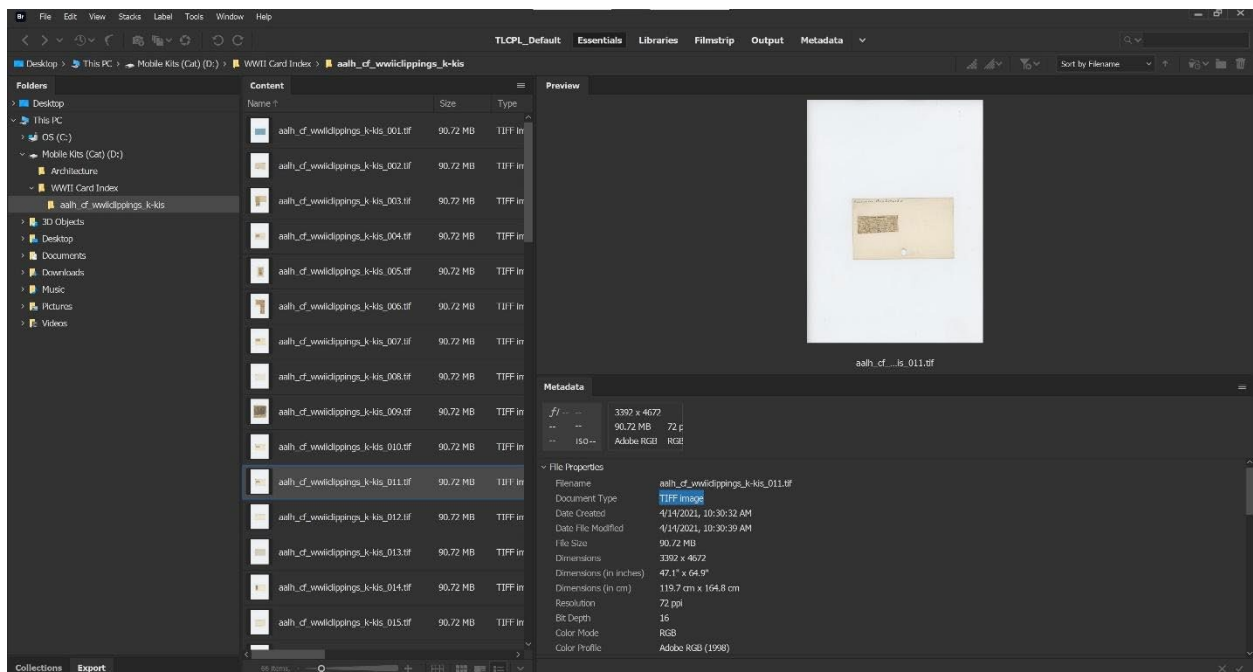


# Using Adobe Bridge and Photoshop to Process Files

John Dewees  
Drafted 2021-04-19  
Updated 2021-05-03

Bridge is a program available through Adobe that works in close concert with Photoshop and acts as a powerful file explorer, bulk rename utility, image processor, and more. There are a wide variety of different functions that can be utilized to make your digitization workflows easier and simpler. We'll discuss several of these in detail. Important to keep in mind that while Adobe Bridge is a free download, Adobe Photoshop requires a Creative Cloud subscription to utilize.

One of the advantages of Bridge is the ability to customize the overall layout of the program. There are three columns of content that you can fill with different utilities and program functions, which can also be stacked on top of each other in a given column. I prefer to have the overall directory structure taking the left-hand column, the directory contents taking up the center column, and a stacked display with a preview of the image on top and the file metadata below in the right-hand column.

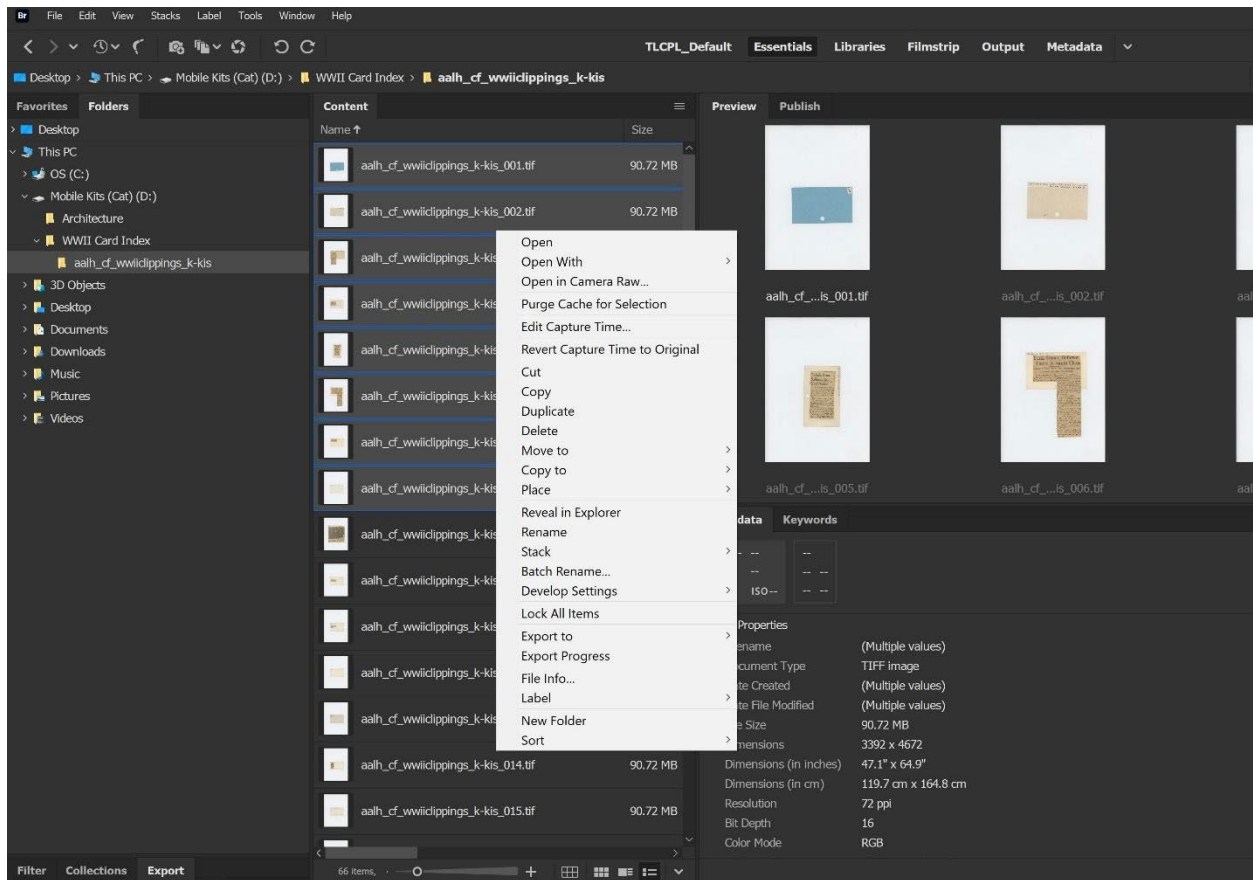


This works and makes sense for me, but a different arrangement, or including different utilities, may be beneficial for you as well. There are other panels that could be included such as favorites, or filters, which could be incorporated into your specific workflows.

In general throughout this there will be tools and options that I skip. If I don't address something it is because I simply haven't used that particular tool/utility/option and don't know about it. Adobe products have many different paths and workflows for producing an identical end-product and I definitely don't claim to know them all, these are simply the ones that worked well for me.

## File Explorer

Adobe Bridge provides a number of useful functions of Windows File Explorer just for managing files and investigating metadata associated with the images. Right clicking on an image or group of images provides a menu that is likely pretty familiar for most folks but includes some extra features as well.

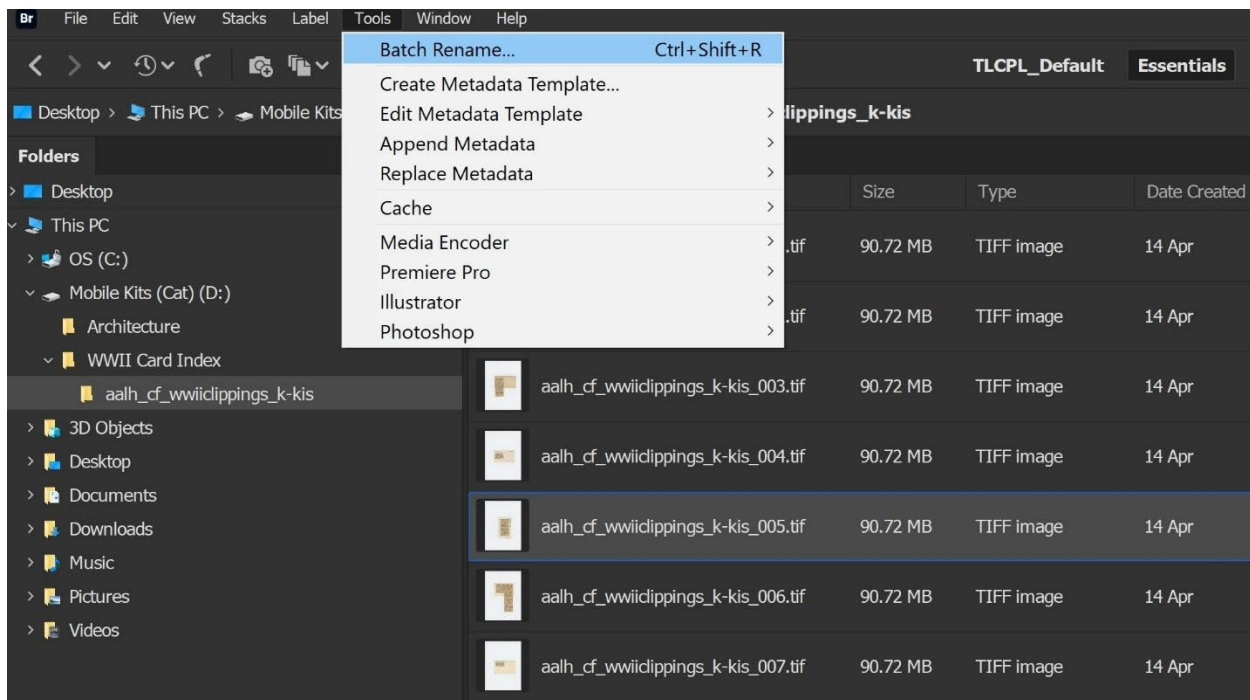


I'm going to pay attention in particular to those options beginning with "Cut." "Cut" and "Copy" operate just how you would expect. "Duplicate" behaves as is you copied the files in a particular directory and then pasted them into the same directory. This can be useful for instances where you are scanning a book with both pages displayed in the image but want to edit those into individual left and right pages. "Delete" again acts as you would image, moving the image to the Recycle Bin or removing it from a network drive.

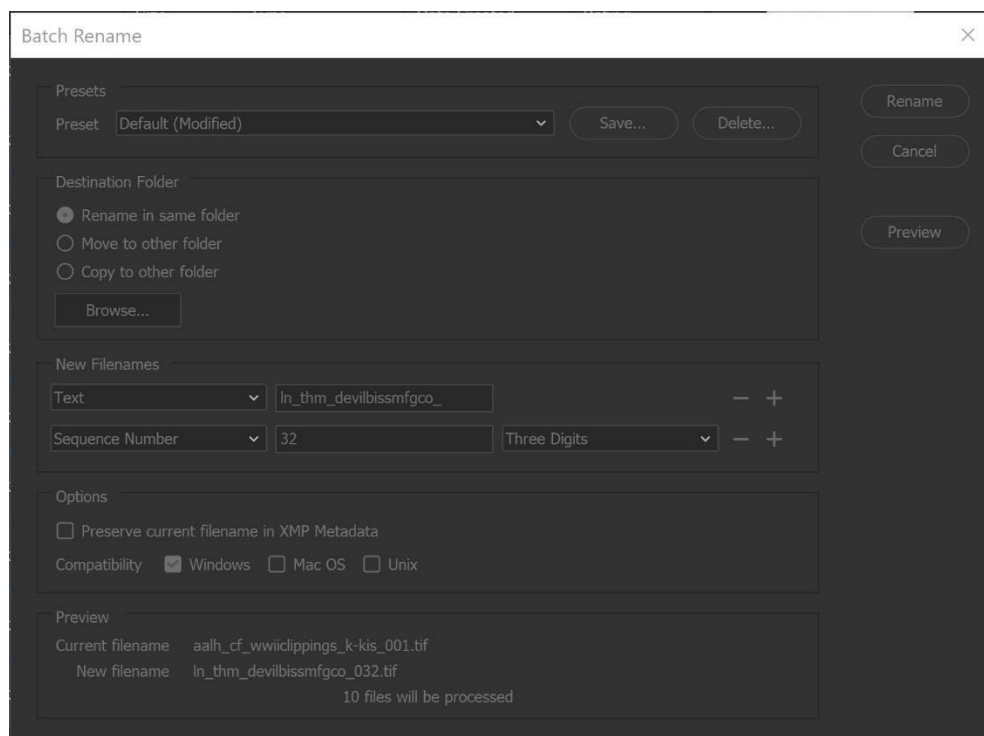
"Move to" copies the images into a chosen directory and then deletes them from the original location. "Copy to" does the same thing but leaves the original images in their original location. "Label" provides a quick visual indicator to assign a color designation to a particular file. This is a great tool while doing quality assurance to flag images that might need to be rescanned with red, or images that need a tweak to their crop with blue.

## Bulk File Renaming Utility

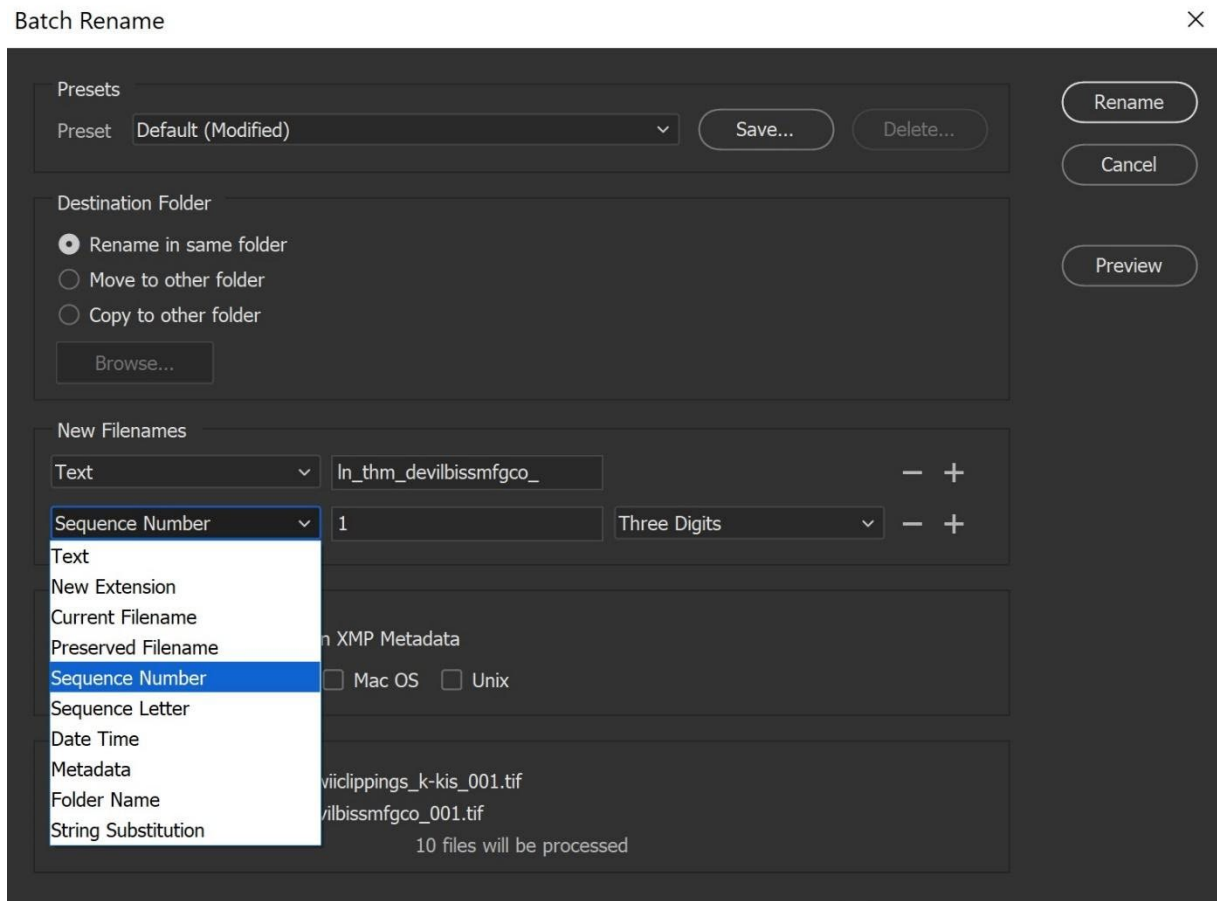
One of my commonly used functions is the Batch Rename function inside the Tools dropdown menu:



In my most common use case this allows the user to define a text string and follow that up with a series of auto-generated sequence numbers. So for instance say I define that prefix to be consistent across all the files, and then a customized sequence number to differentiate them in order. If I'm scanning a short 8 page pamphlet, I can specify a two-digit sequence number so there is one leading zero before all the sequence numbers. If I'm scanning a whopping 1200 page monograph I can specify a five digit sequence number so that again, pages 1000 and above have that single leading zero.



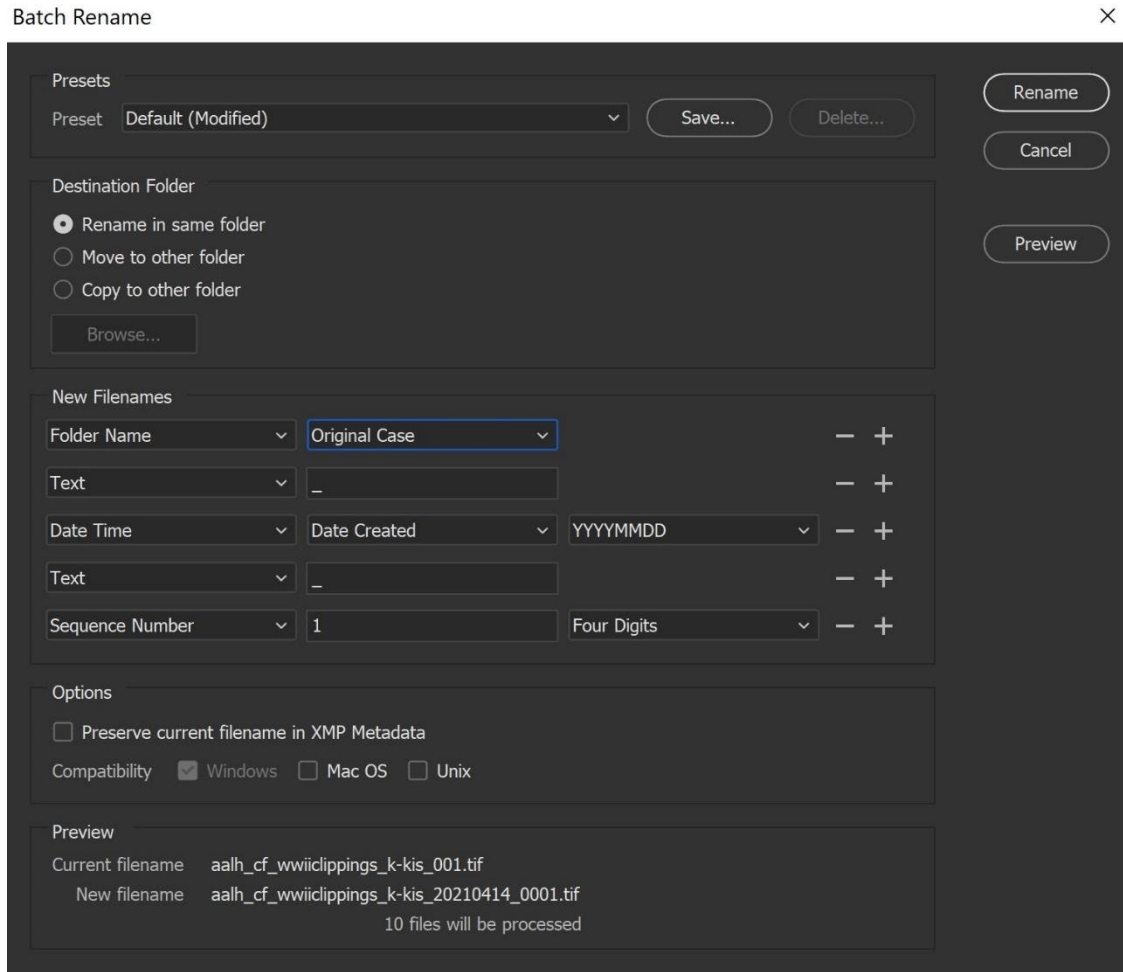
It is possible to embed a lot more detail here though. If you prefer sequence letters over number, that's an option. If you want to embed some administrative metadata in the file name or want dates/times for project tracking purposes, those can be embedded with the date the image was created, last modified, or today or yesterday's date, with lots of options on how that gets formatted as well.



You can pull in metadata fields to be embedded in the filename that Bridge already has access to. If you use the prefix of the file name as the name of the folder in which you store the images, then you can just use the “Folder Name” option and even have options to mess with how the characters are displayed (upper case, lower case, etc.) which can be helpful to avoid typos.

If you have filenames that need to be cleaned up or altered, and not just re-written, there is find-and-replace tool in the “String Substitution” option that can make the process a lot less manual and messy. This last one can get incredibly powerful as it's possible to use Regular Expressions (regex) in this functionality as well. Regex is a confusing and complicated topic but is incredibly powerful for modifying text strings in some exceedingly particular fashions.

While in the example above there are only two options being displayed in use (“Text” and “Sequence Number”) that is by no means the limit, and you can keep hitting the “+” to continue adding options. Perhaps using “Folder Name” as the prefix for the file, “Text” to include an underscore to act as a separator, then “Date Time” to indicate the day the images were created, followed by another “Text” to include another underscore separator, finally finishing with a four digit sequence number.

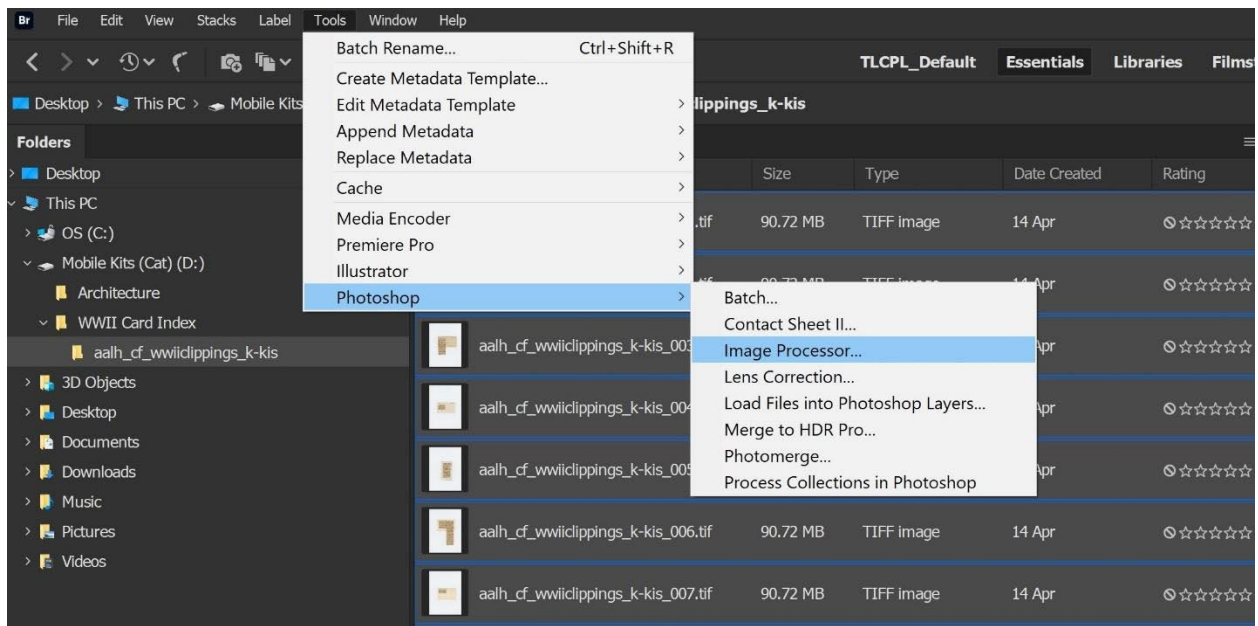


If you have batch-renaming schemes that you use frequently, these can be saved as “Presets” at the top of the screen. You can also get into file management here if you want to create multiple sets of images with different file names, perhaps for preservation and access purposes by using the options in the “Destination Folder” section. Finally one of the most handy features is the preview, letting you know how files look currently and what the first file to be changed will look like after all the rules you specified, as well as just how many files you selected (perhaps you meant to select the whole folder but only clicked on one).

## Image Processor

When transforming bulk quantities of images, especially when creating access images to be made available online from archival masters generated when materials are scanned, the “Image Processor” utility in Bridge is incredibly handy. This function works hand-in-hand with Adobe Photoshop and essentially defines a series of actions that you would like Photoshop to take on a series of images, one after the one as defined in Bridge.

This function can be found again in the “Tools” menu:



Selecting this option will open Photoshop if the program is not already running and bring you directly into a new pop-up with a variety of options on how precisely you want the image to be processed.

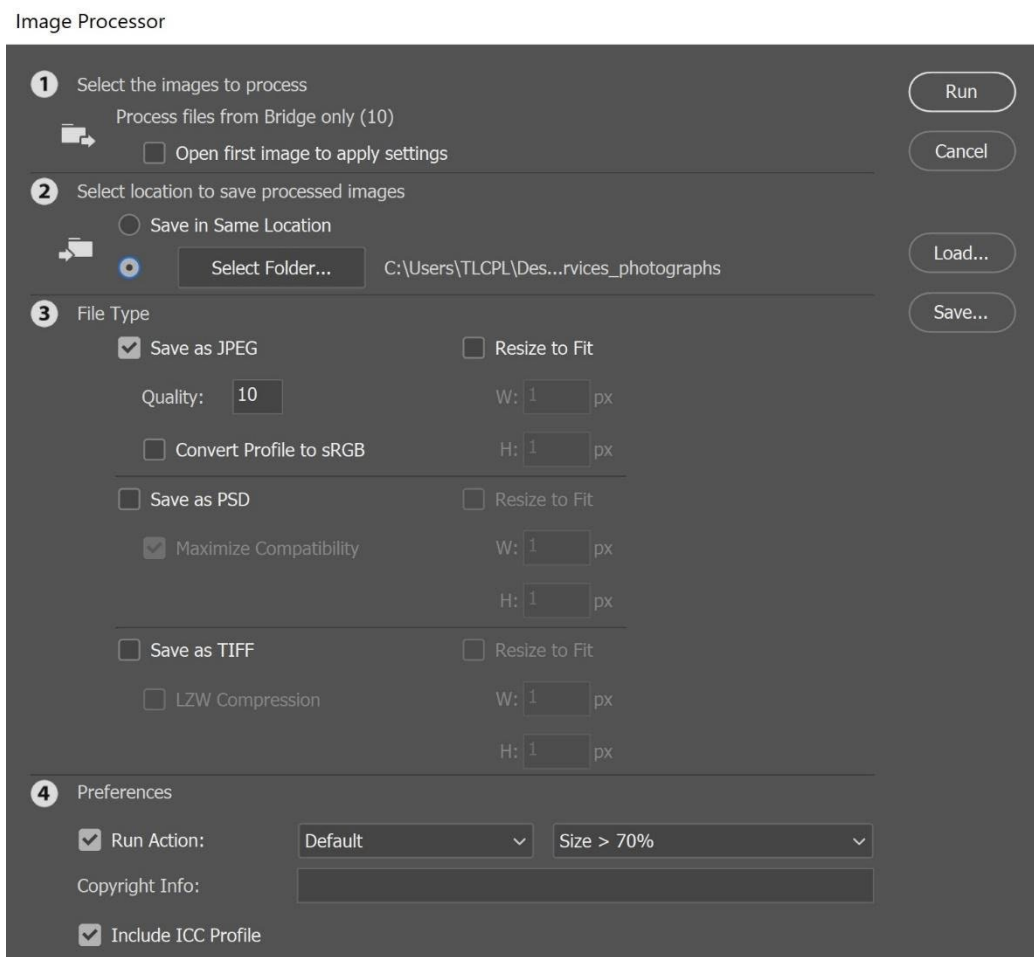


Image Processor then moves through each of the numerical defined steps in the tool, executing on the actions that you define. In (1) I leave the “Open first image to apply settings” option unchecked and have no experience with how that affects workflows if enabled.

For the (2) step you have the option to define where exactly you want to save the files. If you opt to save those files in the same location, say keeping them with your archival masters and access images in the same place. Alternatively you can select whatever directory you want these newly created images to be saved in by using that option and “Select Folder...” to browse to a different directory.

The File Type options in (3) are where most of the image processing actually takes place. If you are working with archival quality TIFFs you may want to create JPEG access images from them. You aren’t limited to selecting a single file type so if you have a batch of PNG files for some reason you can create some TIFFs for long term storage and transform them into JPEGs as well for your access option. If you are saving as TIFFs generally you will want to leave “LZW Compression” unchecked as more than likely you want uncompressed images.

The “Quality” option for JPEG is a scale from 1-12, with 1 being the poorest quality and 12 being the highest. The higher the number, the less compression the JPEG file format will have and the larger the image size will be. As a rule of thumb I usually use 8 for textual materials, and 10 for scanned photographs.

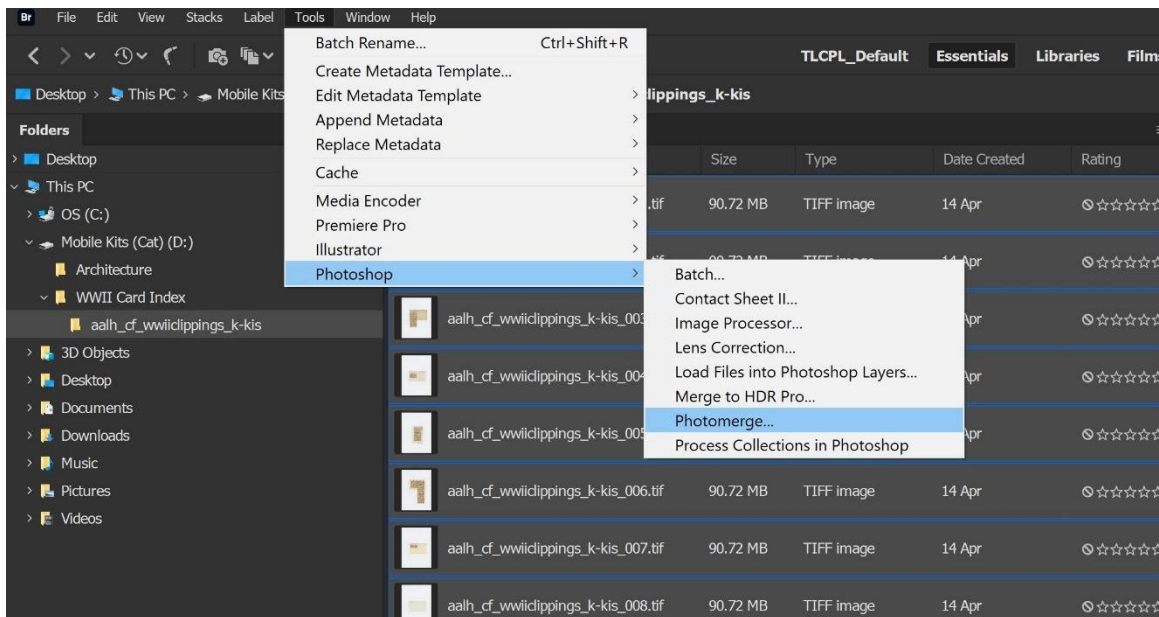
Finally the (4) Preferences section lets you run Photoshop Actions that have been recorded on all of the materials that are being processed. In this case I have an option that will automatically reduce the overall image size to 70% of the original selected. This can also be a great step for adjusting the color space of images to AdobeRGB (1998) for instance. Finally I would always recommend leaving the “Include ICC Profile” checkbox checked to ensure that the color-handling of the images is consistent as they are transformed.

At the beginning of this section when showing where the “Image Processor” utility was in the “Tools” menu, there is also a Photoshop tool called “Batch...” which essentially just takes the Photoshop Actions portion of the (4) Preferences step and allows you to run that as a standalone utility. This allows you to bulk edit images without transforming them into new ones.

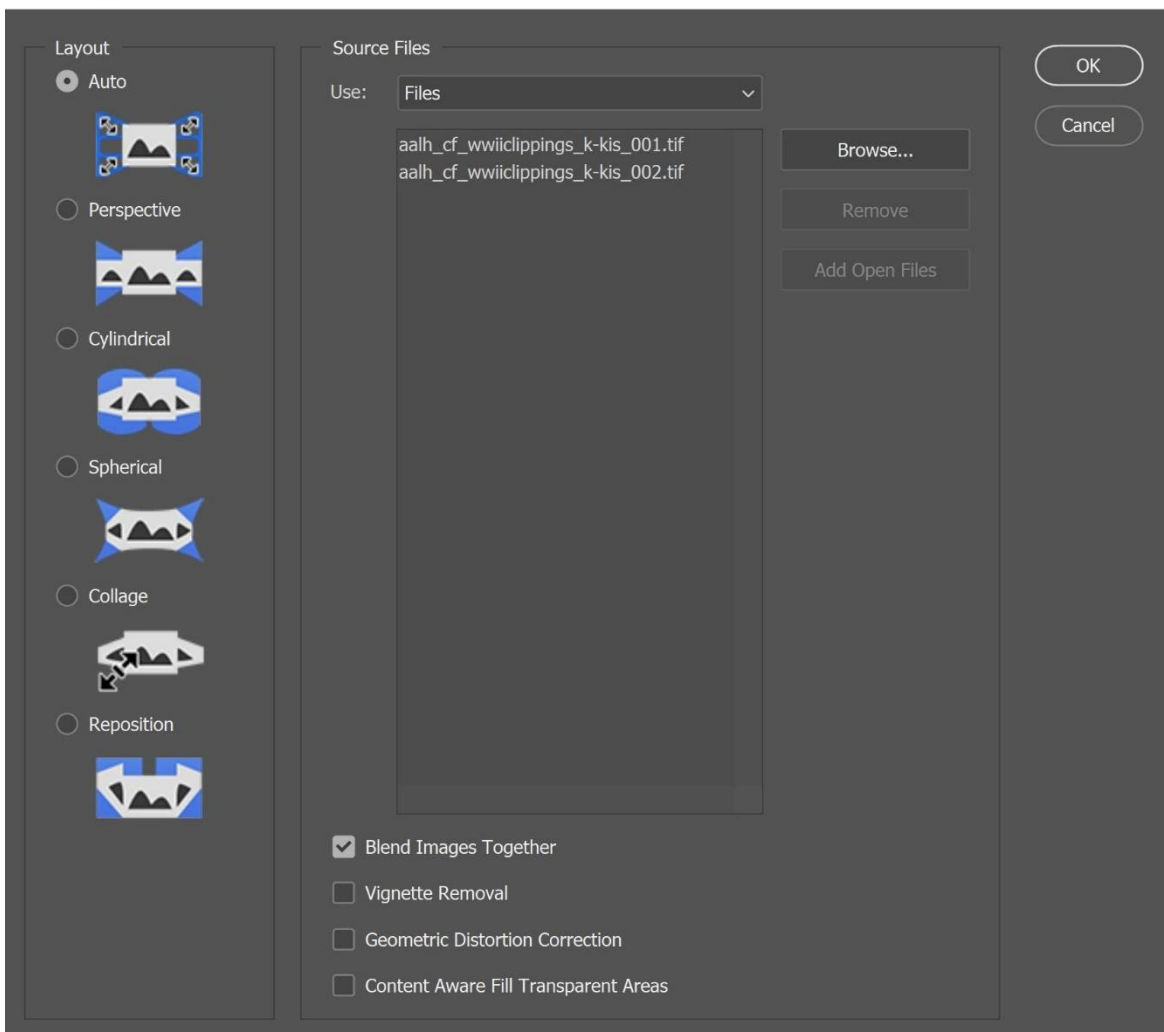
## Photomerge

If you run into situations where you are trying to scan something that is bigger than the scanner you have available, it might be possible to scan that item in chunks and then have Photoshop stitch those separate images together to create one whole image. It consistently amazes me just how good Photoshop is at this particular job. Again, this can be found in the Tools menu inside Bridge. If Photoshop isn’t already open then it will start up and a new pop-up will be displayed similar to Image Processor with some options to select.





## Photomerge



There is little that needs changed when it comes to Photomerge, as the standard settings can pretty much be left alone. When scanning you'll want to leave as much overlap as possible so to speak, with areas of the object being represented in both scans so that Photoshop knows where the areas of commonality are and uses them to create one large image out of them. The "Layout" can be left as "Auto" and the files you selected to merge together will be populated in the "Source Files" section. On the bottom ensure that "Blend Images Together" is checked and the rest of the options can be left unchecked.

Once your files are setup, hit "OK" and then Photoshop will begin opening the individual images and creating a new image that blends the two (or more, I've done this with as many as three but not more than that) images together. You'll have a layered, messy image afterwards, but you can deskew and crop the image and then save just like you would a normal image. Ensure you have the "Discard layers and save a copy" option checked in the "Save" menu and then your newly stitched and merged image will be saved for your use in whatever file format you need and whatever directory you choose to put it in.

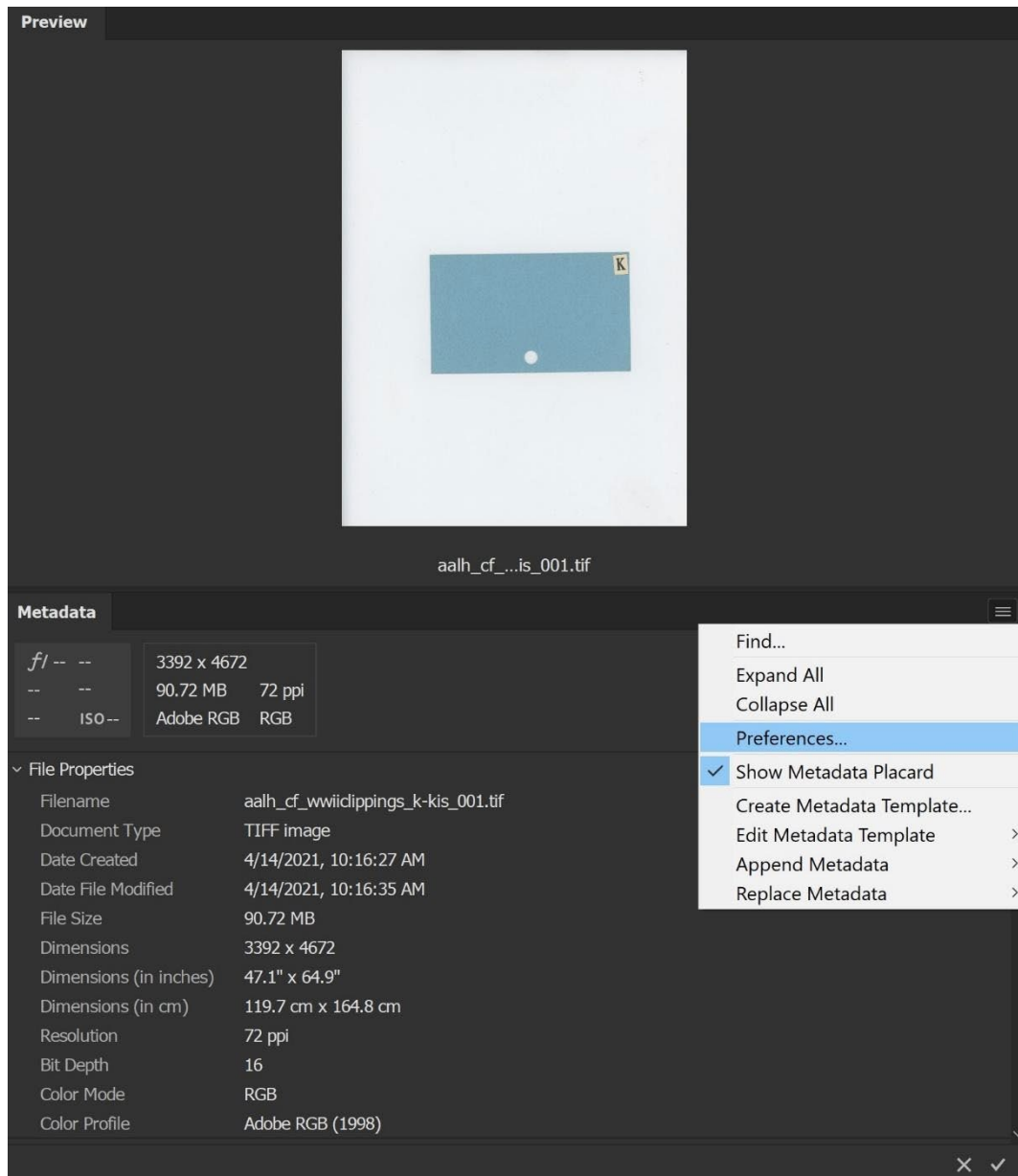
This is a great way to make a smaller scanner perform at levels that it might not otherwise be capable of without putting in the big expense of new hardware, though there are of course trade-offs in image quality, digital preservation, and workflow time.

## Metadata Panel

The Metadata panel provides a wealth of information about images that is generally not easily exposed in something like Windows File Explorer without digging into file properties and possibly not even then. The information provided can also be highly customized; once you click on the little three-line-icon a menu with one of the options being "Preferences" will appear that provides numerous options. This allows the user to check and uncheck dozens of different metadata fields over different entire schemas.

If your local practice is to embed as much file data directly into the image using the IPTC metadata scheme, then you can select which of those fields will show up in the Metadata panel. Bridge is capable of creating custom metadata templates which can be automatically applied to groups of images, again under the "Tools" menu inside the Create and Edit Metadata Template options, as well as the options to Append or Replace the file metadata. These are functions I have used on a very limited basis so I invite the reader to explore those options on their own.

The typical administrative and technical metadata that users will want to see at a glance will be available including dates that images were created and edited, file format, file size in megabytes, the dimensions of the image available as pixels, inches, and centimeters, the resolution of the image, the bit depth (expressed per channel, so in the example below the "16" under bit depth indicates a 48-bit color image), as well as the color profile such as Adobe RGB (1998) or sRGB.



The checked “Show Metadata Placard” indicates the little box above where “File Properties” is on the screen. If the image was captured by a camera then the light grey box will have information on ISO value, shutter speed, f/ stop, and so on. The darker grey box to the right contains the most glance-able information you are likely to need such as file size and resolution. One point of note is that I have run into an issue with Bridge where TIFF images do not consistently show the correct resolution, defaulting to 72 PPI instead of the correct resolution of 400 PPI in this case. When opening this image in Photoshop it will display the correct resolution and behave accordingly. However if you right-click a particular image and select “File Info...” you can dig into the inner-workings of the TIFF format and see the actual tags that are encoded and it does in fact indicate a 72 PPI even though for our practical purposes it behaves as if it has a resolution of 400 PPI. I think this might have something to do with the ways that different utilities such as EPSON Scan and Adobe Creative Cloud work together, but haven’t figured out the issue yet. If you have an answer, I would welcome it!

Basic

Camera Data

Origin

IPTC

IPTC Extension

GPS Data

Audio Data

Video Data

Photoshop

DICOM

AEM Properties

Raw Data

Raw Data

```
<x:xmpmeta xmlns:x="adobe:ns:meta/" x:xmptk="Adobe XMP Core 6.0-c006 79.16464646"
<rdf:RDF xmlns:rdf="http://www.w3.org/1999/02/22-rdf-syntax-ns#"
  <rdf:Description rdf:about=""
    xmlns:exif="http://ns.adobe.com/exif/1.0/"
    xmlns:tiff="http://ns.adobe.com/tiff/1.0/"
    xmlns:xmpMM="http://ns.adobe.com/xap/1.0/mm/"
    xmlns:dc="http://purl.org/dc/elements/1.1/"
    xmlns:photoshop="http://ns.adobe.com/photoshop/1.0/"
    <exif:ExifVersion>0231</exif:ExifVersion>
    <exif:PixelXDimension>3392</exif:PixelXDimension>
    <exif:PixelYDimension>4672</exif:PixelYDimension>
    <exif:ColorSpace>65535</exif:ColorSpace>
    <tiff:Orientation>1</tiff:Orientation>
    <tiff:ImageWidth>3392</tiff:ImageWidth>
    <tiff:ImageLength>4672</tiff:ImageLength>
    <tiff:PhotometricInterpretation>2</tiff:PhotometricInterpretation>
    <tiff:SamplesPerPixel>3</tiff:SamplesPerPixel>
    <tiff:XResolution>72/1</tiff:XResolution>
    <tiff:YResolution>72/1</tiff:YResolution>
    <tiff:ResolutionUnit>2</tiff:ResolutionUnit>
    <tiff:BitsPerSample>
      <rdf:Seq>
        <rdf:li>16</rdf:li>
        <rdf:li>16</rdf:li>
        <rdf:li>16</rdf:li>
      </rdf:Seq>
    </tiff:BitsPerSample>
    <xmpMM:DocumentID>D23090A0057A9A97A666700451D17BE5</xmpMM:Docu
    <dc:format>image/tiff</dc:format>
    <photoshop:ColorMode>3</photoshop:ColorMode>
    <photoshop:ICCProfile>Adobe RGB (1998)</photoshop:ICCProfile>
  </rdf:Description>
</rdf:RDF>
</x:xmpmeta>
```

Powered By  
**xmp**

Preferences Template F... ▾

OK

Cancel