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## Modules

- Command + / (Mac) | Control + / (Win) reveals shortcuts for each module.
- Command + Option + 1, 2-5 (Mac) | Control + Alt + 1, 2-5 (Win) selects the different modules (Library, Develop, Map, Book, etc.).
- Control -click (Mac) | Right -click (Win) the module picker to show/hide modules.
- Command + Option + Up Arrow (Mac) | Control + Alt + Up Arrow (Win) toggles between the current/previous selected module.

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## Panels

- F5 toggles the module picker, F6 toggles the filmstrip, F7 toggles the left panels, and F8 toggles the right panels.
- Control (Mac), right -click (Win) the small triangle (outer edge of the panel, midway down the screen) to change side panel hide/show options. (Auto Show and Hide, Auto Hide, or Manual).
- In the Library and Develop Modules, each Panel has it's own shortcut depending on it's placement in the panel.
  - Command + Control + 0, 1, 2, 3, etc. (Mac) | Control + Shift + 0, 1, 2 3 etc. (Win) expands/contracts the left side panels.*
  - Command + 0, 1, 2, 3, etc. (Mac) | Control + 0, 1, 2, 3, etc (Win) will expands/contracts the right side panels.*
  - Note: in other modules, the panel shortcuts vary and are listed under Window > Panels.*
- Option -click (Mac) | Alt -click (Win) the disclosure triangle on the right side of the panel header to toggle Solo Mode. Or, Control -click (Mac) | Right -click (Win) in the panel header to select Solo Mode from the context sensitive menu. In Solo Mode, clicking the panel header for one panel automatically closes all other panels to help minimize scrolling.
- Shift -click a panel header to display additional panels while in Solo Mode.
- Command -click (Mac) | Control -click (Win) the panel name (on the panel header) expands/collapses all panels.
- Control -click (Mac) | Right -click (Win) a panel header to show/hide individual panels.
- Drag the edge of a panel to expand it's width. Option -drag (Mac) | Alt -drag (Win) to expand even farther.

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## Interface

- "F" toggles Full Screen Preview displaying the currently selected image while hiding the module picker, filmstrip, left and right panels.
- Shift + F cycles through Normal, Full Screen, and Full Screen with Menu view modes.
- Tab toggles the visibility of side panels, Shift + Tab toggles visibility of side panels, module picker, and filmstrip.
- "T" toggles the visibility of the Tool bar.
- "L" cycles through Normal, Lights Dim, and Lights Out mode (these modes reduce the visibility of the interface around an image). Customize the Light's Dim level in Preferences > Interface (50, 70, 80 or 90 percent).

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## Preferences

- Command + , (comma) (Mac) | Control + , (comma) (Win) displays Preferences.
- Command + Option + , (comma) (Mac) | Control + Alt + , (comma) (Win) displays Catalog Settings.
- Launching Lightroom and then *immediately* holding Option + Shift (Mac) | Alt + Shift (Win) displays a dialog to reset the Preferences.

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## Importing Files

- Command + Shift + I (Mac) | Control + Shift + I (Win) displays the Import window (regardless of the currently selected module).
- Double-click a folder in either the Source or Destination panels in the Import window to "doc" that folder (docking temporarily hides other folders on the same level as the docked folder making it easier to navigate through complex folder structures).
- Double-click an image in Grid view (or tap E) to view in Loupe view. Double click an image in Loupe view to return to Grid view (or tap G).
- To import a subset of images from a card/folder, in Grid view, click the Uncheck All button and select the desired images. Then, click the check box on the upper left of a selected image to check all selected images. Select Checked State as the Sort option (at the bottom right of the grid area) to display the checked images at the top of the grid.
- When selecting Copy as DNG, Copy, or Move, choose to View All photos, New Photos, or Destination Folders. Selecting Destination Folders will preview how images will be grouped when organizing the destination folder by date.

- Under File Handling, setting Build Previews to Standard will set the preview size based on the resolution of the monitor. To customize the Standard preview size, choose Catalog Settings > File Handling.
- When Don't Import Suspected Duplicates is selected, Lightroom searches the entire catalog (regardless of path) for duplicates. The comparison logic includes items such as name, file size, and time stamp (+/- 1 minute).
- When selecting either Copy or Copy as DNG, enabling Make a Second Copy To (under File Handling), creates a secondary copy of the original files without the software making ANY changes to them. Therefore, if you make changes to the files when importing them (renaming, adding metadata etc.), the changes will only be made to the imported files - not the second copy. This is deliberate as some photographers want a way to backup their files in their "pure" state.
- Enable Add to Collection to simultaneously import files and add them to an existing (or new) Collection.
- Reference the file size indicator (in the lower left of the Import window), to preview the size of the current import.
- When importing from an external device such as a card reader, mobile phone etc), the volume can be ejected (un-mounted) from the system after import by checking the box to the right of the device name.
- To help minimize mistakes when importing, save settings as a preset. At the bottom-center of the window, click to the right of Import Preset and choose Save Current Settings as New Preset from the drop-down menu.
- "\ (backslash) toggles compact/expanded view of the Import window.
- When Lightroom finishes importing images, it automatically changes focus from the currently selected folder/collection to the "Previous Import" collection in the Catalog panel. To keep the focus on the currently selected folder/collection), choose Preferences > General > Import Options and uncheck Select the "Current/Previous Import" Collection During Import.
- By default, Lightroom displays the Import window when a memory card is detected. Select Preferences > General > Import Options and uncheck Show the import dialog when a memory card is detected to disable this feature.
- Lightroom will not import files that have the longest dimension greater than 65,000 pixels, are larger than 512 megapixels, have been saved as PSD without Maximize PSD and PSB File Compatibility turned on (in Photoshop's File Handling Preferences), or are 32-bit PSD files.
- Lightroom has the ability to automatically import files using a watched folder. To enable this feature, in the Library module, choose File > Auto Import and customize the Auto Import settings. This might be an alternative to tethered capture if your camera is not supported. Note: Auto Import is limited to copying files to a single, flat folder as it's destination.
- In the Library module, Control -click (Mac) | Right -click (Win) a folder in the Folder panel and choose Import into this Folder to display the Import window and automatically set the destination folder.
- If a folder has been imported into Lightroom and then additional images are added to that folder via the operating system, Lightroom will NOT automatically import the newly added images. To make Lightroom aware of the newly added images, Control -click (Mac) | Right -click (Win) on the folder and choose Synchronize Folder.
- Since I'm always looking for ways to make image editing faster, I will typically store the files that I'm currently working with on my internal drive (which happens to be a speedy little solid state drive). However, the internal drive is much too small to hold all of my images so, when I'm finished editing the project, I move them to my (slower) external storage drives to make room for new projects.

## Folders

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- Click the plus icon in the Folder panel header and select Add Folder to create a new folder or add an existing folder. When adding folders that containing images, Lightroom displays the Import window (providing metadata options etc.). New and empty folders are simply added.
- To quickly create a subfolder without having to scroll to the top of the Folder panel, Control -click (Mac), right -click (Win) on a folder and choose Create Folder Inside "xxx" from the list.
- Command -click (Mac) | Control -click (Win) to select multiple folders (Shift -click to select a range) to view the contents, move, delete, etc..
- Control -click (Mac) | Right -click (Win) a drive header (in the Folder Panel), to display Disk Space/Photo Count/Status or None.
- The small rectangle icon on the drive header is color-coded: green means the drive has significant free space, red warns the drive is almost full, gray signifies that the drive is off-line.
- Click the "+" icon on the Folder header to choose to display the Folder Name Only, Path from Volume, or Folder and Path in the root folder.
- Control -click (Mac) | Right -click (Win) a folder and choose "Show Parent Folder" to display the folder one level up in the directory.
- Control -click (Mac) | Right -click (Win) the highest level folder in the directory (i.e. the parent folder), and select "Hide This Folder" to hide the folder and promote the subfolder(s). Note: the parent folder remains on disk, "hiding" just tells Lightroom to "forget" about it.
- Option -click (Mac) | Alt -click (Win) on the disclosure triangle next to the folder name to expand all subfolders within that folder.
- Clicking on a folder displays not only the images in the parent folder, but also images in subfolders. This is know as a "flat" view of the folder structure. To display only the images within a folder - and not images within subfolders, click the + (plus) icon on the Folders panel header and

disable Show Photos in Subfolders. Note: disabling Show Photos in Subfolders will likely change the photo count displayed to the right of each folder. Don't be alarmed if the parent folder suddenly has a count of zero - all of the images within that folder might be in subfolders.

- Command + R (Mac) | Control + R (Win) displays a single, selected image in the Finder (Mac) | Explorer (Win).

## Zooming

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- In the Library and Develop modules, use the Navigator panel to set your preferred zoom views to either Fit or Fill and 1:1 or custom zoom. Then, press the Spacebar (or click with the Zoom tool while in Loupe view), to toggle the preferred zoom views.
- Command + plus/minus (Mac) | Control + plus/minus (Win) zooms using the settings in the Navigator panel (Fit, Fill, 1:1, custom zoom).
- Command + Shift + = (Mac) | Control + Shift + = (Win) toggles Lock Zoom Position. With Lock Zoom Position enabled, Lightroom zooms to the exact same area of each image (regardless of where you may have previously zoomed into) as you move through a sequence of images.

## Viewing Images

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- Double-click an image in Grid view (or tap E) to view in Loupe view. Double click an image in Loupe view to return to Grid view (or tap G).
- “-” (minus) and “+” (plus) decrease/increase the image thumbnail size in Grid view.
- Command + J (Mac) | Control + J (Win) displays View Options.
  - Select Grid Extras: Expanded Cells to display additional information about the files. For example, in order to quickly view an image's file type, set the Expanded Cell Extras to Show Header with Labels; and select File Base Name in the upper left and File Extension in the upper right. Then, even if the file name is truncated (because the file name is long and the thumbnails are small), the file type is still visible.*
  - I also prefer to disable Tint Grid Cells with Label Colors and enable Show Rating Footer > Include Color Label.*
- Tapping the “J” key cycles through grid view styles (Hide Extras, Compact, and Expanded views).
- Command + Option + Shift + H (Mac) | Control + Alt + Shift + H (Win) toggles metadata Badges in Grid view. While Badges cover a portion of an image thumbnail, the badges are also shortcuts - clicking on them take you to the module or panel needed to edit those settings.
- In Loupe view, tapping the “I” key cycles through information overlays. Customize what information is displayed under View > View Options.
- To toggle the visibility of badges, ratings, stack count etc. displayed in the Filmstrip, select Preferences > Interface > Filmstrip. Choosing to Ignore Click on Badges can help when the Filmstrip thumbnails are small.
- In Compare View (C), use the left and right arrow keys to move through selected images. The down arrow swaps Select and Candidate while the up arrow promotes Select to Candidate. Holding down the Shift key unlocks the Link Focus option which, when zoomed in, allows the repositioning of each panel independently.
- In Survey View (N), use the right/left/up/down arrow keys to navigate through selected images. The “/” (backslash) removes the active image (the one with the thin white outline around it) from the selection.
- To display a Grid, Guides, or Layout Image overlay while in Loupe view, select View > Loupe Overlay and select the desired option(s). Command + Option + O (Mac) | Control + Alt + O (Win) toggles the visibility of the selected overlays.
  - With the Grid overlay visible, Command (Mac) | Control (Win) displays options for Size and Opacity. Click-drag left/right on Size to decrease/increase the grid size. Click -drag left/right on Opacity to decrease/increase the grid opacity.*
  - With the Guide overlay visible, click -drag on the intersection of the guides to reposition.*
  - With the Layout Image overlay visible, Command (Mac) | Control (Win) drag to reposition, change opacity, and Matte density.*
- Command (Mac) + [ and ] | Control (Win) + [ and ] rotates an image 90° CW or CCW.

## Stacking Photographs

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- Select several similar photos in Grid view and use Command + G (Mac) / Control + G (Win) to stack them. Stacking minimizes the number of image thumbnails as well as helps display only the best of several, similar frames. A small icon displaying the number of stacked images is displayed in the upper left of the image thumbnail.
- Tap “S” to expand/collapse the stack.
- Shift + { or } repositions an image up or down in the stack.
- Shift + S moves an image to the top of the stack.
- Command + Shift + G (Mac) / Control + Shift + G (Win) unstacks images.
- Expand a stack to make changes to images within the stack. Otherwise, changes will only be applied to the image on the top of the stack.
- Choose Photo > Stacking > Auto Stack by Capture Time and use the slider to set the amount of time between stacks.

## Selecting and Navigating Images

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- Use the up, down, left and right arrow keys to navigate Grid view.

- Command -click (Mac) Control -click (Win) selects discontinuous images, Shift -click to select a range of images.
- Click -drag the image thumbnail (not the outer gray “slide mount” area) to move images between folders, add to collections etc..
- / (forward slash) deselects the active photo.
- Command + A (Mac) | Control + A (Win) selects all images.
- Command + D (Mac) | Control + D (Win) deselects all images.
- Command + Option + A (Mac) | Control + Alt + A (Win) selects all Flagged photos.
- Command + Option + D (Mac) | Control + Alt + D (Win) deselects all Flagged photos.
- Command + Shift + D (Mac) | Control + Shift + D (Win) selects only the active photo (while deselecting any other photos).
- Click outside of the image thumbnail (in the gray “slide mount” area) to deselect all other selected images (excluding the one clicked upon).
- By default, when multiple files are selected in the Library module, making changes to files in the Grid view will change all selected images. When viewing images in Loupe view, only the “most selected” image will be changed (the one that is being viewed). To change all selected images while in Loupe view, Command + Option + Shift + A (Mac) | Control + Alt + Shift + A (Win) toggles on Auto Sync (don’t forget to toggle Auto Sync off when finished).
- Click anywhere in the path of the currently selected image (in the black bar above the Filmstrip) to quickly navigate to recent sources. If you navigate to specific folders/collections often, chose Add as Favorite from the bottom of the drop-down so that it remains accessible. The Recent Sources area lists only the 12 most recent folders/collections visited.

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### Setting Flags, Labels, and Ratings

- “X” flags an image as Rejected, “U” removes a flag, and “P” flags an image as a Pick (the tilda key “~” also flags an image as a pick).
- Applying a reject flag dims the image thumbnail in the Grid view. Flagging as a Pick displays a highlight around the thumbnail.
- Command + up/down arrow (Mac) | Control + up/down arrow (Win) increases/decreases flag status.
- Use the numeric keys 1-5 to apply 1-5 star ratings.
- “[” and “]” increase/decrease star ratings.
- Holding the Shift key or enabling Caps Locks auto advances to the next image after labeling, flagging or rating.
- Use the numeric keys 6-9 apply color labels (red, yellow, green, blue).
- When working with multiple custom color label sets, images marked with labels from other sets appear white. To find images with labels from other sets, use the Metadata option in the Filter bar (in the Grid view in the Library module) to quickly search on different labels applied to images from different sets. You can also see what Color Label is applied to each image in the Metadata panel.
- Command + Option + R (Mac) | Control + Alt + R (Win), will Refine Photos by demoting Unflagged images to Rejects and Flagged images to Unflagged. Images that already had the Reject flag applied remain as “Rejects”. Note: the Refine Photos command applies to ALL of the images in a folder/collection, not only the selected images.

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### Renaming Files

- To rename a single image, select the photo in the Library module and, in the Metadata panel, enter in a new file name.
- Renaming files in Lightroom renames the files in the operating system.
- There are many options to choose from when batch renaming files so choose what works best for you, create a template, and be consistent.
 

*For example, if you like to rename files based on your client name, you might select Custom Text in the Filename Template Editor and then a sequence number. Typically I add an underscore between the two as I find it more legible.*

*Smith\_001.dng     Smith\_002.dng     Smith\_003.dng*

*If you prefer to include the date in your file name, choose from one of the many format options and Lightroom will automatically fill in the date of the image from the camera’s EXIF data (just make sure that you have set the correct date on your camera).*

*20110105\_001.dng     20110105\_002.dng     20110105\_003.dng*

*To keep the original File Number Suffix (the original number assigned by the camera but without the extra letters), choose the File Number Suffix token and any additional options (such as Custom Text or Sequence number) in the order you prefer.*

*8365\_Smith\_001     8366\_Smith\_002     8367\_Smith\_003*
- When working with derivative files, try appending the file name with something that reveals it’s significance. For example, if FileName.dng is the original, then FileName\_ME.psd represents my master edited Photoshop file and, FileName\_FLR.psd represents the flattened, low res file.
- When renaming files Lightroom automatically saves the original file name in the metadata of the file. To view the original file name, in the Metadata panel, select the “EXIF and IPTC” or “Location” option (via the drop-down menu in the panel header). Note: the “Original filename” field is only visible if the file has been renamed.

## Filtering

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- Command + F (Mac) | Control + F (Win) jumps directly to the filter by Text attribute.
- Command + L (Mac) | Control + L (Win) toggles the last filter used on and off.
- While in Grid view, “\” (backslash) toggles the visibility of the filter bar. Loupe view automatically hides the filter bar.
- To save time, set up commonly used filter attributes, then save as a preset by selecting “Save Current Settings as New Preset” from the Custom Filter list (on the right side of the filter bar).
- To add additional Metadata attributes, position the cursor over the Column header and click on the downward pointing arrow with three lines (at the right hand side of the columns) to add additional columns.
- Click the lock icon (at the right of the filter bar) to keep the filter persistent when moving from one folder/collection to another.
- To keep filters “sticky” for specific folders/collections, enable a filter and choose File > Library Filters > Remember Each Source’s Filters Separately. Then, move to another folder/collection and apply a different filter. When returning to the first folder/collection, Lightroom will remember to use the filter originally applied to that folder/collection.
- Command (Mac) | Control (Win) -click the Flags or Color Ratings attributes in the filter bar will select images tagged with that filter (it actually selects them, it doesn’t filter them).

## Removing vs Deleting Files

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- Selecting an image (or multiple images) in the Grid view and tapping Delete (Mac) | Backspace (Win) displays the option to Delete the selected master photo from disk or just remove it from Lightroom? Choose Delete from Disk to move the image(s) to the Trash (Mac) | Recycle Bin (Win). Choose Remove to leave the image(s) exactly where they are on disk, but remove the images from the Lightroom Catalog.
- Command + Delete (Mac) | Control + Delete (Win) filters on the Reject flag and gives the choice to Delete or Remove.
- Option + Delete (Mac) | Alt + Delete (Win) bypasses the dialog, removing photo(s) from the Lightroom catalog (leaving the image(s) in the original location on disk).
- Command + Option + Shift (Mac) / Control + Alt + Shift (Win) deletes photos from Lightroom and places them in the Trash (Mac) | Recycle Bin (Win) while bypassing the warning dialog box. Be careful, you can’t undo this action - if you accidentally Delete a photo, you will need to use the operating system to find the photo in the Trash (Mac) | Recycle Bin (Win) and manually and move it where you want it.

## Relinking files and Missing Files

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- If image(s) are moved using the operating system (instead of moving within Lightroom), Lightroom will lose the link to the file and display one of two warning icons in the upper right of the thumbnail cell (as well as at the bottom of the Histogram panel). If the warning icon is an exclamation mark (!), then the file is missing and doesn’t have a Smart Preview. If the warning icon is a rectangle with dots around it, the image is missing but a Smart Preview is available to work with (i.e. the image can be edited even though it is “off-line”). Click either warning icon to locate and re-link any files. In the subsequent dialog, be sure to check the option to “Find nearby missing photos” if more than one image from the same folder is missing to have Lightroom automatically relink them.
- If folders have been moved or renamed using the operating system (instead of from within Lightroom), Lightroom will lose the link to the folder and display a question mark (?) next to the missing folder. Control -click (Mac) | Right -click (Win) the folder in the Folder Panel and choose Find Missing Folder. (Lightroom will prompt you to find the folder).
- Choose Library > Find All Missing Photos to view all missing files in your library. The missing photos will be displayed in the grid and a “Missing Photographs” option will be added to the Catalog panel. Note: if “Missing Photographs” is already listed in the Catalog panel (from a previous search), choose Library > Find All Missing Photos again to search based on the current state of your images (otherwise Lightroom will use a cached result that may be inaccurate).
- This is a pretty rare occurrence but if you have imported a folder of images into Lightroom and then realize that you have an identical folder in a different location that you need Lightroom to work with (instead of the one that you’ve imported), Control -click (Mac) | Right -click (Win) on the folder and choose Update Folder Location. Navigate to the folder that you want Lightroom to work with and select it. Lightroom will now “keep track of” that set of images and forget about the others. Note, although you might be tempted to simply remove the first folder of images and then import the second folder, doing so would remove the files from collections, delete any virtual copies and, if the metadata wasn’t saved to the files, discard metadata changes and develop settings.

## Collections

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- Collection Sets are folders that help organize Collections and Smart Collections.
- Collections are user defined - drag and drop to add any image to a collection. Command + N (Mac) | Control + N (Win) creates a new Collection.
- Smart Collections are based on search criteria specified in the Smart Collection dialog. Smart Collections constantly monitor your entire cat-

alog, dynamically adding or removing any photograph that meets (or doesn't meet) the criteria set in the Smart Collection. It's worth taking a few moments to look through the different smart collection criteria as Smart Collections can be very powerful. For example, creating a Smart Collection with the rules set to Copyright > Is > Unknown, finds any images that are missing a copyright. Likewise, setting the rule to Keywords > Are Empty, finds any images that haven't had keywords applied. And, choosing a Capture Date > is in the last > 6 > months in combination with Rating > is greater than or equal to > three stars, finds my best images from the past six months.

- Option -click (Mac) | Alt -click (Win) the plus icon within the New Smart Collection dialog for additional refinement options.
- Control -click (Mac) | Right -click (Win) a collection set to create a Collection/Smart Collection/Collection Set within that set (Lightroom will automatically choose the correct Collection Set in the Location area).
- Click the + icon on the Collections panel header to sort collections by Name or by Kind.
- To quickly create a collection from a folder of images in Lightroom, drag the folder from the Folders panel into the Collections panel. If you drag a folder that contains subfolders, Lightroom will create a single Collection including all of the files in the parent folder and all subfolders.
- To duplicate a Collection that's loose (not in a Collection Set), Option -drag (Mac) | Alt -drag (Win) until a highlighted line appears between two items, and release. To duplicate a Collection within a Collection Set or to duplicate the collection into a different Collection Set, Option -drag (Mac) | Alt -drag (Win) the Collection on top of the Collection Set icon (a green circle with a white plus appears) and release.
- When in the Collections panel, tap the Delete key to remove the file(s) from the collection.
- Cmd + Shift + Option + Return (Mac) | Ctrl + Shift + Alt + Backspace (Win) removes an image from a Collection and moves the image(s) to the Trash (Mac) | Recycle Bin (Win).
- When creating a collection, enable "Set as Target Collection" (in the Create Collection dialog). Tapping the "B" key will automatically add the selected image(s) to the Target Collection.
- After a collection has been created, or to change the Target Collection, Control -click (Mac) / Right -click (Win) a collection and choose "Set as Target Collection".
- Enable Caps Lock to auto advance to the next image while adding to the Target Collection.
- Filter the contents of the Collection panel by typing in search criteria directly below the panel header.
- Control -click (Mac), Right -click (Win) a collection to export the Collection as a Catalog.
- Control -click (Mac), Right -click (Win) a Smart Collection to import and export Smart Collection settings.
- Stacking is available in Collections (Photo > Stacking).
- Click the empty well to the right of a Collection to syncs images, making them accessible on mobile devices and within browsers.

### Quick Collection

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- Tap "B" to add image(s) to a Quick Collection. Tap "B" again to remove the image(s).
- Command + B (Mac) | Control + B (Win) displays the contents of a Quick Collection. Tapping it again to return to your previous location.
- Command + Shift + B (Mac) | Control + Shift + B (Win) removes all images from the Quick Collection.
- Command + Option + B (Mac) | Control + Alt + B (Win) converts a Quick Collection to a Collection.

### Custom Sort Orders

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- Custom Sort orders depend on folder hierarchy. If a folder contains subfolders, a custom sort order is not possible unless the option to "Include Items from Subfolders" is disabled.
- Custom Sort orders are not available for Smart Collections.
- use the Sort option in the tool bar to sort by other means (like Capture Time and File Type) and when you return to the User Order, Lightroom will remember your Custom Sort Order.

### The Painter Tool

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- Command + Option + K (Mac) | Control + Alt + K (Win) selects the Painting tool. Choose an attribute (such as keywords, labels, ratings, target collection etc.) and click on an image thumbnail in the Grid to apply that attribute. Click -drag across multiple thumbnails to quickly apply the attribute to multiple images.
- Option -click (Mac) | Alt -click (Win) with the Painter tool to remove the attribute.
- Tap Escape to dismiss the Painter tool.
- After setting the Painter tool to Paint using Keywords, the tool remains "loaded" with that keyword - even after you have put away the tool. Shift + K will apply the "Loaded" keyword to a selected image(s). Tap Shift + K again to remove the keyword(s).
- Command + Option + Shift + K (Mac) | Control + Alt + Shift + K (Win) displays the Set Keyword Shortcuts dialog. Entering a keyword here is the same as changing the keyword for the Painter tool in the Tool bar.

## Quick Develop

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- The large and small arrow buttons in the Quick Develop panel make the following changes:

*Exposure - 1/3 stop, 1 stop*

*Contrast, Highlights, Shadows, Blacks, Whites, Saturation, Vibrance all 5, 20*

*The Temperature and Tint sliders are dependent on the file format. When working with JPEG and Raw files, the changes are in increments of 5 and 20. However, for raw images, the increments for Temperature and Tint are being calculated in relative percentage terms.*

- Shift-click an icon in Quick Develop, to add only 1/2 of the amount of adjustment.
- Option (Mac) | Alt (Win) toggles the Clarity slider to Sharpening and Vibrance to Saturation.
- Changes made in Quick Develop are relative - unlike the Develop module where changes are absolute. For example, lets say that yesterday I modified a number of images using the Develop module and each image needed to have it's exposure slider set to a different amount. But today, all of the images appear 1/3 of a stop underexposed. If I were to add +1/3 of a stop to one of the images in the Develop Module (that perhaps you had already increased by 1/2 stop (or +.5) yesterday), the Exposure slider would read +.83 (.5 + .33 = .83). Using the Sync command in the Develop Module to apply that change to other selected images, will NOT add +1/3 (.33) of a stop to each already manipulated image - instead it will change all of the other image's exposure value to the same (absolute) exposure value of the image being "Synced" (+.83). If, however, I select those images in the Grid view and, using the Quick Develop panel, click the single arrow next to Exposure (to add 1/3 of a stop), Lightroom would add +.33 (a relative amount) to all images.
- When the Quick Develop panel is closed, you can still apply presets using the Custom drop down menu in the panel header.

## Keywording Panel

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- Command + K (Mac) | Control + K (Win) will highlight the Keyword text entry field.
- Command + Shift + K (Mac) | Control + Shift + K will highlight the larger, Applied Keyword box.
- Command + right arrow (Mac) | Control + right arrow (Win) moves to the next image while keeping the keyword field highlighted.
- Easily import/export keyword lists using Metadata > Import/Export Keywords.
- Suggested Keywords are based on existing keywords as well as capture time proximity.
- When adding keywords, Lightroom offers suggestions to auto-complete as you type. To disable this feature, choose Catalog Settings > Metadata and uncheck "Offer Suggestions from Recently Entered Values" You can also choose to Clear All Suggestions List at any time.
- Creating keyword hierarchies allows you to apply more than one keyword at a time.
- Create custom keyword sets by selecting Metadata > Keyword Set. Once created, custom sets can be accessed via the Keywording panel (use the drop-down menu next to Keyword Set to select your set). Keyword sets can be created and edited here as well. Lightroom supports up to 9 keywords per set. Benefits of creating custom Keyword Sets include:
  - 1) Keywords sets always list the keywords in the same order (making them easy to find) and they are always available.
  - 2) Keyword sets can contain keywords that aren't used often and therefore aren't likely to appear in the Keyword Suggestions list.
  - 3) Option + 1-9 (Mac) | Alt + 1-9 (Win) applies keywords in a set. Holding down the Option (Mac) | Alt (Win) key displays the numeric shortcuts next to the keyword (they are optimized to be used with an extended keyboard).

## Keyword List Panel

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- Use the Search option to quickly find a keyword.
- Use the disclosure triangle next to the search feature to reveal the ability to filter on All, People, or Other (not people).
- Click on the keyword (or on the arrow to the right of the keyword) to filter based on that keyword.
- Control-click (Mac) | Right-click (Win) on a keyword and select "Edit Keyword Tag" to modify the keyword (correct a misspelled keyword, for example), add synonyms, and decide what to include on export.

## Metadata

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- Create metadata presets whenever possible to batch apply metadata to images Use the Preset menu in the Metadata panel to assign more image specific templates (such as different image usage rights) to a subset of images.
- When creating metadata presets, a blank metadata field with a "check" will overwrite (delete) existing data in that field when applied.
- Click the arrow icon to the right of a metadata field to show options for that field. For example, clicking the arrow next to ISO filters by ISO, clicking the arrow next to Cropping displays the Crop overlay in the Develop module.
- Option-click (Mac) | Alt-click (Win) the GPS Map Location arrow to go Google Maps in your default browser.
- Information added to the Description field in Photoshop's File Info will appear in the Caption field in Lightroom.
- Select Large Caption view from the Metadata Set drop down menu (in the Metadata panel header) when adding long captions to images.

- Command + right arrow (Mac) | Control + right arrow (Win) moves to the next image while keeping the Caption field highlighted.
- Click Title (or Caption, Copyright etc.) to reveal and apply recently used metadata from the list.

## Editing Capture Time

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- Use Metadata > Edit Capture Time to shift or change the time stamp on an image(s) (when changing time zones for example).
- To write those changes into proprietary raw files (.nef or .crw for example), before making the changes, choose Catalog Settings > Metadata > Write Date or Time Changes into Proprietary Raw Files (this is the only occasion when Lightroom will actually write changes to the proprietary file).
- Lightroom can display up to three different dates for a file in the Metadata panel: Date Time Original, Date Time Digitized and Date Time. Set the Metadata panel's preset to EXIF to display them all. Here's the explanation of when and why you might need these different dates:

1) *Date Time Original* - This is the moment in time that is shown in the picture. In other words, if you were at a new year's eve party last year and took a picture at one minute before midnight, the Date Time Original of that picture is 12/31/2016 11:59 PM.

2) *Date Time Digitized* - This is the moment in time at which the picture was committed to digital form. For photos from a digital camera, this will always be identical to Date Time Original. For film, it wouldn't be. For example, if you'd taken that new year's eve picture on film, then waited exactly six months to scan (i.e., digitize) the film the Date Time Original would still be 12/31/2016 11:59 PM, but the Date Time Digitized would be 6/30/2017 04:59 PM.

3) *Date Time* - This is the file creation date. Again, for a picture from a digital camera that you haven't mucked with, this will be identical to the previous two fields. But if you generate a new file from the picture (using convert to DNG, or via other means such as creating a PSD by editing in Photoshop) then this field will show the date on which the new file was created. In other words, if you edited your new year's eve picture in Photoshop at noon today, generating a new PSD in the process, the Date Time for the new file would be today's date 12:00pm.

For most ordinary people shooting with a digital camera, the only field they care about is Date Time Original, and the only reason to ever edit it is if the clock on their camera was set incorrectly for some reason when they took the picture. For example, if you'd traveled from California to New York for that new year's party, and forgot to adjust your camera's clock to account for the time zone change, then that picture you took would show a Date Time Original of 12/31/2016 8:59 PM. Since you know that's not correct, you would probably want to edit the capture time and use the "Shift by a set number of hours" option to move the Date Time Original field ahead by three hours.

## The Tool Bar (T)

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- Customize the Tool Bar options by clicking on the downward facing triangle and select the desired options from the list.
- Click the a/z (sort direction) icon to sort ascending/ descending or vice versa.

## People View

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- "O" enables People View
- Toggle Face detection on/off in the Activities Center (access the Activities Center by clicking on Identity Plate).
- "S" expands or collapses a selected stack in People View. Long press expands until you let go, short press expands or contracts.
- Shift + O activates the text field to name when a single face is selected in the Unnamed section.
- Option (Mac) | Alt (Win) scrubbing over a stack will scroll through the images in the stack (previewing all of the faces inside the stack).
- Control-click (Mac) | Right-click (Win) on any keyword and choose "Put New Person Keywords Inside This Keyword" to set it as the default parent keyword for all new Person keywords. If you convert this parent keyword, all the children keywords will also be converted to Person keywords.
- Control-click (Mac) | Right-click (Win) on a keyword and select "Edit Keyword Tag" to choose if a Person keyword should be included on Export. The Export dialog also has an option to Remove Person Info (to prevent the person keywords from being included on export).

## PhotoMerge - Raw HDR

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- For best results, apply Lens Correction profiles and remove Chromatic aberration to individual images before running Photo > PhotoMerge > HDR.
- Control + H (Mac and Win) displays the HDR Merge Preview window.
- Option + Shift + H (Mac) | Alt + Shift + H (Win) bypasses the dialog and creates a HDR image based on the last used PhotoMerge settings.
- "O" displays the Deghost Amount overlay, Shift + O cycles through the mask overlay colors.
- Not all adjustments made to individual images are applied when merging to HDR. The settings that are not applied include:
  - *The primary tone settings in the Basic panel (Exposure, Contrast, Highlights, Shadows, Whites, and Blacks - the merge is expanding tonal range using it's own calculations).*
  - *Tone Curve, Local Corrections, Red Eye, Spot Healing, Upright, and Crop.*
  - *Process Version (The resulting (merged) DNG files will always default to Process Version (PV) 2012, despite any differing PV settings applied to the source images because PV2012 is required for the extended Exposure range (+/- 10 stops), and PV2003 & PV2010 are restricted to (+/- 4 stops).*



- To apply adjustments that can be applied during the HDR merge, (such as conversion to B/W or Split Toning adjustments), make sure that the exposure with the adjustments is the “most selected” image before choosing PhotoMerge > HDR.
- Merging HDR images requires exposure metadata. If aperture and ISO information is available, then it is used as well. Lightroom will show an error if you try to merge photos of different sizes, focal lengths, etc..
- The merged HDR is a 16 bit floating point image.
- Lightroom adds -HDR to end of the file name of the merged HDR making them easy to find using the Text filter.

### PhotoMerge - Raw Panorama Stitching

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- Control + M (Mac and Win) displays the Panorama Merge Preview window.
- Option + Shift + M (Mac) | Alt + Shift + M (Win) bypasses the dialog and creates a Panorama image based on the last used PhotoMerge settings.
- Boundary Warp reshapes the edges of a stitched panorama to fill the rectangular image canvas. It works really well on organic images. It may not work as well on images with straight lines or architectural features as the process of warping the image to fill the surrounding canvas, may bend vertical and horizontal lines.
- If you have made adjustments to the individual images prior to choosing Photo > Photo Merge > Panorama, not all of them carry over to the merged file. The settings that are NOT copied over from individual exposures to the merged panorama are:
  - *Lens Corrections (with the exception of Defringe settings), since the merge tool is changing geometric attributes.*
  - *Upright, Crop, Local Corrections, Red Eye, and Spot Healing.*
- To apply adjustments that can be applied during the Pano merge, make sure that the exposure with the adjustments is the “most selected” image before choosing PhotoMerge > Panorama.
- Lightroom adds -Pano to end of the file name of the merged panorama making them easy to find using the Text filter.
- Post-merge, lens profile corrections don’t make any sense to apply to panoramas, so the feature is disabled in the Develop module.
- There is a size limit of 65,000 pixels on the long side of a file or, 512 MP - whichever comes first.

### The Develop Module - Interface

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- Tap the “D” key to get to the Develop module from any other module.
- Option double-click (Mac) | Alt double-click (Win) to move from Grid view to the Develop module (and vice-versa).
- Control -click (Mac) | Right -click (Win) in the gray area surrounding the image preview to change it’s value (lighter or darker).
- Double click the name of a slider to reset it to the default values.
- Double click the name of a group of sliders (such as “Tone” or “Presence” in the Basic panel) to reset all sliders in that group to their default values.
- Click in any text entry area to enter specific numeric values. Tap the Tab key to move to the next slider. Use the up/down arrow keys to modify existing values.
- Another set of shortcuts are available to change slider values, but for these shortcuts to work, you must click on the name of the slider - not the text entry area. Click on the name of the slider, then use the “.” (period) and “,” (comma) to move from one slider to the next and use the “+” (plus) and “-” (minus) keys to increase/decrease the slider’s value. Add the Shift key to move in larger increments and the Option (Mac) | Alt (Win) to move in smaller increments.
- For finer control over slider movement drag the edge of a panel to expand it’s width. Option -drag (Mac) | Alt -drag (Win) for greater expansion.
- Almost all of the editing panels in display a small “light switch” icon on the left side of the panel header (the Basic panel being the notable exception). Click the “light switch” to hide/show changes made in that panel. All of the tools in the Develop module (except for the Crop tool) also have this feature however the “light switch” is displayed at the bottom left of the tool’s options.
- “\” (Backslash) toggles between the Before and Current state (more specifically, the current state shows the user-specified history state).
- To display a Grid, Guides, or Layout Image overlay while in Loupe view, select View > Loupe Overlay and select the desired option(s). Command + Option + O (Mac) | Control + Alt + O (Win) toggles the visibility of the selected overlays.
  - With the Grid overlay visible, Command (Mac) | Control (Win) displays options for Size and Opacity. Click-drag left/right on Size to decrease/increase the grid size. Click -drag left/right on Opacity to decrease/increase the grid opacity.*
  - With the Guide overlay visible, click -drag on the intersection of the guides to reposition.*
  - With the Layout Image overlay visible, Command (Mac) | Control (Win) drag to reposition, change opacity, and Matte density.*
- “I” cycles through information overlays. What information is displayed is controlled via View > View Options.
- Command (Mac) + [ and ] | Control (Win) + [ and ] rotates an image 90° CW or CCW.
- Control -click (Mac) | Right -click (Win) in the image area to select Flip Horizontal or Flip Vertical.

## Resetting Files

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- Command + Shift + R (Mac) | Control + Shift + R resets the selected image to Lightroom's default Camera Raw settings.
- To set all image settings to zero (including sharpening and noise reduction), apply the "Zeroed" preset in the Lightroom General Presets folder.
- If you have applied a preset on import, and want to reset the image to its imported state, use the History panel and click the Import state.

## Customizing the Default Processing Settings

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- To apply Enable Profile Corrections and Remove Chromatic Aberration to all images change the default processing settings using the following steps:

1) Select a raw file and remove all settings by clicking the Reset button.

2) In the Lens Correction panel, check both the Enable Profile Corrections and Remove Chromatic Aberration options. Changes are not limited to Lens Correction. You could, for example, change the default profile used in the Camera Calibration setting or the amount of Noise Reduction - just remember that these settings will be applied to ALL future imported images.

3) Choose Develop > Set Default Settings > Update to Current Settings. Note: Although the dialog says that the changes are not Undoable, it only means that the shortcut Command + Z (Mac) | Control + Z (Win) won't undo the settings. Don't worry, you can return to the dialog at any time and choose Restore Adobe Default Settings if needed.

4) Once the defaults are changed, any images taken with that camera model will automatically have the Enable Profile Corrections and Remove Chromatic Aberration settings applied when they are imported into Lightroom (any images that are already in the catalog remain as they were). Because you are simply "Enabling" Profile Corrections, if you change lenses, Lightroom will automatically look for and apply the appropriate lens correction profile based on the EXIF data in the photo. For the small number of images that I don't want to apply these settings to, I can easily disable (uncheck) the Lens Correction options.

5) If you are using multiple camera models, you will need to customize the default settings for each model (by following the above steps for each camera model).

6) It is also possible to save different settings for each camera based on ISO settings and serial number (Preferences > Presets > Make defaults specific to camera serial number and/or Make defaults specific to camera ISO setting). This can be useful when using custom camera profiles and/or changing Noise Reduction options, for example.

Note: if you import 1000 images but will only end up using 10 of them, adding these corrections on import will increase the amount of time it takes to render previews (how much time depends on your system, file size etc.). If you notice a significant decrease in performance, you might prefer to create a Lens Correction Preset and apply it to only your best images.

- Option (Mac) | Alt (Win) toggles the Reset button to Set Default.
- Customizing the default settings in either Lightroom or Adobe Camera Raw, defines the settings for both products.

## Lens Corrections

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- To achieve even vignette when cropping, use the Lens Profile to remove vignetting caused by the lens and the Post-Crop Vignetting in the Effects panel to apply additional vignetting.
- The Lens Corrections Profile panel indicates if a photo has built in lens correction applied (more common with micro 4/3s and mirrorless lenses that can be automatically adjusted).

## Transform (Perspective Correction and Guided Upright)

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- For best results, enable Lens Profile Corrections and Remove Chromatic Aberration before applying Upright modes. If Lens Corrections are applied after making Upright corrections, click the Update button in the Transform panel to have Lightroom redo its analysis of the image, and compute a new correction.
- Upright will generally work better on raw files compared to non-raw files, because it can take advantage of more reliable metadata (e.g., focal length).
- Control + Tab (Mac and Win) will allow you to cycle through the Upright modes in the Develop Module.
- Shift + T selects the Guided Upright tool. "O" shows/hides the Guided Upright Loupe.
- "A" toggles through the Tool overlay options (Always, Auto, Never).
- In the Upright panel, Transform > Aspect can help remove vertical and horizontal distortions if an image is overly squished or stretched.
- Command + Option -drag (Mac) | Control + Alt -drag (Win) repositions the image in the preview area (via the X Offset and Y Offset sliders). Add the Shift key to constrain to horizontal/vertical directions.
- Rotated crops and manual perspective corrections on existing images will usually interfere with Upright. For this reason, selecting one of the Upright modes will reset the crop and manual perspective adjustments in the Lens Correction Panel (Horizontal, Vertical, Rotate, Scale, and Aspect

controls). Resetting the crop has the benefit of showing the user the maximum amount of image area remaining after an Upright adjustment. To preserve these settings, Option + (Mac) | Alt + (Win) -click when choosing an Upright correction mode.

- When synchronizing files, choose Synchronize Upright Mode to calculate Upright modes independently for each image. Choose Synchronize Upright Transforms to synchronize using the exact numeric values.

## Cropping

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- “R” selects the Crop tool. Note: even in the Library Module, tapping R will take you to the Develop Module and select the Crop tool.
- “X” flips the crop aspect ratio.
- “A” toggles locking/unlocking of the aspect ratio.
- Use the drop-down menu next to the Lock icon to create and save custom aspect ratio presets (these are also available in Quick Develop).
- Option -drag (Mac) | Alt -drag (Win) the crop handles to transform the crop from the center.
- Positioning the cursor outside of the Crop handles changes the icon to a double headed arrow, click -drag (outside of the crop) to rotate the image.
- Click the Auto button (in the Angle area), to have Lightroom perform an auto level similar to the upright command.
- Command -drag (Mac) | Control -drag (Win) with the crop tool selected temporarily invokes the Angle tool.
- Command + Option -drag (Mac) | Control + Alt -drag (Win) with the crop tool temporarily invokes the Angle tool and displays a grid overlay.
- Double-click in the image preview area or tap Return (Mac) | Enter (Win) to apply the crop. Escape removes crop, or resets it to start of editing session of current image.
- Command + Option + R (Mac) Control + Alt + R (Win) will reset the crop.
- “O” key cycles through Overlays (grid, rule of thirds etc.). Shift + O cycles the Overlay orientation.
- To display the overlay only on mouse-down, choose Tools > Tool Overlay > Auto Show (instead of Always Show).
- To define which Overlays to cycle through, choose Tools > Crop Guide Overlay > Choose Overlays to Cycle.
- To visualize how an image will be cropped using a specific aspect ratio, choose Tools > Crop Guide Overlay > Choose Aspect Ratios and select the desired aspect ratio overlay(s). This preview can help clients see how different aspect ratios can effect image contents.
- When moving from one file to the next in the, Shift + A quickly crops the selected image to the last used aspect ratio.
- Control -click (Mac) | Right -click (Win) in the image preview area to access a number of crop-related features including: Reset Crop, Crop as Shot, Constrain Aspect Ratio and Crop to Same Aspect Ratio.
- Option + select (Mac) | Alt + select (Win) an aspect ratio from the Crop tool’s drop-down menu to apply the new aspect ratio and reset the crop to the image bounds.
- Cropping in Lightroom only commits to a specific aspect ratio. Image size is determined when exporting or using the output modules.

## Basic Panel

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- Option -click (Mac) | Alt -click (Win) the Process Version warning icon in the Histogram panel (the lightening bolt) to update the selected image to the current Process Version while bypassing the dialog box.
- Command + U (Mac) | Control + U (Win) applies an Auto Tone correction.
- Command + Shift + U (Mac) | Control + Shift + U applies an Auto White Balance correction.
- Shift + double-click on any of the sliders in the Tone area to set them as the Auto option would. This includes Shift-double clicking on the “Whites” or Blacks” slider to automatically set blank and white points in the image to extend the dynamic range across the histogram.
- “W” toggles the White Balance Selector tool (tapping “W” once selects the tool, tapping it again puts it away - a useful shortcut if you don’t use the auto-dismiss feature). Escape will also dismiss the tool. Note: Tapping the “W” key in the Library Module will automatically switch to the Develop Module and select the White Balance Selector tool.
- While using the White Balance Selector tool, choose Loupe and Auto Dismiss options in the Tool bar.
- The White Balance Selector Tool’s sample area is dependent on zoom level (zoom in to sample a smaller area).
- Shift -double click the Temperature or Tint adjustment sliders to apply Auto Temperature and Auto Tint controls separately from one another.
- The White Balance values displayed for RAW and JPEG files will differ. The Temperature and Tint sliders will display numeric values from -100 to +100 for JPEG files as opposed to Temperature (2000-50000) and Tint (-150 - +150) values for RAW files.
- Option -drag (Mac) | Alt -drag (Win) the Exposure, Highlights, Shadows, Whites and Blacks sliders to preview clipped values in an image (on a per channel basis).
- Clarity is biased to increases/decreases midtone, edge contrast (not full-range or overall contrast).
- Saturation is an absolute adjustment. Moving the slider to -100 will remove all color from an image, +100 will fully saturate colors in an image.
- Vibrance is a relative and biased slider - it increases/decreases the amount of color in an image based on how much color there was to begin

with and, it adjusts orange, red, and yellow values less than other colors (useful when increasing saturation in blue sky, green grass etc., while avoiding most shifts in skin-tones).

- Command + Option + Shift + M (Mac) | Control + Alt + Shift + M (Win) Matches Total Exposures.

## Histogram

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- Positioning the cursor over the shadow/highlight clipping icons (the triangles in the upper left/right of the Histogram panel), displays a blue overlay where information in one or more of the red, green, and/or blue channels is pure black (0). The red overlay appears where information in one or more of the red, green, and/or blue channels is pure white (255). Click either warning icon to toggle the red/blue overlay (regardless of cursor position). Or, tap the “J” key to toggle the visibility of both clipping previews at once.
- To preview individual channel clipping, Option-drag (Mac) | Alt -drag(Win) the Blacks/Whites sliders. Where the image preview is pure black or white, all of the channels are clipped (the various colors represent clipping on a per-channel (or combination of channels) basis).
- Click and drag left/right within the histogram to decrease/increase Blacks, Shadows, Exposure, Highlights, and/or Whites slider values.
- Control -click (Mac) | Right -click (Win) in the Histogram > Show Lab Color Values.

## Tone Curve

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- There are two curves in the Tone Curve panel: the Parametric and the Point curve. Click -drag up/down on the Parametric curve to lighten/darken the image or, drag the Highlights, Lights, Darks, and Shadows sliders (below the curve). To change the tonal range affected of any of these sliders, reposition the triangles (directly under the curve). To reset the curve, double click on the words “Region”.
- Click the small square icon in the lower right of the Tone Curve panel to toggle to the Point Curve. The Point Curve adjusts the composite image (like the Parametric curve) as well as individual red, green, and blue channels (accessed via the Channel drop-down menu). A maximum of 16 points can be added to each curve to make color corrections and/or add creative effects.
- To make on-screen adjustments to the either curve, use the Targeted Adjustment tool. Command + Option + Shift + T (Mac) / Control + Alt + Shift + T (Win) selects the Targeted Adjustment tool (or click the small, circular icon in the upper left of the panel). Click -drag up/down in the image preview with Targeted Adjustment Tool to lighten/darken the value clicked upon. Escape puts the tool back.
- For making small adjustments with the Targeted Adjustment tool, try positioning the cursor in the image preview area over the value that you want to change. Then (without clicking), use the up/down arrow keys to nudge the curve. Add the Shift key to move the point in greater increments.
- To delete individual points on the Point Curve, click -drag the point off the curve. To reset the Point Curve, double click on the words “Point Curve”.
- Use the Point Curve drop-down menu to save curves that you may want to use again. In order to allow both Lightroom and Camera Raw to access the curves, they are saved to this location (instead of Lightrooms’ default Preset location):

*Mac (user)/Library/Application Support/Adobe/CameraRaw/Curves*

*Win (user)/Application Data/Adobe/CameraRaw/Curves*

## Before & After View and the History Panel

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- “Y” displays Before and After (left/right) view. Option + Y (Mac) | Alt + Y (Win) toggles Before and After (top/bottom) view. Shift + Y toggles Before and After (split screen) view.
- Command + Option+ Shift + right arrow (Mac) | Control + Alt + Shift + right arrow (Win) copies the Before state to the After state.
- Command + Option+ Shift + left arrow (Mac) | Control + Alt + Shift + left arrow (Win) copies the After state to the Before state.
- Command + Option+ Shift + up arrow (Mac) | Control + Alt + Shift + up arrow (Win) swaps the Before and After state.
- “\” (backslash) toggles Before and After view full screen (one view showing at a time).
- Drag and drop any state from the History panel to the Before state to compare with the current state. Note: don’t click on the state in the History panel - that will select that state as your current or “after” state: *drag and drop* the history state to the Before image.
- Control -click (Mac) | right -click (Win) on a Snapshot (in the Snapshots panel) to “Copy Snapshot Settings to Before” preview in Before/After view.
- Rollover the “X” in History panel header and click “Clear All” to clear all history states for an image.

## Virtual Copies and Snapshots

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- Create a Virtual Copy when you want to process the same file with different settings (black and white and color for example), and you need them to behave like separate files (you want to print both images on the same page, or use both images in a slideshow for example).
- Create Snapshots when you want to process the same file with different settings, (black and white and color for example), and you want those settings to be contained within a single image (placing the image in Photoshop as a Smart Object for example, allows you to access the different snapshots without having to replace the contents of the Smart Object).
- Command + “ (Mac) | Control + “ (Win) creates a Virtual Copy. To remove (delete) a Virtual Copy tap the Delete Mac) | Backspace (Win) key.

- In Grid view, click Attribute in the Filter bar and select the Virtual Copies icon for to quickly find all Virtual Copies in a folder/collection.
- Choose Photo > Set Copy as Master to switch the Virtual Copy to the master file.
- When creating Virtual Copies, Lightroom automatically assigns each Virtual Copy sequential copy name: “Copy 1”, “Copy 2”, “Copy 3”, etc. To create a custom name for each Virtual Copy, in the Metadata panel (in the Library module) type the preferred name in the “Copy Name” field. To see the custom file name in Grid view, select View >View Options and set Show Grid Extras to Expanded Cells and the Expanded Cell Extras to Copy Name. To see the custom file name in Loupe view, select View >View Options and select Copy Name from the list.
- Virtual copies are always stored in the same Folder as the original. However, depending on how the folder is sorted, the Master file may not appear next to the Virtual Copy. To quickly locate the Master file, select the Virtual Copy and, in the Metadata panel, click the arrow icon to the right of the Copy Name.
- Command + N (Mac) | Control + N (Win) creates a new Snapshot (when in the Develop module).
- Snapshots are shared between Master files and Virtual Copies. For example, creating a snapshot in a Master file will make that snapshot available in all Virtual Copies of that file (and vice-versa). If you delete a Snapshot from an image, it will be removed from the Master and all Virtual Copies.
- When working with video clips, create multiple Virtual Copies of the clip to trim (edit in and out points) unwanted footage.
- To increase productivity while scanning a large number of images, it might help to place several images on the scanner at one time and scan them as one file. Then, create Virtual copies for each individual image, and crop and refine as needed.

## Reference View

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- Shift + R displays Reference view. Drag a reference photo (static) from the filmstrip to the Reference view to compare with the active) photo.
- Images can be designated as the reference photo from the Library module: Control -click (Mac) | Right -click (Win) on the desired photo and choose Set as Reference from the context sensitive menu.

## HSL, Color, and B & W Adjustments

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- The HSL and Color panels contain the same color controls (just displayed differently) with one major exception - the HSL panel has a Targeted Adjustment tool. Click the small circle icon in the upper left of the panel to select the Targeted Adjustment Tool and click-drag up/down (or left/right) in the image area to increase/decrease the color adjustment.
- To access the Targeted adjustment tool (regardless of which panel is selected):
  - Command + Option + Shift + H (Mac) | Control + Alt + Shift + H (Win) changes Hue.*
  - Command + Option + Shift + S (Mac) | Control + Alt + Shift + S (Win) changes Saturation.*
  - Command + Option + Shift + L (Mac) | Control + Alt + Shift + L (Win) changes Luminance.*
- “V” toggles the default Black and White conversion.
- Use the sliders on the B & W panel to customize the conversion of color ranges to greyscale values, or, Command + Option + Shift + G (Mac) | Control + Alt + Shift + G (Win) access the Targeted adjustment tool. Click-drag up/down (or left/right) to change color range conversion values.
- By default, Lightroom applies an Auto conversion to Black and White (based on the contents of the image). Double click the words “Black and White Mix” at the top of the B&W panel to reset all values to their default settings.

## Detail

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- Zoom into 100% to accurately view the effects of sharpening (as well as noise reduction). To quickly preview an image at 100%, click the exclamation mark (!) icon in the Detail panel. Note: the preview area within the Details panel must be hidden to display the icon).
- To preview a smaller portion of the image in the Detail panel at 100% while viewing a different zoom view in the preview area, click the disclosure triangle to the right to the word Sharpening. Then, select the Adjust Detail Zoom icon ( the small square icon), and click in the image preview area to display in the panel at 100%.
- The Detail and Masking sliders suppress sharpening in the lower contrast areas of an image. As a rule of thumb, the Detail slider is better at suppressing sharpening in high-frequency images such as landscapes while the Masking slider is better when working with portraits.
- Option -drag (Mac) | Alt -drag (Win) any of the Sharpening sliders (as well as the Luminance sliders in Noise Reduction), displays a greyscale preview of the slider's effect. Previewing the edges of the masks (the Detail and Masking sliders), is helpful in determining which option is best for the image that you're working on.
- To help reduce (or even remove) low-frequency color mottling (small clumps of magenta or green areas in an image for example), increase the Smoothness slider in Noise Reduction.

## Split Toning

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- Option -drag (Mac) | Alt -drag (Win) the Hue slider in the Split Toning panel to temporarily view the colors at 100% saturation (making it easier to choose the desired hue). Then, release the keyboard modifier and use the Saturation slider to dial in the desired amount of color.
- Option -drag (Mac) | Alt -drag (Win) the Balance slider in the Split Toning panel to temporarily preview the Split Tone colors at 100% saturation (making it easier to see where the colors split in the image).

## Effects

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- There are three Post Crop Vignette Styles:
  - 1) *Highlight Priority* - enables highlight recovery but can lead to color shifts in darkened areas of a photo. It is suitable for photos with bright image areas such as clipped specular highlights and behaves more like a traditional exposure burn.
  - 2) *Color Priority* - minimizes color shifts in darkened areas of a photo but cannot perform highlight recovery. Also behaves more like a traditional exposure burn.
  - 3) *Paint Overlay* - similar to an overlay of black or white paint.
- Both Highlight Priority and Color Priority styles include a Highlights slider. Increase the slider's value to reintroduce contrast in the highlights (and avoid muddy areas in images). The sliders effect is most noticeable if the vignetting is applied over bright areas such as highlights in a sky.
- Dehaze can dramatically improve an image by removing haze. The Dehaze technology is based on a physical model of how light is transmitted, and it tries to estimate light that is lost due to absorption and scattering through the atmosphere. For the best results, set the white balance for the image before using Dehaze. When moving the slider, there is very little change in the highlight area (on the right side of the Histogram), while the shadows and lower portion of the histogram is clearly being changed. If you are concerned that the darker values in the image are being clipped to pure black, Option -drag (Mac) | Alt -drag (Win) the slider to display the black point clipping visualization (clipped areas will appear as black in the image area). If you're pushing the slider to the extreme, you may need to return to the Basic panel to refine the settings.

## Common Shortcuts for the Local Adjustment Tools

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- "H" Show/Hide pins and tool interface.
- "O" to Show/Hide Selected Mask Overlay. Displaying the mask overlay can make it easier to see areas the areas that are included/excluded from the adjustment in order to make refinements to the mask. Shift + O cycles through mask overlay colors (red, green, white, and black).
- Hover the cursor on top of the Adjustment's pin to temporarily display the Selected Mask overlay.
- Command + Option -drag (Mac) | Control + Alt -drag (Win) the adjustment pin to duplicate the adjustment.
- Clicking the disclosure triangle to the right of "Effect" on the local adjustment tool panel hides individual sliders while displaying the Amount slider. Use the Amount slider to increase/decrease the amount of all adjustments applied to a single pin. Or, Option -drag (Mac) | Alt -drag (Win) left/right) on a pin to increase/decrease all attributes applied.
- To reuse settings applied to local adjustment tools, save then as a preset. At the top of the Local Adjustment tool panel, click Custom (or the name of the currently selected preset), and choose Save Current Settings As New Preset from the drop-down list.
- Click the Color swatch (the rectangle with an x through it at the bottom of the Local Adjustment tool panel) to choose a color from the Color Picker. To select a color from the image, click the swatch, then click in the Color Picker and, continuing to hold the mouse down, drag the eye-dropper over the image area to choose a color from the photo. Note: applying color using a local adjustment tool is similar to adding a color wash (similar to a traditional hand colored look), not an opaque paint stroke (as that would obscure the detail in the photograph). Double click the word Color to reset the color swatch.
- When increasing the Shadow slider, it might be advantageous to also increase the Noise (reduction) slider to help suppress noise.

## Graduated Filter (M)

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- Shift -drag constrains the Graduated Filter to a straight line (90 degrees horizontal or vertical).
- After drawing a Graduated filter, Option + ' (apostrophe) (Mac) | Alt + ' (apostrophe) (Win) reverses the direction.
- Option -drag (Mac) | Alt -drag (Win) the Graduated Filter scales the gradient out from the center (in both directions, from the initial click point).
- Shift + T toggles between editing the Graduated filter and the brush editing mode.

## Radial Filter (Shift + M)

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- Shift -drag constrains the Radial Filter to a circle.
- By default, the Radial Filter is scaled from center. Option -drag (Mac) | Alt -drag (Win) to scale from the "corner".
- Command -double-click (Mac) | Control -double-click (Win) in the image area to expand the Radial Filter to the visible image area.
- ' (apostrophe) toggles the Invert Mask option

- Double-click in the image areas with an existing Radial Filter to commit to the Radial filter and dismiss the tool.
- Shift + T will toggle between editing the Radial filter and the brush editing mode.

### Adjustment Brush (K)

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- Shift-drag to constrain the Adjustment Brush movements vertically or horizontally.
- Click once, then Shift -click in another area with the Adjustment Brush to draw a straight lines between clicks.
- Option + “[” or “]” (Mac) | Alt + “[” or “]” (Win) decreases/increases brush size. Add the Shift key to decrease/increase feather (softness of the edge).
- Use the numeric keys on the keyboard to change the Flow amount. Tapping one number assigns the percentage of the hit number (1 = 10%, 2= 20% etc. and 0 = 100%). Tapping two numbers quickly will give you that exact amount (5 + 4 = 54%).
- The Flow sets the speed of the adjustment applied when painting. For example, painting with the Exposure slider set to +2 and the Flow to 25 will take longer to build up (paint) the +2 stops than if the Flow is at 100 (eventually though, it will get there).
- The Density slider caps the amount of change that can be applied with a paint stroke. Setting the Exposure slider to +2 and the Density down to 50, will never produce more of a change than 1/2 of the +2 exposure (or +1 stop) - regardless of how long you paint with the tool. At first I thought why not just reduce the slider amount in order to cap the adjustment(s), but then I realized that I can set the sliders at the most extreme adjustment values needed in the image, then prevent overdoing the adjustment in other areas by setting the Density slider to cap the adjustment.
- Tap Return (Mac) | Enter (Win) to apply the Adjustment Brush and begin painting a new adjustment.
- Option (Mac) | Alt (Win) toggles the Adjustment Brush and Erase tool.
- “A” toggles Auto Mask on/off.
- “/” (forward slash) toggles between Brush A and B.

### Spot Removal Tool (Q)

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- Tap “Q” to access the Spot Removal tool. Shift + Q toggles between Clone and Heal modes.
- A single click will create a circle spot and auto-find a source. Click - drag to create a brush spot.
- Use the arrow keys to nudge the source point. Add Shift to nudge in greater increments.
- “/” (forward slash) auto selects a new source for the selected circle or brush spot.
- “[” or “]” (Mac) | + “[” or “]” Alt (Win) increases/decreases the size of the brush size. Add shift to increases/decreases feather(edge softness).
- Command click-drag (Mac) | Control click-drag (Win) to set a circle spot and drag to define the source.
- Command + Option -drag (Mac) | Control + Alt -drag (Win) creates a circle spot that scales from the center.
- Command + Shift -drag (Mac) | Control + Shift -drag (Win) creates a circle spot that scales from anchor.
- Holding down Shift (before starting to paint) constrains the brush stroke to horizontal or vertical.
- Click, then shift-click in a different area to connect the circle spots with a straight brush stroke (to remove power lines for example).
- Option -click (Mac) | Alt -click (Win) a spot to delete it (the icon displays as a pair of scissors).
- Option -drag (Mac) | Alt -drag (Win) over multiple spots to batch-delete spots.
- “A” toggles Visualize Spots.
- “H” toggles the tool overlay Auto/Never. In Auto view, repositioning the cursor outside of the preview area temporarily hides the tool overlay.
- When zoomed, Page up/Page down navigates through an image (screen by screen) reducing the possibility of missing spots. Add the Shift key to move left/right. To move to the upper left of the document, tap the Home key. Tap the End key to go to the lower right. Note: on a laptop, press the function key (fn) plus the up/down arrows to move up or down through the image. Press the function key (fn) plus the left or right arrow to go Home or End.
- Once dust spots are removed from one image, select “similar” images (“similar” because they all have the same dust) and use the Sync button to apply the Spot Removal settings to others (as the image content will (most likely) vary from one image to another, it maybe be necessary to check each image to make sure that the clone/heal is seamless).
- Decrease the opacity of a retouched spot to minimize a distracting element (instead of removing it).

### Apply Previous, Copy and Paste , and Sync Settings

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- Command + C (Mac) | Control + C (Win) displays the “Copy Settings” dialog, enabling you to choose what setting to copy. Command + V (Mac) | Control + V (Win) will paste the copied settings. For example, if you need to repeatedly apply a vignette to images in a shoot, apply the vignette to the first image and use the shortcut to copy the setting(s). Then, as you move through the shoot use the shortcut to quickly paste the vignette on other images.
- Command + Option + V (Mac) | Control + Alt + V (Win) pastes the all settings from the previously selected photo (bypassing the dialog).

- Command + Shift + S (Mac) | Control + Shift + S (Win) displays the Synchronize Settings dialog, enabling you to choose what settings to synchronize (you must have multiple images selected to use this shortcut).
- Option -click (Mac) | Alt -click (Win) the Sync button to sync multiple selected files using the last selected (checked) options. Because the Sync dialog is bypassed, this shortcut requires that you remember what you checked last time you synced files.
- Command + Shift + R (Mac) | Control + Shift + R (Win) resets all settings applied to an image.
- Command + Option + Shift + A (Mac) | Control + Alt + Shift + A (Win) toggles Auto Sync (you must have multiple images selected to use Auto Sync).

## Creating Presets

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- Command + Shift + N (Mac) | Control + Shift + N (Win) creates a New Preset in the Develop Module.
- Command + Option + N (Mac) | Control + Alt + N (Win) creates a new Folder to put presets into.
- Once a preset is created, it can be applied to other images in the Develop module, the Library module (Quick Develop), as well as on Import (Apply During Import > Develop Settings).

## Soft Proofing

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- “S” toggles Proof Preview on/off. In Proof Preview view, Shift + S toggles the Destination gamut warning on/off.
- Invoking Soft Proof changes the values of the histogram from percentage to absolute values (0-255).
- With Soft Proofing enabled, making a change to the image displays the “Create virtual copy for soft proofing?” dialog. Choose “Create Proof Copy”, to automatically create a Proof Copy (a Proof Copy is the same as a virtual copy except that it adds a *Copy* name (the profile name) to the metadata of the file). Creating a Proof Copy enables the preservation of settings before soft-proofing in the first file, while creating a new rendition (or version) to be tailored to the specific soft proofing settings. Choose “Make this the Proof” to continue making changes on the selected file. Because everything in Lightroom is nondestructive, selecting Setting > Proof will disable this change.
- “Y” toggles Before/ After view. Use the Before menu (in the Tool bar) to choose to view the Before State or Current State as the “Before”
- “\” (backslash) toggles Before / After view full screen (one view showing at a time).
- Lightroom can preview and manage CMYK files. If, however, any adjustments are added to a CMYK file (in Quick Develop or the Develop module) and that file is opened in Photoshop (using the option to “Edit a Copy with Lightroom Adjustments”), Lightroom will open the CMYK file as RGB.

## The Map Module

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- The map module requires an internet connection.
- Click the arrow next to the GPS coordinates in the Metadata panel (in the Library module) to view the image in the Map module.
- Option -click (Mac) | Alt -click (Win) the arrow next to GPS coordinates (in the Metadata panel either the Library or Map module) to view the image via Google Maps in the default web browser.
- The map displays images in the selected folder/collection/publish service. To see all photographs, choose All Photographs in the Catalog panel (in the Library module) before moving to the Map module or, select All Photographs from the Content Selector pop-up (the list that appears when clicking in the navigation area above the Filmstrip in any module).
- Command + 1 (Mac) | Control + 1 (Win) displays Hybrid view.
- Command + 2 (Mac) | Control + 2 (Win) displays Roadmap view.
- Command + 3 (Mac) | Control + 3 (Win) displays Satellite view.
- Command + 4 (Mac) | Control + 4 (Win) displays Terrain view.
- Command + 5 (Mac) | Control + 5 (Win) displays Light view.
- Command + 6 (Mac) | Control + 6 (Win) displays Dark view.
- Option -drag (Mac) | Alt -drag (Win) -drag to zoom in on the map or, use plus and minus to zoom in/out.
- Command + K (Mac) | Control + K (Win) toggles Lock Markers.
- Command + F (Mac) | Control + F (Win) highlights the Search Map field.
- “I” toggles the Map information overlay.
- “\” (backslash) toggles Location Filter Bar (at the top of the map).
- “O” toggles Saved Location overlay.
- When drag and dropping from the filmstrip to the map to add GPS information with Reverse Geocoding enabled (Catalog Settings > Metadata > Reverse Geocoding), Lightroom automatically enters Location information associated with the GPS information (Sublocation, City, State/Province, Country, and ISO Country Code). It’s important to note that Lightroom can treat the Location Information and the GPS data independently of one another. By default, moving the location of the images (by dragging and dropping them to another location on the map), both the GPS as well as the Location Information will be updated. However the Location information can also be entered manually (perhaps



you have a nickname for the location), by typing in any of the Location Information fields. The Location Information is displayed in grey when automatically generated and in white when manually entered. In both scenarios, the location information will be exported with the file.

- Delete (Mac) | Backspace (Win) deletes GPS coordinates of the selected image (when in the Map Module).
- Command + Delete (Mac) | Control + Backspace (Win) deletes all Location metadata in the selected image (when in the Map Module).

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## Working with Video Clips

- Shift + I sets the in-point of a clip. Shift + O sets the out-point of a clip.
- Lightroom can apply the following changes to video clips using Quick Develop: Color/Black & White Treatment, White Balance, Exposure, Contrast, Whites, Blacks, Vibrance (and, holding the Option (Mac) | Alt (Win), Saturation). In addition, Presets can be applied to video clips that change the previous options as well as settings from the Tone Curve, HSL, B/W Treatment, Split Toning, Process Version and Calibration.
- Video clips can be added to the Slideshow module (including control over audio levels for clips vs. music overlays).

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## Export

- Command + Shift + E (Mac) | Control + Shift + E (Win) displays the Export options dialog.
- Command + Option + Shift + E (Mac) | Control + Alt + Shift + E (Win) exports with Previous settings.
- Under Export Location > Export To, select Choose Location Later when creating presets that need to export groups of images to various locations.
- Under File Naming > Rename To, create and save presets to append file names based on export settings (for example \_600px, \_16bit etc.).
- Under File Settings > Image Format, use "Original" when exporting a mix of images (DNG, PSD, JPEG) which need to remain in their original formats.
- Under Image Sizing > Resize to Fit, choose Short or Long Edge to resize images with mixed aspect ratios. Check Don't Enlarge in order to prevent resizing an image larger than the original.
- Under Metadata > Include All Metadata, check to remove personal information (person and location information).
- After Exporting files from Lightroom, to automatically run droplets (batch actions) in Photoshop, under Post-Processing > After Export, choose Go to Export Actions Folder Now. Once the droplet (created in Photoshop), is placed into the Export Actions folder, it will become available from the After Export list.
- Save Presets for commonly used Export settings. Then, Control -click (Mac) | Right -click (Win) image(s) thumbnail to quickly select Export > (saved preset name) from the context sensitive menu.

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## Edit in Photoshop

- Command + E (Mac) | Control + E (Win) opens selected files into your primary external editor.
- Command + Option + E (Mac) | Control + Alt + E (Win) opens selected files into the secondary editor (defined via Preferences > External Editing).
- Choose Preferences > External Editing to select the default file settings (file format, color space, etc.), for handing off images to Photoshop.
- Choose Preferences > External Editing > Additional External Editor, to create presets for commonly exported file types, bit depth etc.
- Choose Preferences > External Editing, and select whether or not to stack the edited photo with the original.
- Choose Preferences > External Editing, to create a custom filename template for images edited externally ( \_ME for "master edited" for example).
- PNG files that contain transparency will retain their transparency when selecting Photo > Edit In > Photoshop.
- Choosing Photo > Edit In > Photoshop instructs Lightroom to hand off the file to Photoshop. After making changes in Photoshop, saving, and then closing that file instructs Photoshop to then hand off the saved file to Lightroom where it will be automatically import into the catalog. If however, after Lightroom hands off a file to Photoshop, you make a duplicate (or a copy) of the file in Photoshop, and then save and close that duplicated file, Photoshop will not instruct Lightroom to import the duplicate and you will need to manually import it.
- Photo > Edit In > Open as Layers in Photoshop opens multiple files from Lightroom into a single, multi-layered Photoshop document.
- To open multiple files from Lightroom into Photoshop as Smart Objects *and* place them into a single document, open a document in Photoshop. Then, with both applications visible, select the images in Lightroom and drag and drop them on top of the open Photoshop document. Each image will be converted to a smart object and placed into the open document. Note: the options to "Resize Image During Place" as well as "Place or Drag Raster Images as Smart Object" are controlled in Photoshop's General Preferences.

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## Publish Services

- Published Services keep track of changes made to image(s) since last published. Control -click (Mac) | Right -click (Win) and select "Mark as Up-To-Date" if you prefer not to republish after making small changes to images (such as adding a keyword etc.).
- Publish Services are not limited to on-line services. For example, the Hard Drive publish service can save and keep track of images submitted to a client.
- Add more Publish Services by clicking the "Find More Services Online...".

## Consistent to All Output Modules

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- Choose the files to work with using the Content Selector (in the Tool bar): All Filmstrip Photos, Selected Photos, or Flagged Photos.
- Reorder images in the Output modules by dragging them in the Filmstrip.
- Sharpening is automatically be adjusted for increases/decreases in image size within the Book, Print, and Web modules.
- Command + N (Mac) | Control + N (Win) creates a new template.
- Command + Shift + N (Mac) | Control + Shift + N (Win) creates a new folder for templates.
- Command + S (Mac) | Control + S (Win) output settings plus the specific set of photographs (as Saved Book, Print Slideshow etc. projects).
- While in the output modules, instead of returning to the Library module to select different files, you can:
  - *Choose a different collection using the Collections panel.*
  - *Use the Go Back and Go Forward navigation icons to view recently viewed folders (located in the black bar above the filmstrip).*
  - *Click the path for the currently selected image (located in the black bar above the filmstrip) and choose from Recent and Favorite Sources.*

## Book Module

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- In the Book module, Book > Preferences controls the default Photo Zoom, Auto Fill, and Text options.
- Page view and navigation shortcuts include:
  - *Command + E (Mac) | Control + E (Win) displays Multi-Page view.*
  - *Command + R (Mac) | Control + R (Win) displays Single Spread view.*
  - *Command + T (Mac) | Control + T (Win) displays Single Page view (double clicking a page also views a single page).*
  - *Command + U (Mac) | Control + U (Win) displays Zoomed Page view (1:1 and 4:1). Command + and - (Mac) | Control + and - (Win) also zooms.*
  - *Left/right arrow keys move between pages (or spreads depending on view).*
  - *Shift + left/right arrow keys moves to the first/last page.*
  - *Plus/minus (+, -) increases/decreases grid size.*
  - *"I" overlays book information.*
- Showing and Hiding Guides
  - *Command + Shift + G (Mac) | Control + Shift + G (Win) toggles all selected options in the Guides Panel.*
  - *Command + Shift + J (Mac) | Control + Shift + J toggles Page Bleed.*
  - *Command + Shift + U (Mac) | Control + Shift + U toggles Text Safe.*
  - *Command + Shift + K (Mac) | Control + Shift + K toggles Photo Cells.*
- Command + Option + A (Mac) | Control + Alt + A (Win) selects all text on page (or pages depending on view).
- Command + Option + Shift + A (Mac) | Control + Alt + Shift + A (Win) selects all photos on page (or pages depending on view).
- In the Text panel, with the Targeted Adjustment Tool selected:
  - *Drag left/right to decrease/increase size, drag up/down to decrease/increase leading.*
  - *Command -drag up/down (Mac) | Control -drag up/down (Win) increase/decrease baseline shift.*
  - *Command -drag left/right (Mac) | Control -drag left/right (Win) increase/decrease tracking.*
- Control -click (Mac) | Right -click (Win) the font menu to add favorite fonts.
- Use the Page Text option in the Text panel to add text to a page. Reposition the text using the top/bottom button and the offset slider. Further refine the text position with in the cell using the Padding options in the Cell panel.
- Hardcover books can always have text on the spine (even with a one page book). However, if the font size is too large, or the cell padding too great, text can't be added to the spine of the book. Reduce the text size in the Type panel and the Padding in the Cell panel. Soft-cover books need to have a certain thickness before text can be added to the spine. The limit differs based on the paper type:
  - *Premium Lustre paper and Premium Matte paper – 84 pages.*
  - *ProLine Uncoated paper and ProLine Pearl Photo paper – 70 pages.*
  - *Standard paper – 114 pages.*
- To vertically center text on the spine, enter your text, then in the Type panel, click the Vertical Align Center icon.
- Page numbering options:
  - *Enable Page numbering in the Page panel, then use the pull down menu to position them (Top Corner, Bottom Corner, Top, Side, Bottom).*
  - *To change the start page for numbering, Control -click (Mac) | Right -click (Win) in a page and choose Start Page Number. Lightroom defaults to starting the page numbering on the first non-cover page.*
  - *Control -click (Mac) | right -click (Win) in a page to change the appearance of page number either globally or locally.*
  - *Control -click (Mac) | right -click (Win) in a page to hide a page number on a specific page.*

- Select “Used” or “Unused” from the Filter presets (in the black bar above the filmstrip), to view images that have/have not been added to the book.
- Working with custom pages:
  - *Control -click (Mac) | right -click (Win) after making modifications to a page (such as cell padding) to and choose save as Custom Page to reuse.*
  - *Apply custom pages using the Page Picker (from the Custom page category).*
  - *Custom pages are specific to Book settings (size/dimensions) and file format (Blurb/JPEG/PDF).*
- Position the cursor over a page in the Page picker and click the circle icon to add the page to the list of Favorites.
- After saving a book project, return to the Library module to quickly add or remove images to the saved Book Collection.

## Slideshow

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- Long captions may be truncated in the Slideshow module because it doesn’t wrap text). To manually insert line breaks, Option + Shift + Enter (Mac) | Alt + Shift + Return (Win) in the Caption field in the Metadata panel in the Library module).
- Adding a “Description” in File Info dialog in Photoshop is the same as adding a “Caption” in Lightroom.
- Option + Enter (Mac) | Alt + Return (Win) previews a slideshow in the preview window.
- Command + Return (Mac) | Control + Return (Win) will play a slideshow in full screen.
- To pause a Slideshow, tap the spacebar. While the slideshow is paused, tap the left/right arrows to move to the previous/next slide. Tap the spacebar again to resume playing. Escape exits the slide show.
- Command + Shift + H (Mac) | Control + Shift + H (Win) show/hides guides.
- Command + J (Mac) | Control + J (Win) exports the slideshow as a PDF.
- Option (Mac) | Alt (Win) toggles the Export PDF button (in the lower left) to Export JPEG.
- Command + Shift + J (Mac) | Control+ Shift + J (Win) exports a sequence of JPEG files.
- Command + Option + J (Mac) | Control + Alt + J (Win ) exports the slideshow as a video.

## Print

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- Command + P (Mac) | Control + P (Win) selects the Print module.
- Command + Shift + P (Mac) | Control + Shift + P (Win) opens the Page Setup dialog.
- Command + Option + Shift + P (Mac) | Control + Alt + Shift + P (Win) opens the Print Settings dialog.
- Command + Option + P (Mac) | Control + Alt + P (Win) prints one copy.
- Command + Shift + G (Mac) | Control + Shift+ G (Win) toggles all selected options in the Guides Panel. When guides are displayed:
  - *Command + R (Mac) | Control + R (Win) toggles rulers visibility.*
  - *Command + Shift + J (Mac) | Control + Shift + J (Win) toggles page bleed visibility.*
  - *Command + Shift + M (Mac) | Control + Shift + M (Win) toggles margins and gutters visibility.*
  - *Command + Shift + K (Mac) | Control + Shift + K (Win) toggles image cells visibility.*
  - *Command + Shift + U (Mac) | Control + Shift + U (Win) toggles dimensions visibility.*
- In the Print Job panel, selecting Print To: JPEG prints layouts to JPEG files (perfect for printing banners, diptychs etc., to social media).
- Option -drag (Mac) | Alt -drag (Win) duplicates the cell when using the Picture Package Layout Engine.
- Command -drag (Mac) | Control -drag (Win) repositions the image within cell (when the aspect ratio of the cell doesn’t match the image).
- Control -click (Mac) | right -click (Win) in a cell to change the stacking order of two overlapping cells.

## Web Module

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- Command + R (Mac) | Control + R (Win) reloads the web gallery.
- Command + Option + P (Mac) | Control + Alt + P (Win) builds a gallery preview and displays it in a browser.
- Command + J (Mac) | Control + J (Win) exports the Web Gallery.
- Command + Option + Shift + / (Mac) | Control + Alt + Shift + / (forward slash) (Win) toggles the Appearance panel’s options to CSS tags.

## Dual Monitors

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- F11 opens the secondary window. Either screen can be the primary or secondary screen.
- Shift + Command (Mac) | Shift -click. (Win) views the secondary window into full screen.
- Add the Shift key to the view shortcuts to move between views: Grid = Shift + G, Loupe = Shift + E, Compare = Shift + C, and Survey = Shift + N).
- Shift + \ displays the filter bar.
- Add the shift key to the normal shortcuts to zoom in/out (Command + Shift + plus/minus (Mac) | Control (Win) + Shift + plus/minus)
- Shift + plus/minus will increase/decrease thumbnail size.

## Saving Metadata to Files

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- In the Library and Develop modules, Command + S (Mac) | Control + S (Win) writes metadata (including develop settings, keywords, copyright info etc.) into the individual DNG, JPEG, PSD, and TIFF files. For proprietary raw files (.nef, crw etc.), Lightroom generates XMP sidecar files.
- Only the current state is written into a file (or into XMP), the history states stored in the History panel are not written.
- To automatically write changes into files (or into XMP sidecar files) choose Catalog Settings > Metadata > Automatically Write Changes into XMP.

## Tethered Capture

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- To view the most recent capture at the top of the Grid view, click the a/z icon in the Library's Tool bar to toggle the sort direction.
- In the Tethered Capture window, make any necessary adjustments to first capture then, under Develop Settings, choose "Same as Previous" to apply the same adjustments to subsequent images.
- Once open, Command + T (Mac) | Control + T (Win) toggles the Tether Capture window.
- Option -click (Mac) | Alt -click (Win) the close button to collapse/expand the tether toolbar to the shutter button.
- Command + Shift + T (Mac) | Control + Shift + T (Win) creates a New Shot (this doesn't capture a photo, but creates a new folder to capture to).
- Command + Option + Shift + O (Mac) | Control + Alt + Shift + O (Win) enables a PNG image to be overlaid over the captured image (to preview what the image might look like on the cover of a magazine for example).

## Preset Files

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- To quickly navigate to the Lightroom preset folder, choose Preferences > Presets > Show Lightroom Preset Folder.
- Control -click (Mac) | right -click (Win) on any preset in the Develop module (or any Template in the output modules) and choose Show in Finder (Mac) | Reveal in Explorer (Win) to display the corresponding presets folder.
- The option to store presets and templates with a specific catalog is particularly useful when there is a need to work on several different computers. For example, in an educational "lab" environment, a student might have all of their images and catalog on an external drive making it easy to move from one machine to another during each "open lab" session. If they choose Preferences > Presets > Location and check the "Store Presets with Catalog" option, any user-created preset (such as metadata templates, develop presets etc.) will be stored within the same folder as the associated catalog (instead of in the default location on the lab machine). The advantage is that which ever computer they launch their Lightroom catalog upon, they will see their presets (and only their presets). When working on a single computer however, I would suggest NOT checking the "Store Presets with Catalog" option. Instead, save the presets (and templates) to the default location so that they are accessible if working with multiple catalogs.

## Catalog Options

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- Control -click (Mac) | right -click (Win) on a Folder or Collection to export it as a new catalog. Or, in the Library module, press the Option (Mac) | Alt (Win) to toggle the Import and Export buttons to "Import Catalog" and "Export Catalog".
- If your workflow requires the use of multiple catalogs, you may want to create a "template" catalog. Set up the options specific to the catalog (such as Identity Plates and Collections), then duplicate the template catalog and get right to work.
- The default Lightroom catalog is stored here on the Mac: *Mac (user) / Pictures / Lightroom* and here on Windows: *Win (user) / My Pictures / Lightroom*.
- The following are three easy ways to find the location of a catalog:
  - *On the Mac, Command + Option + F displays Lightroom in Normal mode where the title of the catalog is displayed at the top of the Lightroom window. Control -click on the name of the catalog to display the path to it's location.*
  - *With the catalog open, select Lightroom > Catalog Settings > General (Mac) | Edit > Catalog Settings > General (Win) and click the "Show" button to reveal the catalog in the Finder (Mac) | Explorer (Win).*
  - *Do a search using the operating system on .lrcat to find all Lightroom catalogs.*
- Holding the Option (Mac) | Alt (Win) key immediately after launching Lightroom displays the "Select Catalog" dialog with options to choose to open recent catalogs, choose a different catalog, or create a new catalog.
- To rename your catalog, quit Lightroom and use the operating system to rename these files:
  - *(your catalog name).lrcat*
  - *(your catalog name) Previews.lrddata*
  - *(your catalog name) Smart Previews.lrddata*

*Be sure to leave the space between the catalog name and the word Previews and Smart Previews in the two .lrddata files.*

*Note: If you have no smart previews in your catalog, you might not have the (your catalog name) Smart Previews.lrddata file.*
- To create a backup of your catalog, select File > Catalog Settings > General. In the Backup area, select how often Lightroom should create a backup of your catalog. This setting only creates a backup of the Lightroom catalog (not your images). Ideally, it's best to write the backup

catalog to a different drive than the working catalog (in case the primary drive fails). In addition to Lightroom's catalog backup option, be sure to keep redundant copies of all images and catalogs on multiple drives stored in multiple locations.

- Lightroom doesn't delete any of the backup catalogs that it creates, so you may want to manually discard the older backups over time.

### **Working with Bridge and Adobe Camera Raw (ACR)**

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- Lightroom can interpret and apply changes made to photos in Bridge and ACR (such as the addition of metadata and/or any changes made to color/tone/etc.) and vice versa. In order for this to go smoothly, in Bridge make sure that the Camera Raw Preferences (under the Bridge menu on Mac, the Edit menu on Windows) are set to: Save image settings in: Sidecar ".xmp" files (this is the default setting).
- If changes are made to images in Bridge / ACR (legacy files for example), and those files are then imported into Lightroom, Lightroom will not display the changes in the Import dialog. However, Lightroom *will* read the .xmp sidecar file during the import process and those changes will be visible in the Grid view *after* importing. Note: if you are working with DNG files, the changes/corrections made to the images in Bridge/ACR will be visible in the Import dialog.
- If changes to images in Bridge/ACR after images have been imported into Lightroom, Lightroom will *not* automatically update the metadata (you will not automatically see the changes). Instead, a small icon (three lines next to an arrow) will appear in the upper right corner of the photo cell (in the Grid View in the Library module) warning that the file has changed outside of the application. To update the file either click on the icon and choose "Import Settings from Disk" or, select the photo(s) and choose Metadata > Read Metadata from File. Lightroom can also read metadata from additional software applications that follow the XMP standard.

### **Converting Images to DNG**

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- I choose to convert my raw files to DNG as my final step in editing (after rating, adding metadata, toning etc), because I often delete a significant percentage of my images from a shoot (it doesn't make sense to waste time converting files that I will later trash). In addition, because converting to DNG is the final step of my editing, I immediately know simply by looking at the file type, that an image has made it through my entire workflow.
- When converting raw files to DNG (Library > Convert Photo to DNG ), under DNG Creation, be sure to keep "Embed Fast Load Data" checked in order to view DNG files up to 8x faster in the Develop module.

### **The Activities Center**

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- Hovering the cursor above of Lightroom's Identity Plate displays a white disclosure triangle. Click on the triangle to reveal the Activities Center. The Activities Center displays the progress of background operations. You can manage each of these tasks independently:
  - Turn on Sync with Lightroom mobile to sync collections with other Lightroom mobile clients (synchronize collections by clicking the empty well to the left of the collection name.*
  - Turn on Address Lookup to have Lightroom read GPS coordinates in images and provide city, state, and country suggestions.*
  - Turn on Face Detection to have Lightroom index the faces of people in all of your photos (indexing all photos will make People view load faster).*
- Control -click (Mac) | right -click (Win) the Identity Plate to edit/switch Identity Plates, as well as control which background tasks are displayed.
- Additional options for Address Lookup and Face Detection are found in Catalog Settings > Metadata.

### **Smart Previews and Editing Off-line files**

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- Creating Smart Previews enables Lightroom to edit those files in the Develop module (and using the Quick Develop panel) even if the originals are offline (on a drive that's not plugged in for example). In order to create Smart Previews, the original files must be on-line. Therefore, you will want to make the Smart Previews before taking the images off-line. There are several ways to create Smart Previews in Lightroom:
  - 1) *On Import - in the File Handling panel, check the option to "Build Smart Previews".*
  - 2) *In the Library module - selecting your photos (or folders of photos) and select Library > Previews > Build Smart Previews.*
  - 3) *When exporting as a Catalog - select File > Export as Catalog and check the option to "Build Smart Previews".*
  - 4) *Lightroom automatically creates Smart Previews in a collection that has sync enabled (to use with Lightroom on mobile devices).*
- Smart Previews are completely separate from the previews used in the Library module and are stored in their own file (Smart Preview.Irdata").
- In the Develop module, the Histogram panel displays what type of file/preview is available:
  - "Original" if there is not a Smart Preview built for the file and the original is on-line.
  - "Original + Smart Preview" if there is a Smart Preview and the original is online.
  - "Smart Preview" if there is a Smart Preview and the original is off-line.
- When you make changes to a Smart Preview (and the original file is off-line), when the original becomes available (is brought back on-line), any changes made to the Smart Preview are automatically applied to the original. If the original file is on-line, both the original and the Smart Preview are updated as changes are made.

- Smart previews are smaller versions of the original files (there are several reasons for this, the most obvious is to reduce the amount of space they take on the hard drive/mobile device). Because they are only 2540 pixels on the long edge, when applying Sharpening and Noise Reduction settings in the Details panel, the Smart Preview view at 100% will be a different magnification than the original. Therefore, for the most accuracy, you should confirm the changes made in the Details panel when the files are on-line and you are able to view the original at 100%.
- Smart Previews can be used in the Publish Services panel (in case, for example, you want to publish your off-line files to Facebook, Flickr etc.) and can be exported as lower resolution JPEG files. They can be used to layout a book (although you will not be able to print the book until the original images are on-line as the quality of the Smart Previews may not be high enough to print), create and output a video slideshow (although they can not be used to output a slideshow to PDF because of quality concerns), and create and export web galleries.

### **Custom End Panels**

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- To make your own custom end panel icon, create your graphic (using Photoshop or Illustrator), and save it as a .png. Then, in Lightroom, choose Preferences > Interface > Panels. Under the End Marks area, select Go To Panel End Marks Folder. Using the operating system, place your graphic file in the Panel End Marks Folder. Then, close the preferences, select them again and choose your graphic from the list to display it at the end of each set of panels. Note: you can also save the file as a PSD file or JPEG however the JPEG file will not support transparency.