



Bridge Image Management

By Martin Evening

One of the consequences of working with digital images in Photoshop is you will soon find yourself struggling to cope with an ever-growing collection of images. To address this, you'll want something more than the system folder browser to preview and access all the files that are stored on your computer system. At a minimum you need some kind of file browser that allows you to preview images easily, choose which ones you want to open in Photoshop and carry out basic file management tasks such as rating images and adding metadata.

For some time now Adobe have simply Bridge maintained as a Suite-wide browser without adding new features. With this latest release however, new work has been done to give the program a complete overhaul and a new interface.

The Bridge solution

Bridge is included with Photoshop, as well as being part of the Creative Suite package. Bridge is best described as a dedicated file browser program, which also works smoothly with Adobe Camera Raw, allowing you to open your raw image files (assuming your camera's raw format is supported) and manage the Camera Raw settings. The Bridge integrates nicely with all the programs in the Adobe Creative Cloud, as well as many other programs. It also contains most of the tools you need to import and manage your images, plus Bridge allows you to work directly with the automation tools in Photoshop, such as Photomerge and the Image Processor. The interface offers easy workspace switching, one-click full screen previews and the ability to create Collections. Bridge may not be as fast as some other browser and cataloging programs, and inputting metadata and keywords is an awkward process, but I still find it very useful as a project managing tool when working on things like this book.

Bridge alternatives

Operating systems may in future offer better image browsing tools and on the PC platform it is interesting to note how the Windows operating system contains a photo browser that offers improved image navigation for photographs. If you are using the macOS operating system you can use the Spacebar to quickly preview selected images, or use the Cover Flow View folder navigation mode to visually inspect the contents of a folder.

In the meantime, there are several dedicated File Browser programs on the market that can help you manage your images better, such as PhotoMechanic™. More recently, we have seen the emergence of digital photography workflow programs such as Adobe Photoshop Lightroom™, which is designed to provide a complete workflow management solution from the digital raw processing stage through to image library management and Print, Book and Web output.

Configuring the General preferences

First, let's go to the Bridge preferences and look at the General settings (Figure 1). The bridge preferences can be accessed via the Edit menu in Windows or the Adobe Bridge CC menu in macOS.

In the Behavior section you can choose to make Adobe Photo Downloader launch by default whenever a new camera card is inserted (or if a camera is connected to the computer directly). The 'Double-Click Edits Camera Raw Settings in Bridge' option allows you to override the default behavior and forces Bridge to be the program that always hosts the Camera Raw plug-in.

The '⌘ (Mac), *ctrl* (PC)-click Opens the Loupe When Previewing or Reviewing' option applies to the Preview panel and Review modes so that the loupe only shows when the ⌘ (Mac), *ctrl* (PC) key is held down.

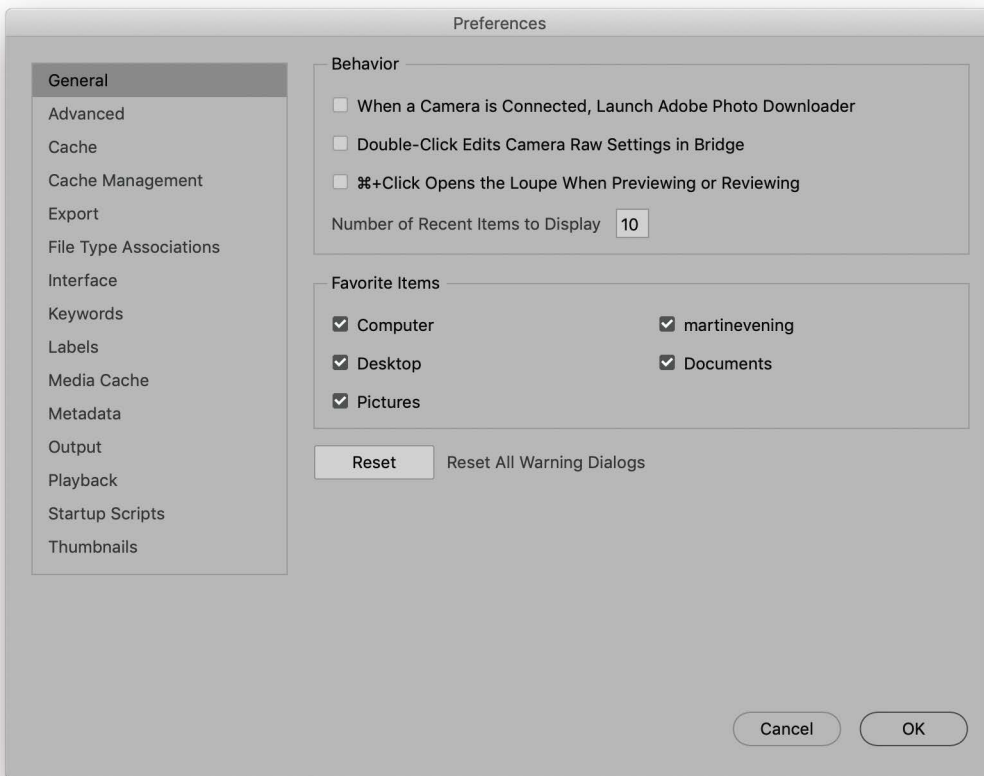


Figure 1 The Bridge General preferences.

The Bridge program maintains a list of the most recently visited folders to enable fast and easy access. The default number is 10, but you can increase this number if you want. The Favorite Items section contains checkboxes that let you select which items you want to see listed in the Favorites panel (see Figure 35 on page 29) and lastly, the Reset button, which can be used to reset all the alert warning dialogs in Bridge.

Most files can be opened via Bridge. Well, almost anything. You can think of Bridge as being like an advanced file navigation dialog for all the programs in the Adobe Creative Cloud, although you are not just limited to opening Creative Cloud-created documents. For example, you can also open things like Word files in the Word program via Bridge, plus you can drag and drop documents from the Bridge window to an external folder or vice versa.

Launching Bridge

The Bridge interface is shown in Figure 2. You can launch Bridge by going to the File menu in Photoshop and choosing ‘Browse in Bridge...’ Or, you can use the **⌘** **⇧** **O** (Mac), **ctrl** **alt** **O** (PC), or **⌘** **Shift** **O** (Mac), **ctrl** **Shift** **O** (PC) shortcuts. Both these commands can also be used when you wish to go from Bridge back to Photoshop. To open an image from Bridge, simply double-click a thumbnail or press the **Enter** or **Return** key and the image will open directly in Photoshop. If you want the Bridge window to close as you open the image, then simply hold down the **alt** key as you double-click. Now, if you refer to Camera Raw chapter in the book, you will read how opening Camera Raw files will vary depending on how the Camera Raw preferences had been configured, which I discuss in the following paragraph. Essentially, when you double-click on a raw image file thumbnail, or multiple thumbnails in Bridge, this normally opens the raw images via the Adobe Camera Raw dialog hosted by Photoshop, and if you go to the File menu in Bridge and choose Open in Camera Raw... (**⌘** **R** [Mac], **ctrl** **R** [PC]) the images will open via the Camera Raw dialog hosted by Bridge. The subtle distinctions between which application hosts Adobe Camera Raw are elaborated on further in the Camera Raw chapter. If you hold down the **Shift** key as you double-click, you can open a raw image via Photoshop bypassing the Camera Raw dialog completely.

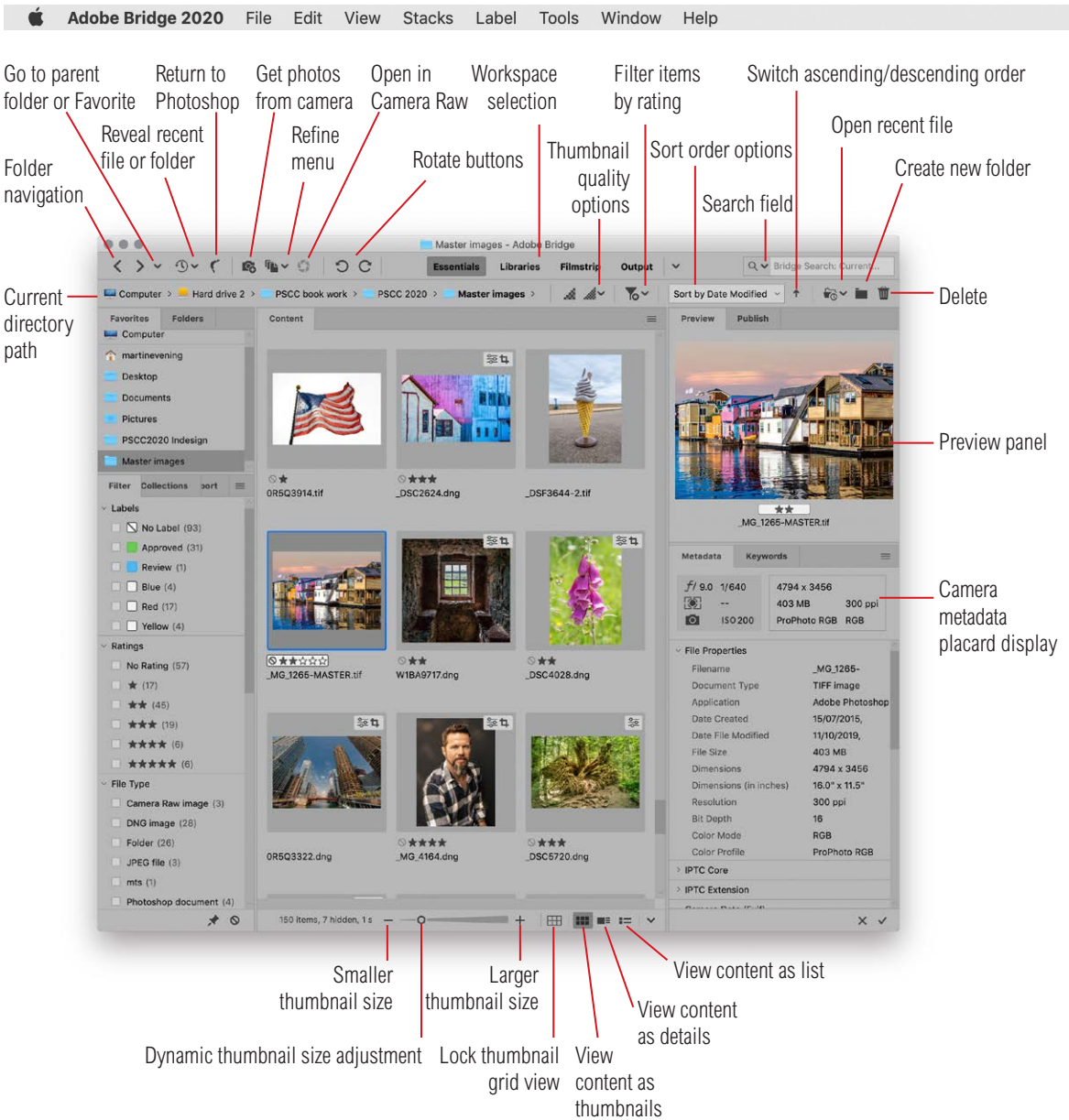


Figure 2 The Bridge interface.

This PDF is provided free with the Adobe Photoshop for Photographers book. Not for distribution or resale.

You can also edit JPEG and TIFF images via Camera Raw, but be warned that this added capability can also lead to confusion when opening images. To explain in more detail, you can set the Camera Raw preferences to determine how JPEG and TIFF images are handled. Here, you can disable the ability to open JPEGs and TIFFs via Camera Raw, you can enable automatic opening of all supported JPEGs and TIFFs, or you can enable the automatic opening of only those JPEGs or TIFFs that have previously been processed via Camera Raw. To override these last two preferences, hold down the **Shift** key as you double-click to open the image. If Camera Raw settings have been added to an image previously, these will be applied as you open. If there are no Camera Raw settings associated with an image, it will open directly in Photoshop as normal.

Rotating the thumbnails and preview

To adjust the way the thumbnails are displayed in the Content panel, you can drag the Zoom slider at the bottom of the Bridge window or use **⌘ +** (Mac), **ctrl +** (PC) to make the thumbnails bigger and use **⌘ -** (Mac), **ctrl -** (PC) to make the thumbnails smaller. If you click on the ‘Lock thumbnail grid view’ button (bottom of Figure 2), as you resize the Content panel area the number of thumbnail columns remains locked. You can apply 90° rotations to the thumbnails using the Rotate commands in the Bridge Edit menu or use the following keyboard shortcuts: **⌘ I** (Mac), **ctrl I** (PC) rotates thumbnails anti-clockwise and **⌘ J** (Mac), **ctrl J** (PC) rotates them clockwise. Alternatively, you can use the Rotate buttons in the top left section of the Bridge window. Note that this doesn’t physically rotate the images in Photoshop; the image rotation only takes place when you actually open the image.

Adding new folders

New folders can be added by choosing New Folder from Bridge’s File menu (**⌘ Shift N** [Mac], **ctrl Shift N** [PC]), or you can use **ctrl** (Mac), or right mouse-click in the Content area and choose ‘New Folder’ from the contextual menu.

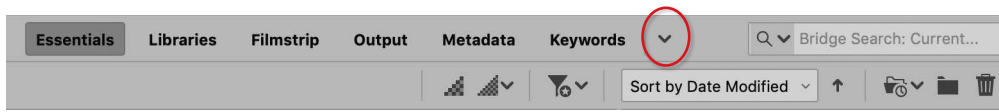


Figure 3 This shows an enlarged view of the Workspace settings list. Mouse down on the disclosure button (circled) to reveal more workspace options.

Arranging the Bridge contents

You can customize the visibility and order of the various panels and rearrange the Bridge layout to suit your own particular requirements. For example, you can click on any of the Workspace settings buttons shown in Figure 3 to quickly switch between the different pre-configured Bridge workspaces. These include workspaces for different kinds of Bridge tasks such as Filmstrip viewing or Metadata editing. Or, you can create your own custom workspace layout. To do this, go to the Window menu where you can highlight a panel item to toggle making it either hidden or visible. Now drag the panel to a new position, or create a new panel grouping arrangement in either of the three main panel sections. The panel sizes can be adjusted in height by dragging the horizontal panel dividers and you can double-click a Panel tab to quickly collapse the panel contents to show the tab only and double-clicking the Panel tab expands the panel contents to its former size again. If you double-click on a panel divider (as shown on the next page in Figure 5) you can collapse all the panels in that section, plus if you hit the **Tab** key, you can toggle collapsing or revealing both the side panels. When you have finished adjusting the Bridge layout, you can save it as a new custom workspace setting. To do this, go to the Window menu and choose Workspace ⇒ New Workspace... This opens the dialog shown in Figure 4, where you have the option to include both the window location and sort order setting as part of the overall workspace setting. The saved workspace setting will then appear first in the Window ⇒ Workspace menu list.



Figure 4 To create a new workspace setting, go to the Window menu and choose Workspace ⇒ New Workspace...

You can also make different workspace settings active by using the **⌘ F1** (Mac), **ctrl F1** (PC) through to **⌘ F6** (Mac), **ctrl F6** (PC) keyboard shortcuts (where **⌘ F1** (Mac), **ctrl F1** (PC) selects the 'Essentials' workspace). Note though that when you create a new workspace setting this shifts the keyboard shortcut assignment along one in the order the shortcuts appear listed, so just be aware that the above shortcuts will update each time you save a new workspace setting.

You can also rearrange the order of the thumbnails in the Content panel by dragging them. This changes the sort order to 'Sort Manually' and the new sort order will remain sticky until such time as you change it again.

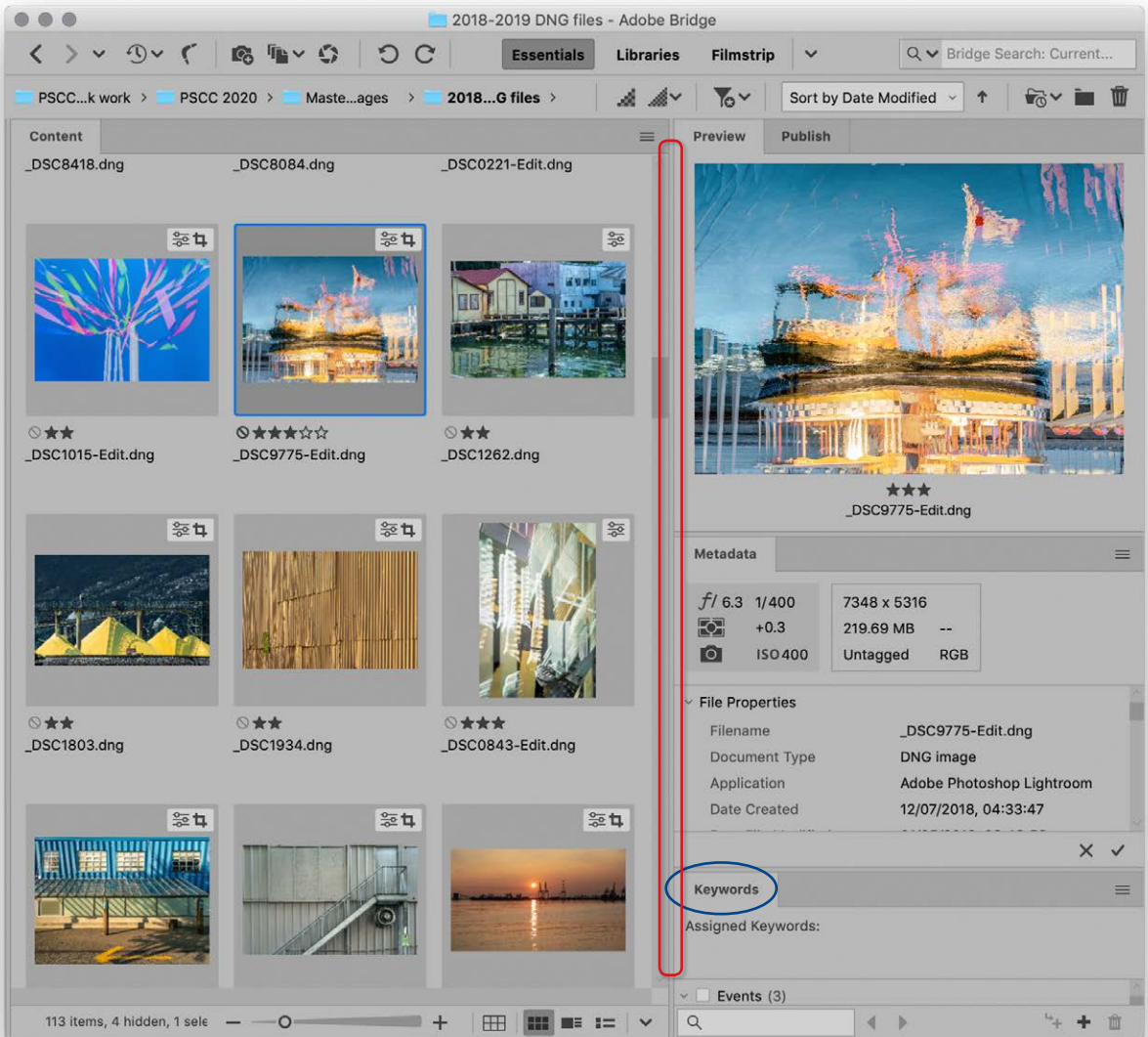


Figure 5 The panel arrangements in Bridge can be customized to suit your own preferred way of working. If you double-click on a Panel tab, such as I have done here with the Keywords panel (circled in blue), this collapses the panel to just a tab. The panel sizes can also be adjusted by dragging on the vertical and horizontal dividers, and if you double-click on the divider bar (circled in red) you can toggle showing and hiding a side panel section. In this example, you can see how I expanded the Preview panel to see a large preview of the current selected thumbnail.

Customizing the panels and content area

Let's now step back a bit and look more closely at how the Bridge interface is structured. Essentially, the Bridge window interface consists of three adjustable sections and these are used to contain the individual Bridge panels, with a main Content panel that's always visible in the middle. The individual panels can be adjusted vertically as well as horizontally and placed in any section of the Bridge interface. Meanwhile, the Content panel has Thumbnails, Details and List viewing modes, and you can switch between these by going to the View menu, or by clicking on the buttons in the bottom right section of the Bridge window. By combining different panel layouts with these three Content panel viewing modes, it is possible to achieve a wide variety of workspace layouts. In Figure 6 you can see a bare bones layout of the Bridge interface, where only the Content panel is visible in the middle. In Figure 7 I show a Bridge layout where the Content panel area remains in the Thumbnails view mode and the Folders panel is now visible on the left. In Figure 8, I added a Metadata panel to the left panel section and switched the Content panel area view to the Details view mode.

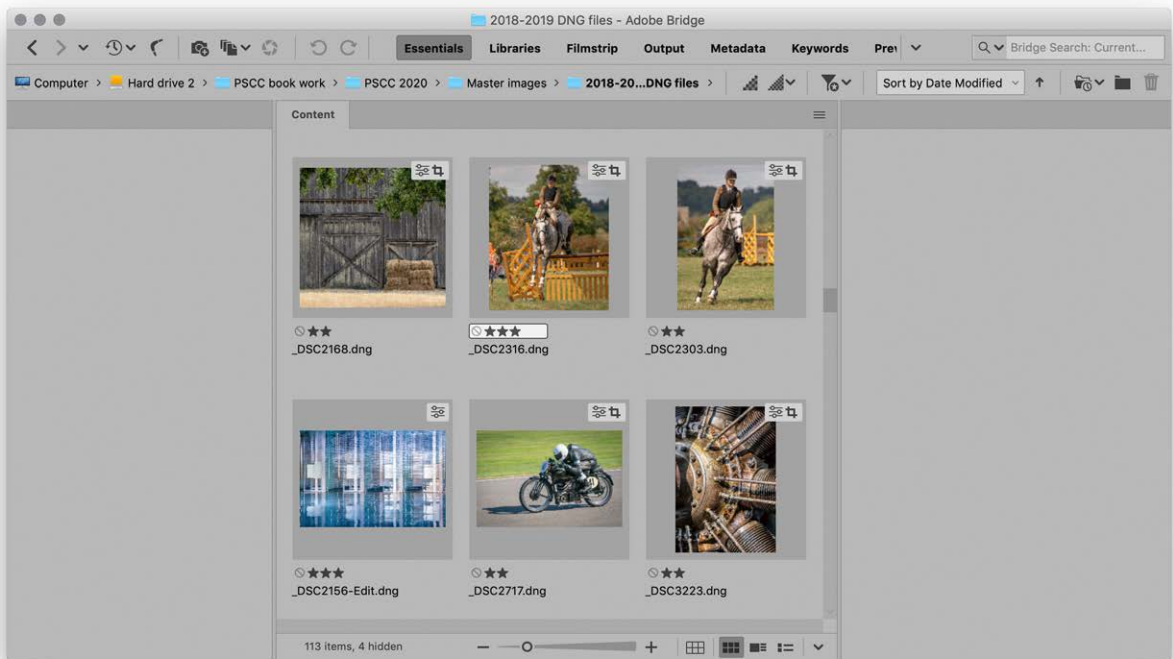


Figure 6 Here is a basic view of the three panel sections that make up the Bridge interface, where just the Content panel is visible (you can't hide the Content panel).

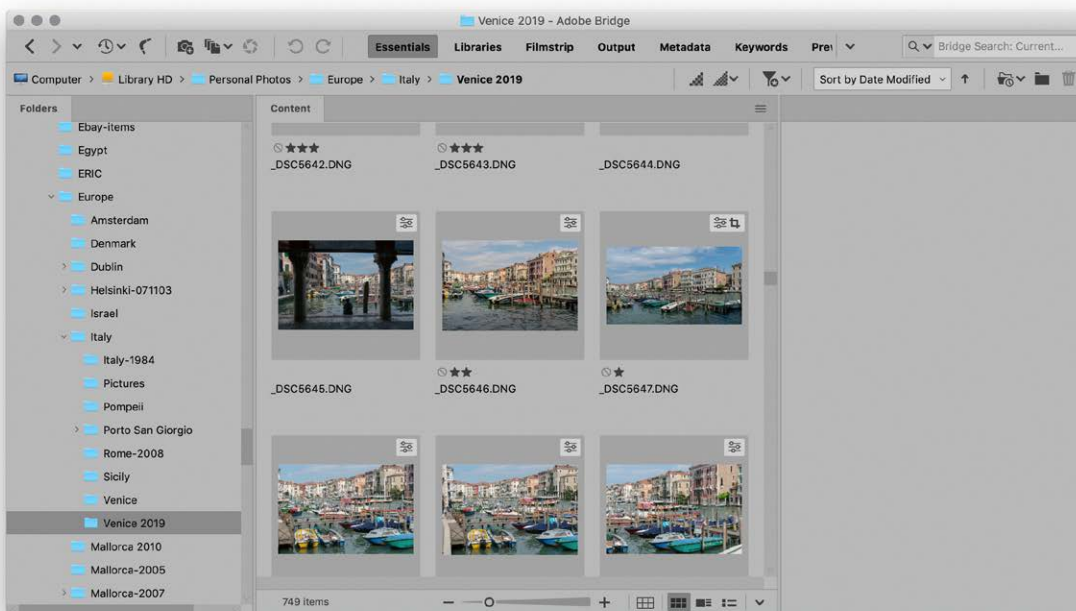


Figure 7 You can make more panels visible by going to the Window menu in Bridge and highlighting the ones you wish to add (those panels that are already visible will have a tick mark next to them). Here, I made the Folders panel visible within the left panel section.

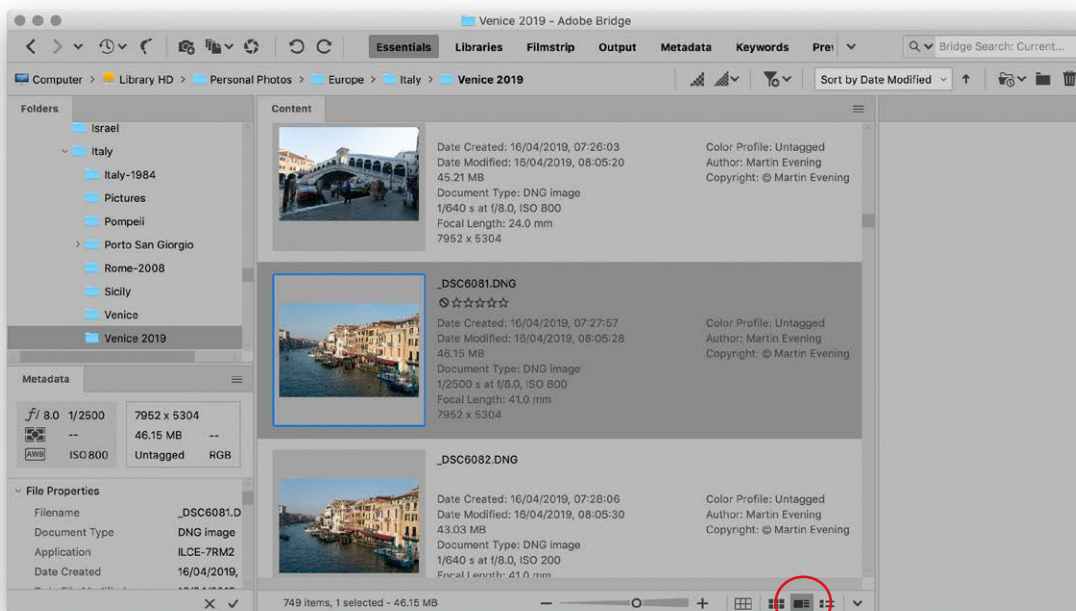


Figure 8 Here, I made the Metadata panel visible, adding it to the panel section on the left, plus I switched the Content area to the Details mode by clicking on the 'Details' view button (circled).

Bridge workspace examples

Let's now look at just some of the available workspace settings. The Light Table layout shown in Figure 9 is useful should you wish to maximize the Content panel size and have it fill the screen.

The Libraries setting, shown in Figure 10 (⌘ F2 [Mac], ctrl F2 [PC]) is ideal for editing large photos as it uses a large preview panel size with a Horizontal filmstrip running along the bottom of the window and you can use the left and right keyboard arrow keys to navigate through the filmstrip thumbnails. These two workspaces provide nice simplified Bridge layouts that are ideal for navigating photographs. If you look closely, you will notice that the Content panel has a fly-out menu for managing the Content thumbnail layout (see sidebar). For example, you could create a vertical filmstrip layout using a narrow Content panel in the middle section (set to vertical scrolling) combined with a large Preview panel in the right column.

Figure 11 shows the Keywords layout (⌘ F6 [Mac], ctrl F6 [PC]) where the focus is on the Keywords panel and the Content panel is in Details mode, displaying the main essential image data alongside each thumbnail.

Content panel scrolling

The Content panel has a small menu icon in the top right corner (this is circled in Figure 10), where if you mouse down, you can select a Horizontal, Vertical or Auto scrolling layout. You can use this menu to force the thumbnails in the Content panel to scroll vertically (which is the default used for most of the workspace layouts) or scroll horizontally (such as in the Filmstrip workspace layout in Figure 10). If you select Auto, Bridge automatically works out the best direction to scroll the thumbnails in.

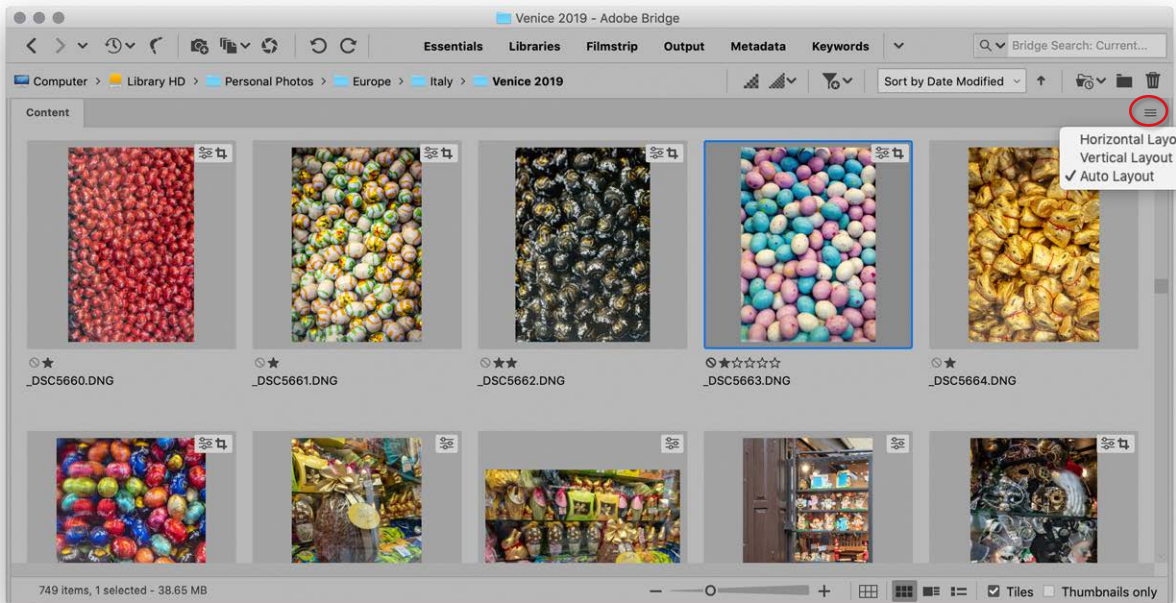


Figure 9 Here is a view of a Bridge window configured using the Light Table workspace. Note the Content panel layout options (circled).

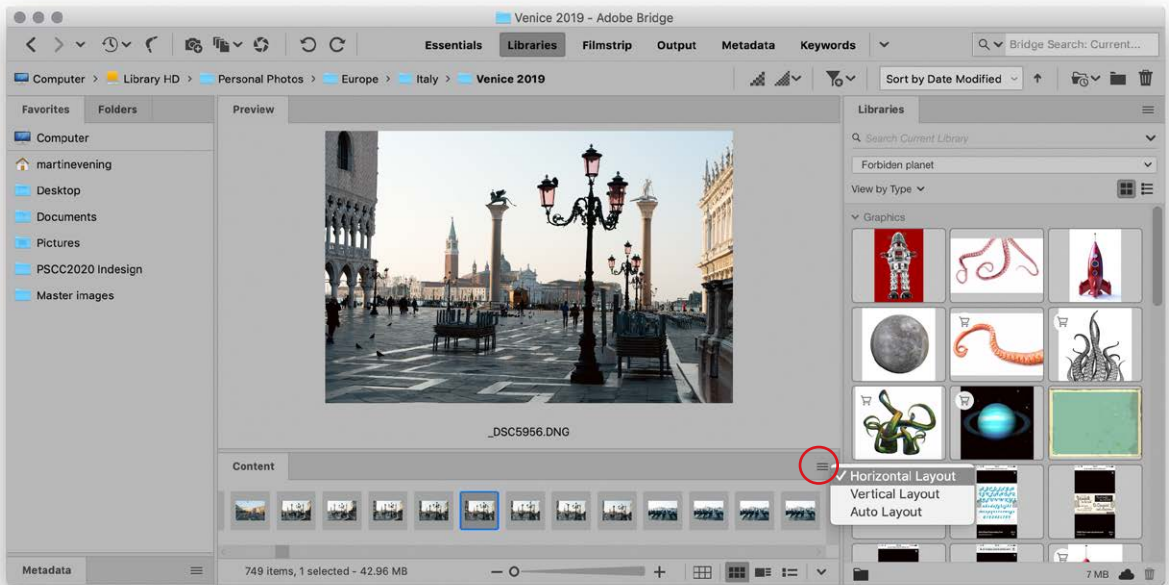


Figure 10 The Libraries workspace (⌘ F2 [Mac], ctrl F2 [PC]) combines a large Preview panel with a narrow Content panel that runs along the bottom using a scrolling layout.

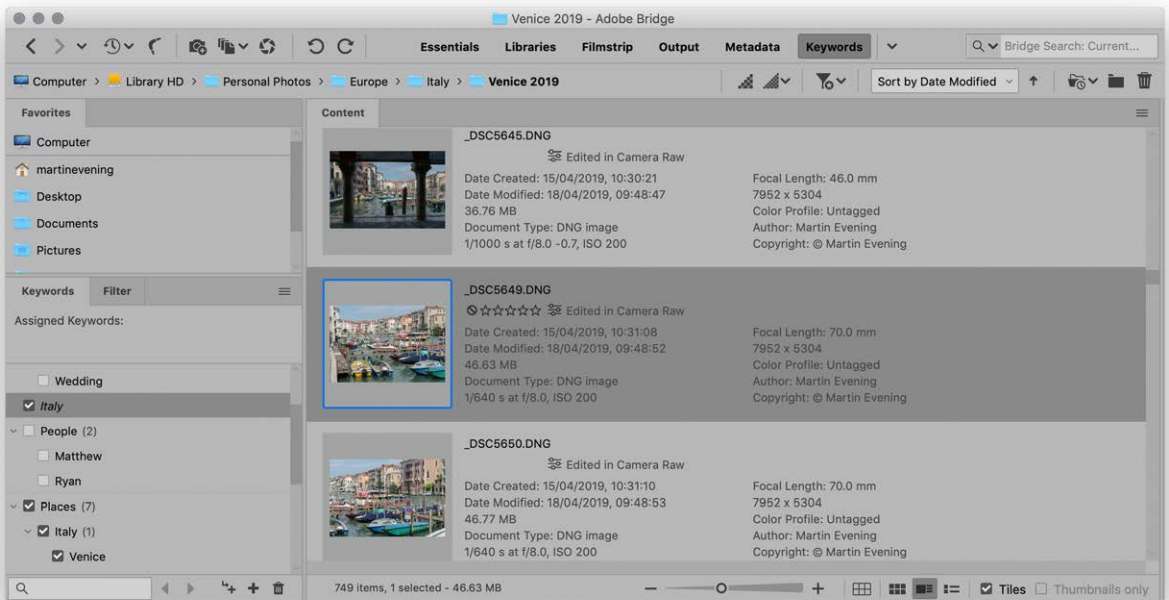


Figure 11 The Keywords workspace (⌘ F6 [Mac], ctrl F6 [PC]) displays the Content panel in Details view mode with the Favorites, Keywords, Filter and Export panels on the left.

Working with multiple windows

You can also have multiple Bridge window views open at once. This allows you to view more than one folder of images at a time, without having to use the Folders panel or window navigational buttons to navigate back and forth between the different image folders. That's not all though, because multiple windows can also make it easier to compare images side by side when reviewing a collection of images.

In the Figure 12 example below I pointed Bridge at a folder of images using a modified Preview workspace layout, where single images could be previewed large in the Preview panel and the Content panel used to display a vertical filmstrip of thumbnails. I then chose File ⇨ New Window to create a duplicate window view and dragged this off to the right. I was then able to navigate through the image thumbnails in the second window and compare alternative shots with the one displayed in the first window.

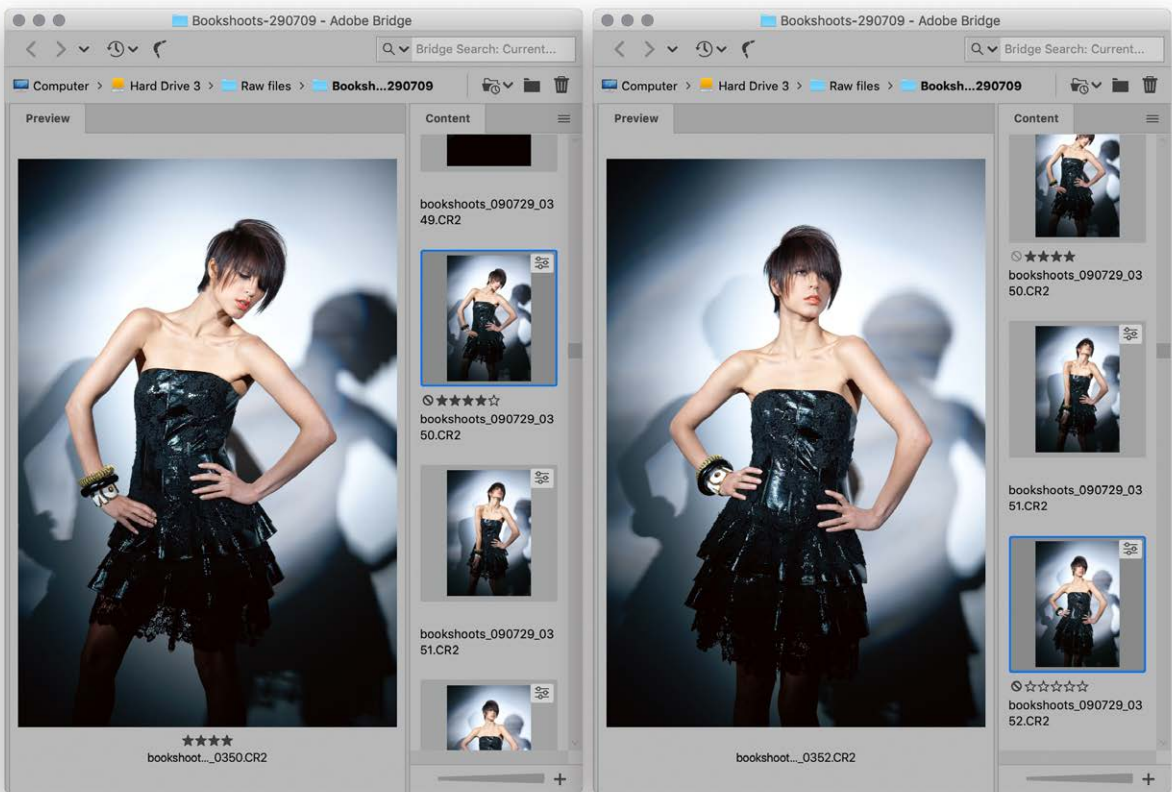


Figure 12 Using two Bridge windows to compare photographs side by side.



Figure 13 The Bridge Slideshow view mode.

Slideshow mode

The Bridge window contents can be previewed in Slideshow mode by choosing View ⇒ Slideshow (⌘ L [Mac], *ctrl* L [PC]). Press H to call up the Slideshow commands menu shown here, where you'll notice you can use the + – keys to zoom in and out during playback. The Bridge Slideshow feature is useful for showing on-screen presentations, but I think you will find that the Slideshow viewing mode also offers a nice, clear interface with which you can edit your pictures; one that's devoid of all the clutter of the Bridge window interface. Figure 13 shows the Bridge Slideshow in Full Screen mode, where you have access to all the usual image rating options. There is also a triple-click shortcut for zooming into the corners at 100%, but in practice it's rather complicated to use. As you review edit a folder of photos, you can use the ← → keyboard arrow keys to progress through the shots and you can use the apostrophe key (') to toggle adding or removing a single star rating, or use the + key to increase and the – key to decrease the overall star rating. To access the Slideshow settings (including the slide transitions and zoom options) go to the View menu and choose Slideshow Options... (Figure 14)

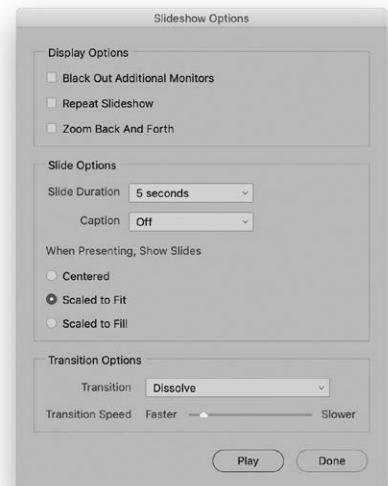


Figure 14 Slideshow Options dialog.

Thumbnail settings

If you go to the thumbnail quality options menu in the Bridge window you can select a policy for the thumbnail generation (Figure 15). ‘Prefer Embedded’ uses whatever previews it finds and makes the browsing of non-cached images faster (you can also click on the button to the left to switch to this mode). The ‘High Quality On Demand’ option aims to rebuild accurate previews, but only when you actually click to select a thumbnail. Lastly, the ‘Always High Quality’ option rebuilds the thumbnails for all files it encounters that are not already stored in the Bridge cache.

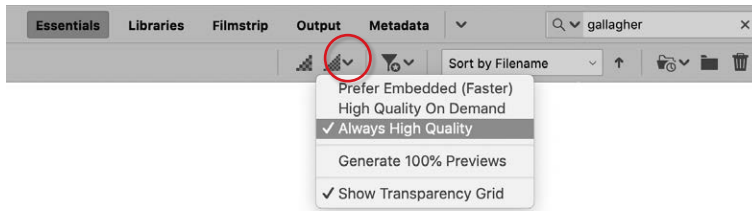


Figure 15 The Thumbnail quality options.

Thumbnail generation

To improve the responsiveness when browsing through large numbers of assets, Adobe have made improvements to the way the thumbnails, previews, and metadata are generated. When you select a folder, the thumbnails, previews, and metadata are extracted on priority for the on-screen assets only. The thumbnails for the remaining files are either generated on demand (if the user scrolls down/up) or when the application is idle. This means you can work with folders that have a large number of images without any performance issues like hangs or not responding states. This means you can have a fully updated Filter panel even before all the thumbnails and previews have been generated. This also means you can search for files even before all the thumbnails and previews have been generated and improves the overall scrolling experience.

Even so, it can take a long time for Bridge to generate thumbnails and previews of large image files. If you have the Maximize PSD and PSB File Compatibility preference turned on in the Photoshop preferences, the layered PSD files will generate a composite image layer when saved and this can certainly reduce the time it takes to build each preview in Bridge. If you limit the file size for rendering previews using ‘Do not process file larger than: x MB’ this can also help speed up the time it takes to build a preview cache for very large files.

Thumbnail size and workspace

When you create a new workspace in Bridge, it includes the thumbnail size as part of the workspace setting. However, if you adjust the thumbnail size after creating a workspace, the thumbnail size is automatically updated in the workspace. In case you want to revert to the original setting, use “reset” option for the workspace.

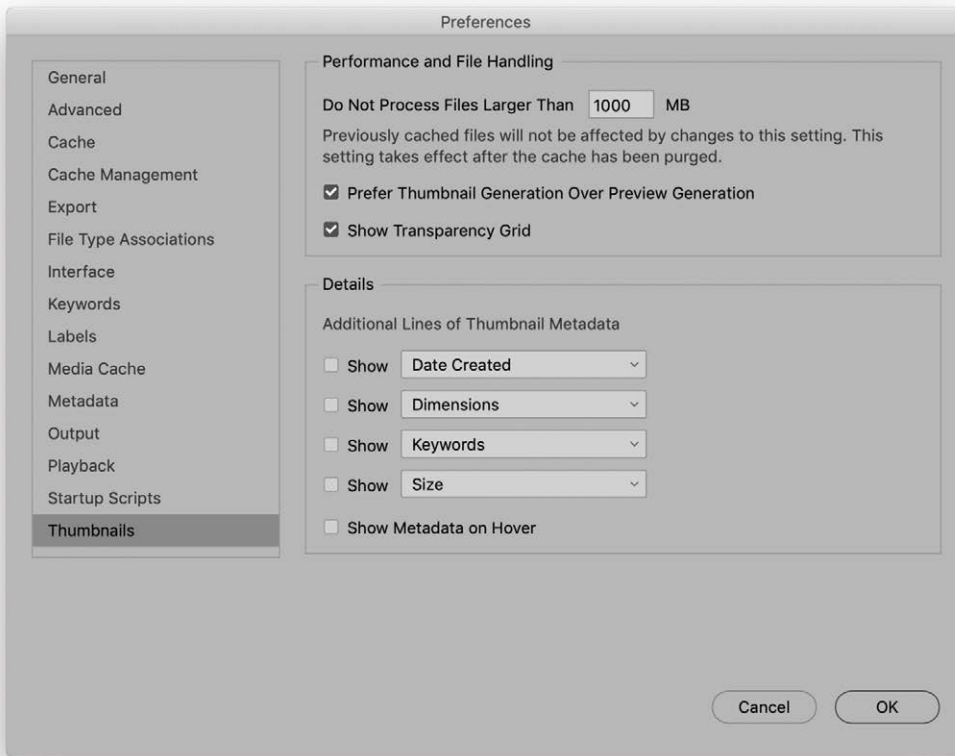






Figure 16 The Bridge Thumbnails preferences.

Thumbnails preferences

The Bridge Thumbnails preferences are shown in Figure 16. Here you can limit the thumbnail generation to files that are of a certain size or lower (setting a lower limit can help speed up the thumbnail generation). In the Details section you can have extra lines of metadata appear beneath the thumbnails in the content area (as shown in Figure 17). Here, up to four additional lines of metadata can be added beneath the thumbnails in Bridge. To hide, use the   (Mac),   (PC) keyboard shortcut to toggle hiding and showing the text information that appears below the image thumbnails in the content area.

The ‘Show Metadata on Hover’ option allows you to see the additional lines of metadata as you hover the cursor over each thumbnail, rather than check each item to have a persistent metadata display as shown in Figure 17.

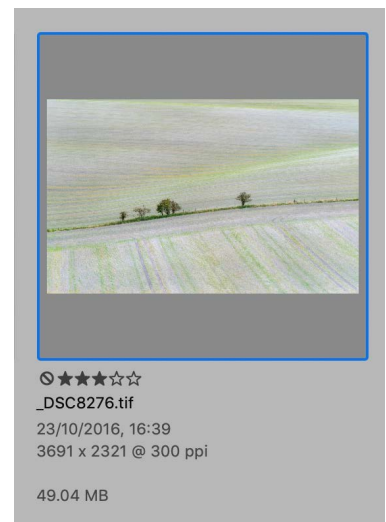


Figure 17 Up to four additional lines of metadata can be added beneath the thumbnails in Bridge.

Cache management

From the moment you open an image folder in Bridge, the program sets to work building the thumbnails and previews, reading in the image file metadata as it does so and taking into account things like: Camera Raw edits, image rotation instructions, file ratings and labeling. It speedily generates the low res thumbnails first before running a second pass to build the higher resolution thumbnail previews. This is quite a lot of information that Bridge has to process, and if it is your intention to use Bridge to manage large collections of images (especially large numbers of raw files), it will appear frustratingly slow unless you have a fast computer.

Therefore, the information that is built up during the cache building process is stored in the form of ‘cache data’, which has two components: the image metadata and the preview cache. If a cache is present, the inspected folder displays the archived thumbnails, previews and metadata almost instantaneously. This works fine so long as the folder is being inspected on the computer that created it and the folder name has not changed since the cache was created. If these two conditions are not met, then Bridge has to start all over again and build a fresh cache for that folder. Also, if a folder contains a cache that was exported from Bridge CS6 or earlier, Bridge will be able to read it, but earlier versions of Photoshop will not be able to interpret Bridge CS6 or Bridge CC cache files.

With proprietary raw files the Camera Raw database is the only place where the metadata information such as the image ratings and Camera Raw adjustments can be kept (Username/Library/Preferences folder [Mac], or Username\AppData\Adobe\CameraRaw folder [PC]). That is, unless you go to the Camera Raw preferences (Figure 18) and choose to save the image settings to the sidecar “.xmp” files. When you do this, the metadata information is also saved to the XMP sidecar files that are stored alongside each raw image (Figure 19). Basically, file-specific information that can generally be read by other programs, such as the custom IPTC metadata and Camera Raw settings (Adobe programs only), are normally stored in the file header XMP space. However, because proprietary raw files are an unknown entity it is only safe to store such data within the Camera Raw database or a separate XMP sidecar file that travels with the raw file when it is moved from one folder to another. The sidecar files are also automatically renamed if the original master is renamed.

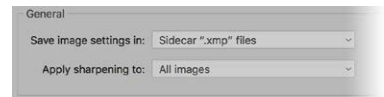


Figure 18 The Camera Raw General preferences.



Figure 19 If the Camera Raw preferences are set to save .xmp files as sidecar files, you will see sidecar files like this appear alongside a raw image file that has been modified via Bridge.

Cache preferences

The Bridge Cache preferences are shown in Figure 20. The central Bridge cache stores thumbnail, preview, and metadata information in a database. This cache database improves the performance when you browse or search for files. However, the larger the cache, the more disk space it uses. You can limit the cache size and restrict this to a set number of files. As more files are cached, the older cache items get deleted, so increasing the cache size limit means more cache data is preserved, but at the expense of increased disk space usage.

Obviously, it helps to make the metadata and preview cache information as accessible as possible. If the 'Keep 100% Previews in Cache' option is selected, this potentially increases the size of the cache, but you'll have faster access to the full-sized previews. If you select 'Compact Cache on Exit', and the cache database size grows beyond 20 MB, this pops a dialog when you exit Bridge asking if you would like to compact the cache for more economical cache storage (see Figure 21). This optimizes the Bridge cache files stored on your computer, removing files that are now obsolete and thereby keep the cache size under control.

Having generated cache files for each folder visited you will want to enable 'Automatically Import Cache from Folders when Possible' so that Bridge is able to utilize previously generated cache files. Lastly,

Enabling backward compatibility

It is a good idea to switch on the Maximize the PSD and PSB compatibility option in the Photoshop File Handling preferences. This forces Photoshop to save a flattened version of the image when saving a file using the PSD and PSB formats. This in turn can speed up the writing of the preview cache file.

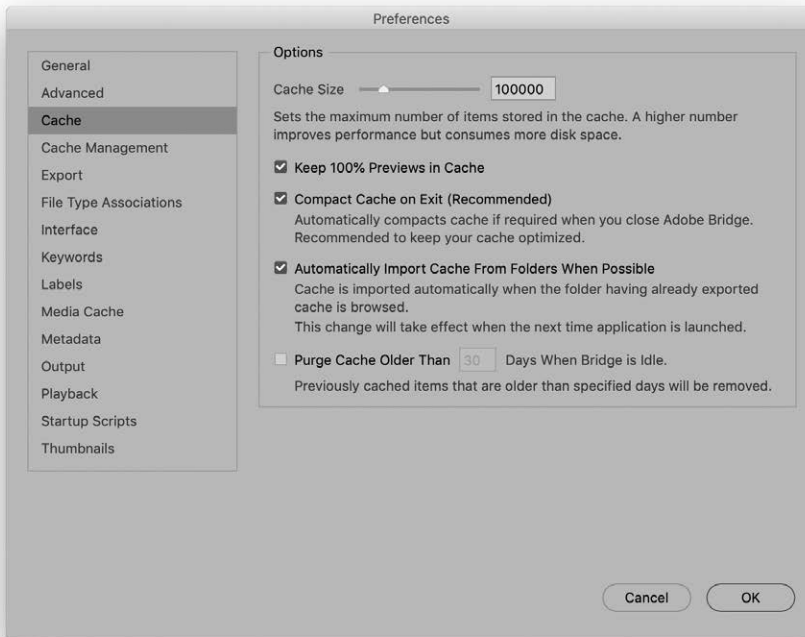


Figure 20 The Bridge Cache preferences.



Figure 21 The Adobe Bridge Compact Cache dialog.

there is an option to purge cache files after a certain number of days during idle periods. Seeing how the cache management has improved so much with compact cache files, I feel this is less necessary now.

Cache Management preferences

The Bridge Cache Management preferences are shown in Figure 22.

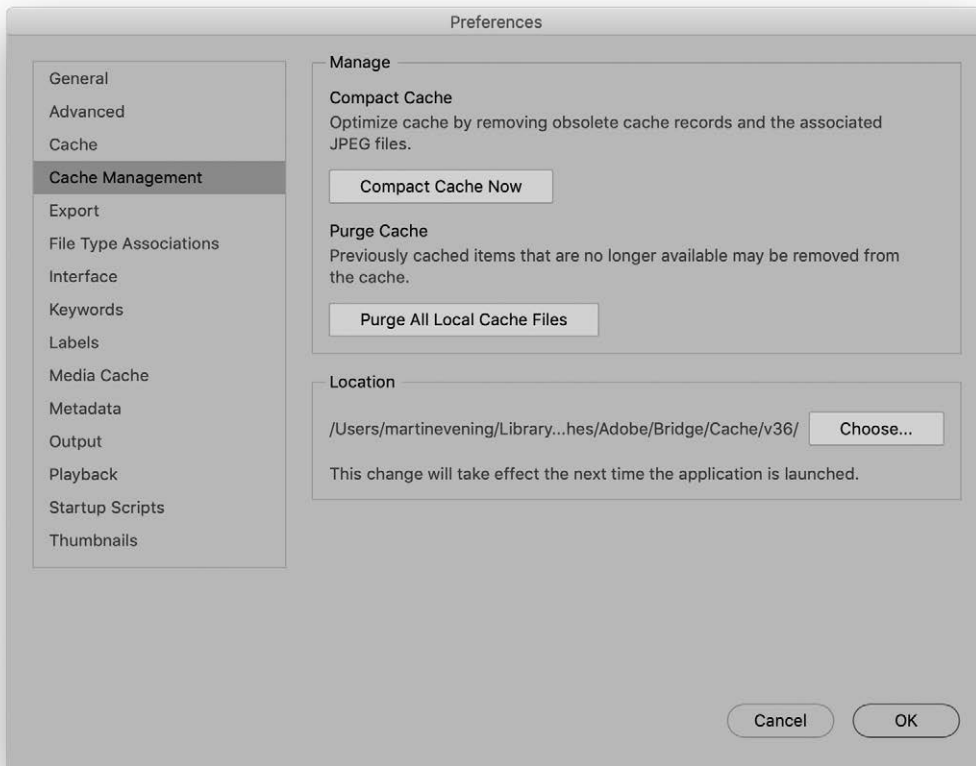


Figure 22 The Bridge Cache management preferences.

Every time you open a folder, Bridge checks to see if there is a cache for that folder located in the Username/Library/Caches/Adobe/Bridge CC/Cache folder (macOS), or Username\AppData\Roaming\Adobe\ Bridge CC\Cache (PC). Note you can change these destinations via the Location section below. The Manage section offers further controls to optimize the Bridge cache files stored on your computer. Click the Compact Cache Now button to remove files that are now obsolete and keep the cache size under control.

The Purge cache section can be used to clean up the stored cache files for the currently selected folder. You can click on the 'Purge All Local Cache Files' button to empty the cache for the local selected folder while Bridge is open and idle.

Sometimes a cache may appear out of date and require a forced update. To do this, go to the Tools ⇨ Cache menu and choose the 'Manage Cache' option (Figure 23). You can use this to force Bridge to prioritize building a cache for not just the current targeted folder, but all the subfolders as well. For example, you might find it beneficial to get Bridge to cache large folders of images during idle times, such as at the night, and optionally include building of 100% previews. If you know that there is already a hidden cache stored, you can click on the Import Cache button to import rather than have to rebuild. The Clean Up Cache button options can be used to purge the cache from specific folders.

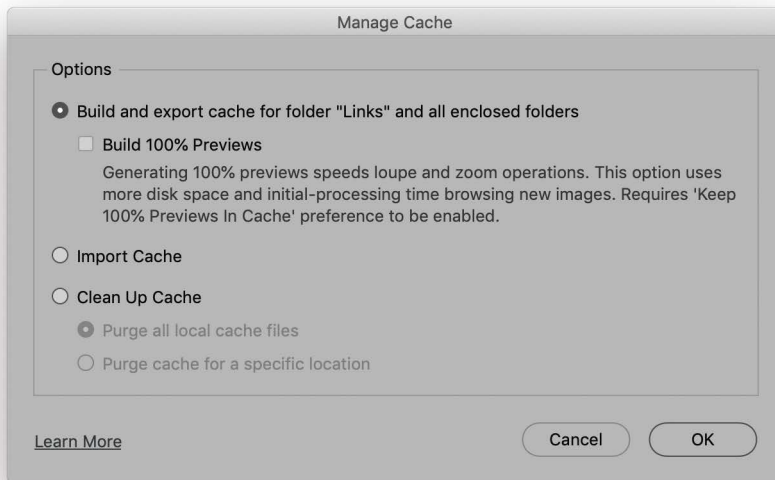


Figure 23 The Manage Cache dialog.

Media Cache preferences

The Media Cache preferences are shown in Figure 24. This refers to video and audio files as opposed to still images. The Bridge cache storage of media files can speed up playing them back. However, over time the playback performance can suffer unless you keep the media cache trimmed.

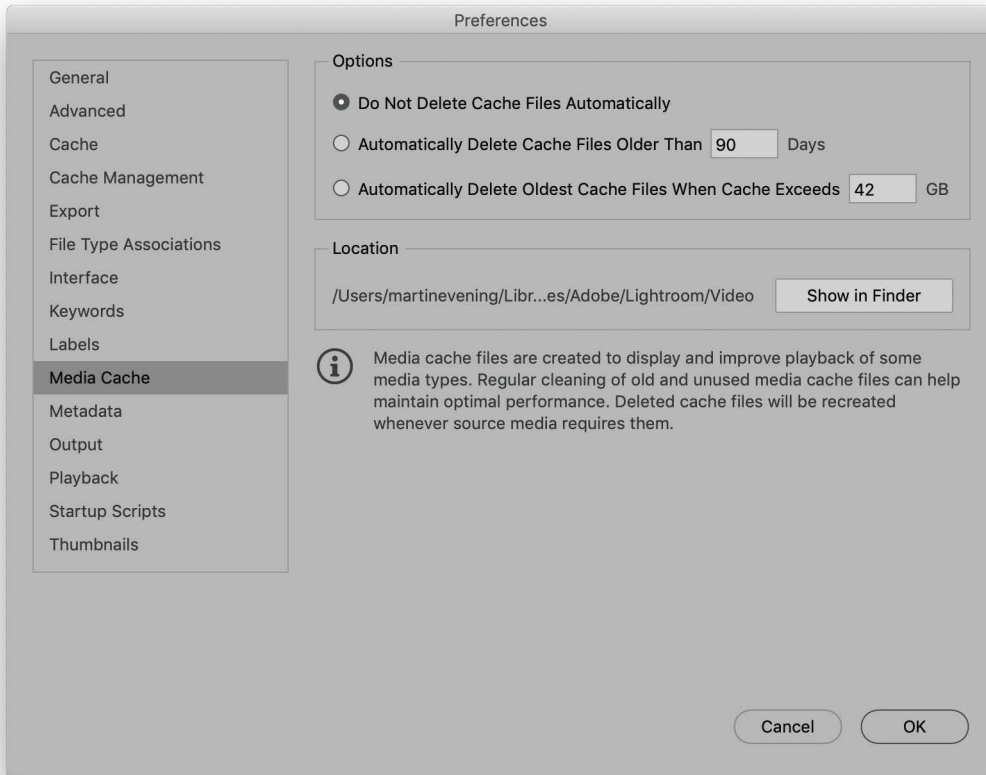


Figure 24 The Adobe Bridge Media Cache preferences.

Advanced preferences

The Advanced Bridge preferences are shown in Figure 25. By default Bridge uses hardware acceleration to drive the graphics display, but if you are working with an underpowered graphics card you may find it better to check ‘Use Software Rendering’ and relaunch Bridge. The ‘Generate Monitor-Size Previews’ option ensures the cached previews are big enough to fill the screen, such as when using the Slideshow or Review modes. Check the ‘Start Bridge at Login’ option to get Bridge to launch automatically each time you start up the computer.

The International section can be used to regionalize Bridge for international languages and for use with international keyboard designs. The changes applied here will only come into effect after you relaunch Bridge.

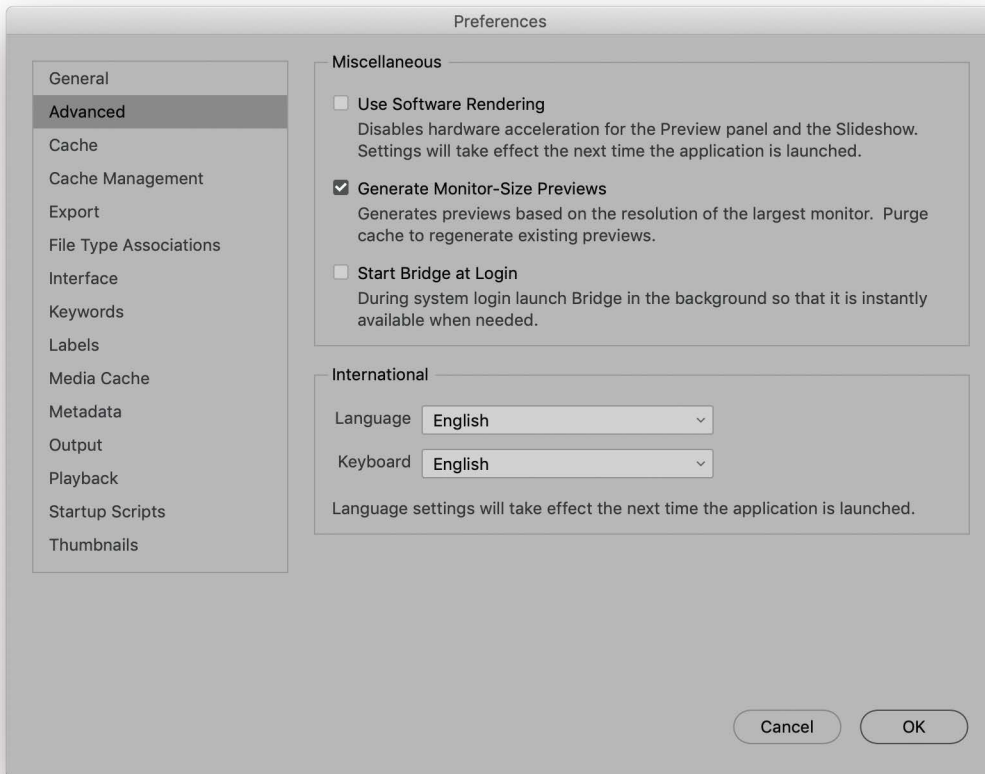


Figure 25 The Bridge Advanced preferences.

Export preferences

The Export preferences are shown in Figure 26. The Export panel in Bridge is a new addition. This allows you to convert assets such as images, videos or PDFs to an image file format (Currently just JPEG for now).

In the Bridge Export preferences Options section, you can set the ‘Maximum number of export jobs to keep in job list’, plus limit the ‘Maximum number of job details in the job progress’. The defaults allow you to keep a maximum number of 100 export jobs listed. After that, Bridge deletes the older history beyond 100 job details. The maximum number of jobs you can queue up at one time is 20, but you can make this lower if you wish.

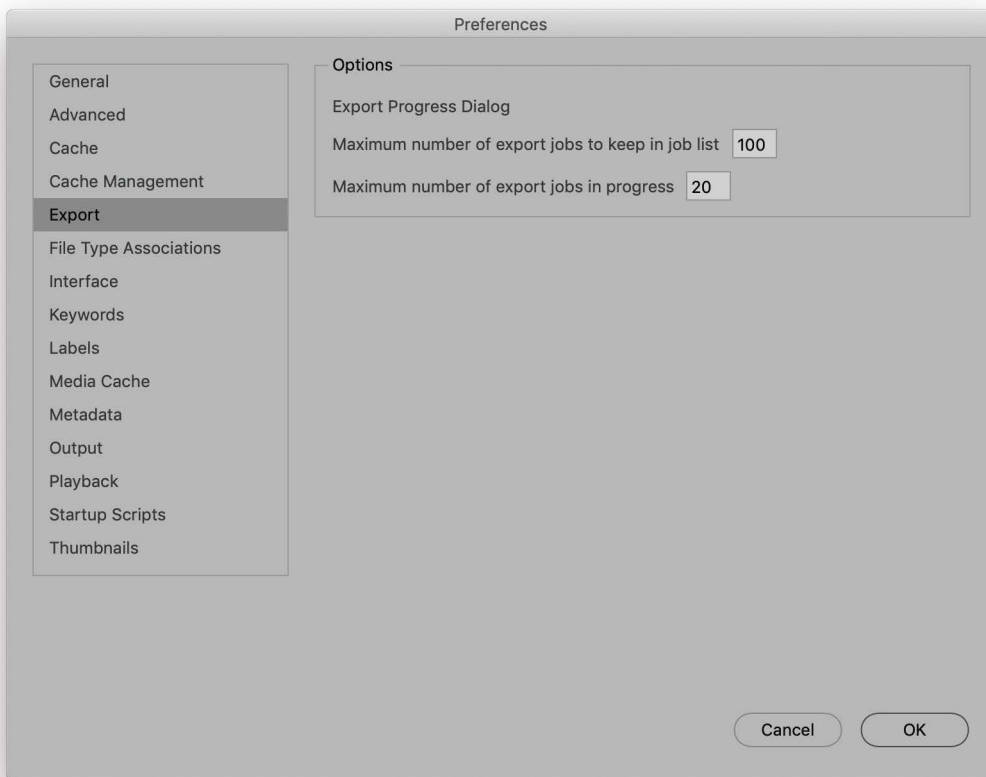


Figure 26 The Bridge Export preferences.

Interface preferences

The Interface preferences (Figure 27) contain the Appearance controls where you'll notice that the Color Theme options are the same as those in the Photoshop preferences. This means you can easily match the Bridge user interface to whatever theme you have selected in Photoshop. You can also override this by adjusting the Image Backdrop slider to apply your own desired interface brightness setting.

The text Size menu can be used to select from the four text font sizes. With high resolution displays now becoming more common, you may find a bigger text size more legible.

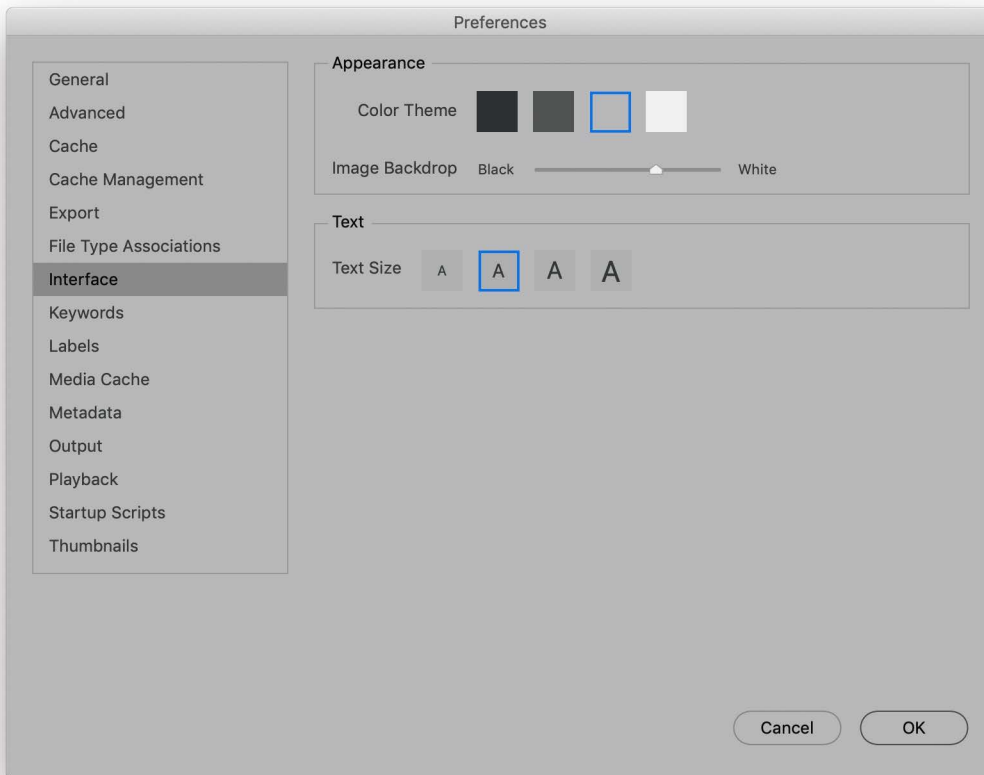


Figure 27 The Bridge Interface preferences.

One-click previews

With Bridge you can click the Spacebar to quickly preview an image at a full size on the display. Once in the full display preview mode, you can click with the mouse to enlarge a photo to 100%, click to return to the full screen view again and use the arrow keys to navigate to the next or previous photo. To return to the Bridge window, click the Spacebar again. When it comes to picture review editing, one-click editing offers a speedy and more controllable alternative to the Slideshow view mode. You can navigate easily from one photo to the next and add ratings or labels as you edit. It's simple and effective.

Deleting files

You can use the **Delete** key to delete selected files. This pops the dialog shown in Figure 28 that asks you to confirm deletion. Alternatively, you can mark an image as a Reject via the Label menu. Or, you can use the **⌘ Delete** [Mac], **⌥ Delete** [PC] shortcut to mark as a reject. This labels the file with the word 'Reject' in red. You can then use the Filter panel to select the 'mark as rejected' images only and delete them as required. If you then click on the Delete button this pops the dialog shown in Figure 28 asking you to confirm deletion. Likewise, clicking the Delete button (🗑️) in Bridge takes you straight to the 'Are you sure you want to move file to the Trash' dialog as does **⌘ Delete** (Mac), **ctrl Delete** (PC). Deleting via Bridge removes the thumbnail from the Bridge window and sends the original file to the Trash (Mac) or Recycle bin (PC). Even so, files won't be permanently deleted until you empty the contents of the Trash (Mac)/Recycle bin (PC) at the operating system level. As a safety precaution, when deleting folders via Bridge, you can only do so if they are empty.

Stacking images

You can use the Stack menu in Bridge to group files into stacks (see Figure 29). In the screen shot steps shown on the following page you can see an example of how selected files can be grouped in this way. To use this feature, select two or more files, go to the Stack menu and choose Group as Stack (**⌘ G** [Mac], **ctrl G** [PC]). This groups the images, indicating they are part of a stack with a number showing how many files are included in the stack. To ungroup images from a stack, use: **⌘ Shift G** (Mac), **ctrl Shift G** (PC). To expand a stack use: **⌘ ⇨** (Mac), **ctrl ⇨** (PC) and to collapse a stack again use: **⌘ ⇩** (Mac), **ctrl ⇩** (PC). If you want to expand all stacks use: **⌘ ⌘ ⇨** (Mac), **ctrl alt ⇨** (PC) and if you want to collapse all stacks use: **⌘ ⌘ ⇩** (Mac), **ctrl alt ⇩** (PC).



Figure 28 The Delete file dialog.

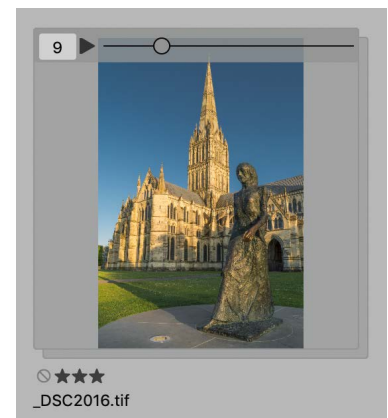
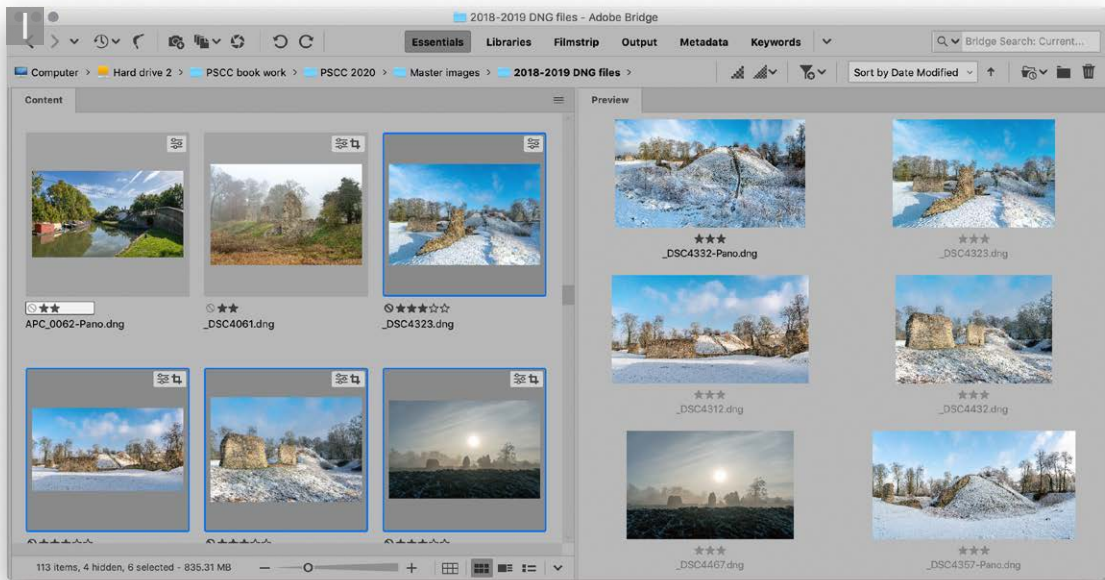
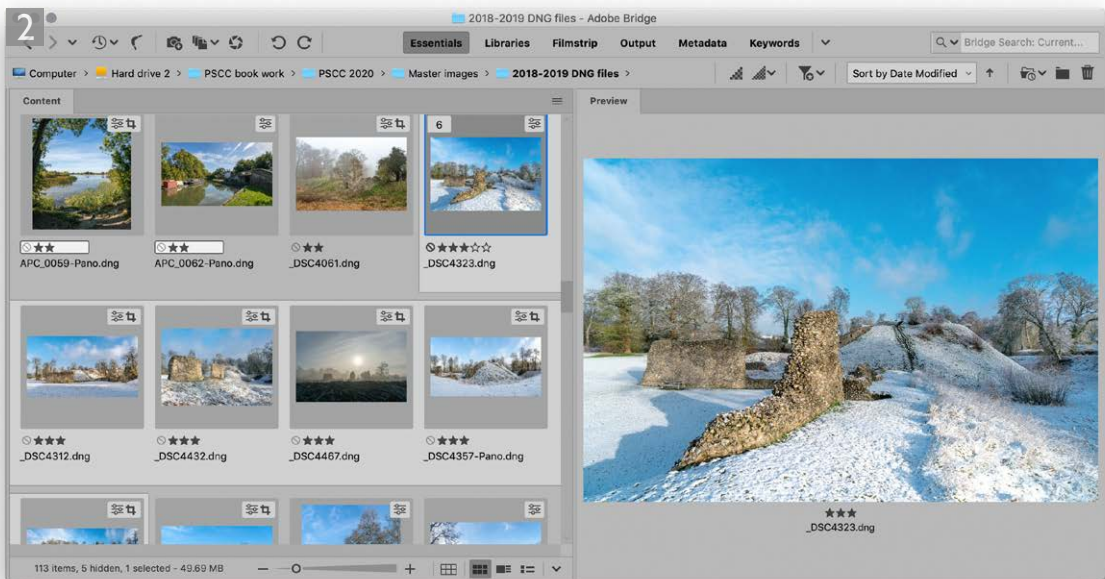


Figure 29 This shows how the thumbnail for a stacked group of files will appear in the content area.



1 Here, six thumbnails were selected in the Content panel. To group these images into a stack, I used the **⌘ G** (Mac), **ctrl G** (PC) shortcut.



2 Here, you can see how the stacked files were displayed in the Content panel area as an expanded stack. For this step, I selected the most representative image and chose Stacks \Rightarrow Promote to Top of Stack. This made the selected file the key image used to identify all the images in the stack.

Auto-stacking

You can use the Stacks ⇨ Auto-Stack Panorama/HDR command (Figure 30) to auto-stack images. The way this works is that Bridge scans the images in a selected folder and where it finds two or more images that have been shot within an 18 second time frame, makes these candidate photos for a panorama or Merge to HDR image set. Once it has done this, it further analyzes the images using Photoshop's auto-align technology. If a sequence of images overlap by 80% or less, these are logically assumed to be part of a panorama sequence. Where a sequence of images overlap by 80% or more *and* the EXIF data shows that the exposure values are changing by one or more stops, these are assumed to be part of a Merge to HDR pro set. Using this logic, Bridge is then able to organize photos into stacks and at the same time create and store metadata information that can be used later by Bridge to auto-process the stacked images either as panoramas or as Merge to HDR sets (Figure 31). The auto-stack feature generates a hidden XML file that is added to the folder and this stores the 'how-to-process' information. The processing can then be done later by choosing Tools ⇨ Photoshop ⇨ Process Collections in Photoshop (Figure 32). In actual fact, you can carry this step out directly, without applying an auto-stack first. When you apply this command, the images that have been auto-collected into stacks are automatically processed in Photoshop. Now, the plus side of this feature is that it may benefit large volume panorama or HDR shooters (especially the ability to group photos into stacks). On the downside, there is no interface that can be used to modify, say, the time frame period from anything other than 18 seconds. There is also no interface that allows you to choose specific options when generating the Photomerge composites. The reliability with which auto-stack manages to successfully detect the images is also rather hit and miss. When it works well it has the potential to be a powerful tool, when it doesn't, you'll just have to redo the work manually. Overall, it's an interesting innovation that will hopefully be improved upon in future Bridge updates.

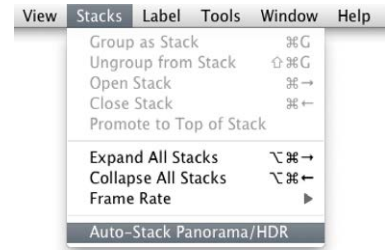


Figure 30 This shows the Stacks ⇨ Auto-Stack Panorama/HDR command.

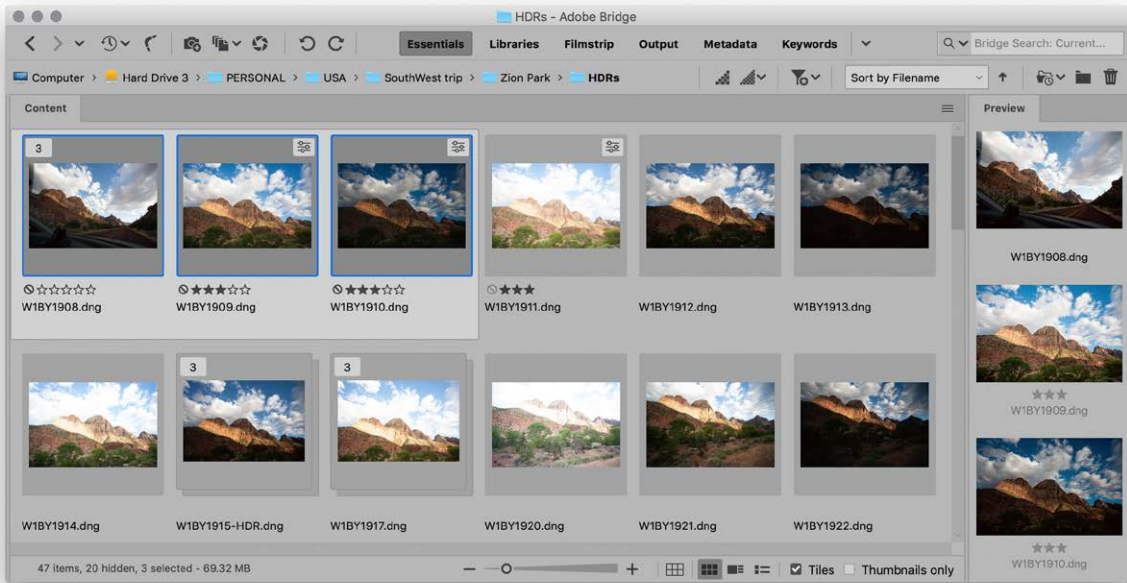


Figure 31 Here, you can see a Bridge window view where I had selected the Stacks ⇨ Auto-Stack Panorama/HDR command and the HDR candidate photos were automatically grouped into stacks.

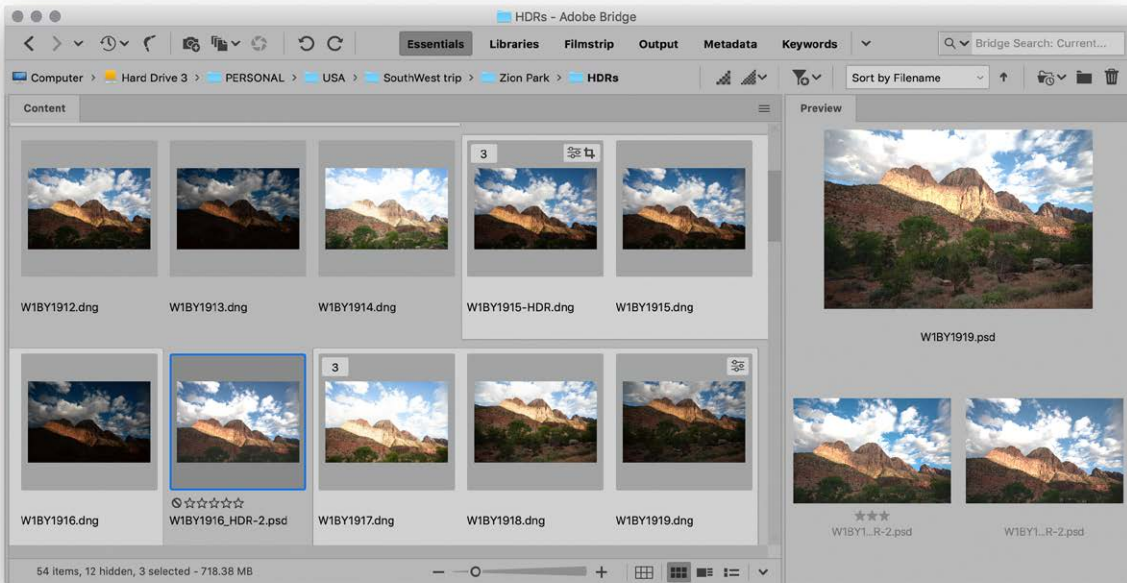


Figure 32 This shows the same folder after I applied Tools ⇨ Photoshop ⇨ Process Collections in Photoshop. This generated three HDR files and saved them as PSD files.

Bridge panels

Let's now take a look at some of the individual panels in Bridge and their uses.

Folders panel

The Folders panel (Figure 33) displays an expandable tree view list of the folder contents for all drives that are currently connected to the computer. When you highlight a folder in the Folders panel, all the files in that folder are displayed as thumbnails in the Content panel area on the right. You can drag and drop folders with ease within the Content panel area and Folders panel areas, as well as drag directly to external folders. While this is happening, Bridge writes a folder cache of all the image thumbnails and previews, which it stores in a central folder location; although, as was pointed out on pages 17–18, you can configure the Bridge preferences so that the cache information is exported locally as well. This saved cache should make the thumbnails appear quicker the next time you visit a particular image folder. You can also use the file path name for folder navigation. If you mouse down on an arrow icon (circled), this calls up a menu list for all the other folders available at the same root level (see Figure 34).

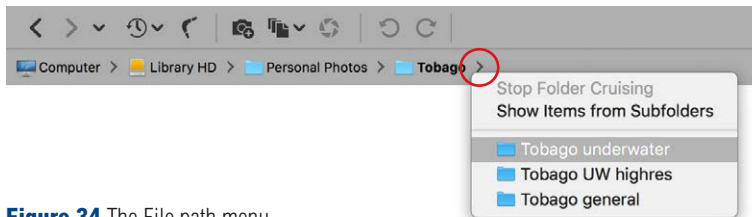


Figure 34 The File path menu.

Favorites panel

The Favorites panel (Figure 35) can be used to quickly access locations such as the Desktop or Pictures folder. The items that appear in the Favorites panel are determined by the Bridge General preferences (see page 3), but you can also add your own favorites by dragging folders from the Content panel across to the Favorites panel list.

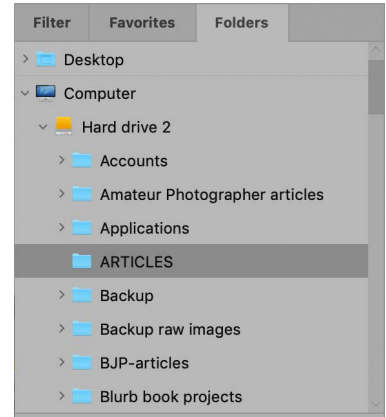


Figure 33 The Folders panel.

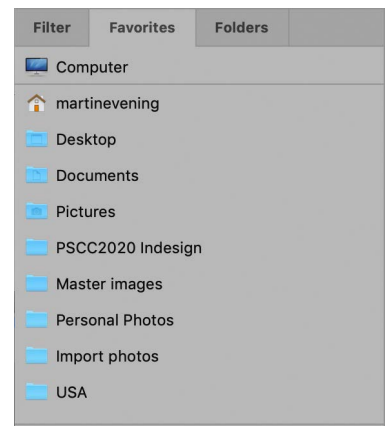


Figure 35 The Favorites panel.

Preview panel

The Preview panel (Figure 36) displays large previews of the selected files and can be adjusted to be as large as you like. When more than one image is selected in the Content panel the Preview panel will display all the images at once up to a maximum of nine images. If you need to inspect any more than this, you may be better off using the Review mode (see the following page).

Click anywhere in the Preview panel and this will pop open a loupe magnifying glass adjacent to the point where you clicked. This displays that section of the preview image at a 1:1, actual pixels view inside the loupe (but see the sidebar on **⌘** [Mac], **ctrl** [PC] key behavior). You can then use the **+** **-** keys to zoom in (up to 800%) or zoom out again, or use finger gestures on a mouse or trackpad for a fluid zoom. To close, click inside the loupe. To reposition it, simply click anywhere outside the loupe and/or click and drag inside the loupe. You can have an active loupe on each image in the Preview panel: just click to add a new loupe, and if you want to synchronize the loupe position so that you can compare close-up details in two or more images at once, hold down the **⌘** (Mac), **ctrl** (PC) key as you drag the loupe.

Rotating loupe

When you work with the Loupe tool and drag it to the corner of a preview image you may sometimes see the loupe spin round to reveal the corner details of the image. This is normal, intended behavior.

⌘ / **ctrl** key behavior

As was pointed out earlier, if you go to the Bridge General preferences, there is an option you can select where a **⌘** (Mac), **ctrl** (PC)-click is required to initiate opening the loupe (instead of just clicking). This preference has no effect on using the **⌘** (Mac), **ctrl** (PC) key to synchronize the loupe scrolling though.

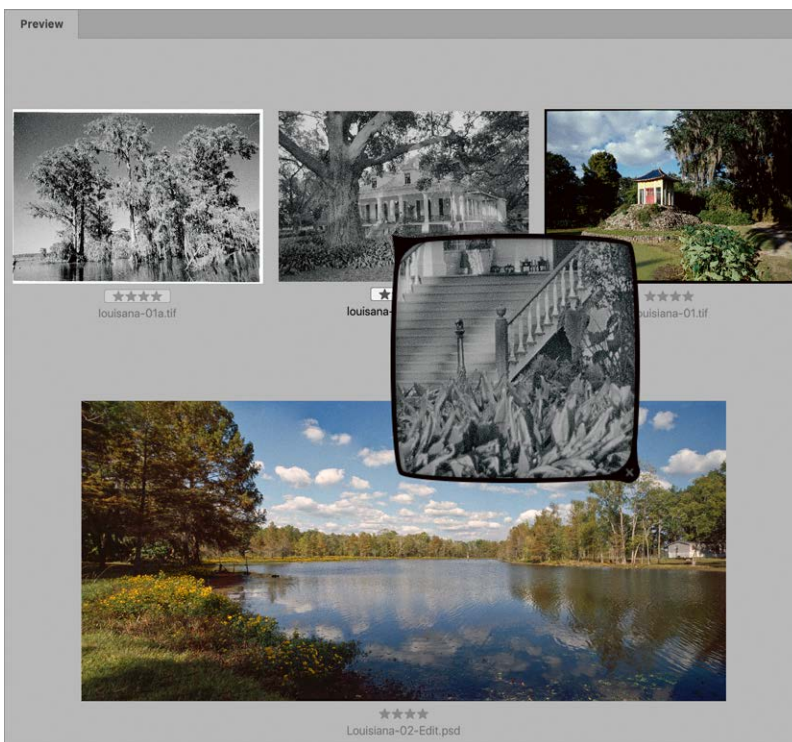


Figure 36 The Preview panel, showing a loupe close-up view of an image.

Review mode

Instead of relying on the Preview panel, you can use the Review mode (Figure 37) to inspect large numbers of images at once. The Review Mode can be accessed from the View menu (**⌘ B** [Mac], **ctrl B** [PC]) and presents the selected photos in a carousel type display. You can cycle through the selected photos using the arrow keys in the bottom corners, remove photos from a selection with the downward pointing arrow, open a loupe view on the foreground image and create new collections. Overall, I would say that the one-click preview feature is better suited for the speedy previewing of multiple images.



Figure 37 The Review mode.

Playback preferences

The Bridge Playback preferences (Figure 38) can be used to manage the Playback settings. Let's start with the Stacks section. If you refer back to Figure 29 you will notice a Play button next to the file count. Clicking on the Play button plays a slideshow of the thumbnails within the stack at a speed determined by the Stack Playback Frame Rate per Second menu. This can be useful where you have say, a sequence of timelapse photos you need to review quickly.

The Audio options are more relevant for sound editors, while the Video options are more relevant as you can choose to have video files launch into play mode when selected and/or play in a loop.

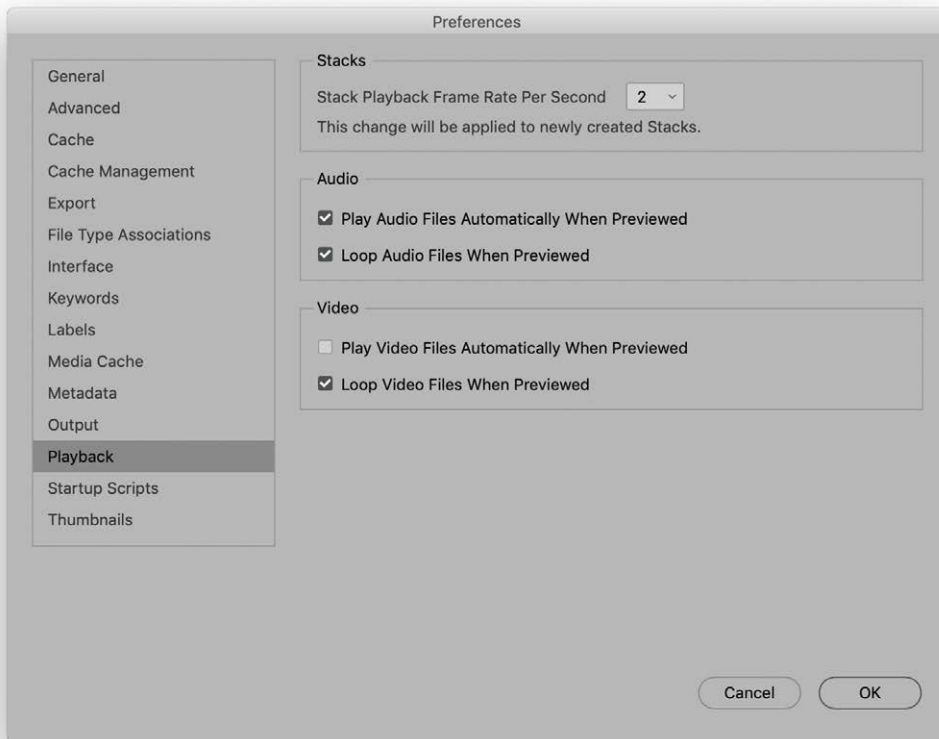


Figure 38 The Bridge Playback preferences.

Managing images in Bridge

As the number of photographs stored on your computer system continues to grow you'll soon end up becoming frustrated as you struggle to find particular photos. This situation is only going to get worse unless you choose to change the way you import and manage your photographs. The metadata tools in Bridge are designed to help you get started with the task of cataloging your image files. These will allow you to add basic metadata and keyword information, which in turn can help you categorize the photos in your image library. Once you get into a regular habit of doing this you'll soon appreciate the benefit this can bring when conducting a filtered image search.

Let's first consider how metadata information is used to manage other types of files on a computer. For example, if you download a music album to iTunes, the individual MP3 files will contain the album title, artist, track listings and genre of music. This is a good example of metadata in action, because iTunes lets you make use of the music metadata information to help manage your music collections more easily. The iTunes cataloging is effortless because it all takes place in the background and is done automatically. The big difference between cataloging music files and image files is that when managing a collection of images you mostly have to manually input all the metadata yourself and that can require additional effort on your part.

Although Bridge has the potential to be used as an image asset manager, it still lacks the sophistication of other fully dedicated asset management programs such as Lightroom. To be honest, I mainly use Bridge for specific file browsing tasks (such as when working on a book project like this). Otherwise, I find that for most image asset management and workflow tasks, Lightroom is the better program to use for this kind of work. This is because Lightroom allows me to import camera files exactly the way I want and has a better and more versatile library management interface for editing and managing the metadata. If you are serious about image library management and cataloging your images, you may want to try out Lightroom.

Adobe Photoshop Lightroom

A lot of people have been asking: if I have Photoshop and Bridge, why do I need Lightroom? I point out that Lightroom is a workflow program that allows you to manage your images all the way from import through to the output stage. For some people, the combination of Bridge and Camera Raw provides them with all the tools that they need to manage their pictures and work in Photoshop. For amateurs and professionals who are looking for a faster and more streamlined approach for their image processing and image management, Lightroom will be the answer. I do still use Bridge for a lot of file browsing tasks, but I find that I now mostly prefer to use Lightroom since it integrates smoothly with Photoshop and offers some rather nice and unique approaches to image processing and image management that you won't find in any other program.

Star ratings

Star ratings can be used to sort out those that you like best from the rejects and arranging them into groups. The Label menu Rating section (Figure 39) can be used to apply star ratings to your files. This system lets you apply cumulative ratings to the images you like and it is therefore useful to familiarize yourself with the keyboard shortcuts that can be used to apply ratings. These range from $\text{⌘}0$ (Mac), $\text{ctrl}0$ (PC) to $\text{⌘}5$ (Mac), $\text{ctrl}5$ (PC) (to apply 0–5 stars), but you can also use $\text{⌘}+$ (Mac), $\text{ctrl}+$ (PC) to increase the rating by one star, or $\text{⌘}-$ (Mac), $\text{ctrl}-$ (PC) to decrease the star rating. The above shortcuts can make it easier for you to focus your attention on the images as you use the ⏪ ⏩ arrow keys to progress from one photo to the next. In addition, you can still use the $\text{⌘}'$ (Mac), ctrl' (PC) keyboard shortcut as a simple binary rating system that allows you to add or remove a single star rating to a file. How you apply the ratings is up to you, but generally speaking it is a good idea to be sparing with the higher star number ratings. Unrated images can be the rejects, while one and two stars can be used to mark the images you like best. And three stars upwards should be reserved for those pictures that are really special and so on.

Color labels

The Color Label preferences are shown in Figure 40. Color labels can be used to signify different things. Author Peter Krogh suggests in his *DAM book* that labels be used to apply negative ratings, where a zero star represents an image that has been inspected but is rated

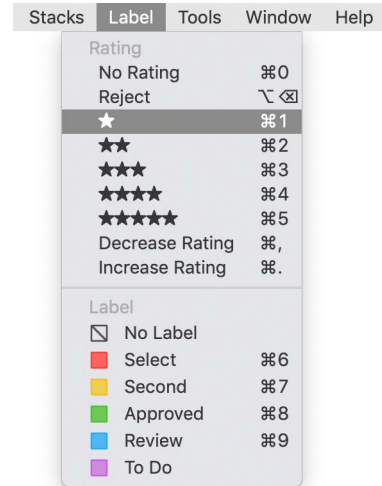


Figure 39 Image ratings and labels can be applied via the Label menu in Bridge, or by using the keyboard shortcuts described in the main text. You can also mark an image as being a reject. This is not the same as deleting though; you are simply labeling it as a potential delete image.

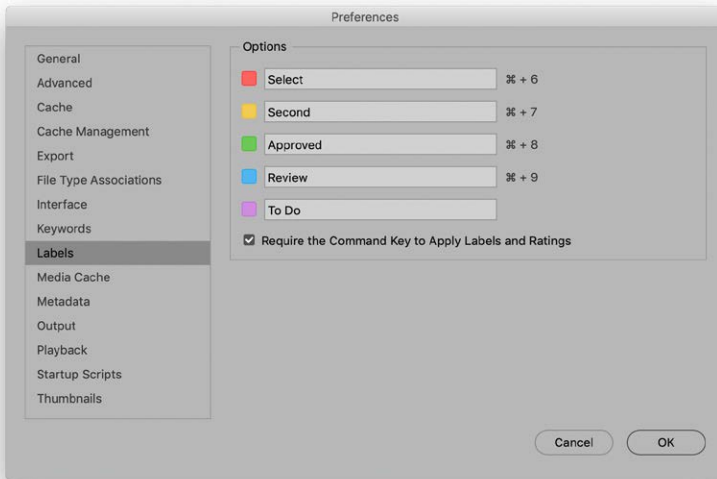


Figure 40 The Bridge Labels preferences.

neutral, a red label means it's yet to be rated, a yellow label means it's an out-take and a green label means 'trash me'. Meanwhile, a wedding photographer might use color labels to quickly separate out shots according to the location they were shot in. It is a simple matter of selecting the individual or multiple images you would like to label and then choosing a color from the list in the Label menu. Or, you can use the keyboard shortcuts that range from **⌘ 6** (Mac), **ctrl 6** (PC) for red, to **⌘ 9** (Mac), **ctrl 9** (PC) for blue. The labeling controls have a toggle action. For example, if you select an image and use **⌘ 6** (Mac), **ctrl 6** (PC) to label it red, you can use the same keyboard shortcut to cancel the label color. You can also turn off the labeling by selecting No Label from the Label menu. Note there is no room for a keyboard shortcut for the Purple label. You can however, use a right mouse-click to apply label colors via the context menu.

Color label descriptions

If you go to the Labels preferences in Bridge you can edit the text descriptions given to each label color. You can rename these anything you like, although this can potentially cause confusion where other programs (such as Lightroom) may use different text descriptions for the color labels.

One of the problems with Bridge and Lightroom is that the default color label sets in both programs don't match as they use different default naming schemes. This means that where the default color labels have been applied to files in Lightroom and saved to the metadata, they will appear in Bridge with white labels. The Filter panel however, will be able to read the color label text description and differentiate between files labeled with the Bridge color label scheme and those labeled using the Lightroom color label scheme.

Universal rating methods

You are not limited to just using the rating controls within Bridge. The rating keyboard shortcuts described here work equally well when you are reviewing your images in the Camera Raw dialog or the Slideshow and Review viewing modes. However, in the Slideshow and Review modes you only need to enter number keystrokes to add ratings or labels, where you can use 0–5 to apply a star rating and use 6–9 to apply a red, yellow, green or blue color label.

File Type Associations

The Bridge File Type Associations preferences (Figure 41) list the default programs to use when opening specific files. Most of the time you can leave these as they are, but there are times when you may want to force certain types of files to open in a specific program. For example, some people may still use the EPS file format to save press-ready files. Bridge normally opens these using Adobe Illustrator, therefore you may in this instance want to change the File Association setting to say, Adobe Photoshop 2020.

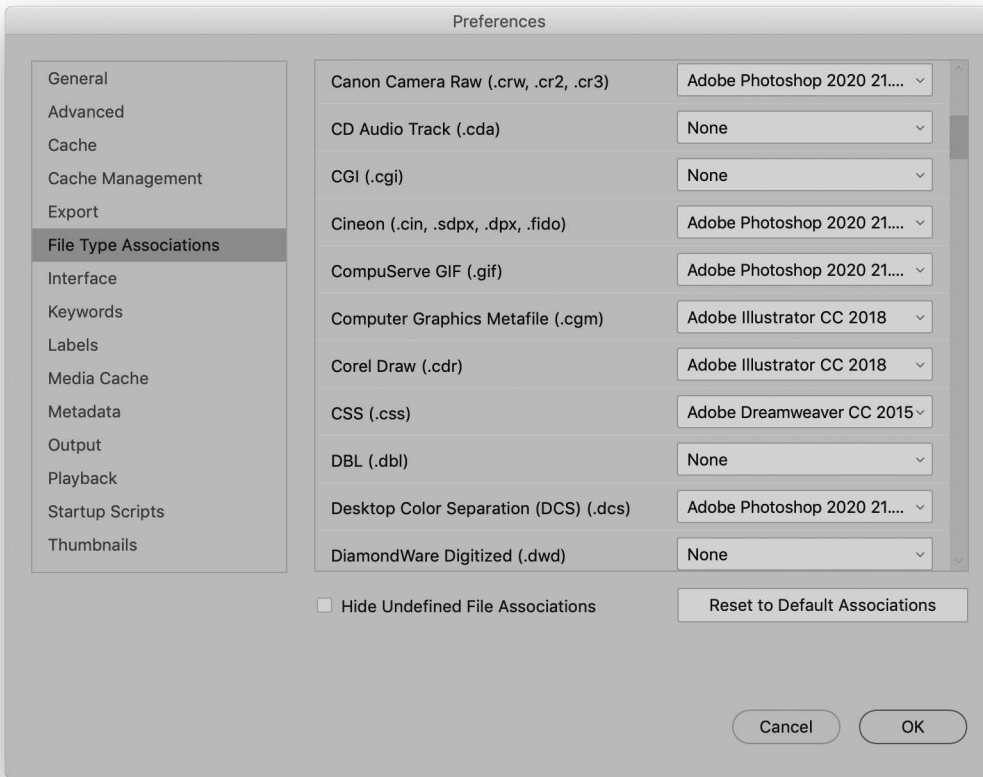


Figure 41 The Bridge File Type Associations preferences.

Sorting images in Bridge

You can change the order in which the images are displayed in the Content panel by going to the Sort menu shown in Figure 42. If you mouse down on the menu here you can choose from a range of different types of sort criteria and if you click on the arrow button next to this menu list (circled in Figure 42), you can choose whether you want to see the images displayed in an ascending or descending order. Normally the sort order is set to the 'By Filename' setting by default. However, if you were to select the 'By Date modified' option (and in ascending order) those files that have been edited most recently will appear first in the Content panel area.

Remember, you can manually drag the thumbnails to rearrange their position in the Content panel. Just be aware that if you do this, the Sort option will then default to 'Sort Manually' and you may have to revisit the Sort menu in order to restore the previously applied sort order rule (note that you can also access the Sort options by going to the View menu in Bridge). As you start looking at the different methods that can be used for filtering the images displayed in the Bridge Content panel, you will see how combining the filtering with the Sort options is useful for determining which files are made visible in the content area and how they are arranged.

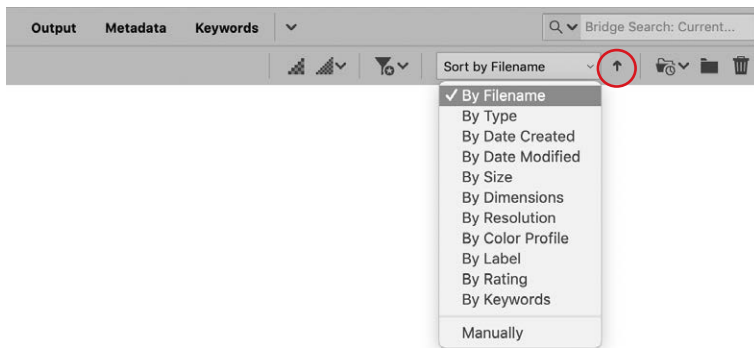


Figure 42 The Bridge window Sort menu options allow you to arrange the displayed files by ascending or descending order (by clicking on the button circled here). You can use any of the criteria listed in the Sort menu to rearrange the Content panel display.

Refreshing the view

If you alter the contents of a volume or a folder at the System level, outside Bridge, then the Bridge Folder panel and Content panel area won't always know to update the revised volume or folder contents. If you ever need to refresh the view in Bridge, you can choose View ⇨ Refresh, or use the **F5** keyboard shortcut.

Filter panel

The Filter panel lets you view all the available metadata criteria associated with the files in the current Bridge window Content panel view. You can then choose single or cumulative criteria for filtering the files that appear in the Content panel area. The Filter panel options are grouped into sections and as soon as you click on any item listed in the Filter panel, the contents of the Content panel are filtered accordingly.











When managing large folders or hierarchies of folders, these filtering controls can make it easier to narrow down an image search. For example, in Figure 43, you can see how Bridge was pointed at a folder where the image files in that folder were labeled using red and yellow labels and the ratings ranged from no rating to three stars. You could filter files based on the color label, star rating or any of the other available criteria. For example, in the Labels section I could click on one or more color labels listed there and make a filtered selection that was based on a combination of colored filters. You can also use the keyboard shortcuts shown in the sidebar to filter files by label or by rating. In the Filter panel you can filter files by other criteria such as: by keywords, by file type, date created/modified, image orientation, speed ISO rating, camera serial number or copyright notice.

Flattened view

To see a flattened view of all the photos in the current folder and subfolders, go to the View menu and select 'Show Items from Subfolders'. You can then apply a filter to the parent and all the subfolders within. The only downside is that Bridge temporarily loses track of the master folder in the Folders panel, but this can easily be restored by deselecting 'Show Items from Subfolders' in the View menu. There is also a 'keep filter when browsing' pin marker button in the Filters panel (circled in Figure 43). If you click this, it preserves and locks the filter criteria as you continue browsing. Just click again to cancel and clear the filter completely.

Filtering shortcuts

The following shortcuts can be used to filter images in the Content panel:

-  show 1 or more stars
-  show 2 or more stars
-  show 3 or more stars
-  show 4 or more stars
-  show 5 or more stars
-  red labels only
-  yellow labels only
-  green labels only
-  blue labels only
-  Show all items

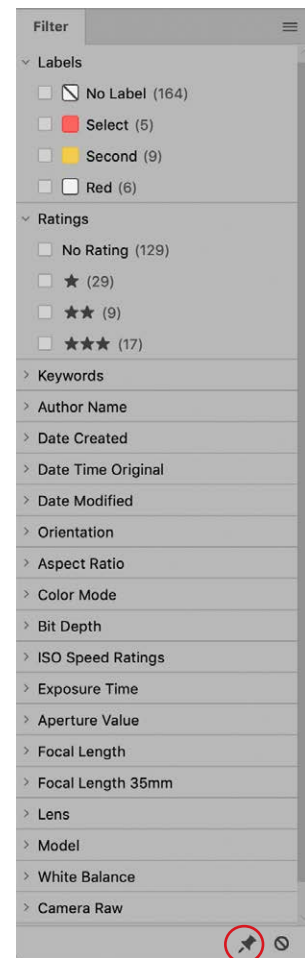


Figure 43 The Filters panel.

Metadata panel

The Metadata panel information is divided into sections (Figure 44). The File Properties section lists the main file statistics such as file name and size, etc., while the IPTC sections contain the file-specific metadata information. To edit these and add new data, click in the field next to the metadata heading and type in whatever you wish to include here (the pencil icons indicate which metadata items can be edited). When you are done, click the Tick button at the bottom, or hit **Enter**. How the remaining sections appear listed depends on how the Bridge Metadata preferences have been configured (Figure 45). Each metadata item has a checkbox against it, allowing you to show or hide individual items. Since it is unlikely that you will really want to see or use all the metadata items listed here, you can deselect the items you don't need. If the Hide Empty Fields box is checked, the checked items will only be displayed in the Metadata panel if there is an accompanying data entry. Some of the items you see listed here are specific to other CC suite programs, or specialist users. Basically, you can use the Bridge Metadata preferences to determine which items you want to see displayed in the Metadata panel.

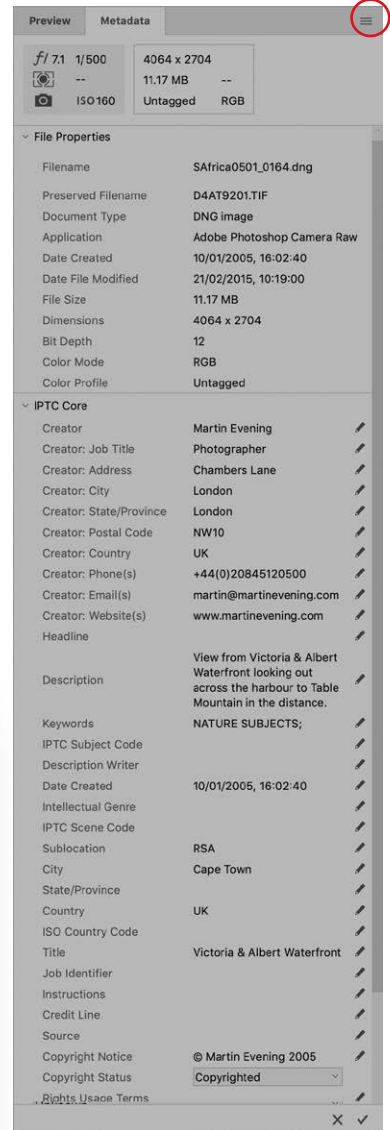


Figure 44 The Metadata panel displays the metadata information contained in a file. The metadata sections can be compacted to make viewing easier and the IPTC fields shown here can all be edited.

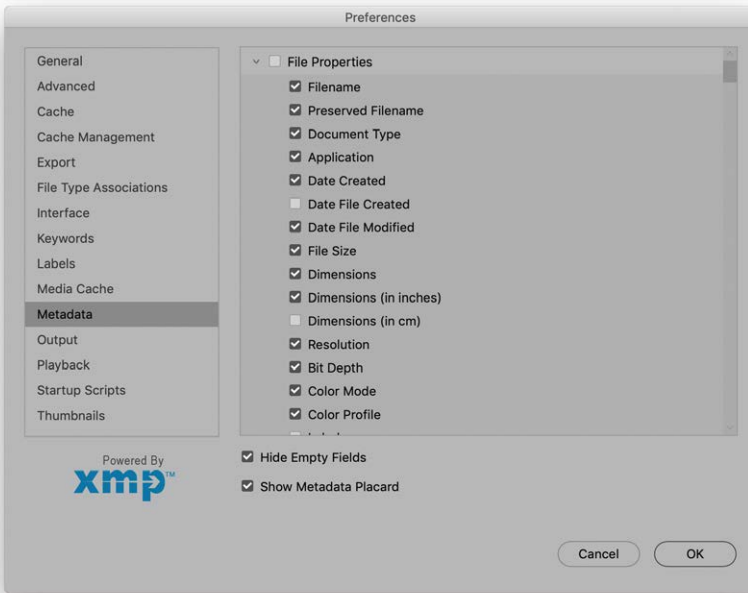


Figure 45 The Bridge Metadata preferences.

Image metadata

Maybe you are wondering what all the information in the Metadata panel is useful for. Well, quite a lot actually, especially if you are running a photography business, or are an amateur who shoots lots of digital photographs. Metadata is often defined as being 'data about data' and the concept of metadata is one you should already be quite familiar with. For example, Librarians use metadata to classify and catalog books in a library. With photographs it is possible to store lots of information within individual files and use this to carry out more sophisticated searches and cross-reference files.

File Info metadata

The File Info dialog (Figure 46) can be used to inspect the file metadata for any document. With regard to image documents this means you can use the File Info dialog to read all the EXIF data as well as edit the IPTC image metadata that relates to the picture content. Photoshop has always supported the information standard developed by International Press Telecommunications Council (IPTC), which was designed to help classify and label images and text files using metadata.

The File Info dialog can be accessed via the File menu in Photoshop or the File menu in Bridge (**⌘ I** [Mac], **ctrl I** [PC]). The File

Powered by XMP

In 2001, Adobe announced XMP (eXtensible Metadata Platform), which to quote Adobe: 'established a common metadata framework to standardize the creation, processing and interchange of document metadata across publishing work flows'. Adobe has already integrated the XMP framework into Acrobat, InDesign, Illustrator and Photoshop. XMP is based on XML (eXtensible Markup Language), which is the basic universal format for using metadata and structuring information on the Web. Adobe has also made XMP available as an open-source license, so it can be integrated into any other systems or applications. Due to Adobe's enormous influence in this arena it means that XMP has now become a common standard in the publishing and imaging industry. Adobe and also third-party companies are now able to exploit the potential of XMP to aid file management on a general level as well as specific needs such as scientific and forensic work.

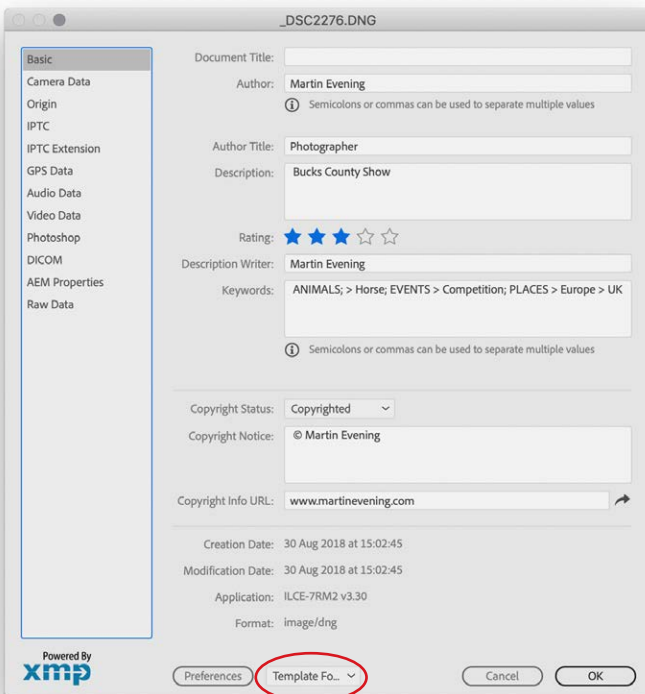


Figure 46 This shows the File Info dialog, which can be accessed via the File menu in Photoshop or Bridge. It shows editable metadata items such as the image description and copyright notice. I have circled here the Template menu discussed in Figure 45.

Info dialog contains 11 sections, some of which are user-editable, such as the Basic section shown in Figure 46, while other sections, like the Camera Data section, provide readable information only. You can use File Info with single or multiple image selections to edit the IPTC metadata: add your name as the author, mark images as being copyrighted, add a copyright notice, etc. Also, marking an image as being copyrighted has the extra advantage of adding a copyright symbol to the title bar of your image window whenever anyone opens it in Photoshop.

After adding File Info dialog entries you can save these as a custom metadata template. For example, you can select an image, enter some basic custom metadata such as the author name, copyright tag, etc. Follow this by going to the Template menu shown in Figure 47 and chose Export. For example, you could export the settings as a new template to the Metadata templates folder (Figure 48). Similarly, you can select Import from the Template menu if you wish to load an existing template and edit it.

You can also go to the Tools menu in Bridge and choose Create Metadata Template. This opens the dialog shown in Figure 50, where any of the custom metadata already applied to the photo will appear in the template fields ready for you to edit. When you create a new template it is best to enter the exact information that should be saved and nothing else. I suggest you don't add any keywords or captions, unless these need to be included in the saved template.

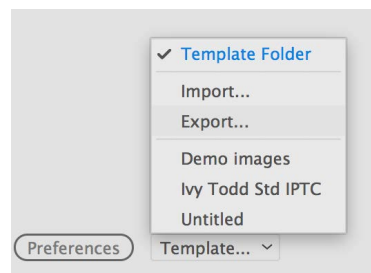


Figure 47 The File Info Template menu.

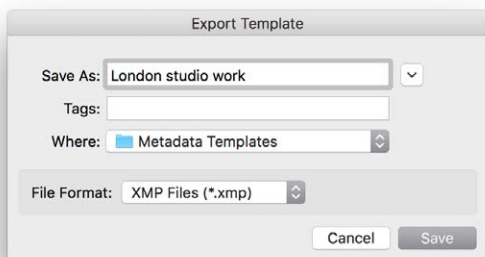


Figure 48 The File Info Template menu.

Appending and replacing metadata

Once you have created and saved a custom metadata template, you can select other images and apply the metadata template via the Bridge Tools menu where you can choose between Append Metadata or Replace Metadata (see Figure 49). Replace Metadata substitutes all pre-existing metadata with that in the template. Append Metadata is the safer option since it only adds to the metadata that is already embedded in the image file.

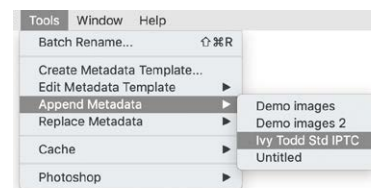


Figure 49 The Bridge Tools menu.

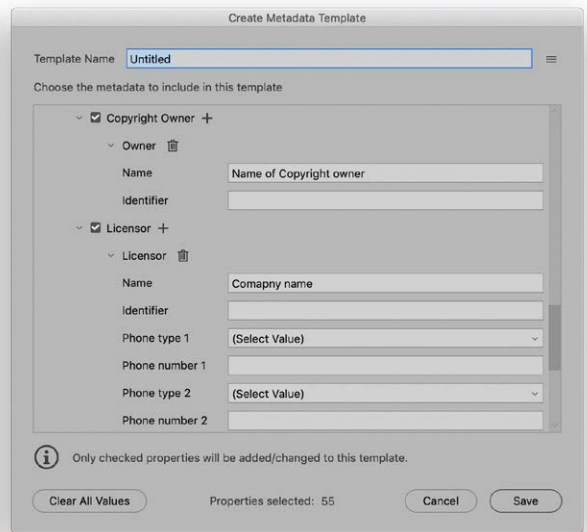
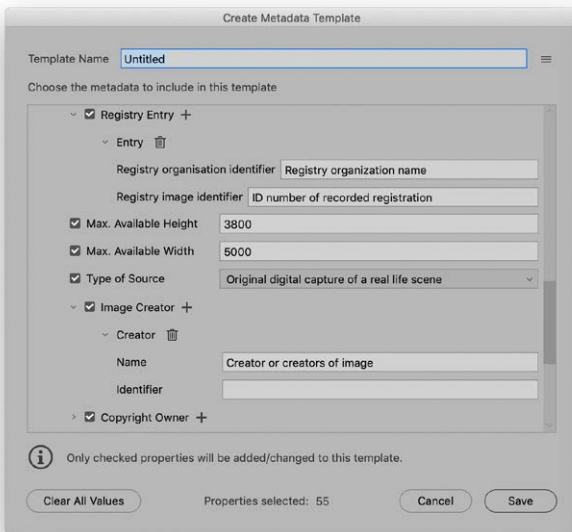
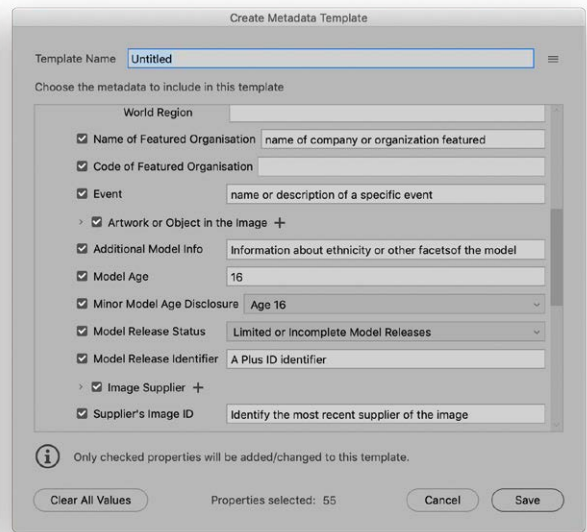
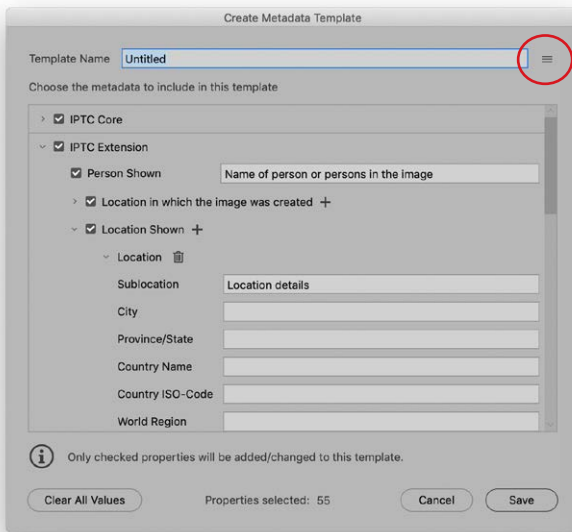


Figure 50 To open the dialog shown here, go to the Tools menu in Bridge and choose 'Create Metadata template'. This shows an example of how you might fill in some of the IPTC Extension metadata sections. You can also obtain more specific information via the www.newscodes.org website.

Controlled Vocabulary

David Riecks runs a website with tips and guidelines on how to work with a controlled vocabulary at: www.Controlledvocabulary.com.

IPTC Extensions

Bridge uses the IPTC Extension Schema for XMP, which is a supplemental schema to the IPTC Core. It provides additional fields with which to input metadata that can be useful to a commercial photography business. In Figure 51 I have provided examples of how you might complete some of the items listed in the IPTC Extensions section of the Create Metadata Template, and you will see brief explanations of how each of these new fields may be utilized. Also, in Figure 50 you can see an example of how the IPTC Extensions data is presented in the File Info dialog. Basically, the IPTC Extensions schema can provide additional information about the content of the image such as the name, organization or event featured in a photograph. It provides you with further fields that are useful for administration work, where you can apply globally unique identifiers (known as GUID). It offers fields for precisely defining the licensing and copyrights of a particular photograph. For example, rather than just saying ‘this photo is copyright of so and so’, it lets you specify the name of the copyright holder as well as who to contact to obtain a license. This might well be a picture library or a photo agent rather than the photographer themselves. The image supplier can also be identified separately. Again, it might be a photo library that supplies the image rather than the photographer directly.

Photographers who photograph people can record specific model information such as the age of the model and you can also provide a summary of the model release status. The same thing applies to photographs of private properties, where under some circumstances a property release may be required.

Other types of metadata

Metadata comes in many forms. In the early days of digital camera technology development, the camera manufacturers jointly came up with the EXIF metadata scheme for cataloging camera information. The EXIF metadata in your digital camera files will tell you things like what lens setting was used, when a photo was taken and the serial number of the camera. This could be useful if you were trying to prove which camera was used to take a particular photograph when there were a lot of other photographers nearby trying to grab the same shot and also claiming authorship (such as when shooting among a gathering of other photojournalists). The EXIF metadata can describe everything about the camera’s settings, but the EXIF schema cannot be adapted to describe anything but the camera data information. Even so, EXIF metadata searches are useful where you may wish to isolate the photos shot with a particular camera and lens combination or where you may wish to filter all the photos that were shot using a particular ISO setting.

This PDF is provided free with the Adobe Photoshop for Photographers book. Not for distribution or resale.

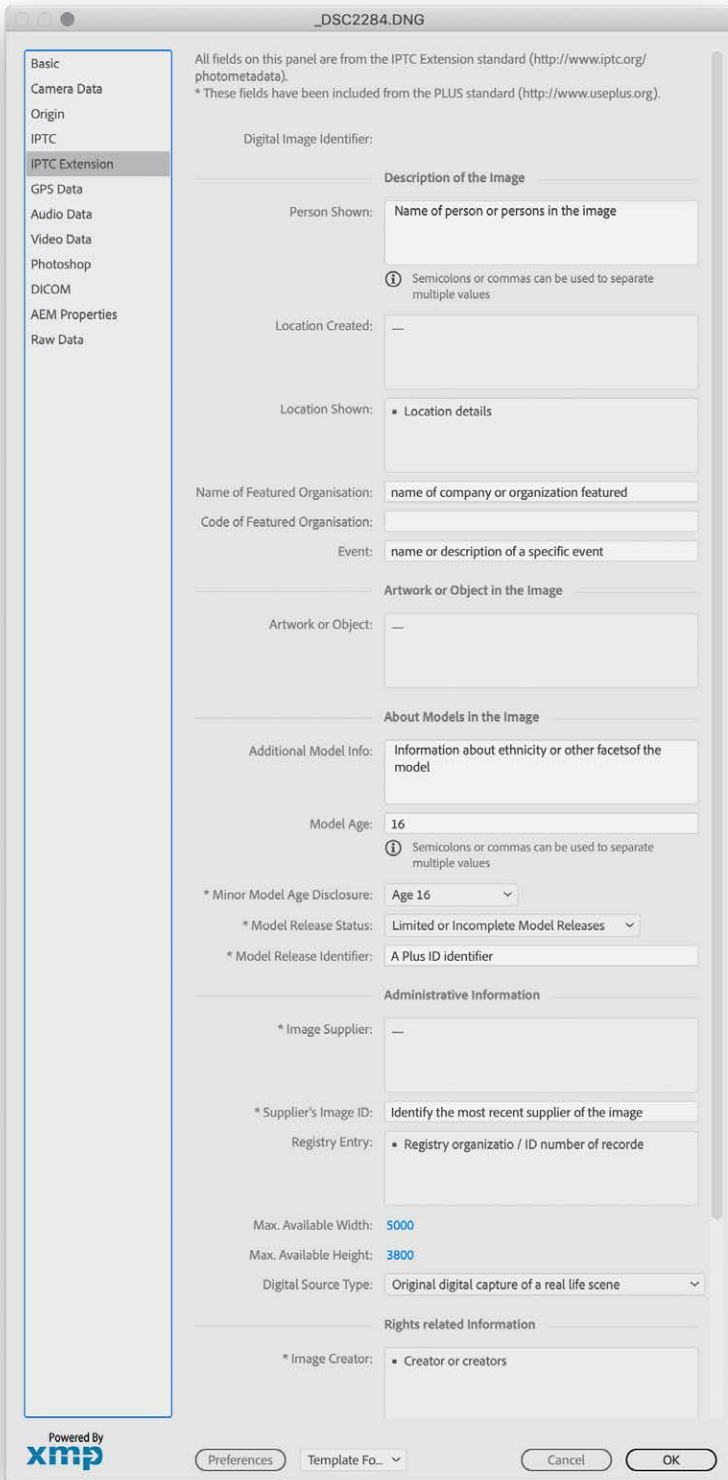


Figure 51 This shows an expanded view of the File Info IPTC Extensions section.

GPS metadata

The File Info and Metadata panel can include GPS metadata, where if GPS coordinates are embedded in a file, you can see the position coordinates, altitude and direction the camera was pointing when the photo was taken (Figure 52).

Currently it is quite tricky to marry up the GPS metadata from a track log file recorded using a GPS device and get the time zones and clock times to match. Even so, this is still useful information to have available and many photographers are already in the habit of geotagging their images. This data can prove really useful when it is read by programs such as Google Earth or Lightroom (especially since Lightroom features a dedicated Map module). However, while GPS data is useful, you may sometimes want to be careful sharing this data with other users. For example, you might not want GPS coordinates of photos taken of your children to be embedded in photos you upload to social media websites. This is why it is useful to manage your photos in a program like Lightroom, where it is possible to restrict such metadata at export.

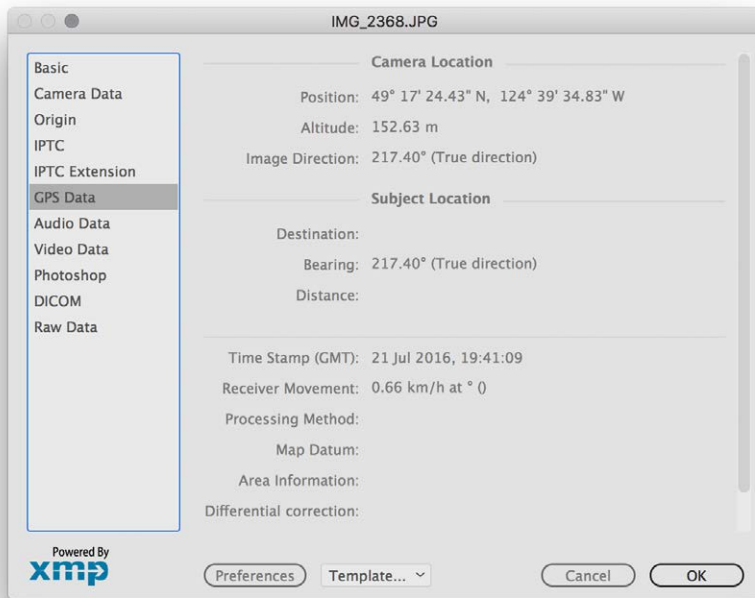


Figure 52 The File Info GPS Data panel section.

Other File Info sections

Other items have specific uses such as the DICOM metadata section items which have been specifically designed for embedding important medical data information in medical images.

The amount of metadata that can be recorded has now grown to the point where the File Info... has become extremely crowded. The most recent versions of Photoshop and Bridge have overcome this with an improved layout design for presenting the File Info metadata information.

Importance of metadata

It is quite scary to consider the number of freely distributed digital images out there that contain no information about the contact details of the person who created the image. If nothing else I suggest you create a Metadata template that contains your current contact details, marks your photographs as being copyrighted and apply this to all your images. Right now the issue of what are referred as 'orphan works' should be of real importance to photographers everywhere. There are plenty of people and organizations who would dearly like to see the copyright laws changed so that non-copyright marked images are made free to use. This isn't helped by the fact that certain social media websites still strip the copyright metadata from files that are uploaded to their sites. There is nothing that can be done to stop people deliberately removing copyright notices from images and turning them into orphan works (although doing so is still a breach of copyright law), but the more you do to protect your images now, the more chances you will have later of enforcing your rights.

Edit History log

If the History Log options are enabled in the Bridge History Log preferences (Figure 53), an edit history can be recorded in either the file metadata, as a separate text file log, or both. The Edit log items can be recorded as session information only (such as the time a file was opened and closed), concise or as a verbose record of what was done to a file in Photoshop. If you choose to embed the history log in the file metadata, the Edit History log can be viewed via the Bridge Metadata panel (see Figure 54). The edit history has many potential uses. It can be used to record how much time was spent working on a photograph and could be used to calculate how much to bill a client. In the world of forensics, the history log can also be used to verify how much (or how little) work was done to manipulate an image in Photoshop.

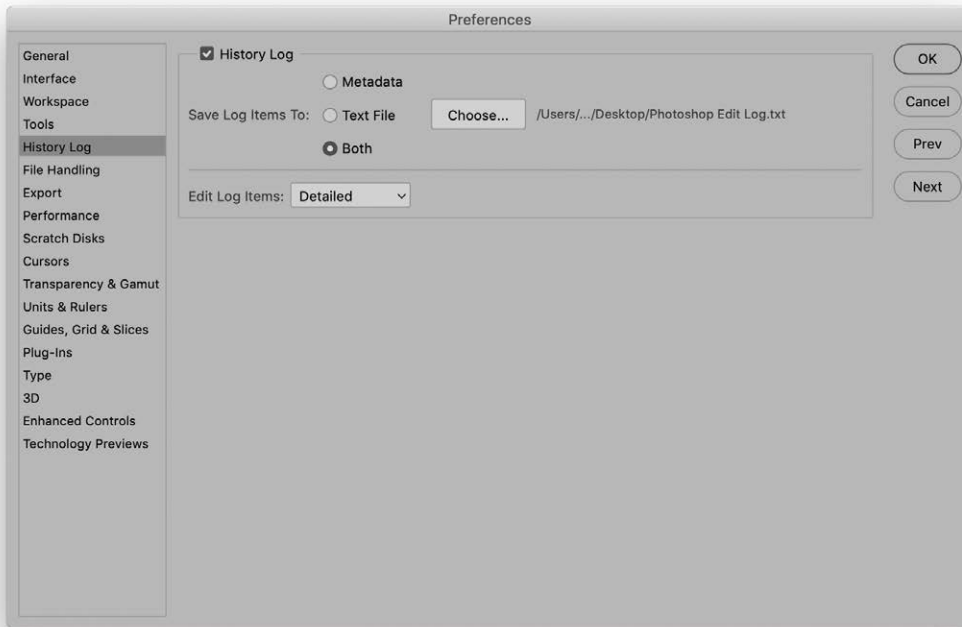


Figure 53 The Photoshop History Log preferences.

The same arguments could apply if validating images used to present scientific evidence. In the case of images that have been processed via Camera Raw, the Camera Raw metadata section also stores a record of the Camera Raw (or Lightroom) settings used.

Hidden metadata

Bear in mind there may also be hidden metadata that won't show up in any of the Metadata panel sections. This could be things like camera manufacturer EXIF metadata that contains proprietary information that only the camera manufacturer's software has access to.

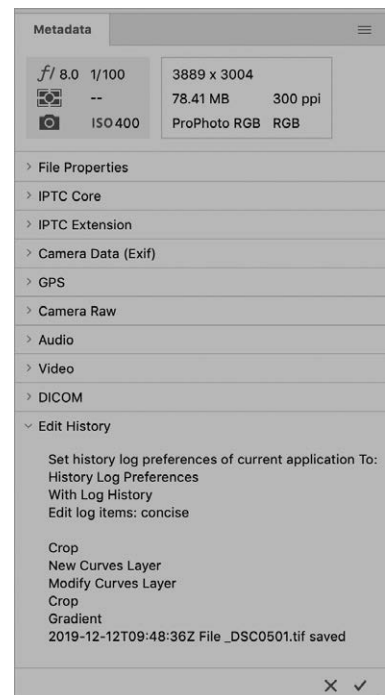


Figure 54 The Bridge Metadata panel Edit History log.

Keywording

You can group and organize images within Photoshop using keywords. By using keyword tags to describe the image content, you can catalog your files more comprehensively.

It is usually best to add keywords at the same time as you import new images. For example, Figure 55 shows the Basic section of the File Info dialog where you can add keywords to an image. It is important to note that each keyword must be separated by a semi colon or a comma. This is important as it ensures the keywords are clearly separated. Such keyword metadata can also be included when you create a metadata template. For example, every time you shoot a particular sporting event you might want to have a template that applies relevant keyword metadata you always need for these types of assignments, such as the name of the stadium location and home team. You will also need to know the exact keyword phrases to type if they are to match the keyword data used elsewhere for other images. This is why it is sometimes better to use the Keywords panel to do this.

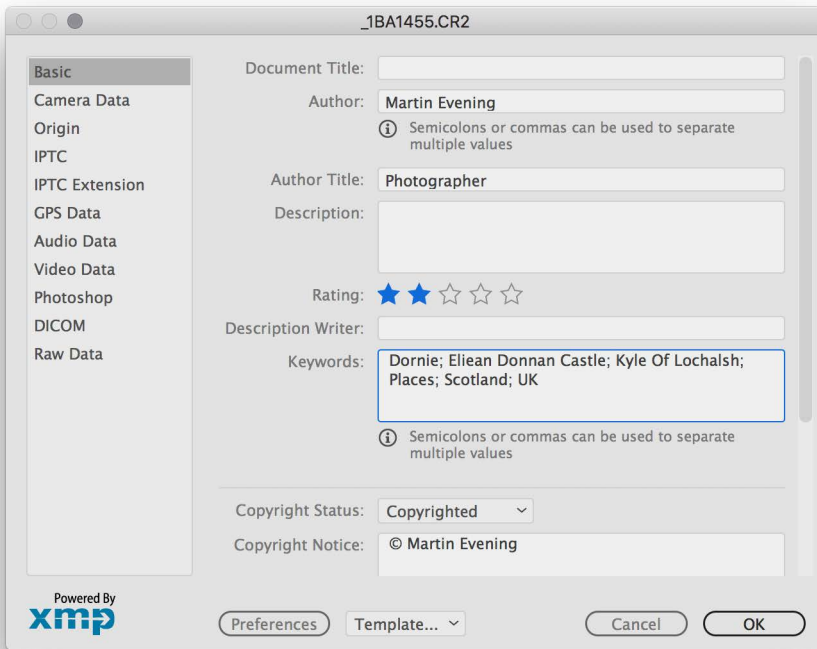


Figure 55 The File Info Basic section.

Keywords panel

The Keyword panel (Figure 56) displays all the keywords that are associated with the images you have currently selected. The Keywords panel provides a basic level of organization as it allows you to arrange keywords that you come across into a hierarchy list, plus you can also use the Keywords panel to add new keywords. Click on the 'Add new keyword' button to create a keyword category, such as 'People' or 'Places', type in the name and hit **Enter** to add the keyword (or use **esc** to cancel). You can then highlight the keyword and click on the 'Add new sub keyword' button to add a new sub keyword. Once keywords appear listed in the Keywords panel you can make a file selection within Bridge, go to the Keyword panel and click on the empty square to the left of the desired keyword to apply, or click again to remove. This method allows you to assign one or more keywords to multiple images at once. If the 'Automatically Apply Parent Keywords' option is checked in the Bridge Keywords preferences (Figure 57), checking a sub keyword automatically selects all the parent keywords too.

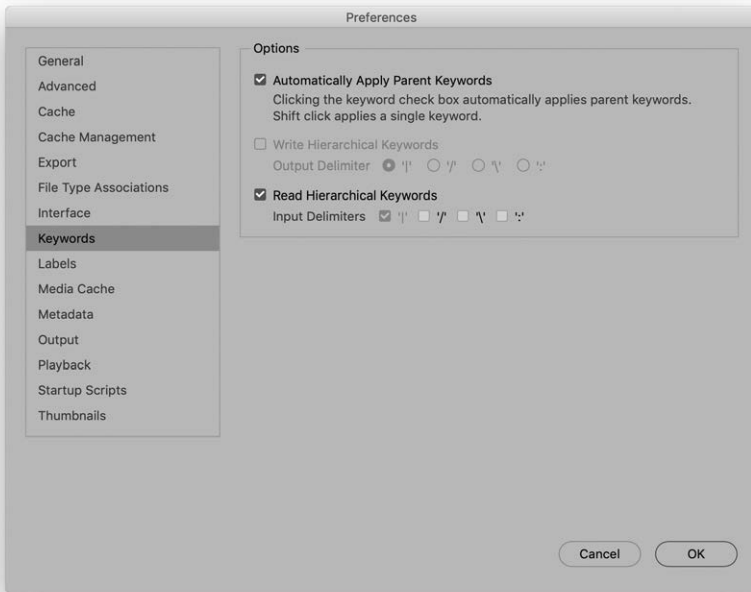


Figure 57 The Bridge Keywords preferences.

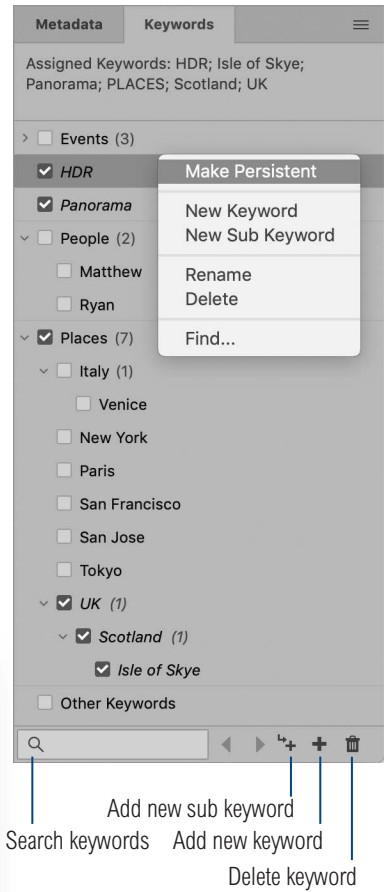


Figure 56 In this view of the Keywords panel an image was selected and I can see that six keywords were assigned, telling me that this was a photograph taken on The Isle of Skye in Scotland, UK and that one of the keywords identified this as being part of an HDR sequence. Now, in this instance, 'HDR' appears in italics, which indicates this was not an established keyword in the Keywords panel. To make this keyword persistent, I used a **ctrl**-click (Mac), or right mouse-click to open the contextual menu shown here and chose 'Make Persistent'.

Making keywords permanent

The keyword information will accumulate as you select further images and you will notice that some of the 'visited image' keywords appear in italics. This indicates that they are only temporary. If you were to quit Bridge and relaunch, these temporary keywords would be cleared from the list. To make such keywords permanent you should use the context menu (as described in Figure 54) to make them persistent.

Where keywords are stored

Like other metadata, keyword information (including the keyword hierarchy) is stored directly in the file's XMP space, or in the case of raw files, either to the Camera Raw database, or as an XMP sidecar file. The Keywords panel displays the accumulated information that it has read from various image files' metadata and can also be used to write keyword metadata back to the files.

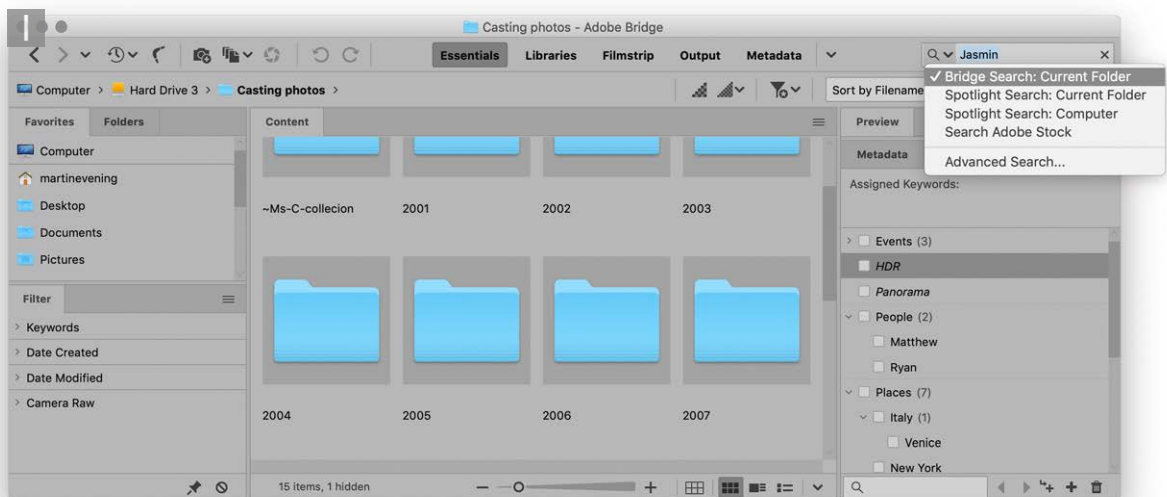
Other keywords

As you enter keywords via the File Info panel, any keywords that are unrecognized will appear listed under the category: 'Other Keywords'. You can then use the Keywords panel to rearrange these into a suitable hierarchy and have the option to make them persistent. You will also find that where Bridge is unable to read the hierarchy of keywords that have been entered via another program, these too may appear listed under 'Other keywords'.

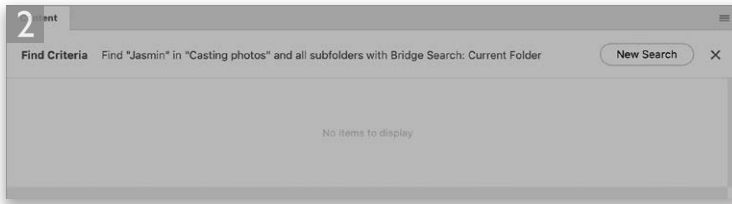
Image searches

The Bridge window search field allows you to use either a standard Bridge search or a system-based file search (such as Spotlight on the Mac). All you have to do is select the folder you want to search in, enter the phrase you want to search for and hit **Enter** or **Return**. This will carry out an instant search that includes all subfolders. If that fails to produce any results or you want to expand the search criteria, you can click on the New Search button which opens the Find dialog shown in Step 3. Here, you'll find more search options such as the ability to combine different match criteria and match policies. If Bridge has not had a chance to cache the files in all folders yet, you can select the Include Non-Indexed files option. However, this will make for slower, but more thorough searches.

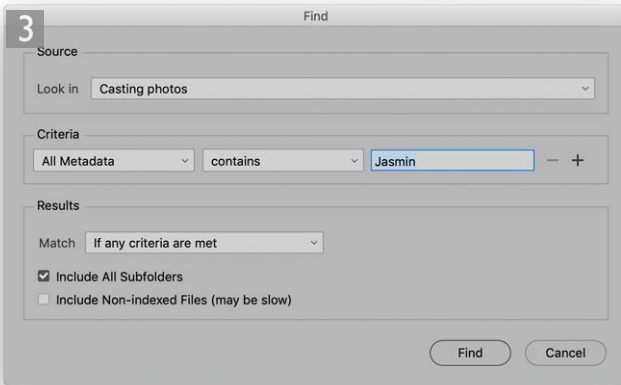
The search criteria can be for almost anything you want. The source folder will default to the folder you are viewing in the front-most Bridge window, but you can select other folders to inspect as well and if the folder you are searching contains a lot of subfolders, you'll need to make sure that the 'Include All Subfolders' option is checked. The search criteria can also be adapted in various ways. For example you can include search terms where you ask Bridge to search for files that 'exclude' specific criteria.



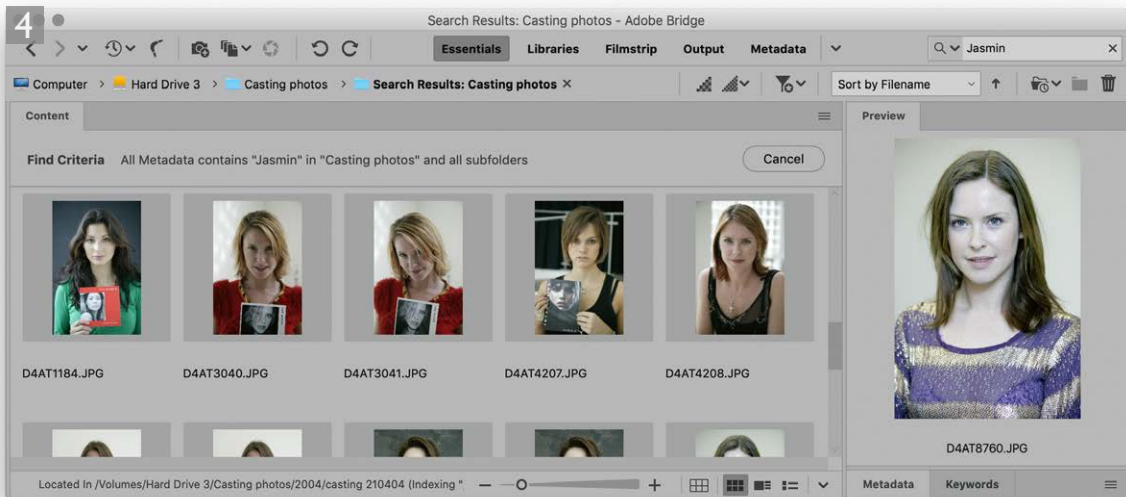
1 This shows a Bridge window view where I was about to carry out a file search of a master Casting Photos folder, looking for any images that matched the term 'Jasmin'. You'll note that there are three search options available. In this instance I chose to use a Bridge search, which would carry out a search by file name and keywords using the Bridge search engine.



2 The standard Bridge result gave no results, so I clicked on the 'New Search' button.



3 This opened the Find dialog, which allowed me to expand the search criteria used. Here, I changed the 'File Name' criteria to 'All Metadata' (note, you'll have to retype the search phrase again when you do this) and clicked 'Find'.



4 This time I was more successful, because Bridge now included all metadata search criteria such as the Caption IPTC metadata that had been added to the files and the results of the search were now displayed in the Content panel area.

Skipping the Bridge search field

You can skip the Bridge search field completely and open the Find dialog shown in Step 3 directly. Just go to the Edit menu and choose Find..., or use the **⌘ F** (Mac), **ctrl F** (PC) keyboard shortcut.

Collections panel

The ability to create collections is an important feature in any image management program. Collections help you quickly access specific groups of images. The Bridge Collections panel is shown in Figure 58. To create a new collection, all you have to do is make a selection of images in Bridge and then click on the 'Add New Collection' button in the Collections panel. Or, you can click on the 'Add New Collection' button to create a new collection first and then drag files from the Content panel to the collection. You see, with collections you are not limited to refining the files in single folder; you can add images to any number of different folders to create a new collection. In Figure 58 I highlighted the 'South West USA' collection. This collection contained a selection of the best images I had shot on a trip around south western States in the USA.

To remove photos from a collection, you need to make a selection of the photos and then click on the Remove From Collection button (Figure 59). To delete a collection, select a collection in the Collections panel and click the Delete collection button at the bottom of the panel.

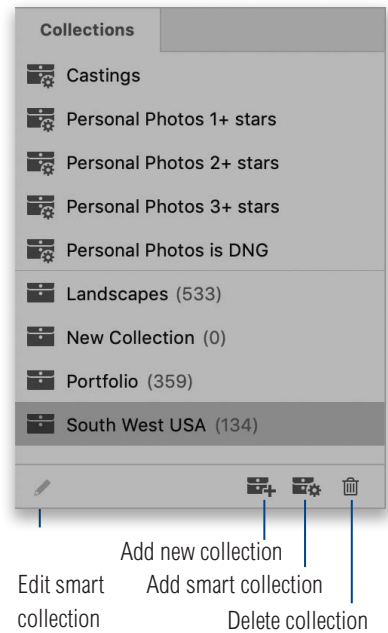


Figure 58 The Collections panel showing both normal and smart collections.

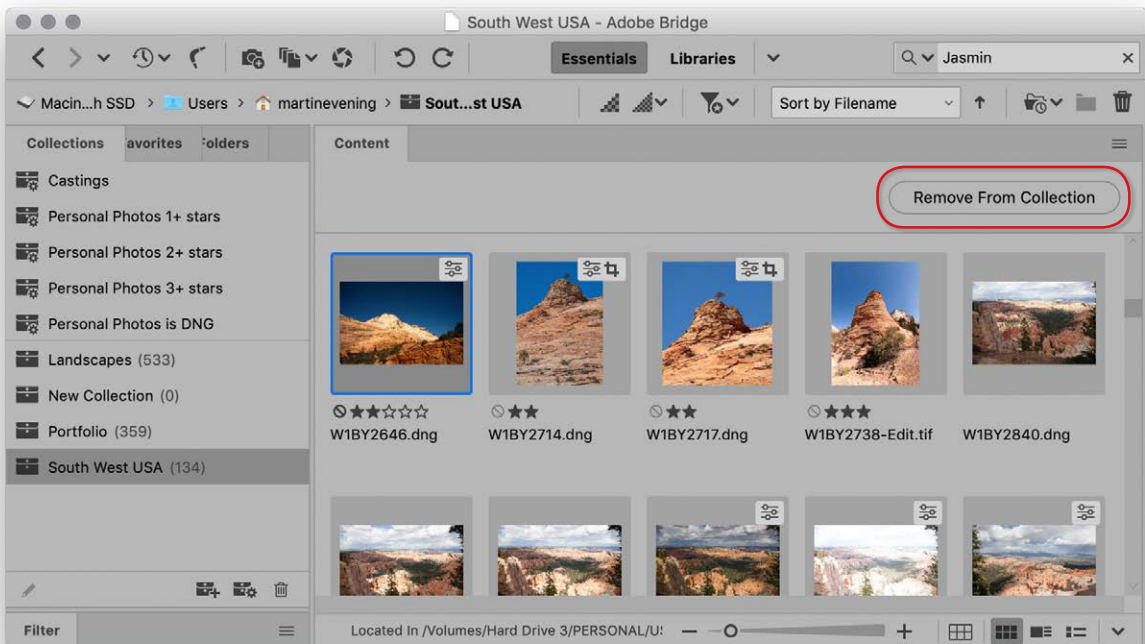
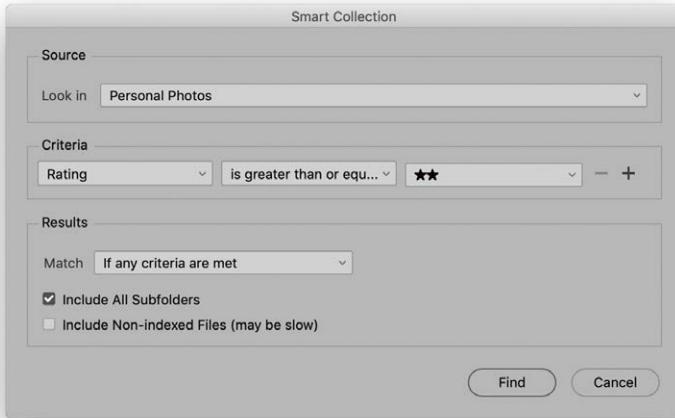


Figure 59 To remove a file (or files) from a collection, click on the 'Remove from Collection' button (circled).

Smart Collections

As well as creating normal collections, you can click on the Add New Smart collection button to open the Edit Smart Collection dialog shown in Figure 60, where you can choose the source folder group to look in, followed by the various criteria to filter by. In this example, I filtered the files in the 'Personal Photos' folder to create a smart collection that contained only the images that had a two star rating or higher.



Smart Collection rules

The Criteria section can be used to add one or more file selection criteria and each item can have conditional rules. For example, when you select 'Document Type', you can choose to filter according to whether files equal or don't equal this criteria. When the Rating option is selected you can choose to filter according to whether files have the exact same rating, or the same and greater, etc. Next, comes the Match section. If you select the 'If any criteria are met' option, this acts as an 'OR' sort function, where files are sorted according to whether they meet any one of the individual criteria. If the 'If all criteria are met' option is selected, this acts as an 'AND' sort function, where files are sorted according to whether they meet all the combined filter criteria.

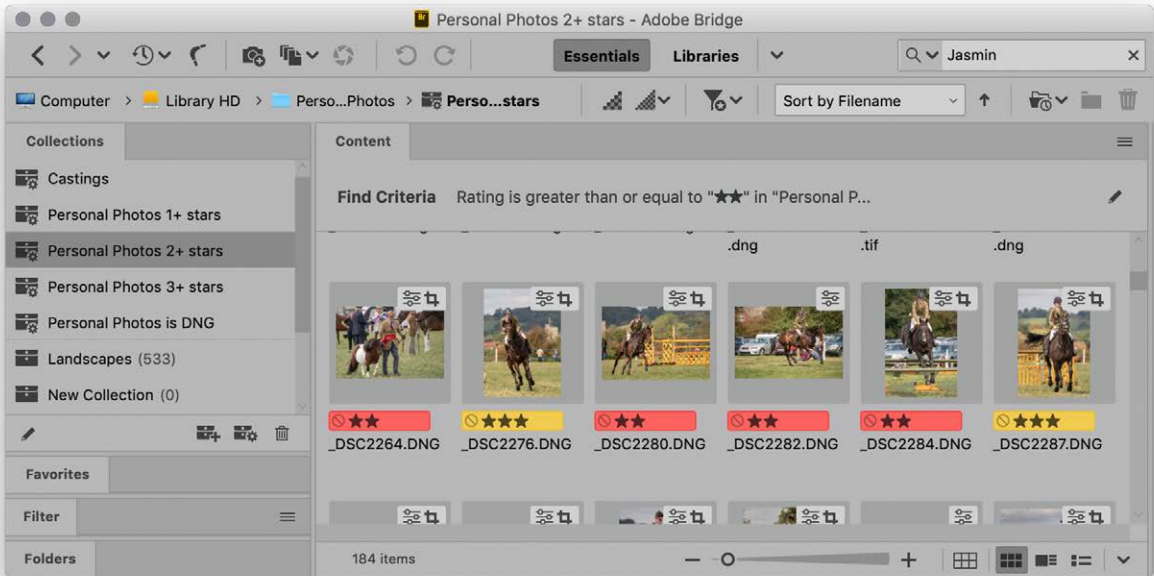


Figure 60 This shows the Edit Smart Collection dialog and below, the resulting collection this smart collection setting produced.

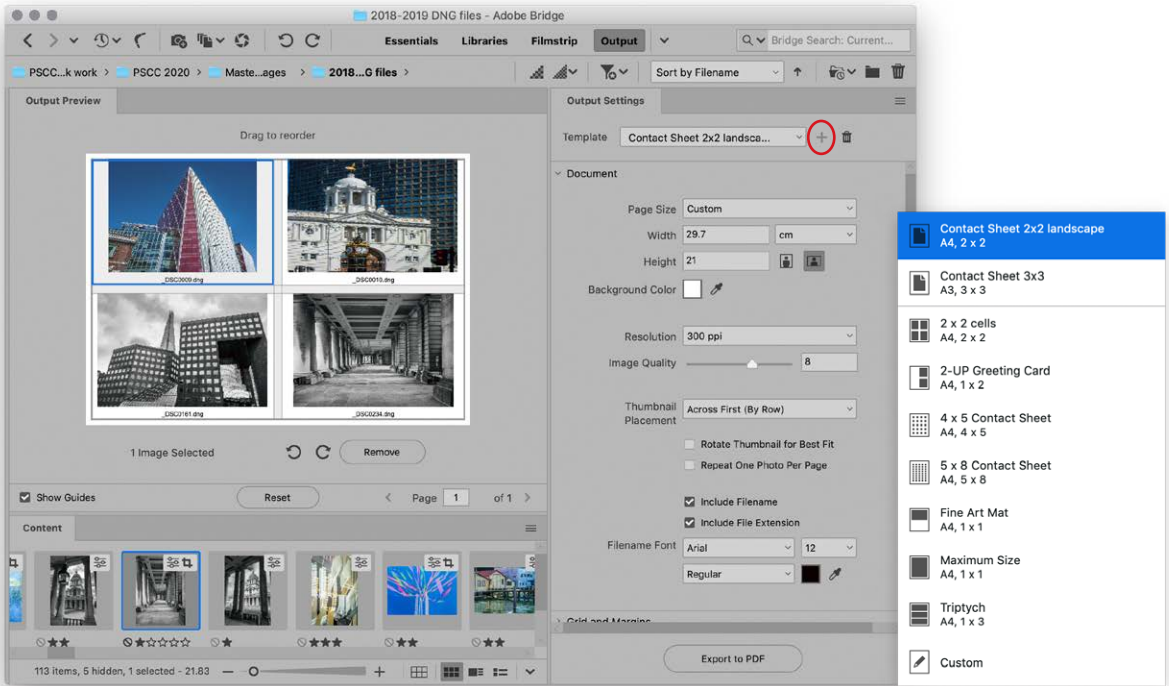


Figure 61 The Output workspace showing the Output Settings panel.

The Output workspace

The Bridge Output Workspace is shown in Figure 61. This can be used to create PDF outputs based on the different types of layouts available from the Output Settings Template menu (see above).

Having selected a template to work with you just have to drag and drop photos from the Filmstrip below to add to the template layout. You can drag photos within the template layout to reorder, or select a photo to remove and click the Remove button. As more photos are added than can be accommodated within the layout, new pages will be added.

The default behavior is for the Output workspace panels to open in Solo mode (see the Output preferences in Figure 67). Figure 62 shows a close-up view of the Output Settings and Document panels. You can use the Document panel to set the document page size and resolution and adjust the image quality when exporting as a PDF. If you choose to include the filename and file extension you can select the font, color and font style below.

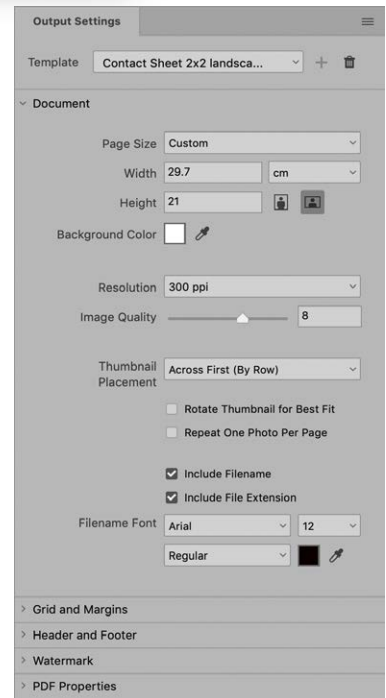


Figure 62 The Output Settings and Document panels.

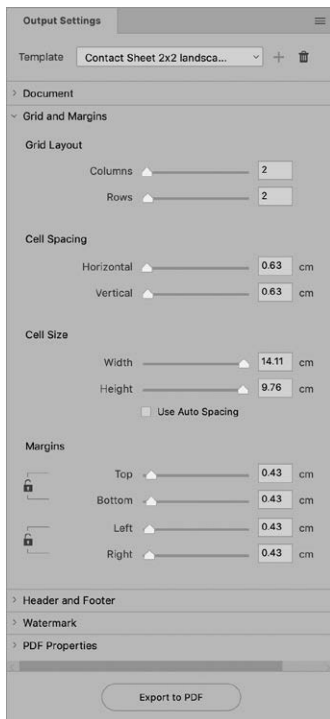


Figure 63 The Grids and Margins panel.

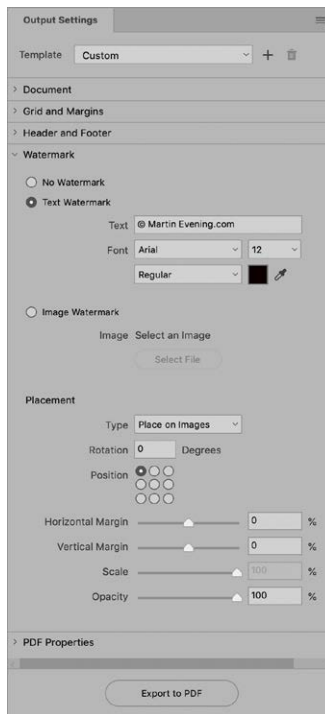


Figure 64 The Watermark panel.

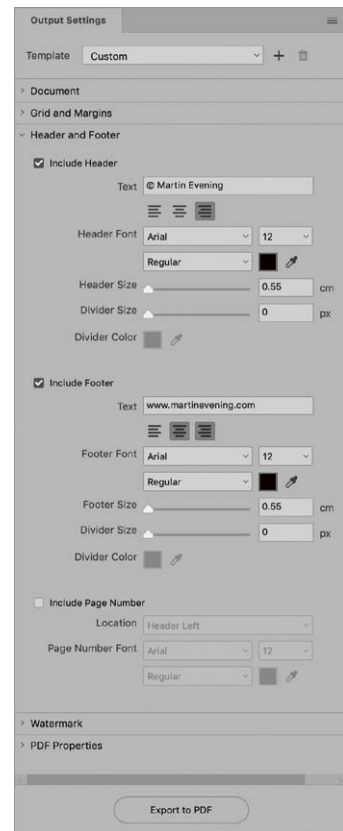


Figure 65 The Header and Footer panel.

The Grid and Margins panel (Figure 63) can be used to modify the Grid Layout arrangement, Cell Spacing and Cell Size. If you refer to Figure 67 you will notice a ‘Prefer Cell Size Over Cell Spacing While Resizing Margins’ preference. When checked this means adjustments to Margins settings below will result in the Cell Spacing staying locked as the Cell Size is resized.

Figure 64 shows the Watermark panel. The settings here can be edited to add either a text or an image watermark based on a selected image file. You can also choose the placement where the watermark will appear on each individual image.

The Header and Footer panel is shown in Figure 65. Here you can choose to add Header and Footer information and adjust the fonts and header/footer margins. When you have finished editing the panel settings you can click on the + button (circled in Figure 61) to add as a new custom template.

The PDF Properties panel (Figure 66) can be used to add security measures such as to require a password to open the document. In the Playback section you can choose to have the PDF play as a slideshow. Finally, you’ll need to click in the Export to PDF button to create a PDF document. This can then be shared with others or used to make a print.

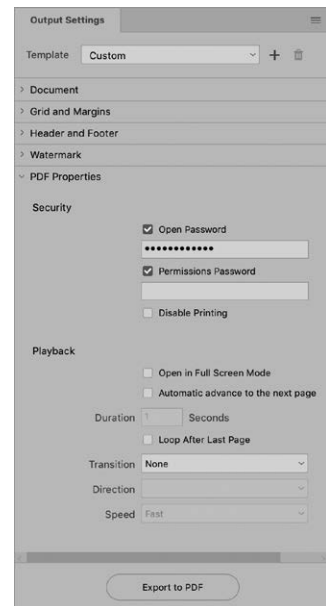


Figure 66 The PDF Properties panel.

Output preferences

The Output preferences are shown below in Figure 67. By default, the PDF documents can be viewed after completion of export.

If the 'Preserve Embedded Color Profile' option is selected this preserves the color profile that is embedded in the image or images. If this is not possible, the Adobe Output Module will convert the output document profile to sRGB.

The default behavior is for the Output workspace panels to open in Solo mode, where as you click to open one panel, the others auto-close.

As mentioned on the previous page, if the 'Prefer Cell Size Over Cell Spacing While Resizing Margins' preference is checked, adjustments to the Margins settings will result in the Cell Spacing staying locked as the Cell Size is resized. If the images you are including for output include transparent areas, check 'Preserve Transparency for Images' to preserve the transparency.

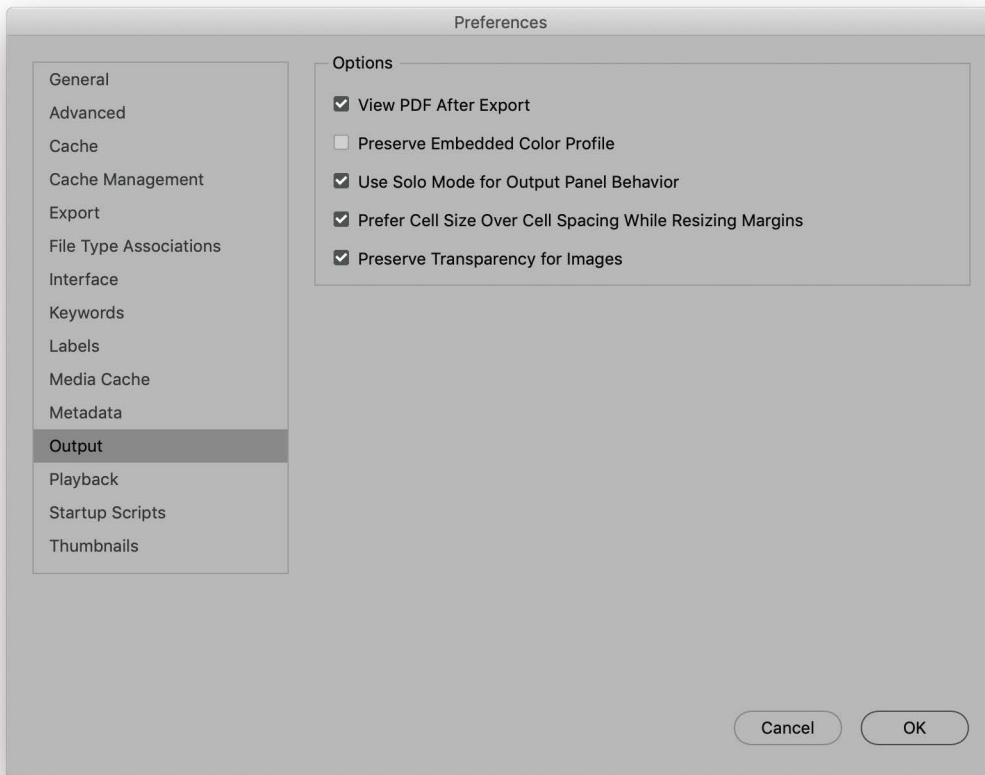


Figure 67 The Adobe Bridge Output preferences.

Contact Sheet II

The Contact Sheet II feature is available in Photoshop via the File ⇨ Automate menu and also in Bridge via the Tools ⇨ Photoshop menu. The Contact Sheet II dialog (Figure 68) can be configured to process all the images selected in the Source section and generate custom contact sheets in Photoshop. Figure 68 shows the settings used to generate the accompanying contact sheet shown below. However, with the inclusion of the Output Workspace to Bridge it may be possible people will want to use that method instead.

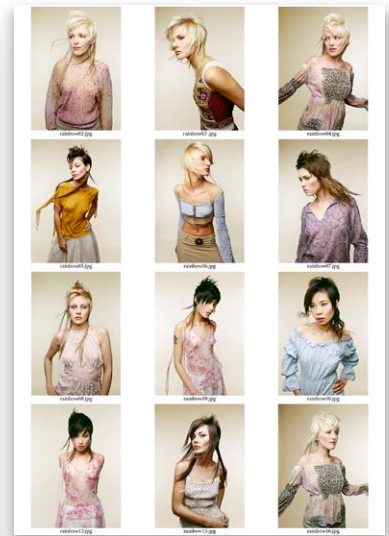
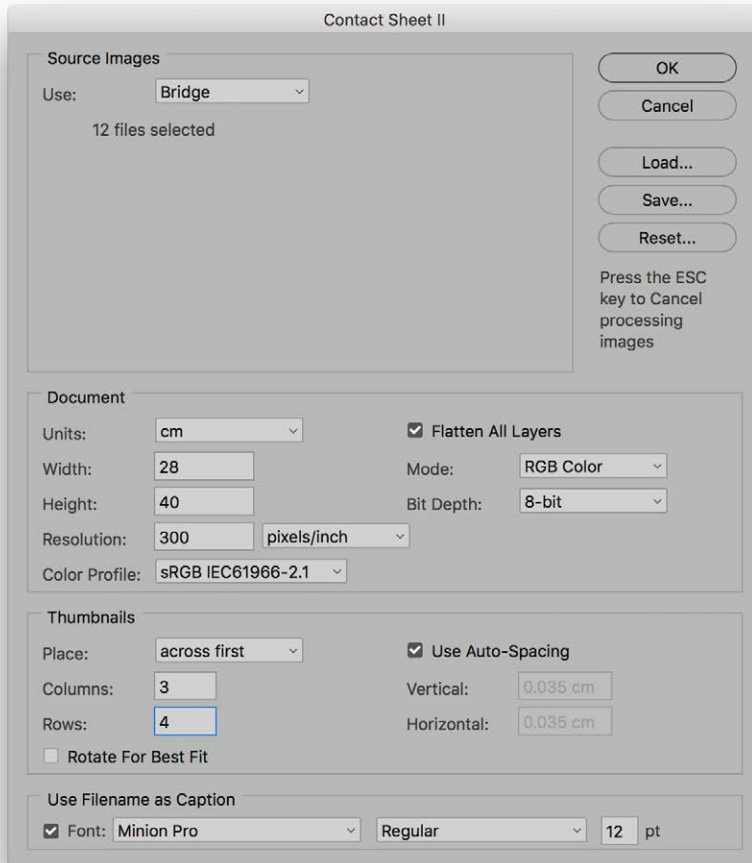
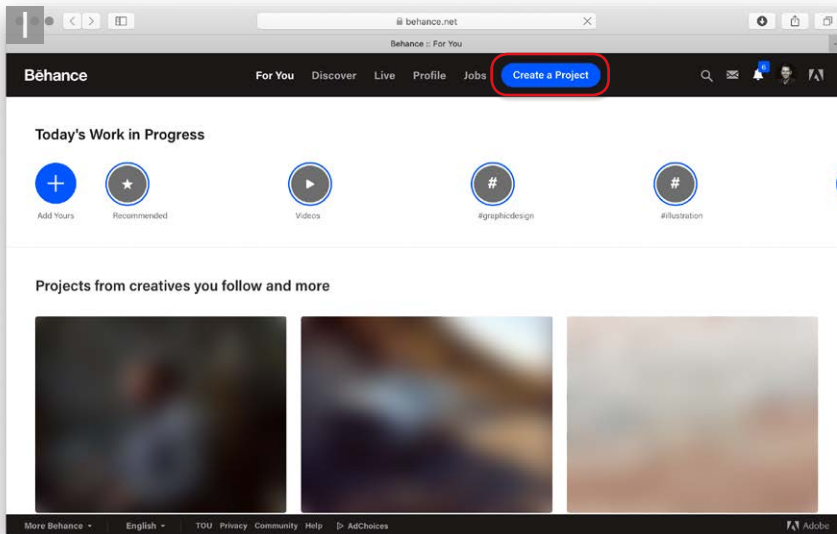


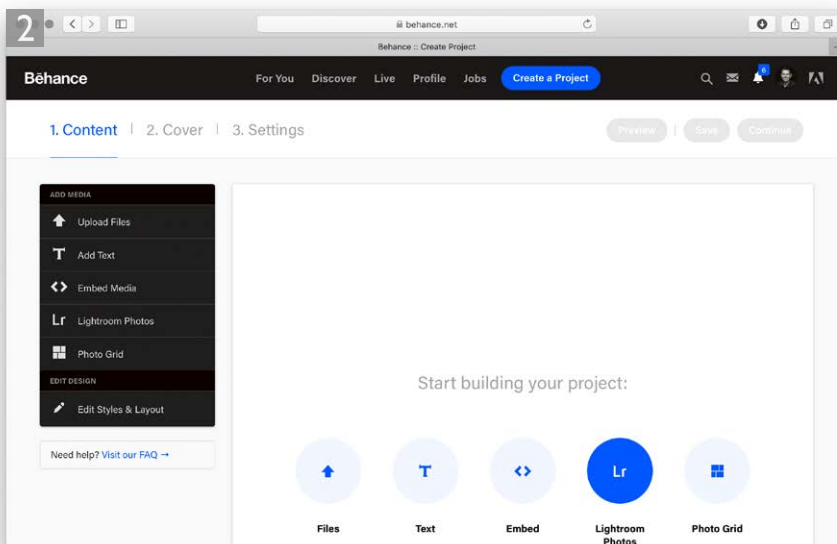
Figure 68 The Contact Sheet II dialog.

Behance export

This is not a Bridge feature, but something that's available in Photoshop: the ability to export photos for public sharing via Behance.



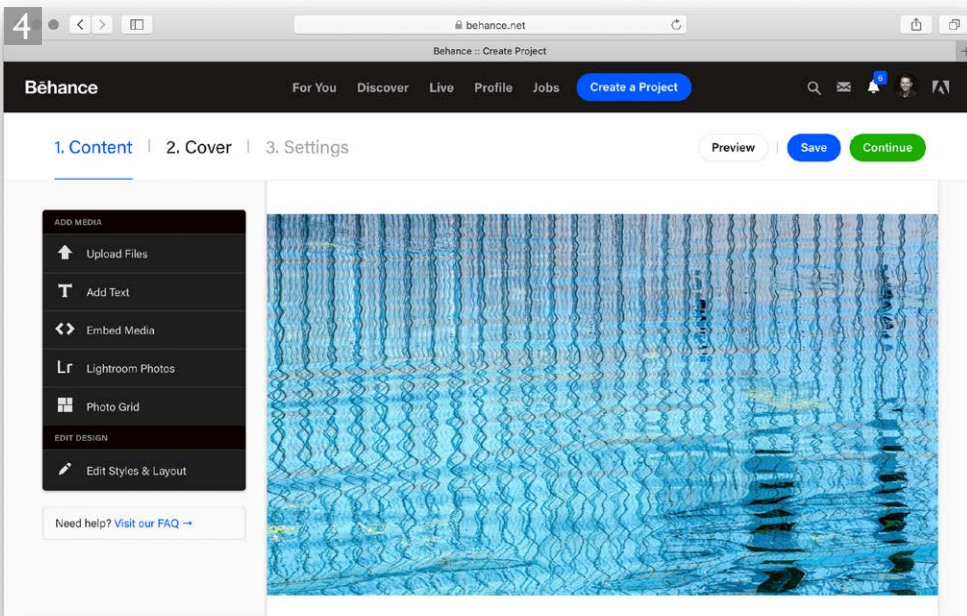
1 To upload an image I was working on to Behance, I chose File ⇒ Share on Behance... As I had already created a Behance account, this opened the Behance Home page, where I clicked on the Create a Project button (circled).



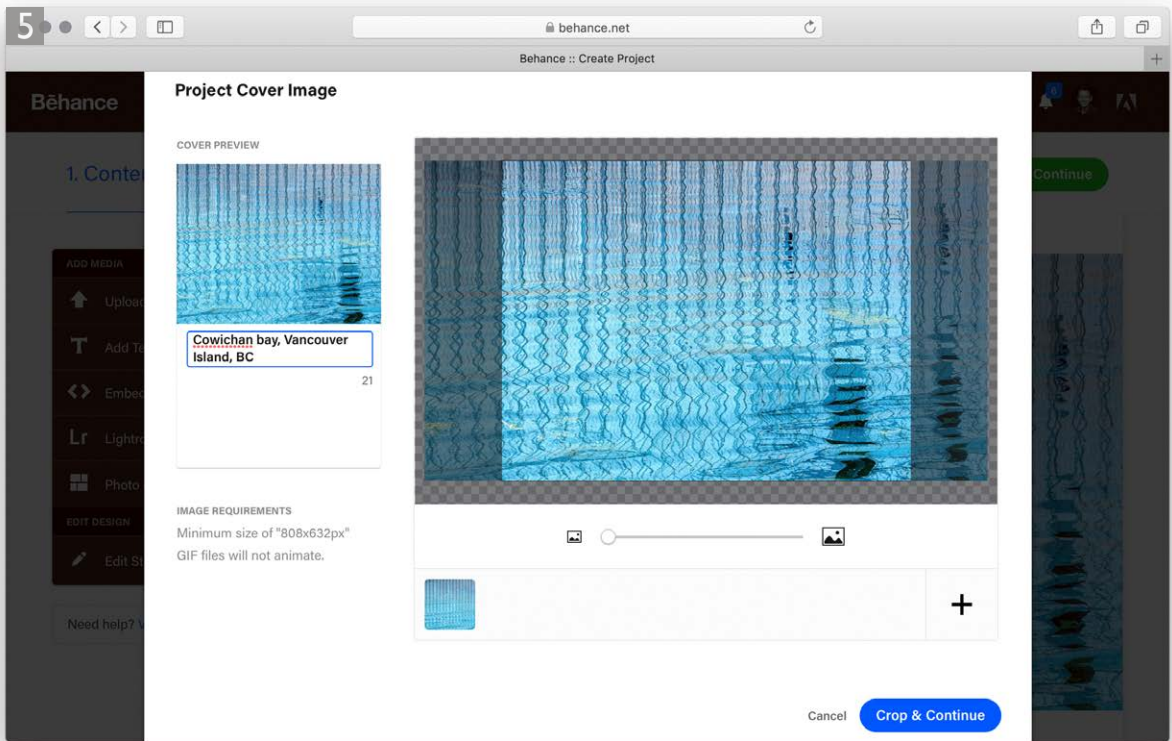
2 In this step I clicked on the Lightroom Photos button to select this as the source.



3 This took me to my Lightroom Photos account page, where I selected a photo to import.



4 The imported photo then appeared added to the Behance new project page.



5 I clicked the Continue button (see Step 4) and chose how the preview crop would look and clicked the Crop Cover & Publish button to complete the upload to Behance.

About the Behance Network

Behance Network can be accessed at: www.behance.net. This is basically a networking site for creatives to share their work. Having Behance integration incorporated into the latest version of Photoshop in this way, makes it very easy to click and upload from any image you happen to have open in Photoshop. If you are not already a member, you will be required to register the first time you try to use the service.

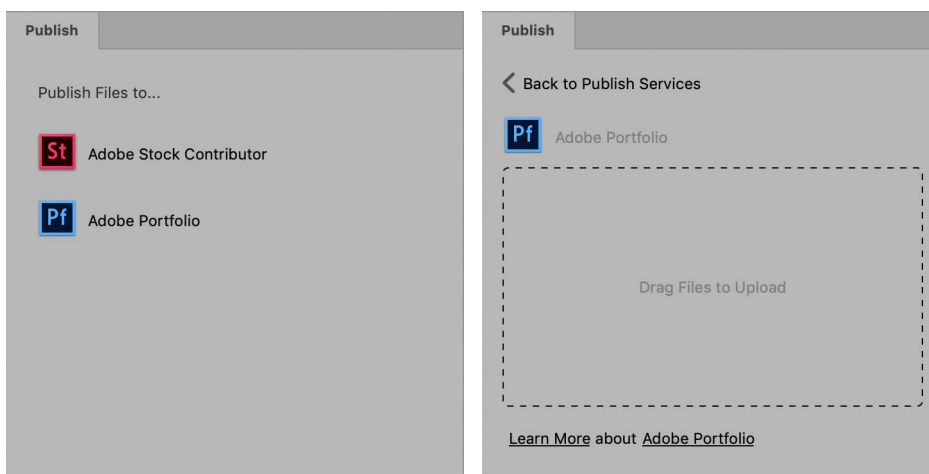


Figure 69 The Publish panel. When you click on either the Adobe Stock Contributor or Adobe Portfolio buttons, this creates a drag area for you to drag files to upload.

Publish panel

The Publish panel (Figure 69) allows Adobe Stock contributors to upload files to Adobe Stock. Or you can use the Publish panel to publish your assets on Adobe Portfolio. To view the Publish panel in any workspace in Bridge, choose Window ⇒ Publish Panel.

Adobe Portfolio

To publish to Adobe Portfolio, go to the Publish panel click to select the Adobe Portfolio publish service. A drag area appears in the Publish panel. From the Content panel, select an asset or a selection of assets that you want to upload to Adobe Portfolio and drag the selection onto the drag area in the Publish panel.

Essentially, Adobe Portfolio comes free with your Creative Cloud subscription and lets you quickly and easily build a website to showcase your photos. Whenever you upload photos to Adobe Portfolio, you can also choose to share them on Behance, which is where viewers to the Behance site can discover and interact with them.

Adobe Stock

If you are already registered as an Adobe Stock contributor you can start using the Publish panel straight away to upload image assets via the drag area (see Figure 70). Otherwise, you'll need to setup a contributor account first.

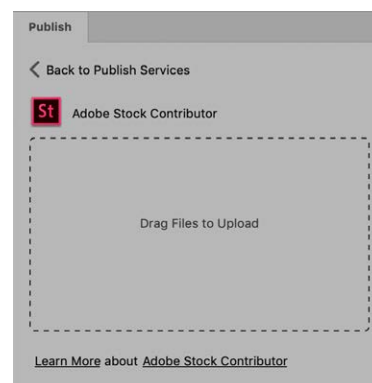


Figure 70 The Publish panel in Adobe Stock Contributor upload mode.

Bridge automation

The Photoshop Automate features can all be accessed directly in Bridge by going to the Tools menu and selecting an option from the Photoshop submenu (Figure 71). For example, to apply a Photoshop batch action process, make a selection of images in Bridge and choose Tools ⇒ Photoshop ⇒ Batch... You can then configure the Batch dialog to apply an action routine to the selected photos. The Image Processor can be used to batch process images in Photoshop where you typically want to output, say, a set of JPEG versions of an image at a set pixel size and compression setting, or convert to more than one size, color space, or format. You can also use the Tools ⇒ Photoshop menu to carry out a Merge to HDR Pro or Photomerge directly from Bridge.

When creating panorama Photomerges, the thing to watch out for here is the size of your source images. If you are working from raw originals in Bridge, you may want to open these via the Camera Raw dialog first, go to the workflow settings, set the pixel output size to something lower than the full image size and click on the 'Done' button to apply this setting to the selected images. Then, when you choose Photomerge, Bridge opens all these files at the new size setting you had just set in Camera Raw. Alternatively, you might like to consider choosing Tools ⇒ Photoshop ⇒ Load Files Into Photoshop Layers... This allows you to open all the selected images as layers in a single Photoshop image first. You can then use Image ⇒ Image Size to reduce the pixel dimensions before choosing File ⇒ Automate ⇒ Photomerge.

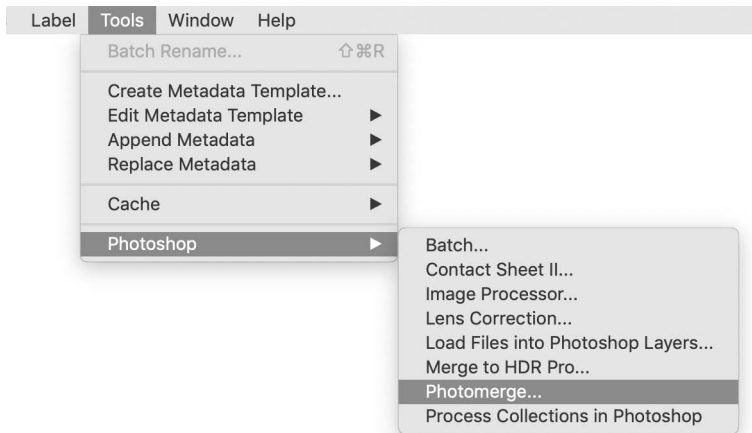


Figure 71 The Photoshop Automate menu is available from the Tools menu in Bridge.

Renaming images

To rename an image in Bridge, just click on the file name to activate it and type in a new one. To batch rename a selection of images, choose Batch Rename... from the Tools menu (**⌘ Shift R** [Mac], **ctrl Shift R** [PC]), which opens the dialog shown in Figure 72. Here, you can rename the files in the same folder or rename and move or copy to a new (specified) folder. In the New Filenames section you can configure the file renaming structure by clicking on the plus buttons to add new components to the file renaming structure. When you mouse down on a renaming component there will often be further options that you can choose from. In the Figure 72 example I included a YYMMDD Date Time file renaming option at the beginning, based on the date the file was created. Bridge also allows what's called 'string substitution.' This simply means that you can use the Batch Rename dialog to search and replace specified phrases in an existing filename structure. Suppose all your files start with '_MG'. You can use the String Substitution to replace this phrase with alternative text. In Figure 72 you can see I had 'String Substitution' selected as a file naming option. I was able to replace the above prefix with custom text that related to the shoot (such as 'casting_') and preserve the four number sequence that followed afterwards in the original filename.

Editing the Batch renaming fields

Once you start editing the pop-up menus, you will discover that the renaming options are quite extensive. You can select items such as Text, where you can enter your own text data. You can also incorporate the original filename in parts of the new name.

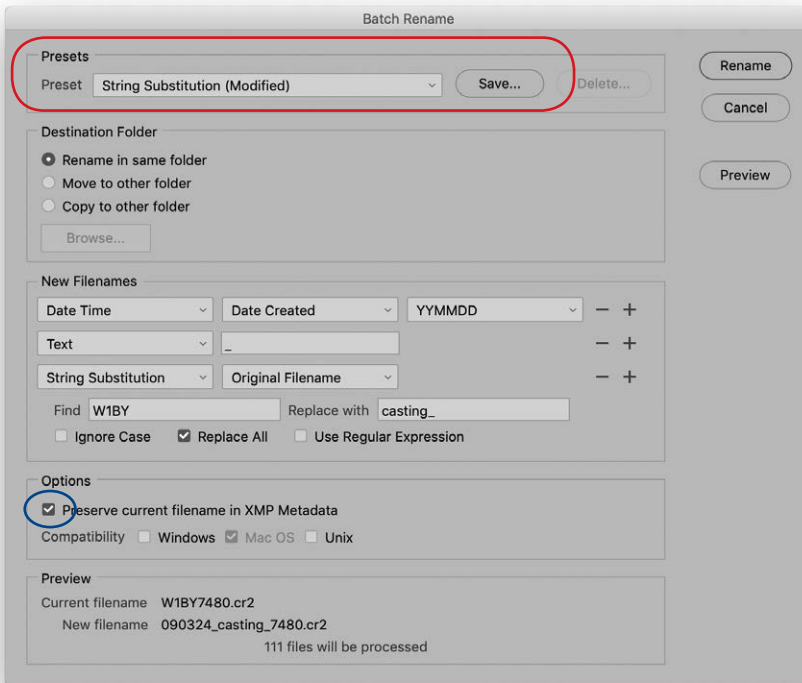


Figure 72 The Batch rename dialog.

Clicking on the Preview button opens a separate window (Figure 73) that shows you exactly how all the selected photos will be renamed. Clicking on the ‘Export to CSV’ button exports a comma separated value file (CSV), which can then be opened via a spreadsheet program (see Figure 74). This feature is designed to meet the needs of users who want to maintain an exact record of everything that has been done to a file.

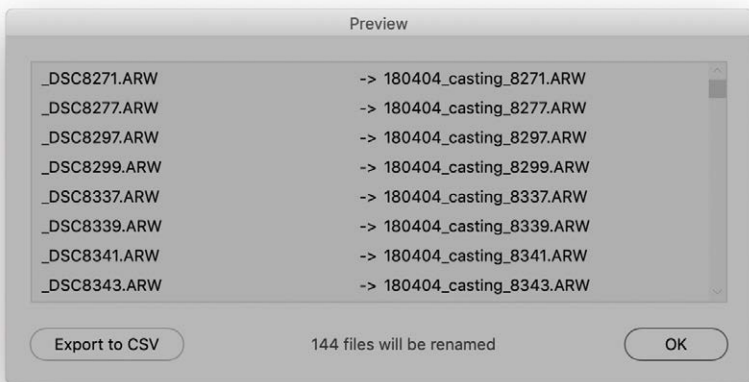


Figure 73 The Batch Rename Preview dialog.

Renaming schemes

The renaming scheme you use can be anything you want. There are no hard and fast rules, but whatever method you decide to use it should be done with a view to the future and should avoid the possibility of you creating filenames that overlap with other files. I prefer to adopt a naming scheme where a short text description (such as the client name or an abbreviation) is followed by the date shot, using the YYMMDD format, followed by a four digital serial number. You can also use the Presets menu (circled in red in Figure 72) to save a renaming scheme as a custom preset. Click on the Save... button, give the preset a name, click OK and it will now be added as a new preset to the Preset menu list.

| | A | B |
|----|--------------|------------------------|
| 1 | W1BY5268.CR2 | Casting090923_0001.CR2 |
| 2 | W1BY5269.CR2 | Casting090923_0002.CR2 |
| 3 | W1BY5270.CR2 | Casting090923_0003.CR2 |
| 4 | W1BY5271.CR2 | Casting090923_0004.CR2 |
| 5 | W1BY5272.CR2 | Casting090923_0005.CR2 |
| 6 | W1BY5273.CR2 | Casting090923_0006.CR2 |
| 7 | W1BY5274.CR2 | Casting090923_0007.CR2 |
| 8 | W1BY5275.CR2 | Casting090923_0008.CR2 |
| 9 | W1BY5276.CR2 | Casting090923_0009.CR2 |
| 10 | W1BY5277.CR2 | Casting090923_0010.CR2 |
| 11 | W1BY5278.CR2 | Casting090923_0011.CR2 |
| 12 | W1BY5279.CR2 | Casting090923_0012.CR2 |
| 13 | W1BY5280.CR2 | Casting090923_0013.CR2 |
| 14 | W1BY5281.CR2 | Casting090923_0014.CR2 |

Figure 74 This shows an example of an exported CSV file opened in a spreadsheet program.

Undoing a Batch Rename

In the Batch Rename Filename options (Figure 75) there is a 'Preserved Filename' option to preserve the original filename. If for some reason you slip up, you can use the Batch Rename dialog to locate and reassign the original name to the file. However, this will only be possible if you previously remembered to check the 'Preserve current filename in XMP Metadata' box (circled in blue in Figure 72).

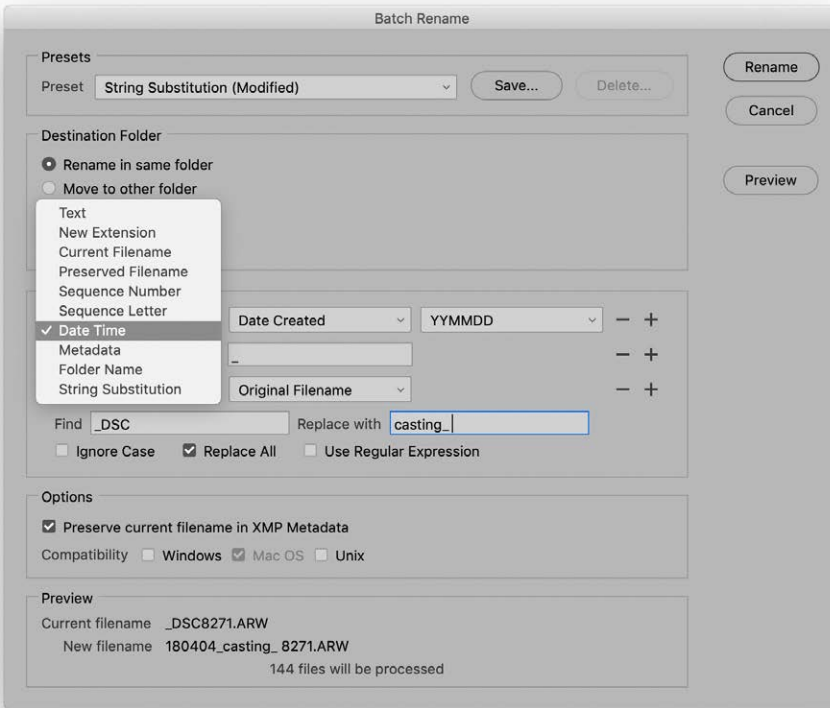


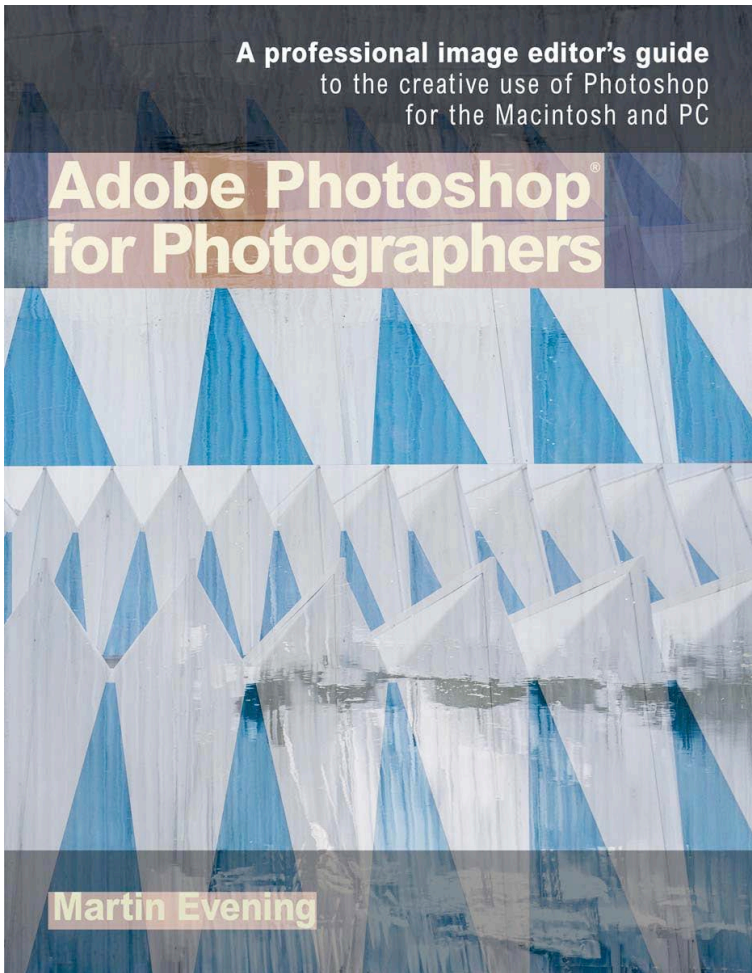
Figure 75 The Batch renaming New Filename options.

Applying Camera Raw settings

You can use the Edit ⇨ Develop Settings menu in Bridge to apply a saved Camera Raw preset setting to selected images, or choose Previous Conversion to apply the last used Camera Raw setting. The settings listed here will be like the ones you see listed in the Camera Raw Preset panel. You can also use this menu to copy and paste settings from one file to another, or better still, use **⌘ ⇧ C** (Mac), **ctrl alt C** (PC) to copy a setting and **⌘ ⇧ V** (Mac), **ctrl alt V** (PC) to paste. The Edit ⇨ Develop Settings ⇨ Clear Settings command can remove any applied develop settings and reapply the default Camera Raw settings.

Adobe Photoshop for Photographers

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