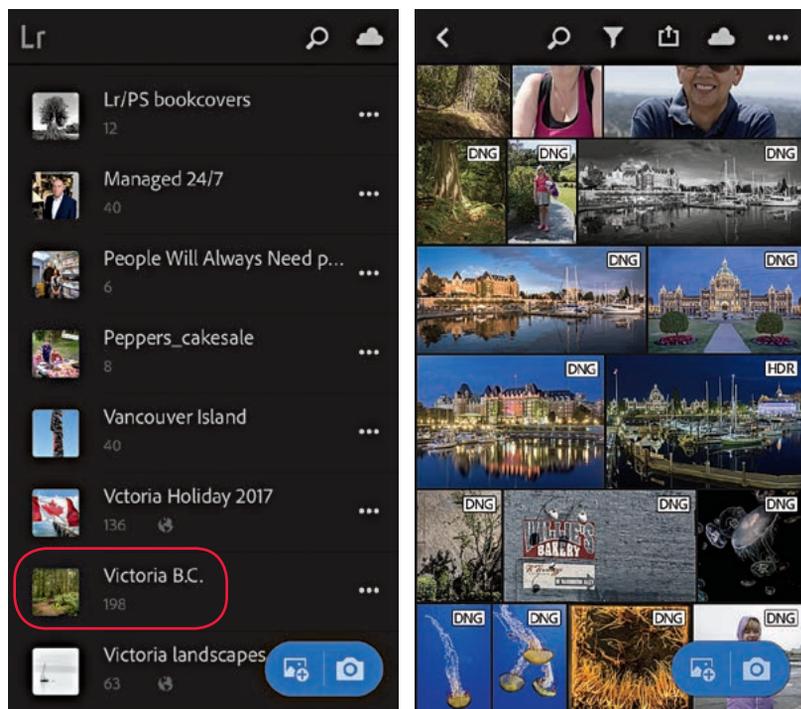


Figure 4 The Lightroom CC for mobile Folder/Albums view (left) and Single Album view (right).

Lightroom CC for web view

Lightroom CC/mobile synced albums can be made available to view on a web page. To do this you need to use Lightroom Classic CC to select a Lightroom CC synced collection/album and click on the Make Public button in the Toolbar at the top of the screen (**Figure 5**). This reveals a URL link you can use to share with friends or clients, which will let them view the photos in a Lightroom CC for web view page using a regular web browser much in the same way as they would a Lightroom-generated web gallery (**Figure 6**). When viewing a Lightroom CC for web view page, visitors have the opportunity to add likes and comments, which you can then view via the Lightroom Classic CC Library module Comments panel. As you update individual photos the contents of Lightroom CC for web pages will update automatically. In this respect Lightroom CC for web is more dynamic than regular Lightroom web galleries created via the Web module.



Figure 5 This shows the top bar controls and the Make Public/Make Private buttons.

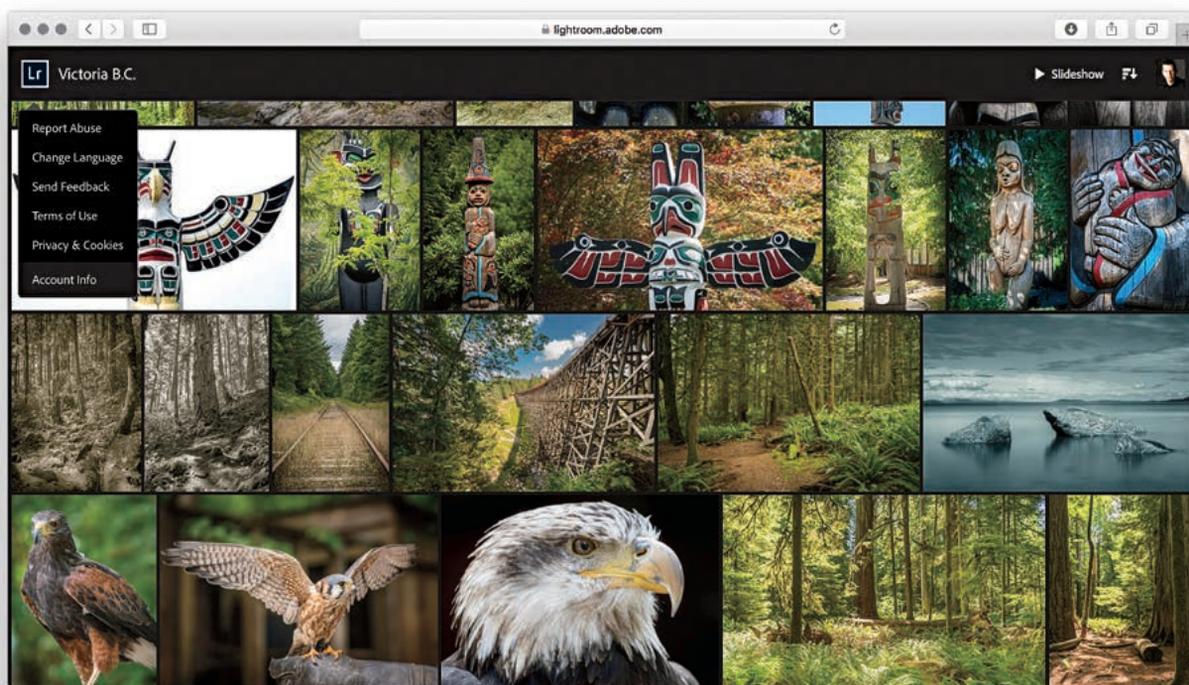


Figure 6 A Lightroom CC for web view page viewed in a web browser.

Lightroom CC for web

Lightroom CC/mobile synced images can also be accessed using the Lightroom CC for web interface. Lightroom CC for web is kind of hidden though. Start by going to the Help menu in Lightroom Classic CC and select Lightroom online... This opens the Adobe Photoshop Lightroom CC page shown in **Figure 7**. Click on your account button (circled) to open the Lightroom Product page and then click on the Lr Photos button. This launches the Lightroom CC for web page, at which point I suggest you bookmark the page for future use. Lightroom CC for web shares some of the same Lightroom shortcuts, such as using **G** for the Grid view and using **D** to go to Develop. For example, use **R** to access the Crop overlay and **V** to convert to black and white.

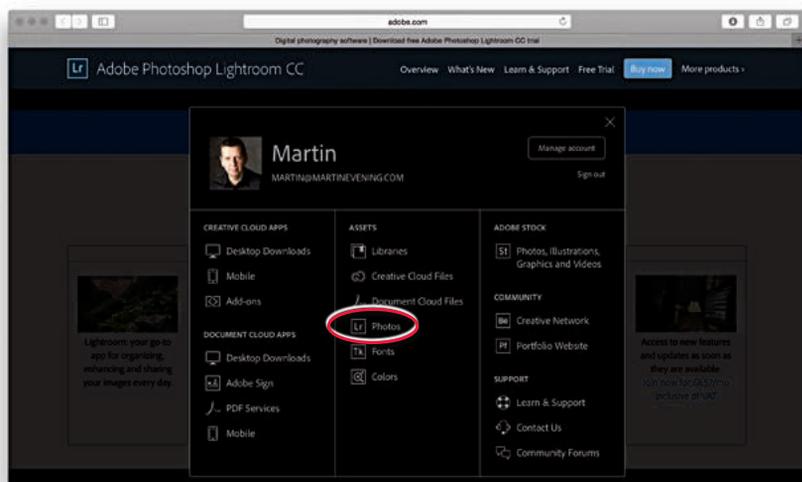
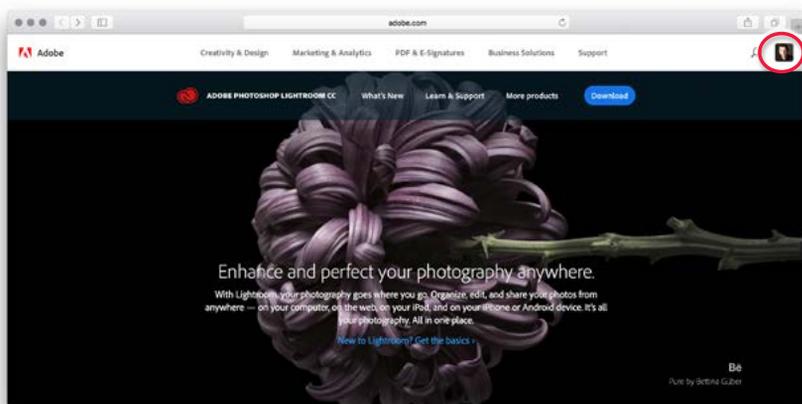


Figure 7 This shows the Lightroom Online web page and below that, the account web page options. The Lr Photos link to the Lightroom CC for web page is circled.

Lightroom CC for Desktop

Lightroom CC for Desktop (which I refer to from here on as Lightroom CC) provides the security of cloud-based storage, a simplified user interface (**Figure 8**) and the ability to sync photos across multiple devices, including other computers running Lightroom CC or Lightroom Classic CC. It might suit photographers who find Lightroom Classic CC too intimidating and it overcomes two of the major hurdles of image management: knowing how and where to import your images and how to keep them secure.

Lightroom CC has a new code base that enables it to sync to the cloud with an ease that is not available in Lightroom Classic CC. This makes it more adaptable to the future of cloud-based management. Lightroom CC assumes no prior knowledge of Lightroom and simplifies the process by making sure everything is synced to the cloud and therefore synced to other Lightroom CC for mobile devices (as well as to the synced Lightroom Classic CC catalog). Ultimately, once an import/upload process is completed your files are safe on the Adobe server even if they are yet to be downloaded elsewhere. If a laptop computer running Lightroom CC or your tablet or phone were to be stolen all you would need to do is get the computer or device replaced, log in to the Adobe Creative Cloud and access all your master files again.

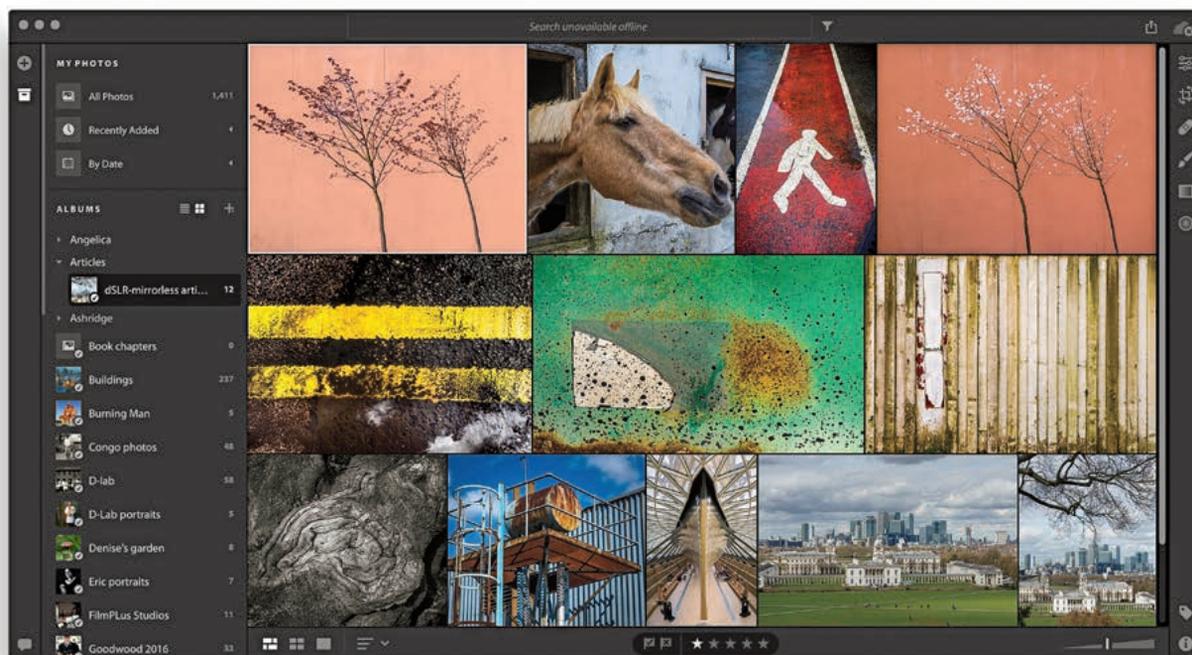


Figure 8 *The Lightroom CC interface.*

Migrating from Lightroom Classic CC

Migrating a catalog is a one-time process for adding photos, videos and related metadata from Lightroom Classic to the Lightroom CC/mobile ecosystem. Go to the File menu in Lightroom CC and choose “Migrate Lightroom Catalog...” (⌘⇧M [Mac] or Ctrl⇧M [PC]). Here, you can select as many Lightroom catalogs as you want to migrate (**Figure 9**).

How long the migration process takes depends on the size of your catalog, size of the files, and specs of your computer. You are strongly advised to plug in your computer while migrating rather than rely on battery power. If you see warnings about missing files during migration, you will be prompted to go back and find them. For example, this can happen if you’ve moved the catalog, left an external drive disconnected, or a Windows drive took on a different drive letter when plugged back in. To fix this, open Lightroom Classic CC, look in the Folders panel for folders marked with question marks. Right-click and choose *Find Missing Folder...* to help locate the folders on your drive. Then quit Lightroom Classic CC and try the migration again.

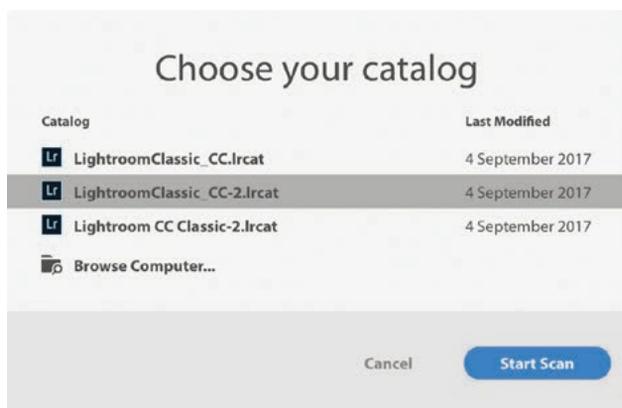


Figure 9 The catalog selection options for Migrate Lightroom Catalog.

Editing photos in the Lightroom CC program

To switch from the Grid view to the Detail view, double-click, or use **D**. The Edit controls (**E**) are accessed from the right hand panel track (**Figure 10**) and the Edit panels summarized in **Figure 11**. These are all mostly similar to those found in Lightroom desktop, except some of the groupings and names are slightly different. For example, the Basic panel tone controls (**⌘1** [Mac], **Ctrl1** [PC]) are grouped under “Light”, where the Auto button utilizes the most recent artificial intelligence auto tone method. The advanced controls are accessed by clicking on the disclosure triangle to reveal more options. For example, in the Detail panel (**⌘4** [Mac], **Ctrl4** [PC]) there is a single Sharpness slider. Click on the disclosure triangle next to it to reveal all four sharpening sliders. Despite these user interface differences, the slider settings all correspond with those in Lightroom Classic CC. Lightroom CC does require all images to be converted to Version 4. Therefore, when you select a photo to edit you may see a warning if a photo needs updating to the current process version.

The Color panel (**⌘2** [Mac], **Ctrl2** [PC]) can be used to edit the white balance, Vibrance and Saturation. Click on the color wheel (circled) to disclose the Color Mix options. If you click on the B&W button this reveals instead the black and

NOTE

To open and edit a photo in Photoshop, choose **File** ⇒ **Edit in Photoshop** (**⌘E** [Mac] or **CtrlE** [PC]). This opens a rendered version as a 16-bit image in ProPhoto RGB. Save and close the photo in Photoshop to see the photo added to Lightroom CC and the preview updated.

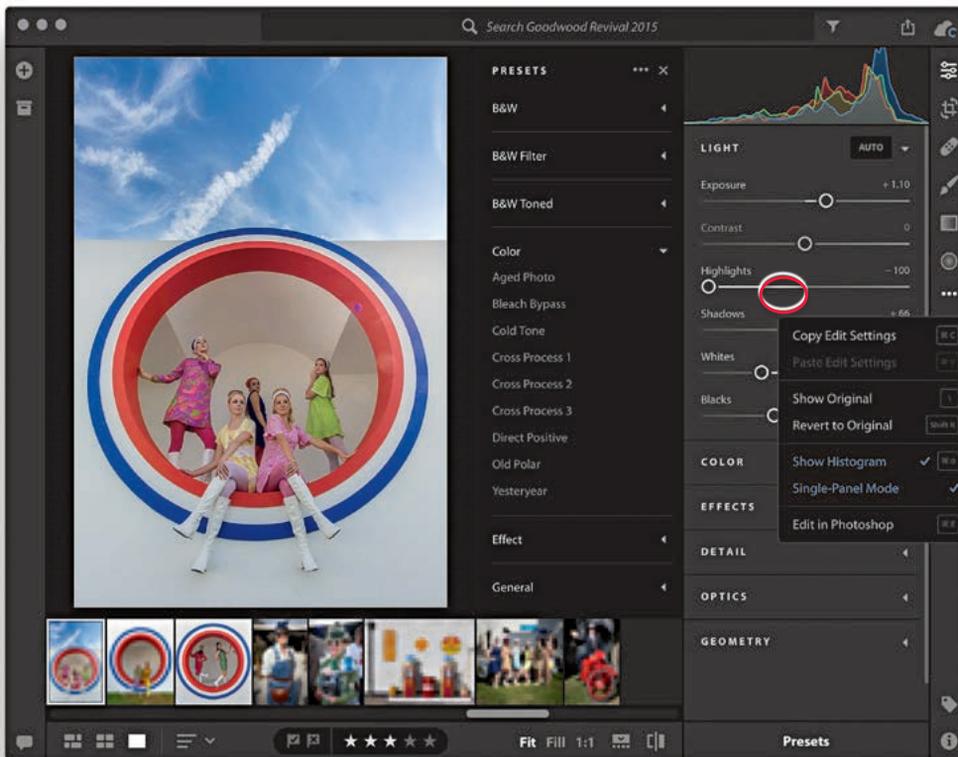


Figure 10 The Lightroom CC program image editing controls.

white mix options. The Clarity slider is moved to the Effects panel (⌘3 [Mac], Ctrl 3 [PC]), where it joins the Dehaze and Vignette sliders. The Detail panel contains Sharpening, Noise Reduction and Grain effect sliders. Lens Corrections controls are grouped under the Optics panel (⌘5 [Mac], Ctrl 5 [PC]) and the Transform panel Upright adjustment options are grouped in the Geometry panel (⌘6 [Mac], Ctrl 6 [PC]).

The Crop and Healing Brush panels are shown in **Figure 12**. The Crop panel options (C) are the same as Lightroom Classic CC, except you also have Horizontal and Vertical flip buttons, which are just below the Straighten slider. Use ⌘L (Mac), Ctrl L (PC) to rotate left and ⌘J (Mac), Ctrl J (PC) to rotate right. The Healing Brush panel (H) lets you select Clone and Heal modes.

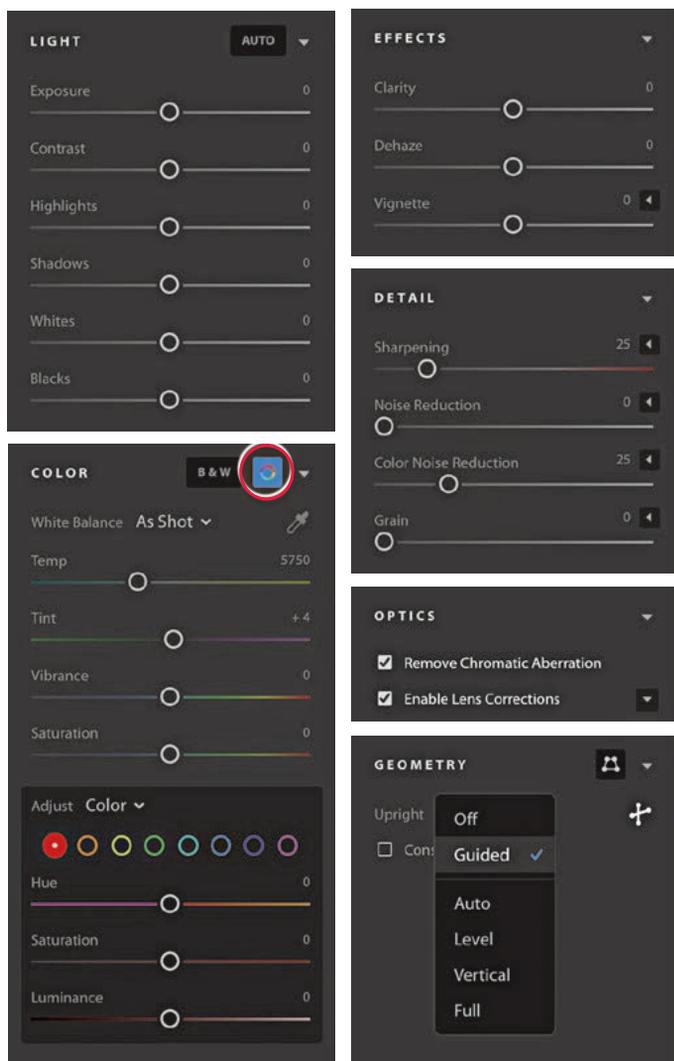


Figure 11 The Edit panels.

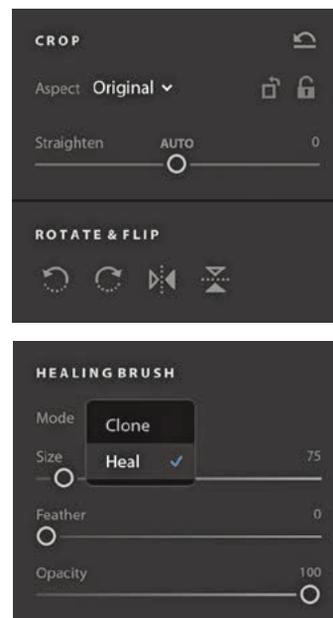


Figure 12 The Crop and Healing Brush panels.

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