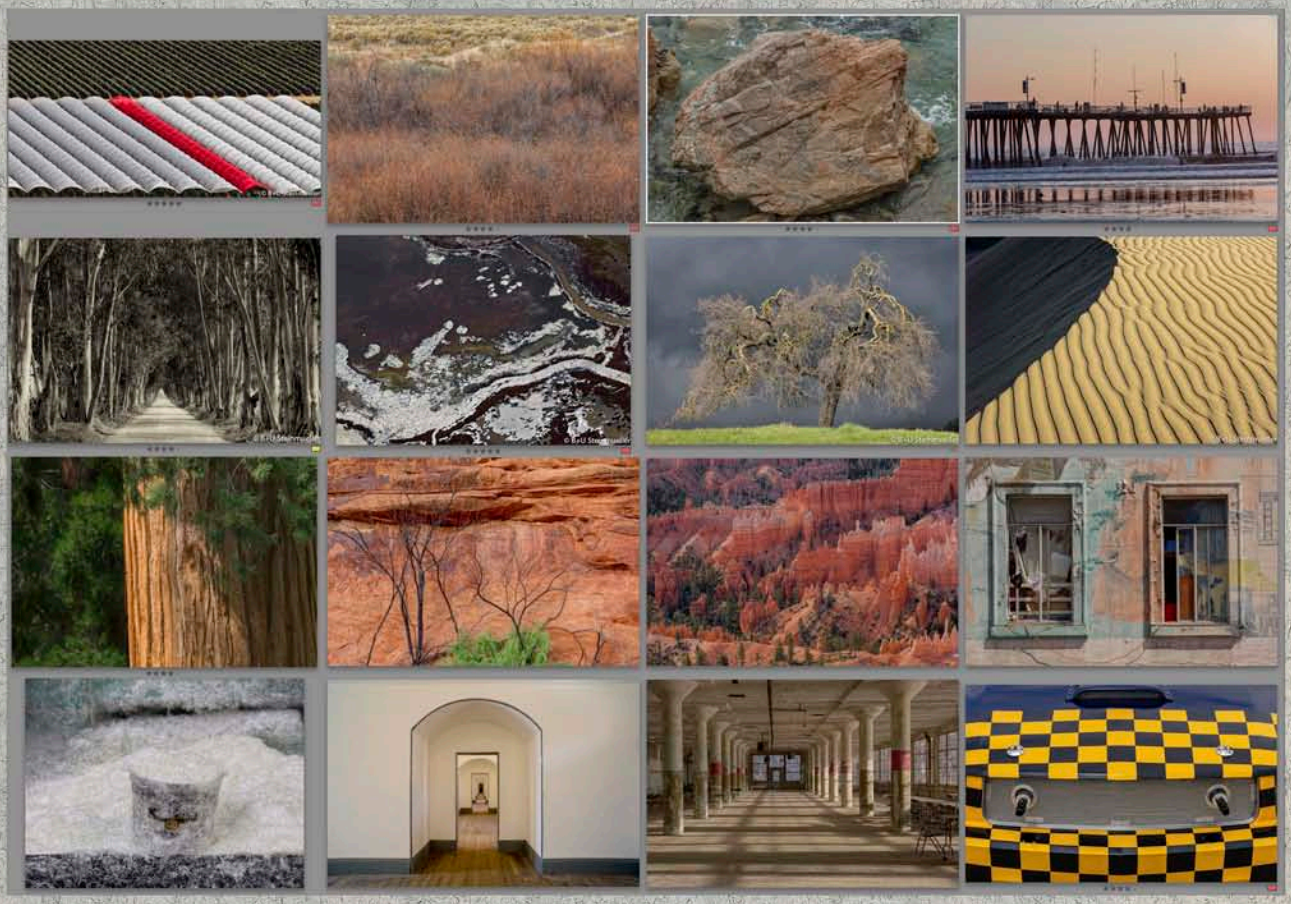
Lightroom 4 Artistry: Library

Get your Images Organized



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Digital Outback Photo

DOP2012-03

Publisher: Steinmueller Photo, California USA

Lightroom 4 Artistry Library: Intro

Often we only think about the creation and processing of our photographs. This is fine if we just have a manageable few images. Once the photo collection grows we need to find a way to organize all these images. This is as old as photography but instead of folders and boxes we now need to organize our image assets in digital form. It is one of these ironies that we have our images in a form that could survive eternity without any quality degradation (even improve through new advanced software technology) yet our image were never more fragile than today. There are some aspects that can make it a challenge:

- Data loss (we cover backup at the end a bit)
- Finding the images (same as in the past: where is the box with image X?)
- How future proof are the different image formats?

For quite some years there were Digital Asset Management software solutions (called DAM) in the market to organize your images. The problem was that they were kind of strong on the organization aspect but did not help much with the processing of our images. Without some processing we often cannot even tell which are our keeper photos. Most of us photographers want this to be one tool because we think visually and not so much like bookkeepers. Apple Aperture and Adobe Lightroom were the first applications that integrated both aspects into a single software package.

Lightroom implemented a module approach that allowed having a Library module (DAM) and a Develop module (using the Adobe Camera Raw engine). Today Camera Raw and Lightroom are the most used raw converters (RC) in the market. While Aperture is a very nice application with lots of followers we prefer Lightroom because it is supported for Macs and PCs (although we are mainly Mac users but many of our readers use Windows). Lightroom also seems to us to be a more open platform and with better Photoshop integration. With Lightroom we finally can organize our images and process them at the same time.

This book is not intended to replace the help or other manuals. We share how we use the rich functionality of the Lightroom Library Module and do not aim for completeness. Features we don't show are those that we hardly ever use. We already published a book on Lightroom 4 Develop where we show how we utilize the Lightroom Raw processor functionality.

Terminology

We need to define some terms for a better understanding of the following sections.

Folder

Lightroom does not organize the image storage itself. These images are organized on your OS hard drives in folders (also called directories or albums). We talk about the basic image organization later in more detail because we believe you need to have a good structure on your disks. Otherwise you may get lost in your folder jungle. Another very important aspect should be your backup strategy.

Image Data

The pure image data hold the values of all you pixels in your image. There are many

different formats how to store these data. Special are the so-called Raw image files. These files store the data as they are captured from the sensor and need some further processing to become normal TIFF or JPEG images. The Develop engine in Lightroom is tuned to perform this transformation but can also handle standard JPEG or TIFF files.

Image Metadata

Metadata are all the data about your images that are not part of the pure image content data. Some of these metadata are even needed to process your images (e.g. white balance for raw files) properly. For your image organization these metadata are crucial. Here are some of the metadata we are talking about

- EXIF: Camera shooting data like white balance (WB), ISO, camera, lens, shutter speed and much more. Stored already in the camera.
- IPTC: Contains more organizational data like author, copyright and much more.
- GPS: Location data coordinates.
- Maker notes: Data that are defined by the camera makers. Some are disclosed while other data maybe not.
- Keywords: These are tags for your images. We have an own chapter just about keywords.

Catalog

A catalog is a database that holds all the Image Metadata in Lightroom. The Lightroom catalog does **not** contain the images (image data) itself. The Lightroom catalog stores links/references to the real images located in folders. Storing only references in the catalog is a design tradeoff. On one side it keeps the catalog smaller and allows a direct access to your images in the computer folders. On the other side you could remove the images from these folders by mistake and you would invalidate the links stored in the Lightroom catalog. As we said digital assets are very fragile at times. Be very careful if you delete any images that may have relevance for your catalog.

Why a database? Lightroom use a SQL database to better perform complex search and other access functions. Try to find a file by name on your disk and you realize that you may wait for quite a time to find a file or not even that. Searches in Lightroom are normally very fast because of the database used.

You can organize your files into different catalogs but Lightroom can only have one catalog open at any given time. In consequence we have all our images in one catalog.

Preview Images

Lightroom creates different sized preview images that are stored in a file called CatalogName.lrdata (the catalog file itself has the suffix .lrcat). This file can get really big (as of this writing we have a size of 47GB) while our catalog file is about 2.5GB in size. The previews are a performance optimization tool and are not crucial for the functioning of Lightroom. If you would delete this file Lightroom would rebuild the previews it needs.

White Balance (WB)

All light sources have a different color temperature. This means the light spectrum is different. Our eyes perform an automatic WB correction when we view a scene. Cameras just record the data and show colorcasts in neutral areas. Our eyes are also very sensitive to these colorcasts. That is why we need to correct the WB during image processing.

Raw Converter

Many cameras can save images as JPEGs and Raw images. Raw images save the data from the sensor in a format that needs further processing to create final images. Raw files have an advantage over JPEGs because they are less compressed, have not applied the White Balance and hold a higher color fidelity (12-14 bit instead of 8 bit JPEGs). Lightroom's Develop engine is a full raw converter.

DNG

DNG is an open standard Raw format created Adobe. DNG stands for digital negative. A few cameras (e.g. Pentax) use DNG as the native raw image format. In the ideal world all cameras would use DNG and make our lives easier. Unfortunately the camera manufacturers insist on their own proprietary formats.

XMP

XMP is a standard to store metadata for images. Initiator for the XMP standard was Adobe.

What Lightroom is not

Image Browser

Lightroom is not a general image browser like Adobe Bridge. Bridge can be pointed at any folder on your disk and would show your images. Lightroom only shows images that you imported into Lightroom explicitly. Importing images into Lightroom means that Lightroom stores all their metadata and links to the original images. Of course you can browse your images in Lightroom but the selection is restricted to your imported images only. At first this seems to be a limitation but in the end it is not. You want to decide which images are part of your image assets and which images are not.

Just a Raw converter

Lightroom includes a full-featured Raw converter. But the other modules in Lightroom extend its functionality well beyond other Raw converters. Notably the Library module adds a rich functionality for organizing all your images.

Lightroom is not a Photoshop replacement

The ultimate image-editing tool is clearly Photoshop. Lightroom has a very rich processing functionality but cannot do everything that you can do in Photoshop (e.g. working with layers). Many photographers find that they can go a long way just using Lightroom. We are in the middle and try to do as much as possible in Lightroom and leave the rest if needed to Photoshop.

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Credits

We would like to thank Terry Banet and Michael Jonsson for their help, inspiration and contributions.

Basic Image Organization

In theory you can organize all your images in Lightroom and let Lightroom decide where on your hard drive to store the images. We don't like this idea. We suggest that you come up with an organizational structure that is easy to implement and at the same time has flexibility as you collect more images. Our goal is be able to find images without the help of Lightroom if needed for any reason. Our physical image organization breaks down to:

- Folder/Album structure
- Naming conventions

Disks

It very much depends on how many images you have. We have more than 2TB of unique images (without any backup copies). Here are some guidelines:

- If you have many disks then try to have the OS on a different disk. The OS backup often needs to be handled differently from your images.
- Have the most used (often recent) images on a large disk that is attached to your computer with a fast connection:
- Internal drive
- eSata
- Firewire 800
- Thunderbolt
- USB 3
- USB 2 is often not ideal
- Network drives are often way to slow for access

Older or rarely accessed images can be on slower disks and even be offline most of the time.

Separation of Raw and derived TIFF/JPEG images

Note: With Raw we mean all images directly from our camera. In most cases these will be real Raw files but in some other cases these might be also JPEGs if the camera does not support Raw images (e.g. the iPhone).

We separate Raw images from the final resulting TIFF/JPEG images like we did with negatives and prints in the past. Once we created a master image file as TIFF of JPEG we don't care for the original Raw files anymore (at least for now). The Raw files would only matter to us if we see a chance to do a better job developing our results. Then we would go back to the original Raw files.

In consequence we have separate image folder hierarchies for Raw images and TIFF master files.

If you work project or event oriented your structure maybe different. We work more portfolio oriented,

Folder/Album structure and naming conventions

Raw or camera JPEGs

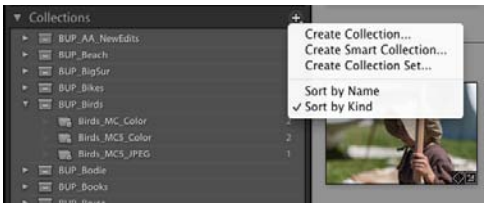
Here is our typical folder hierarchy and naming convention:

Organizing your Images in Collections

While the folders are a physical organization based on the folders on your disks Collection allow you a logical organization. It is important to know that an image can be in as many Collections you like and that removing an image from a Collection never will remove the original images from the Catalog or their folders. Collections only refer to the original data stored in the Catalog folders.

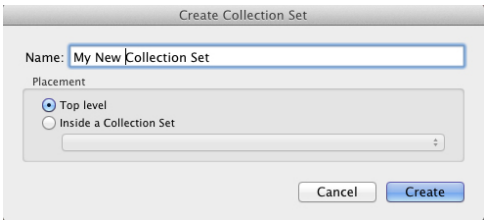
Lightroom supports three different types of Collections:

- Collections (lets call them plain or standard collections)
- Smart Collections
- Collection Sets



Collection Set

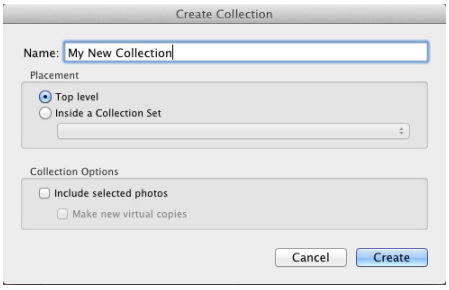
We start with a Collection Set. A Collection Set is a collection to organize collections in hierarchies. A Collection Set cannot contain any images itself but can contain other collections instead.



A Collection Set can also contain other Collection Sets to allow deeper nesting of collections.

Collections

Standard collections are a very simple form of collections. Adding or removing images creates the Collection content.



The Placement option allows creating top level (stand alone) Collections or including them into any collection set. Images can be added during the Collection creation process if you like (watch your selected images).

These plain Collections are useful as is. But maintaining collections is not as simple as we would like. Lets assume we have a Collection with our top 'Bird' images. Whenever

Lightroom Integration with other Applications

Although Lightroom can do a lot of your imaging work you may need to interact with other more specialized applications. Lightroom implements many ways to archive this goal.

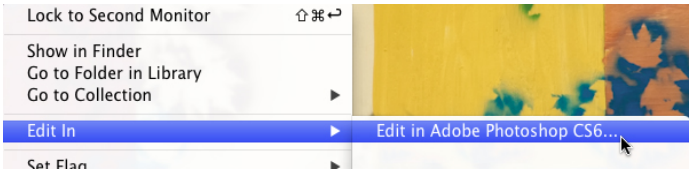
Drag & Drop

At least on the Mac you can open any image (not virtual copies though) by dragging the image from the Filmstrip to the other application's Doc icon.

This step ignores all your Lightroom edits and passes the original file to the other imaging application. We often use drag&drop when if we want to edit Raw file in different raw converters. In Windows you may need to drop the files into the open application (best you try yourself).

Edit in Photoshop

To no surprise Lightroom is very well integrated with Photoshop (we currently use CS6).



In the image context menu (right click) you select the option "Edit in Adobe Photoshop". You then get presented with a new dialog:

- **Edit a Copy with Lightroom Adjustments**: Lightroom creates a copy and applies all Develop settings to the image. Once you are done in Photoshop and saved the image the resulting copy shows up in Lightroom.
- **Edit a copy**: Like the previous version but no Lightroom Develop settings are

References

Digital Outback Photo: **http://www.outbackphoto.net**

Lightroom Artistry: **http://www.lightroomartistry.com**

DOP Scripts for Photoshop: **http://goo.gl/0zoR0**

Our books: **http://goo.gl/6Bwdo**

Our Lightroom Forum: **http://www.outbackphoto.net/lightroom-forum/**