Automating Digital Downloads

One of the best things you can do to simplify and speed up your imaging workflow is to automate the download. That means having software build your folder structure, rename the files and add metadata (caption, copyright, etc.) during download. It saves you a lot of time and adds value to your images with little extra effort on your part. If you're still copying files from your camera card to your hard drive manually, you're wasting time.

Most of today's good photo programs can automate at least some of these steps, and in this document I'll detail how to accomplish this with three popular programs. Photo Mechanic (www.camerabits.com) is my favorite all-purpose download/browse/organize tool (it's the heart and soul of my digital workflow). Adobe's Lightroom is a popular program, and Bridge is also very capable. Of course, there are other programs (some free, like [Nikon's NX Studio](#)), that will do this as well, though perhaps not as quickly or efficiently. Note - The screenshots and descriptions below are from Mac versions, but the same options exist in the Windows versions.

Photo Mechanic

The key to downloading with Photo Mechanic is the "Ingest" command (File-Ingest, or Control/Command-G). Most of us call this the "download" command (this tutorial is based on version 6 although the same steps can be done with earlier versions).
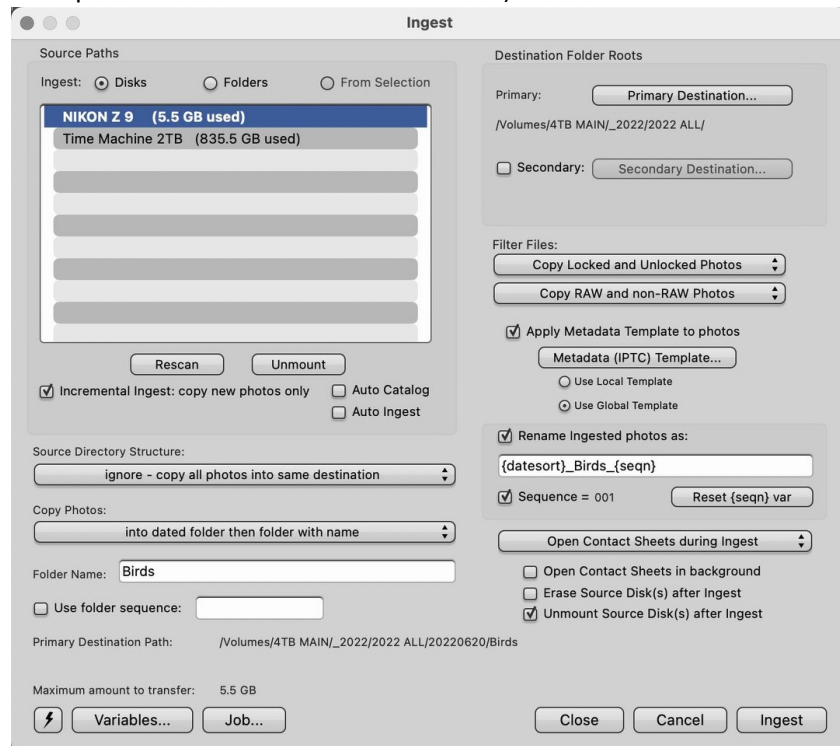
Ingest

<u>Source Paths</u>

At the upper left is the Source Paths window, showing any devices attached to the computer that PM sees. Make sure it's set to Disks to download from a card. After inserting your card in the reader attached to your computer, you should see it show up in that list (as long as you have it set to "Show Ingest dialog" in Preferences – General, "On mount of Camera Disk"). If not, try clicking the Rescan button to force it to look again. Then select the disk you want to download. If you have multiple readers attached to the computer, you can select multiple cards, and PM will download them in sequence.

<u>Incremental Ingest – copy new photos only</u>

I like leaving photos on the card until I have to re-format that card. With "Incremental Ingest" checked, I can download, then shoot more, then download the same card again and PM will know to only download the new images.

<u>Source Directory Structure</u>

I use "ignore – copy all photos into one destination." That means PM ignores the multiple layers of folders on the card and simply copies all the photos it finds to the computer.

<u>Copy Photos</u>

I use "into dated folder then folder with name." That means PM will automatically create a folder with today's date, then let me create a folder inside of that. I've always done this because sometimes I shoot multiple events on the same day, and want them separated inside that day's folder. If you don't need that, just choose "into dated folder only."

<u>Folder Name</u>

That's where I create a folder name for each shoot. You won't have this option if you choose "into dated folder only" in the above step.

<u>Use Folder Sequence</u>

I don't check either of these because I only want PM to create the one dated folder.

<u>Destination Folder Roots</u>

This is the location on your computer where PM will download your photos to, and create the folder structure you choose. When traveling, I always set "Primary" to the Pictures folder on my computer, and then create a folder inside that which it points to named "to Archive." That way I know that everything I've download to my computer is in that one "to Archive" folder, in dated folders that PM creates. When I return home, I simply need to move those folders into my archive. If I'm downloading images at home,

my computer is attached to a large mirrored RAID array (my "active" archive), so in that case I point PM to that ("4TB Main") and the "2022 ALL" folder on it (what you see in the screenshot above).

Secondary – if you want PM to copy your photos to a second location (creating a backup) at the same time it's downloading them, then click this and point it to that second hard drive. That's a handy option to create an immediate backup during download. At home, I don't use that because I'm saving to a mirrored RAID, which means I'm already backing up. On the road, I'll sometimes use this option by attaching a [small SSD]() to my laptop.

Filter Files

I use "Copy Locked and Unlocked Photos" and "Copy RAW and non-RAW Photos," which means PM will download everything on the card, whether tagged in-camera or not, and both JPEG as well as RAW.

Apply Metadata Template to photos

This is very important, as it lets PM add important information to every photo (embedded into the file, no sidecar file or catalog required) during the download process. I keep that checked and then also set the "Use Global IPTC Stationery" option. Here's an example of the "Metadata (IPTC) Template" I use (for more details on this, see the "Metadata (IPTC) Template" section below)..

Rename Ingested Photos as:

This is also very important, as it makes PM rename your photos during the download process, instead of leaving them with the useless camera filename. In this case I take advantage of something in PM called "Variables," which is another way to automate what PM does. You can read about it and other features here, or just use the string I use. It is, "{datesort}_NAME_{seqn}." This is then changed by PM to the date shot, NAME (a simple name I choose for the shoot), and then sequentially numbered. The result might be 20220620_Birds_001. The {datesort} command makes PM use the date stamp on the image for the date, then I add _Birds_ in the "Rename Ingested photos as:" box and reset the sequence to 001 by either clicking the "Set {seqn} var…" or holding the Option/Alt key and clicking the "Reset {seqn} var…" box. You can set the sequence to as few or many numbers as you'd like.

Open Contact Sheets during Ingest

I like this because as soon as I see a thumbnail I can click it to get a larger preview, or even open it into an editing program and start working on it immediately, while other images are still downloading.

Erase Source Disk(s) after Ingest

This one scares me, so I don't check it. I'd rather re-format my cards in-camera, when I'm sure the photos have been downloaded and backed up.

Unmount Source Disk(s) after Ingest

This one I check so that if I'm on a Mac I don't need to remember to eject the disk. If you're using a current version of Windows, that's not an issue.

Now all you need to do is click the "Ingest" button on the lower right and let PM do its thing. The next time you're going to download a card, open the Ingest dialog (or if it opens automatically), change the "Folder Name" if you use it, change the NAME in the "Rename" string, change the Metadata (IPTC) Template Pad and download again. The rest of the settings generally won't need to be changed.

Metadata (IPTC) Template in detail

Images without information are harder to find (search for). That's why you always want to have metadata added automatically during download (you could do it after download, but that just adds another step). PM does this through the "Metadata (IPTC) Template", which follows international standards and is thus readable by programs throughout the industry. To set it up, you can go to "Image" – "Metadata (IPTC) Template…" or just type Control/Command-I. You can also open it from within the Ingest dialog, by clicking the "Metadata (IPTC) Template…" button in that dialog (as mentioned above). PM has small boxes to the side of each field that you must check if you want that information applied. Some of the boxes have a "+" above them, meaning extra information can be added to existing information (if, for instance, you want to add more caption info or keywords after downloading).

You can add or change the Metadata (IPTC) Template information later and apply it to images already downloaded, but the real value is to have it added automatically during the Ingest process. I strongly suggest you do that. First, make sure the "Apply Metadata Template" to Photos" is checked. I use the "Global Template" option. And then click the "Metadata (IPTC) Template …" button and check the boxes you want and fill them in. Here are key ones I use:

Description/Caption – This is probably the most important field, where I write a generic caption applicable to all the photos from that shoot. I'll often describe what's going on, and if there are any people, name them. Remember, whatever you type here, you can search for later.

Keywords – Years ago I tried using Keywords, but was spending a lot of time adding Keywords. I found it was easier and less time consuming to write a full caption that applied to the entire shoot. That way any search I did of my photos would find any photos with that word in the caption, and then with those photos found, it was simple to locate the exact photo(s) I needed.

Description Writers – I place my initials here, a carry-over from my journalism days.

Special Instructions – I like to use this field, along with the Variables feature mentioned above, to have PM automatically list the camera and lens, as well as the key exposure information.

City, State/Province, Country – Fill all of them in if possible. Always good to have.

Date – I generally leave it set for "Capture Time."

Creator/Photographer – Your name.

Creator's Job Title – Photographer.

Credit – Your name again.

Source – Probably your name again.

Copyright – Make sure and fill this in, but remember, to be most effective, you need to register those images with the US Copyright office.

And there are more – fill in as many as you feel are necessary.

Snapshots

PM has a great feature called "Snapshots." Most of PM's dialog boxes (like Ingest and Metadata) have a little lightning bolt button in the bottom left corner. Click on that and choose "Save," and you can create a template for that dialog that that can be used at any time. At the right you see a number of different Metadata Snapshots I've created to help speed up Ingest when I'm doing different assignments.
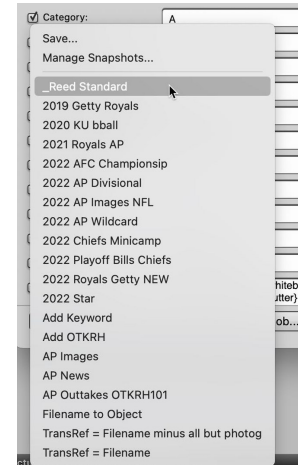
<u>Adobe Lightroom Classic</u>

Adobe Lightroom is a popular one-stop solution for photographers. It too can automate the download process. This process has remained the same through many versions of Lightroom ("Classic"), so most of what you'll read here will apply to several years' versions of Lightroom.

To start the import of your photos from a card, go to "File – Import Photos and Video…" or the "Import…" button at the lower left of the Library window. Then you'll get this window:
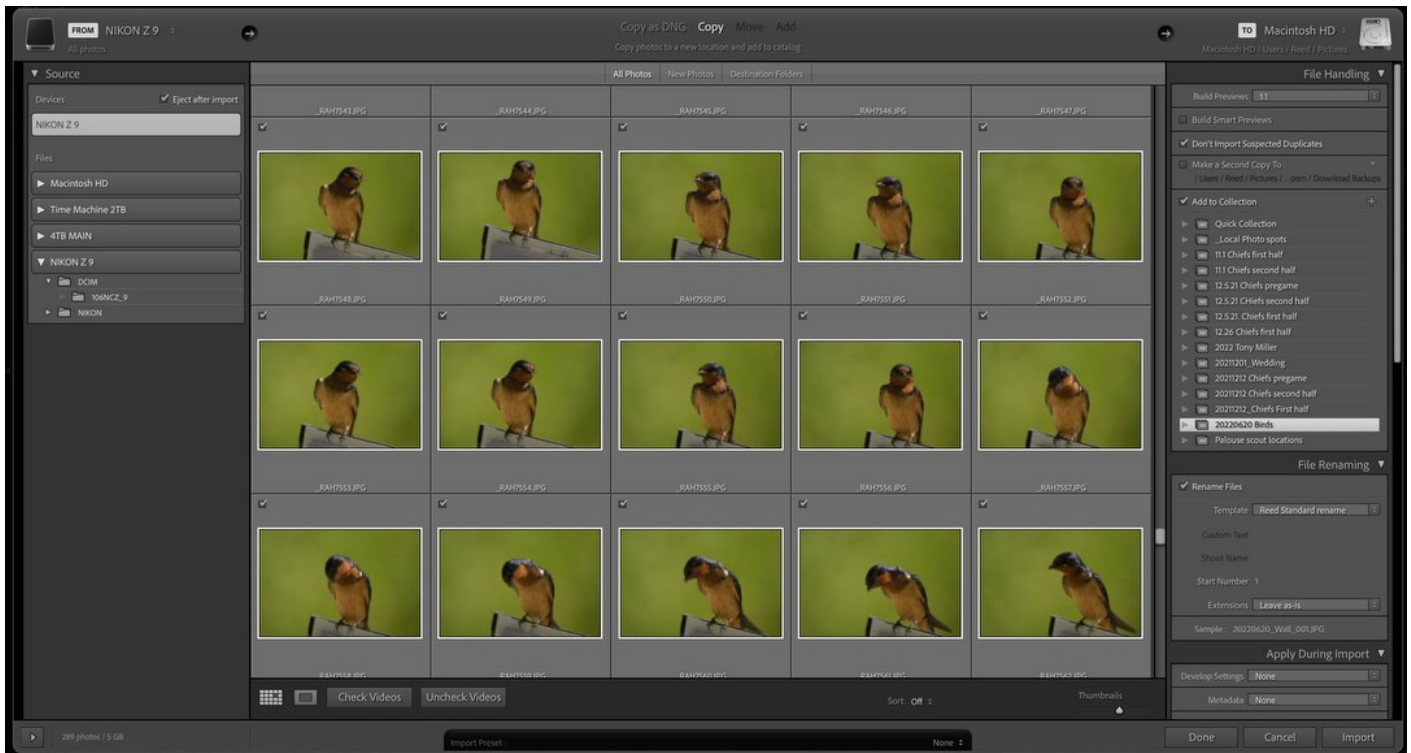
You're now in the Import space, where you should see the card you're downloading from on the left-hand side of the window. At the top center of this window, make sure to have the "Copy" option selected. That means you're going to copy the photos from a card to the computer.

To the far right are the options you need to set:

File Handling

Build Previews - This tells LR what size Previews you'd like it to build. The larger the preview, the more time it needs. Larger previews also take up more space. Despite that, I prefer 1:1 since that lets me zoom in to 100% to check sharpness quickly, rather than wait for LR to process the image.

Build Smart Previews –Smart Previews lets you make changes to images in the catalog without the original images being present, which is handy if you need to travel and don't have space on your hard drive for the originals. Once connected to the original images, those changes will be applied to them. But, the catalog also takes up much more disk space to achieve this. I leave that turned off by default.

Don't Import Suspected Duplicates - If, like me, you like to leave photos on your cards until you absolutely HAVE to delete them (by formatting the card), then you'll want to check this box. That means you can download from the card, put it back in the camera, shoot some more, and during the next download, LR will ignore those photos it has already downloaded.

Make a Second Copy To: - Check this if you want to have images written immediately to a second hard drive or USB stick.

Add to Collection – If you want these photos added to an existing Collection, or want to create a new Collection, this allows that. Since I only use LR when I need to quickly process out a large number of images I've already downloaded and sorted with Photo Mechanic, I use this as an easy way to keep track of those groups of images.
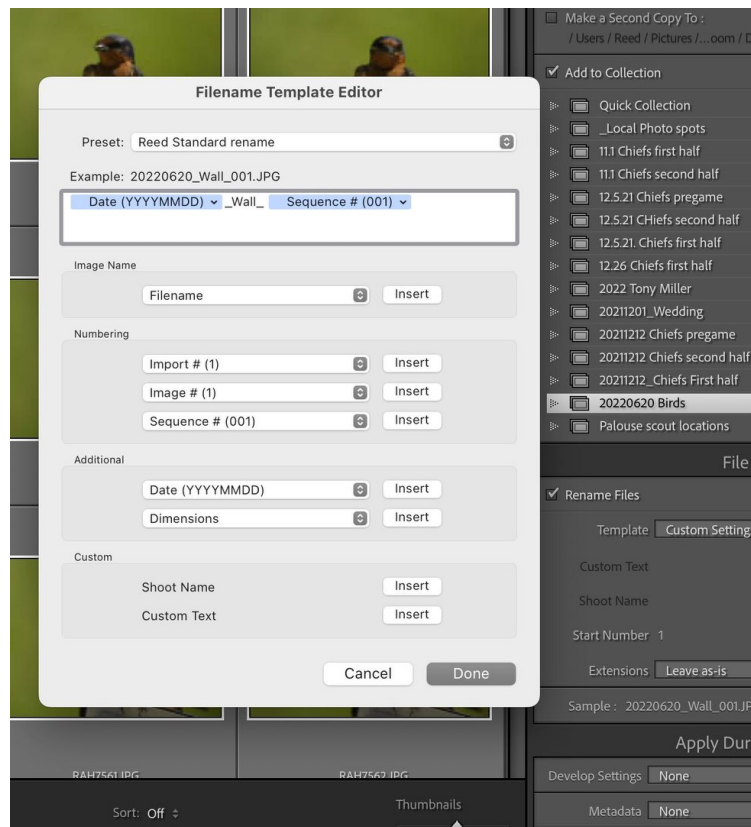
Rename Files – This is where you can really help yourself by having LR change the camera's filename, which is of no use outside the camera, into something helpful. To do this, click on the "Template" pull-down and choose "Edit…". I like setting mine to Date_Name_Number, with the date being 8 digits starting with the year, then one word or combination of letters to signify what I was shooting, then numbering from 001 on up. You can set up a template like this in LR and have it do this step automatically.

Apply During Import

This is where you can automate develop settings (perhaps to more closely resemble your camera manufacturer's default processing) and add metadata in the form of IPTC/XMP information and keywords, both of which can be important. The Metadata choice is the main concern for me, and you can create a template with your usual information (name, copyright, etc.) and simply change the caption details in the "Basic Info" panel. You do this with the Metadata pull-down menu (choose "New" to create one). Like Photo Mechanic, LR only adds data from the panels that have been checked.
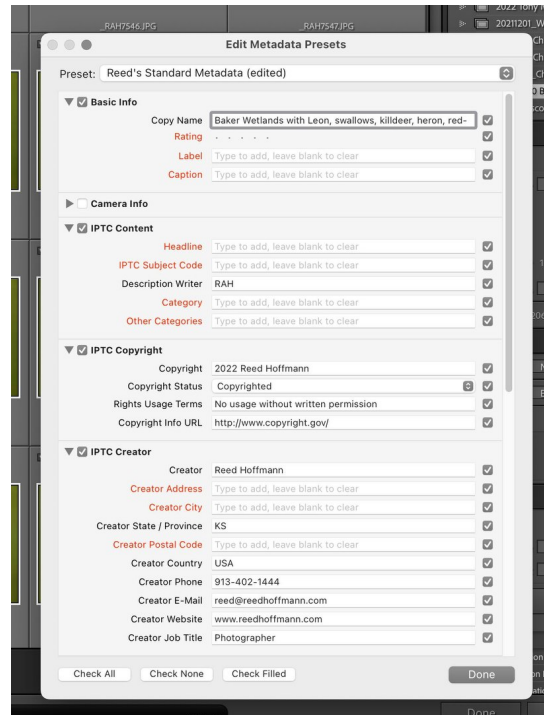
Destination

You'll want LR to create a subfolder ("into Subfolder") in the destination you select and name that. I always like setting the folder name by date, which LR can do easily. And I use the same 8-digit format from the filename.

That's it! Now just click "Import" and then go do something else. LR is not the fastest program for bringing photos in and building Previews, one reason I still prefer Photo Mechanic for this job.

Adobe Bridge CC 2019

If you have the Adobe Creative Cloud Photography plan and don't want to use Lightroom to manage your photos, you can use Bridge. It's a solid browser with lots of features, and is also able to automate your downloads.

Start by choosing "File – Get Photos from Camera…" If you've never used this before, you'll get a dialog asking if you want Bridge to launch the Photo Downloader whenver a camera or card is inserted. If you're going to use Bridge to download your photos, then I'd suggest you say "Yes" to this option.
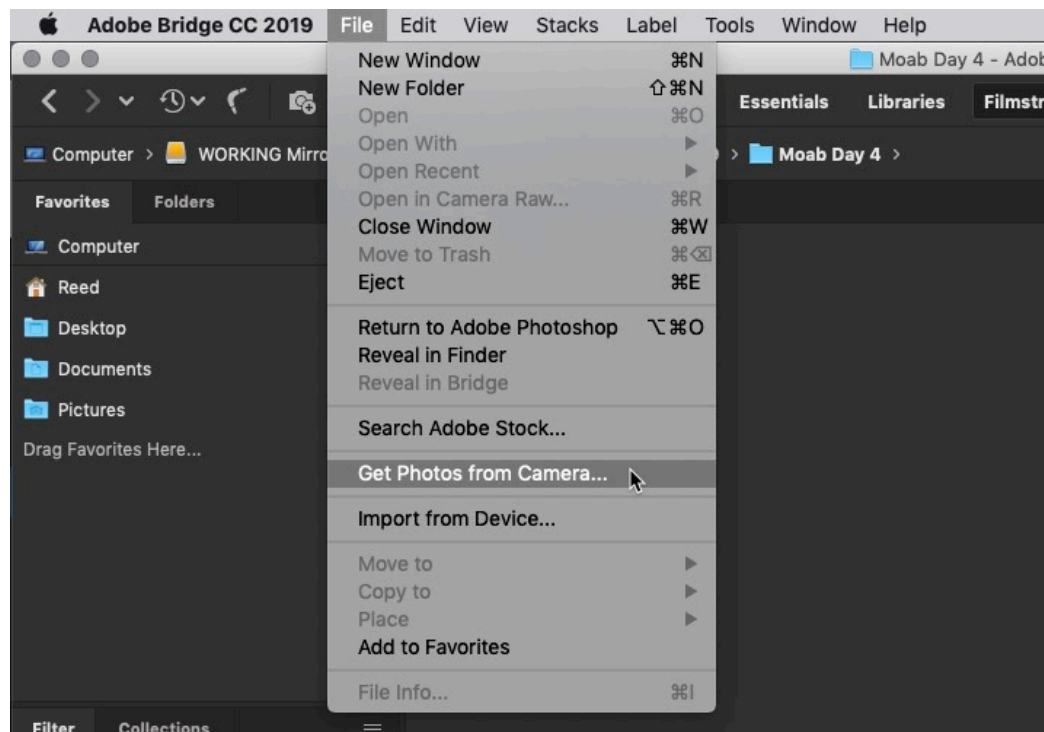
Now you'll be in the "Photo Downloader" window. Then follow these steps:

1 - Tell it where to "Get Photos from." In my example, I've selected the card from my Nikon Z 9 camera.

2 – Choose a location that you want your photos to be downloaded to. That can be anywhere on that computer or any hard drive attached to it. In my case, I've told it to download to my computer's "Pictures" folder.

3 – Decide if you want it to also then create a subfolder for those photos. I strongly recommend this, otherwise you'll have every photo you've shot residing in one single folder. In my case, I have Bridge automatically create a folder based on the date the photos were taken. And I use the YearMonthDate format, so all of my folders sort chronologically.

4 – You should also take advantage of Bridge's abilibty to rename files for you. The name the camera gives your photo has no meaning outside the camera. And a good filename can tell you a lot about a photo without ever having to open that photo. Most importantly, whatever renaming scheme you choose, it must be done in a way that can't ever be repeated. The easiest way to do that is to incorporate the date shot along with a sequential number. To accomplish that, I click the "Advanced Dialog" and use the window that then appears to rename my files, "yyyymmdd_SUBJECT_001." "SUBJECT" will be replaced by the subject name of what I just photographed, which could be a person, place or thing.

5 – After setting up the renaming, in "Advanced Options" you should also choose, "Open Adobe Bridge." If you want Adobe to backup the photos during download, then you can also choose "Save Copies to:". There's no reason to "Convert to DNG" or "Delete Original Files" at this time.

6 – The next step would be to click the "Apply Metadata" button. Now you can add "Basic Metadata," meaning your name ("Creator") and Copyright. However, this is a great opportunity to embed lots more
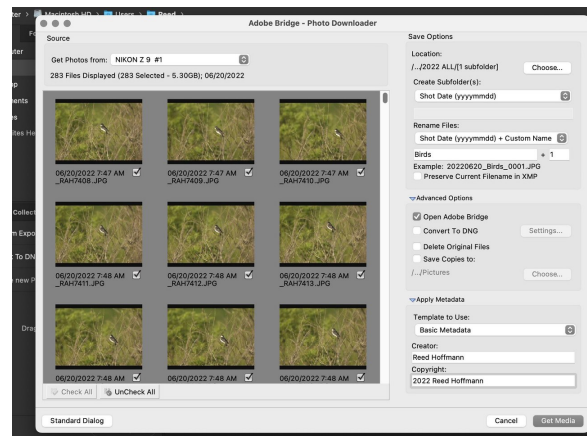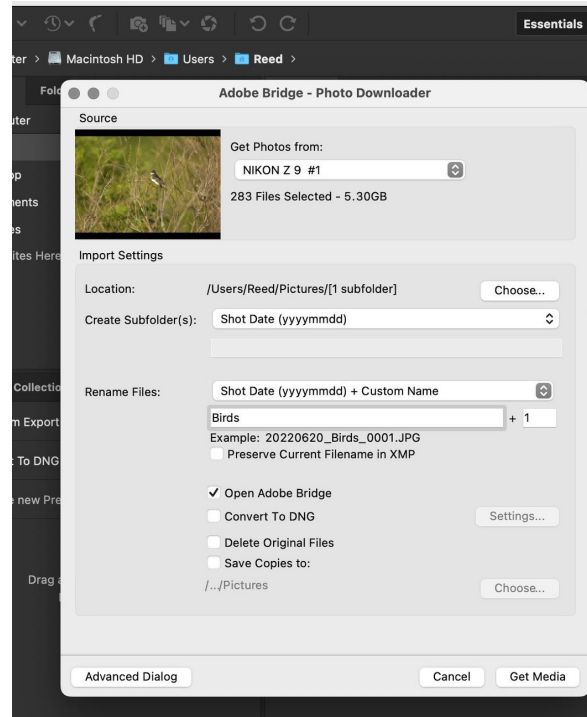
useful information into your photos, saving you time later. In that last "Advanced Dialog," there's an option to choose a "Template to Use." Rather than the "Basic Metadata," you can create a custom one before the download and have your name, copyright, location and caption details as well as much more added during the download. But before you can do that, you need to create a metadata preset. You'll find that under "Tools – Create Metadata Template" in the main Bridge window. Once you've created and named one, it will be available for future use. If you choose to do this, then each time you download, you'll want to go back and edit that template to udpate the caption and location, if necessary.
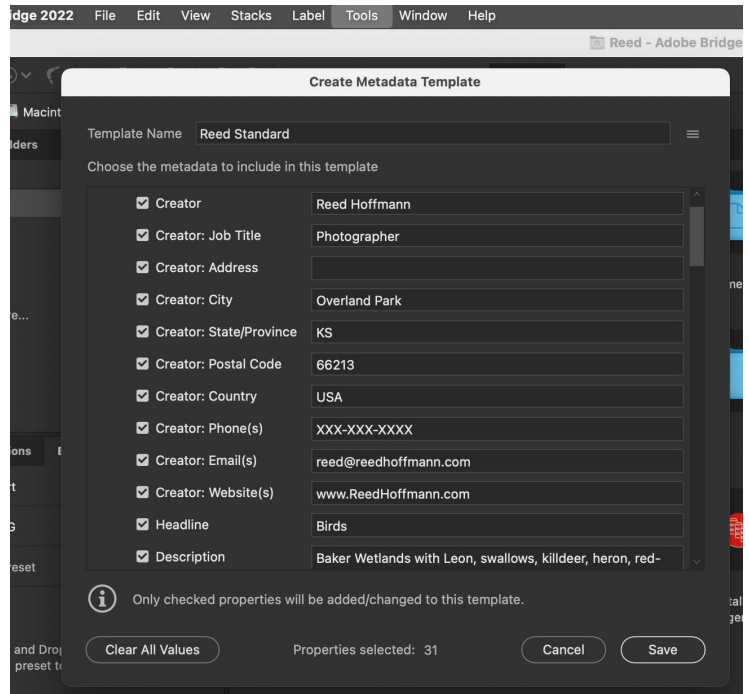
7 – Most of the time you'll want to download all the photos on your card, but if not, you can click the "Uncheck All" button and then mark only those photos you wish to download.

8 – At this point, in either the "Standard Dialog" or the "Advanced Dialog,"you can now click the "Get Media" button and watch as Bridge downloads and renames your photos into the folder you chose.

In Closing

One of the many advantages digital photography offers is the ability to use our computers to speed up and streamline our workflow. These three how-to's are a great way to get started with a smarter and faster workflow. They will help you be able to spend more time shooting and working on your photos, and less time managing them.