

Adobe Lightroom for Model Railroaders

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What this presentation is and is not

Lightroom is a very complex software tool. Providing a complete view plus instruction about using it is simply impossible within the constraints of a short presentation. This presentation is intended to highlight some of the capabilities as they pertain to model railroaders and railroad researchers and historians. It is not intended to make attendees experts or users. If you think LR is a fit for your needs, check to see if your local community college or arts center offers an introductory class.

What is Lightroom?

- Database style photo management tool
- Files may be imported
- Robust keyword “tagging”
- Strong develop tools, e.g. digital darkroom
- Exceptional printing capabilities
- Easy export functionality
- LR is *NOT* Photoshop
- The only professional Adobe app you can still buy outright as opposed to pay as you go

Why Photoshop?

Photoshop was developed (over 25 years ago) for and evolved to serve the needs of graphic and/or print artists seeking a tool to allow manipulation of photos. It has industry-leading tools to achieve this aim. It was *not* created to serve the needs of photographers or other professionals seeking a tool to manage large quantities of photos. Photoshop does not incorporate file management so users must fall back on standard folder/file name “management”

Why Lightroom?

Lightroom offers several key functions to serve the needs of those managing large numbers of images.

- A logical file management structure to quickly import and catalog files for ease of use in future
- The ability to easily find images based upon keyword searches or other criteria such as rating and flagging
- Robust, “non-destructive” develop tools that are more than adequate for most users, even professionals, including soft-proofing to emulate prints
- Industry-leading print driver that manages both printer and paper to produce optimal prints

Library View

Lightroom offers several key functions to serve the needs of those managing large numbers of images.

- Import (direct from camera or browse)
- Keywords
- Rating or flagging
- File Management
- Light box or image views
- Search (light box view)
- Rotate

Library - "Lightbox" View

The screenshot displays the Adobe Lightroom Library grid view. The interface includes a top menu bar with 'Lightroom', 'File', 'Edit', 'Library', 'Photo', 'Metadata', 'View', 'Window', and 'Help'. The main workspace is a grid of 28 thumbnails of model train photographs, arranged in four rows of seven. The first row shows a large locomotive, while the subsequent rows show various other train models. On the left side, there is a 'Navigator' panel with a larger view of the selected photo, a 'Catalog' panel showing 13010 photos, and a 'Folders' panel with a tree view of folders like '1903' and '1903-12-31'. On the right side, there is a 'Histogram' panel, a 'Keywording' panel with 'Keyword Tags' and 'Keyword Suggestions', and 'Sync Metadata' and 'Sync Settings' buttons. At the bottom, there is a 'Web' panel showing a row of thumbnails. The macOS dock is visible at the very bottom with various application icons.

Library - "Image" View

The screenshot displays the Adobe Lightroom CC 2015 interface in the Library grid view. The main window shows a photograph of a white Conley Tank Car on a flatcar. The tank car has the number "C.Y.C.X.9188" on its side and "CLEAN" on its top. The flatcar has "C.Y.C.A.3100" on its side. A black caption box at the bottom of the photo reads: "Conley Tank Car Co. Jan. 6, 1927. A. C. and P. Co. Lot 369-A. Neg. 170925-A-1." The interface includes a top menu bar with "Lightroom", "File", "Edit", "Library", "Photo", "Metadata", "View", "Window", and "Help". The top right shows system status: "Thu 10:02 PM Ted Culotta". The top navigation bar includes "Library", "Develop", "Map", "Book", "Slideshow", "Print", and "Web". The left sidebar contains the "Navigator" panel with a thumbnail of the current photo, the "Catalog" panel showing "All Photographs" (13010), and a "Folders" panel listing folders from 1903 to 2005. The right sidebar features a "Histogram" panel, a "Keywording" panel with "Keyword Tags" and "Keyword Suggestions", and "Sync" and "Sync Settings" buttons. The bottom of the interface shows a grid of 14 photo thumbnails, with the first one selected. The bottom status bar indicates "All Photographs 13010 photos / 1 selected / 20160225-24798675050_83c4461942_o.jpg". The macOS dock at the bottom contains various application icons including Safari, Mail, Photos, Lightroom, and others.

Library - Search

The screenshot displays the Adobe Lightroom Library grid interface. The top navigation bar includes 'Library | Develop | Map | Book | Slideshow | Print | Web'. The 'Library Filter' section is set to 'Text' with a search query 'Any Searchable Field' and a filter of 'Contains All'. The grid shows 28 thumbnails of model train cars, with the first one in the top-left corner selected and enlarged in the Navigator panel. The left sidebar shows the 'Catalog' with 13010 total photos and a folder structure for 'Macintosh HD' with subfolders for years 1903, 2002, 2003, 2004, and 2005. The right sidebar features a 'Histogram' and 'Keywording' section with 'Keyword Tags' and 'Keyword Suggestions' for terms like 'Tank car', 'AC&F', and 'box car'. The bottom status bar indicates 'All Photographs 13010 photos / 1 selected / 20160225-24798675050_83c4461942_o.jpg' and a 'Filter: No Filter'.

Library - Keywords

The screenshot displays the Adobe Lightroom Library grid with a collection of model train photographs. A yellow arrow points from the word "Keywords" in the top navigation bar to the "Keywording" section in the right-hand panel. Another yellow arrow points from the text "Keyword entry field" to the text input area within the "Keywording" panel. The "Keywording" panel shows a "Keyword Tags" dropdown menu with the text "AC&F photo, John W. Barriger III National Railroad Library" entered. Below this, there is a section for "Keyword Suggestions" with various tags like "Tank car", "AC&F", "box car", etc. The interface also shows a "Histogram" panel on the right and a "Navigator" panel on the left. The bottom of the screen shows the macOS dock with various application icons.

Library - Keyword Search

The screenshot displays the Adobe Lightroom Library grid with a search filter applied. The search bar at the top right of the grid contains the text "Q~ santa fe emergency box car". The grid shows a collection of 24 photographs, all of which are images of box cars. The interface includes a Navigator panel on the left showing a larger view of the selected image, a Catalog panel with folder structure, and a Keywording panel on the right with a list of keyword tags and suggestions. The status bar at the bottom indicates "All Photographs 24 of 13010 photos / 1 selected / 20141218-img258.tif".

Adobe Lightroom CC 2015
Get started with Lightroom mobile ▶

Library | Develop | Map | Book | Slideshow | Print | Web

Library Filter: Text | Attribute | Metadata | None | Custom...

Text | Any Searchable Field | Contains All | Q~ santa fe emergency box car

Navigator: FIT FILL 1:1 2:1

Catalog: All Photographs 13010, Quick Collection + 1, Previous Import 2

Folders: Macintosh HD 13.6 / 233 GB, 1903 17, 1903-12-31 17, 2002 0, 2003 0, 2004 0, 2005 6

Import... Export...

Sort: Capture Time

Thumbnail

Keywording: Keyword Tags Enter Keywords, 151191, ATSF, box car, Builder's photo, Bx-39, Emergency, Haskell & Barker, May 23 1944, Pullman-Standard, Santa Fe, Smithsonian, Keyword Suggestions: Great Northern GN construction, Plywood Chicago Hopper, Gondola Bob's Photo 1932 ARA, Keyword Set Custom, Single sheathed Box car ARA, L&N Louisville &... Funaro & Ca...

Sync Metadata Sync Settings

1 2 All Photographs 24 of 13010 photos / 1 selected / 20141218-img258.tif Filter: Custom Filter

Library - Folders

The screenshot shows the Adobe Lightroom Library grid. The top menu bar includes 'Lightroom', 'File', 'Edit', 'Library', 'Photo', 'Metadata', 'View', 'Window', and 'Help'. The window title is 'railroad photos-2.lrcat - Adobe Photoshop Lightroom - Library'. The interface is in the 'Library' tab, with other tabs like 'Develop', 'Map', 'Book', 'Slideshow', 'Print', and 'Web' visible.

The 'Navigator' panel on the left shows a list of folders with their photo counts:

Folder Name	Count
2015-04-07	1
2015-04-08	98
2015-04-10	16
2015-04-12	10
2015-04-19	30
2015-04-20	46
2015-04-21	80
2015-04-22	38
2015-04-23	135
2015-04-24	80
2015-04-25	18
2015-04-26	89
2015-04-27	42

The 'Library Filter' panel shows a grid of 16 thumbnails for the selected folder '2015-04-10'. The 'Histogram' panel on the right shows a histogram for the selected photo. The 'Keywording' panel shows keyword tags and suggestions. The 'Keyword Set' is set to 'Custom'. The 'Sync Metadata' and 'Sync Settings' buttons are visible at the bottom right of the right-hand panels.

The bottom status bar shows 'Folder : 2015-04-10 16 photos / 1 selected / 20150410-img551.tif'. The 'Filter' dropdown is set to 'Filters Off'.

Library - Folders

VERY IMPORTANT!

All file moves and management should occur *within* LR or if done outside LR, you should *immediately* go into LR to “point” LR to the new file location(s). One of the strengths of LR is its ability to provide file management; moving files “outside” of LR can lead to lost links to files, rendering the file management capabilities useless.

Develop View

Lightroom uses *non-destructive* developing tools. Non-destructive means that the underlying file is not modified; only the view of the file is modified, akin to filters. This is a major difference from Photoshop and makes multiple developments, changes, etc., easy. It is difficult to stress how important it is that the underlying file is not adjusted during the process!

Develop View

The screenshot displays the Adobe Lightroom Develop View interface. The central workspace shows a historical black and white photograph of a Conley Tank Car, model C.Y.C.X.9188, on a flatcar. The car is cylindrical with a dome-shaped top and the word "CLEAN" on its side. A caption at the bottom of the photo reads: "Conley Tank Car Co. Jan. 6, 1927. A. C. and P. Co. Lot 369-A. Neg. 170925-A-1." The interface includes a top navigation bar with "Library | Develop | Map | Book | Slideshow | Print | Web". On the left, there are panels for "Navigator", "Presets", "Snapshots", and "History". On the right, there is a "Histogram" and a "Basic" adjustment panel. The "Basic" panel shows settings for "Treatment" (Color), "WB" (As Shot), "Temp" (0), "Tint" (0), "Exposure" (0.00), "Contrast" (0), "Highlights" (0), "Shadows" (0), "Whites" (0), and "Blacks" (0). A "Tools" panel is visible on the right side of the main image, containing various adjustment tools. A "Soft Proofing" checkbox is located at the bottom of the main image area. The bottom of the interface shows a grid of photo thumbnails and a filter set to "Filters Off".

Adobe Lightroom CC 2015
Get started with Lightroom mobile ▶

Library | Develop | Map | Book | Slideshow | Print | Web

Navigator FT FILL 1:1 2:1

Presets +
▶ Lightroom B&W Filter Presets
▶ Lightroom B&W Presets
▶ Lightroom B&W Toned Presets
▶ Lightroom Color Presets
▶ Lightroom Effect Presets
▶ Lightroom General Presets
▶ Lightroom Video Presets
▶ User Presets

Snapshots +

History ×
Import (2/24/16 9:19:07 PM)

Copy... Paste

Soft Proofing

Tools

Adjustments

Basic ▾
Treatment: Color Black & White
WB: As Shot
Temp: 0
Tint: 0
Tone Auto
Exposure: 0.00
Contrast: 0
Highlights: 0
Shadows: 0
Whites: 0
Blacks: 0

Previous Reset

1 2 All Photographs 13010 photos / 1 selected / 20160225-24798675050_83c4461942_o.jpg Filter: Filters Off

Develop Tools

The screenshot displays the Adobe Photoshop Lightroom - Develop module interface. The central workspace shows a black and white photograph of a Conley Tank Car Co. tank car, numbered C.Y.C.X. 9188, on a flatbed car. The photo is annotated with yellow lines pointing to various adjustment tools:

- Crop Tool:** Indicated by a yellow line pointing to the crop handles around the photo.
- Spot Removal:** Indicated by a yellow line pointing to the Spot Removal tool icon in the toolbar.
- Red-eye Correction:** Indicated by a yellow line pointing to the Red-eye Correction tool icon in the toolbar.
- Graduated Filter:** Indicated by a yellow line pointing to the Graduated Filter tool icon in the toolbar.
- Radial Filter:** Indicated by a yellow line pointing to the Radial Filter tool icon in the toolbar.
- Adjustment Brush:** Indicated by a yellow line pointing to the Adjustment Brush tool icon in the toolbar.

The right-hand panel shows the Histogram and the Basic adjustment panel. The Basic panel includes sliders for Temperature, Tint, Exposure, Contrast, Highlights, Shadows, Whites, and Blacks. The bottom of the interface shows the Library grid with 13010 photos, 1 selected, and the current photo's filename: 20160225-24798675050_83c4461942_o.jpg.

Develop Tools

The screenshot displays the Adobe Photoshop Lightroom interface in the Develop module. The central workspace shows a vintage black and white photograph of a Conley Tank Car Co. tank car, model C.Y.C.X. 9188, on a flatcar. The car has a cylindrical tank with a smaller dome on top labeled "CLEAN". A white label on the side of the tank reads "C.Y.C.X. 9188". The flatcar below it is labeled "C.Y.C.A. 3100". A black text box at the bottom of the photo contains the following information: "Conley Tank Car Co. Jan. 6, 1927. A. C. and F. Co. Lot 369-A. Neg. 170925-A-1." The interface includes a Navigator panel on the left with a thumbnail of the photo, a Presets panel with various filter options, and a History panel showing the "Import" action. The right-hand panel features a Histogram and the Basic adjustment sliders, which are highlighted with a yellow box. A yellow arrow points from the text "Levels, color, hue, tint, saturation, sharpening, distortion, etc." to the Basic panel. The top of the window shows the title bar "railroad photos-2.lrcat - Adobe Photoshop Lightroom - Develop" and the navigation menu "Library | Develop | Map | Book | Slideshow | Print | Web". The bottom of the window shows a grid of 13 photo thumbnails, with the current photo selected.

Adobe Lightroom CC 2015
Get started with Lightroom mobile ▶

Library | Develop | Map | Book | Slideshow | Print | Web

▼ Navigator FIT FULL 1:1 2:1

▼ Presets +

- ▶ Lightroom B&W Filter Presets
- ▶ Lightroom B&W Presets
- ▶ Lightroom B&W Toned Presets
- ▶ Lightroom Color Presets
- ▶ Lightroom Effect Presets
- ▶ Lightroom General Presets
- ▶ Lightroom Video Presets
- ▶ User Presets

▼ Snapshots +

▼ History ×

Import (2/24/16 9:19:07 PM)

Copy... Paste

Soft Proofing

▼ Basic ▼

Treatment: Color Black & White

WB: As Shot

Temp 0

Tint 0

Tone Auto

Exposure 0.00

Contrast 0

Highlights 0

Shadows 0

Whites 0

Blacks 0

Presence

Levels, color, hue, tint, saturation, sharpening, distortion, etc.

All Photographs 13010 photos / 1 selected / 20160225-24798675050_83c4461942_o.jpg

Filter: Filters Off

Develop Tool Functions

- Crop tool - remove unwanted portions of an image and make adjustments like rotation
- Spot removal - to clean up unwanted blemishes such as dust, dead pixels, scratches, etc. (this is an area where Photoshop has clearly superior tools where complex adjustments are necessary using the Clone and Healing tools).
- Red eye correction
- Graduated filter, e.g. graduated neutral density (ND) filter
- Radial filter
- Adjustment brush - allows for complex selection and dodging and burning
- Level, hue, saturation, luminance, sharpening, lens adjustments tools

Develop Tool Functions

Two other important tools (from this user's perspective!) are:

- Soft-Proofing, which is the ability to develop an image for a specific printer and paper combination, almost entirely eliminating the “develop and pray” scenario when one hits the print button
- Virtual copy - you can create as many “views” of an image as you like, allowing you to develop the same image for different purposes without creating multiple “real” and different files.

Develop Tools

Virtual Copy - right click on image and click from pop-up menu

The screenshot displays the Adobe Lightroom CC 2015 interface. The main window shows a photograph of a white refrigerated train car with the text "FRUIT GROWERS EXPRESS" and "REFRIGERATOR" visible. A context menu is open over the photo, listing various actions. The "Create Virtual Copy" option is highlighted in blue. The interface includes a top menu bar with "Lightroom", "File", "Edit", "Develop", "Photo", "Settings", "Tools", "View", "Window", and "Help". The top right corner shows the system clock as "Sat 7:04 AM" and the user name "Ted Culotta". The left sidebar contains the "Navigator" and "Presets" panels. The right sidebar shows the "Histogram" and "Basic" adjustment panels. The bottom of the screen features a dock with various application icons, including Adobe Creative Cloud apps like Photoshop (Ps), Illustrator (Ai), and InDesign (Id).

Lightroom File Edit Develop Photo Settings Tools View Window Help

railroad photos-2.lrcat - Adobe Photoshop Lightroom - Develop

Adobe Lightroom CC 2015
Theodore Culotta

Library | Develop | Map | Book | Slideshow | Print | Web

Navigator FIT FILL 1:1 1:2

Lock to Second Window ⌘⇧↔
Show in Finder
Go to Folder in Library
Go to Collection
Edit In
Photo Merge
Set Flag
Set Rating
Set Color Label
Add Shortcut Keyword
Add to Quick Collection and Next ⌘⇧B
Stacking
Create Virtual Copy
Develop Settings
Metadata Presets
Rotate Left (CCW)
Rotate Right (CW)
Metadata
Export
Email Photo...
Remove Photo...
View Options

Histogram

Original Photo

Basic

Treatment: Color | Black & White

WB: As Shot

Temp
Tint

Tone Auto

Exposure 0.00
Contrast 0
Highlights 0
Shadows 0
Whites 0
Blacks 0

Presence

Previous Reset

selected /20150410-img551.tif

Filter: Filters Off

Develop Tools

Soft Proofing - click the box

The screenshot displays the Adobe Lightroom interface in the Develop module. The central workspace shows a photograph of a white tank car on a flatbed, with the text "CLEAN" on the tank and "C.V.C.X. 9188" on the side. A black caption box at the bottom of the photo reads: "Conley Tank Car Co. Jan. 6, 1927. A. C. and F. Co. Lot 369-A. Neg. 170925-A-1." The interface includes a Navigator panel on the left with a thumbnail of the photo, a Presets panel with various filter options, and a History panel showing "Import (2/24/16 9:19:07 PM)". The top navigation bar shows "Library | Develop | Map | Book | Slideshow | Print | Web". The right-hand panel features a Histogram, a Basic panel with sliders for WB, Temp, Tint, Exposure, Contrast, Highlights, Shadows, Whites, and Blacks, and a Presence panel. At the bottom, a grid of 13 photo thumbnails is visible, with the current photo highlighted. A yellow box highlights the "Soft Proofing" checkbox in the bottom toolbar, and a yellow line points from it to the text "Soft Proofing" in the bottom right corner of the interface.

Before



After

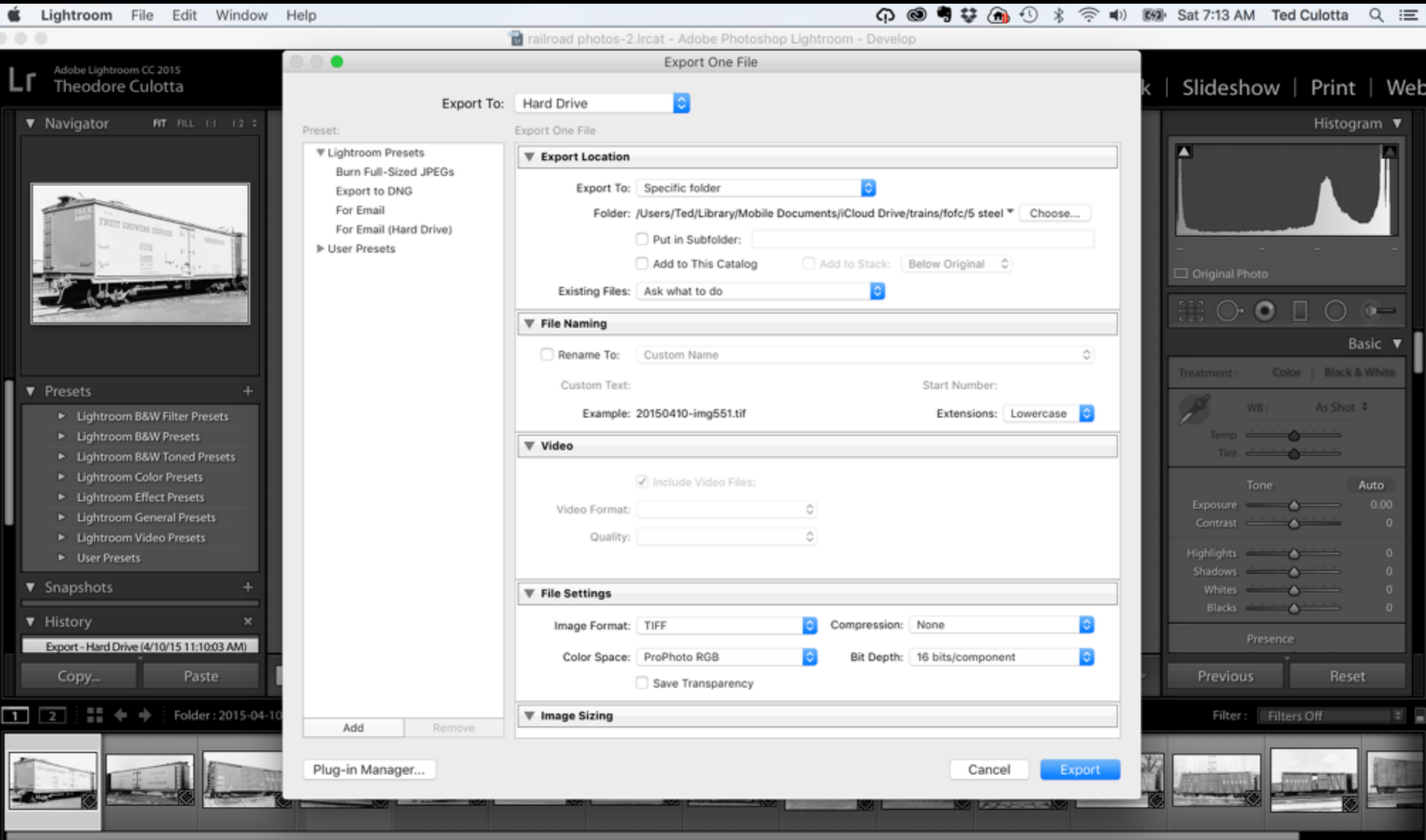


File Export

Lightroom allows the user to select one or many images to export with multiple settings, including file naming, location, settings, sizing, sharpening, watermarking, etc.

An exported image is an *entirely new* file, *outside* of Lightroom, that *contains all of the changes* made in Lightroom.

File Export



File Export

Lightroom File Edit Window Help

railroad photos-2.lrcat - Adobe Photoshop Lightroom - Develop

Export One File

Export To: **Hard Drive**

Preset: Export One File

VIDEO FORMAT:

Quality:

File Settings

Image Format: **TIFF** Compression: **None**

Color Space: **ProPhoto RGB** Bit Depth: **16 bits/component**

Save Transparency

Image Sizing

Resize to Fit: **Long Edge** Don't Enlarge

3,000 pixels **Resolution: 72** pixels per inch

Output Sharpening

Sharpen For: **Screen** Amount: **High**

Metadata

Include: **All Metadata**

Remove Person Info Remove Location Info

Write Keywords as Lightroom Hierarchy

Watermarking No watermark

Post-Processing

After Export: **Do nothing**

Application: Choose an application...

Plug-in Manager...

Adobe Lightroom CC 2015 Theodore Culotta

Navigator FIT FILL 1:1 1:2

Presets

- Lightroom B&W Filter Presets
- Lightroom B&W Presets
- Lightroom B&W Toned Presets
- Lightroom Color Presets
- Lightroom Effect Presets
- Lightroom General Presets
- Lightroom Video Presets
- User Presets

Snapshots

History

Export - Hard Drive (4/10/15 11:10:03 AM)

Copy... Paste

Folder: 2015-04-10

Slideshow | Print | Web

Histogram

Original Photo

Basic

Treatment: Color | Black & White

WB: As Shot

Temp

Tint

Tone Auto

Exposure 0.00

Contrast 0

Highlights 0

Shadows 0

Whites 0

Blacks 0

Presence

Previous Reset

Filter: Filters Off

Print View

Ever wonder why the prints from your home printer aren't quite what you expected? The printer and computer aren't optimizing the output based upon printer and paper used. Each printer deposits ink differently and each paper absorbs ink differently. Lightroom allows you to manage these combinations so your prints look as good as the printer is capable of producing.

This is achieved by loading ICC profiles for each printer/paper combination and then accessing them as you develop and print images.

Not just for photos....

- What about those .pdf files you have on your hard drive?
- How do you know what you have and where to find it?
- What about all those magazines you have under the benchwork and everywhere else (how much material is there really worth saving?)

Not just for photos...

Lightroom File Edit Library Photo Metadata View Window Help Sat 7:18 AM Ted Culotta

railroad photos-2.lrcat - Adobe Photoshop Lightroom - Library

Adobe Lightroom CC 2015 Theodore Culotta Library | Develop | Map | Book | Slideshow | Print | Web

Navigator FIT FILL 1:1 1:2



Catalog

- All Photographs 13317
- Quick Collection + 1
- Previous Import 57

Folders

- Macintosh HD 12.1 / 233 GB
 - 1903 17
 - 1903-12-31 17
 - 2002 0
 - 2003 0
 - 2004 0
 - 2005 6

Import... Export...



Histogram

Original Photo

Defaults Quick Develop

Keywording

Keyword Tags Enter Keywords

6326, Model Railroad Hobbyist, MRH, Multiple Compartment Tank Cars, Richard Hendrickson, SHPX, three compartment

Click here to add keywords

Keyword Suggestions

General Ame...	GATC	Type 30
GATX	Stauffer Che...	13504
UTLX	Union Tank L...	13004

Keyword Set Custom

Single sheat...	Box car	ARA
L&N	Louisville & ...	Funaro & Ca...

Sync Sync Settings

1 2 All Photographs 14 of 13317 photos / 1 selected / 20160123-60.MRH15-02-Feb2015-L_Page_071.jpg

Filter: Custom Filter

Not just for photos...

Lightroom File Edit Library Photo Metadata View Window Help Sat 7:19 AM Ted Culotta

railroad photos-2.lrcat - Adobe Photoshop Lightroom - Library

Adobe Lightroom CC 2015 Theodore Culotta Library | Develop | Map | Book | Slideshow | Print | Web

Navigator FIT FILL 1:1 1:2

Catalog

- All Photographs 13317
- Quick Collection + 1
- Previous Import 57

Folders

- Macintosh HD 12.1 / 233 GB
 - 1903 17
 - 1903-12-31 17
 - 2002 0
 - 2003 0
 - 2004 0
 - 2005 6

Import... Export...

HO SCALE FREIGHT CAR TRUCKS
Richard Hendrickson
April 1, 2014

As this list demonstrates, we've come a long way since the days when most modelers assumed there were only four types of trucks: Arch Bar, Andrews, Bettendorf, and Roller Bearing. Model trucks are listed below roughly in the chronological order of their prototypes, though there was, of course, much overlap. Where possible, I've given stock numbers. However, in some cases stock numbers have been elusive, so I've used the manufacturers' descriptions even when they are incorrect.

Many HO scale freight car trucks are still for sale, or at least are still available on the resale market, for which there are now much better alternatives, and accordingly I have not listed them. However, if I've missed any HO scale trucks you think should be included, please e-mail me at rhendrickson@opendoor.com. Trucks with "working" springs are not listed unless there is no alternative. "Working" springs have always been too stiff to actually work well and the tiny "see through" wire coils are entirely unrealistic. (Some modelers have addressed this by attaching thin black plastic view blocks behind the spring boxes, which helps but does not eliminate the problem.) Kadee is converting some older truck frames to solid HGC frames with molded springs, but not all of their cast metal trucks have been reworked.

Model truck manufacturers' descriptions cannot be taken literally, as they often misidentify the prototypes for their trucks. The "Bettendorf" label is especially likely to be mis-used; in the dark ages of the hobby, it was applied generically to any truck having the journal boxes cast as part of the side frames, and is still so used by some model truck manufacturers. Though the first such trucks were of the patented Bettendorf T-Section design, later integral-journal-box trucks were built by many different manufacturers to a variety of designs, though all of them met specifications developed by the ARA (later AAR), and Bettendorf itself stopped making trucks entirely in 1942. Calling the many different types of ARA/AAR trucks "Bettendorf" is, therefore, confusing and inaccurate.

Another terminological issue is the use of "friction bearing" for trucks with solid bearings. Though roller bearing manufacturers used the term "friction bearings" negatively in advertising, it was never adopted in the railroad engineering literature. In fact, all journal bearings have some friction, though roller bearings have less resistance on starting and at low speeds. So "friction bearing" is an incorrect reference to trucks having plain or solid journal bearings. "Double truss" is also a problem, as prototype truck makers used it in the early 20th century for U-section side frames but later for boxed-in lower chords.

I'm sometimes asked why I don't include later trucks with roller bearings in this list. The answer is simple; since my modeling is focused on the steam/diesel transition era, I don't know very much about roller bearing trucks and am not motivated to learn more. I would be happy to include information on this subject if a post-1960 modeler would carry out the necessary research; any volunteers?

Histogram

Original Photo

Defaults Quick Develop

Keywording

Keyword Tags Enter Keywords

HO scale freight car trucks, Richard Hendrickson

Click here to add keywords

Keyword Suggestions

- The Warbon... ATSF Fourth Quart...
- Santa Fe's LJ... Model Railro... Railmodel Jo...
- Multiple Co... MRH double Shea...

Keyword Set Custom

- Single sheat... Box car ARA
- L&N Louisville &... Fsmaro & Ca...

Sync Sync Settings

1 2 All Photographs 70 of 13317 photos / 1 selected / 20151207-HO Scale Freight Car Trucks_Page_01.jpg Filter: Custom Filter

Not just for photos...

The screenshot displays the Adobe Lightroom CC 2015 interface. The main workspace shows a technical drawing of a Pullman car, which is a type of passenger rail car. The drawing is a side view showing the car's structure, including the roof, windows, and wheels. The interface includes a top menu bar with options like File, Edit, Library, Photo, Metadata, View, Window, and Help. The left sidebar contains the Navigator, Catalog, and Folders panels. The right sidebar features the Histogram, Keywording, and Keyword Suggestions panels. The bottom of the interface shows a grid of photo thumbnails, with the current photo selected.

Lightroom CC 2015
Theodore Culotta

Library | Develop | Map | Book | Slideshow | Print | Web

Navigator
FIT FILL 1:1 1:2

Catalog
All Photographs 13317
Quick Collection + 1
Previous Import 57

Folders
Macintosh HD 12.0 / 233 GB
1903 17
1903-12-31 17
2002 0
2003 0
2004 0
2005 6

Import... Export...

Histogram
Original Photo
Defaults Quick Develop
Keywording
Keyword Tags Enter Keywords
271 500-271 999, drawing, Lot 5456, MILW, Milwaukee Road, Pullman Car & Manufacturing, Single sheathed automobile car
Click here to add keywords
Keyword Suggestions
Gondola Santa Fe Emergency
Ga-61 IRM Illinois Railw...
Lot 5740 Neg no 3850 Pullman-Sta...
Keyword Set Custom
Single sheat... Box car ARA
L&N Louisville &... Funaro & Ca...
Sync Sync Settings

1 2 All Photographs 30 of 13317 photos / 1 selected / 19031231-505-F-66.tif Filter: Custom Filter

Not just for model railroading stuff...

- How about your other photos shot with your phone or digital camera?
- Receipts?
- Recipes?
- You can create multiple catalogs

Please note that if you are viewing this file separate from the live presentation at the St. Louis RPM, there was a companion “ridealong” demonstration showing Lightroom’s capabilities directly from Lightroom that is absent from this file. Without that, some material presented herein may not be entirely clear or may seem too simplistic. Please consider attending a future RPM to see the “Full Monty”.