



MAKING A PRINT FOR THE MEMBER SHOW

Making a quality print for an exhibit involves careful planning and attention to detail, but it is not difficult.

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So you want to submit an image for inclusion in the Member Show, but you don't know where to start? Creating quality prints for an exhibit involves careful planning and attention to detail to ensure that the final product accurately represents your artistic vision. This guide is here to help you get the best results as a new-to-printing photographer.

The guide starts by discussing where the image resides and moves through the topics of file types, file sizes, image resolution, resizing, sizing for the finished art piece, editing the file for print, exporting for print, and basic paper considerations. It also provides references to a few places you can get the print made on your behalf. It assumes you used a digital camera to capture your image.

What's not included in this guide is a discussion of editing your images for digital viewing. You should have a basic level of understanding of how to edit your RAW files or shoot in jpeg and let the camera edit your images for you.

What type of device did you use to capture your image?

Before we can edit your image for print, we have to start at the beginning. What type of device did you use to capture your image? Was it a traditional camera or a smartphone? Both types of devices can handle image capture in various ways. This section addresses the most common considerations for both types of devices: file types and image sizes.

There are two, possibly three, types of image files you will encounter as a photographer. The first two, RAW and JPEG files, apply to both cameras and smartphones. The third file type, HEIC, is a file type used by Apple on iPhones to save space in computer memory and hard drives.

RAW files are the preferred file type for image capture because they offer the most data for editing and manipulation, although the files are much larger and require more storage capacity. In contrast, JPEG and HEIC files are much smaller and offer less room for editing. If you enjoy editing your images, capture them using the RAW file format. Otherwise, JPEG and HEIC will do the processing for you and save you storage space.

Modern cameras from Canon, Fuji, Leica, Nikon, and Sony capture images ranging in size between 24 and 50 megapixels (or more). The more megapixels the camera captures, the more details will be resolved in the image file, and ultimately in the print. But you don't need the most megapixels to make a great print. You only need enough to cover the size of the print you intend to make.

An example: A 24-megapixel image captured using a full-frame camera using the standard 3:2 aspect ratio will have dimensions of 6000 pixels by 4000 pixels. If 300 pixels relate to 1 inch of a print, the printed image, in its native resolution, will be 20 inches wide by 13.33 inches tall. This is more than enough to make an 8 X 10 print, but not enough if you want a print 10 feet wide. We'll cover file size and resolution in more detail in a bit.

The Apple iPhone and Samsung Galaxy series of smartphones offer excellent cameras, but their image resolutions may not be on par with DSLR or mirrorless cameras. The standard shooting modes use the base 10 or 12-megapixel cameras. For comparison, the resulting image resolution of a standard 12-megapixel iPhone image is 4023 pixels by 3024 pixels. The image would print 13.4 inches wide by 10 inches tall. This is still enough to make an 8X10 print, but it is nowhere near enough to make a much larger print.

The latest smartphones offer the ability to capture images with more resolution, but the user needs to know how to access the features. Unfortunately, most users capture images using the default standard settings, which lead to great-looking images when viewed on the device, but files are not large enough to support large prints.

The bottom line: When capturing images for print, use a traditional camera or adjust your smartphone settings accordingly.

Getting images off your device and onto your computer

If you intend on processing your images or optimizing them print, they should be moved from your capture device onto your computer. Ideally, you are using a photo management program like Adobe's Lightroom Classic for storage management and editing. This guide assumes this is the case.

For consistency, when the guide refers to getting your files onto your computer, it refers to your chosen storage routine. That could be saving the image files to a specific folder on your hard drive, storing them on a portable hard drive, storing them on your desktop, etc.

Getting image files off a DSLR or mirrorless camera is straightforward. Most cameras have removable SD cards that can be inserted into a corresponding port on the computer. Once inserted, the images can be copied from the card to the storage destination. Ideally, this is done using Lightroom Classic's Import function.

Some cameras allow files to be transferred from the camera to the storage location using a USB cable. While feasible, the transfer time is much longer than using a removable SD card.

Getting image files off a smartphone is not as straightforward. The Apple iPhone and Samsung Galaxy phones allow files to be transferred to a computer using various methods, from using a USB cable to using the respective cloud functionality.

For Apple iPhones:

Apple offers a variety of transfer methods, especially if you use an Apple computer. The easiest file transfer method is to use Apple's Airdrop function, whereby you select the images you want to transfer and then select the airdrop icon indicating your computer. Viola! Your images are now in the Download folder of your computer and can be moved to their storage destination.

If you use a PC instead of an Apple computer, you can download your image files from the Photos app found on your iCloud web page.

Keep in mind that the iPhone's default image file format is HEIC, and Lightroom Classic supports this file format.

For Samsung phones:

The easiest method for transferring image files to your computer is likely to use a USB cable.

Refer to the Appendix for detailed instructions on how to transfer files from your smartphone to your computer.

Storing your images for processing

Whether your image files come from your traditional camera or smartphone, they should be stored in a secure place on your computer for file management and processing.

By computer, I mean the various hard drive configurations that are available, such as internal storage devices, external storage devices, and network-attached storage devices. Where you choose to store your files for safekeeping and access is beyond the scope of this document. When I refer to your computer, I am including these devices.

Several processes must be applied to your images to get them ready for final print. As such, you will need to use photo editing software. My preferred image file management and photo editor is Adobe's Lightroom Classic program (not to be confused with Adobe's Lightroom or Lightroom Mobile apps, which are web/mobile-based). It is the software that will be referenced throughout this guide.

Lightroom Classic (LrC) provides the aspiring printer with three key functions. First, its image file management features in the Library Module are unparalleled. Second, the Develop Module provides the tools necessary to edit your image for print. Third, the Print Module allows for the creation of the final physical print or a print file should the user send it to a third-party printer. All three functions are provided in one convenient tool.

To get the most out of this guide, you should be familiar with importing your images into Lightroom Classic and basic photo editing techniques.

A word about Color Spaces and how Lightroom Classic uses them

An in-depth understanding of color theory is not a requirement to make good prints when you are starting out, but an understanding of color spaces is.

When working across digital and print platforms, it's essential to bridge the gap between them. Color spaces serve as the languages that enable communication between these worlds.

A sheet of paper, with its unique textures and biases, can only reproduce a limited number of colors and tones. Different types of paper offer different ranges of colors and tones.

Computer monitors can display a much wider range of colors and tones than paper. Monitors are also light projectors where paper is a light reflector. This means images viewed on a screen will appear brighter and more saturated than the same image viewed on a print. (This difference in tonality and color is what editing for print attempts to correct.)

There are monitors that render colors using the Adobe RGB color space, or close to it. Look for specs that indicate how much of the Adobe RGB color space is available. 97% to 100% is common on displays geared toward photographers. You will need to make sure the monitor profile is set to Adobe RGB.

Using a slightly more technical description, a color space represents the hue, saturation, and lightness of the visible color spectrum. The larger the space, the more colors are contained in the space and the more latitude you have in working those colors.

The photography and digital communities have settled on three color spaces, and you are likely familiar with two of them: sRGB, Adobe RGB, and Adobe's ProPhoto RGB.

Websites and other digital displays, like phone screens and digital monitors, generally use the sRGB color space to render colors. Therefore, the final versions of your images presented on this medium must be converted to the sRGB color space in order to be accurately presented.

Adobe created the Adobe RGB color space to meet the needs of printers. The number of colors and tones represented in the space is sufficiently large to meet the needs of all paper/printer possibilities.

ProPhoto RGB is the default color space used by Lightroom Classic to preserve color details. It is the largest of the three and will clip less of the captured colors in your image.

Clipping refers to dropping colors that fall outside of the color space. Colors that fall outside the color space will be rendered like the closest color in the space. This could lead to harsh transitions between colors, color banding, and not-so-subtle gradients within a color range.

From largest to smallest, they are ProPhoto RGB > Adobe RGB > sRGB.

Digital cameras handle color space in one of two ways. First, if you capture your images using the RAW file format, the color space for the image is not defined until you import it into your photo editor. The RAW file format is a collection of 1s and 0s representing the red, green, and blue color channels of the image captured on the camera's sensor. It does not embed a color space in the file.

That's not to say your camera doesn't ask you in its menu system to choose between sRGB and Adobe RGB. That choice is applied to the JPEG image displayed on the back screen or viewfinder during image playback or embedded in the JPEG file if that's the format you are using.

Smartphones use the jpeg or HEIC file formats and the sRGB color space by default. This is not the case if you use the optional RAW feature available on most modern smartphones.

Does this matter for making prints? Absolutely! The more colors you have to work with during the editing process, the better. Can images using the sRGB color space make for good prints? Yes. The sRGB color space covers colors typically associated with portraits. Where you run into

compromises is with deeply saturated and very bright colors, such as very saturated reds and sunsets. This is where Adobe RGB and ProPhoto RGB come into their own.

Lightroom Classic uses both the ProPhoto RGB and Adobe RGB color spaces. The Library and Print modules render colors in the Adobe RGB color space, while the Develop Module renders colors using the ProPhoto RGB color space. Don't let this confuse you. The Develop module uses the larger ProPhoto color space so you can get the most editing latitude with the pixels you captured. You likely will not notice the difference in switching between modules. It's only when you soft-proof your image for print that you'll notice the difference.

External editors like Adobe's Photoshop use each of these color spaces. If you plan to use an external editor as part of your workflow, be sure to tell Lightroom to use the ProPhoto space on export.

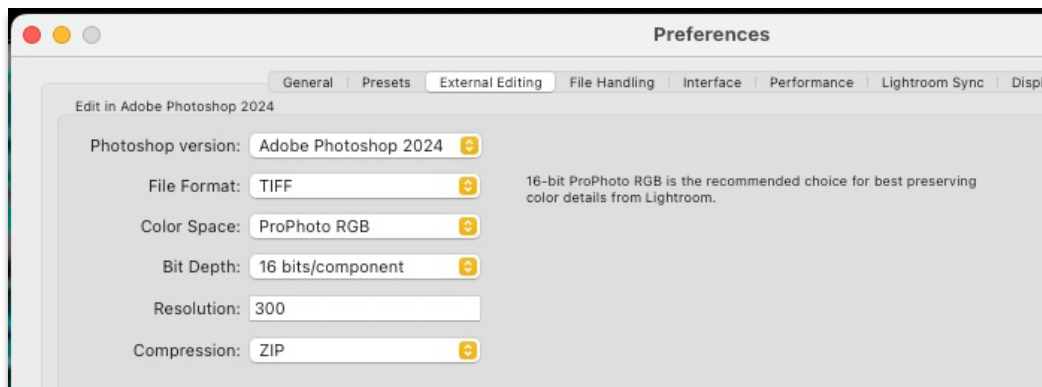


Figure 1: On a Mac, Lightroom Classic's Preferences options. Note under External Editing for Photoshop how the Color Space is set to ProPhoto RGB. Similar settings are available on Windows PCs.

For the best print quality, capture your images using the RAW file format, make sure your monitor is using the Adobe RGB color space to render the most color and tones, and use the default ProPhoto RGB color space in Lightroom Classic.

We will come back to color spaces a little later when we discuss paper profiles.

Will you be making the print, or outsourcing it?

Before moving on, you need to determine whether you will be making the physical print or outsourcing it to a commercial printer. Either way, you will need to know what paper will be used for the print media. Ultimately, you will need to have the ICC profile of the paper/printer combo installed on your computer to edit your image for print.

Think of the ICC profile as the color space for the paper/printer combination. It is a file used by image editing and printing programs that tell the computer what colors and tones can be reproduced on the printed media.

Commercial printers offer a variety of papers to choose from and consequently provide the corresponding ICC profile file as a download from their website. If you are outsourcing the physical printing to a print lab, you will need to download the appropriate ICC profile and follow their instructions for installing the file on your computer. Links to two vendors are provided at the end of this section.

Similarly, Canon and Epson (as well as independent paper manufacturers) offer a variety of papers to choose from, offer the corresponding ICC profiles on their websites, and include them in their printer installation programs.

If you will be printing the image, you likely own a Canon or Epson photography printer, and the ICC profiles for their papers are already installed on your computer. If you will be using a paper from another paper manufacturer, you will need to install the appropriate ICC profile.

If you have a friend who owns a photography printer and they will be making the print for you, ask them to provide you with the appropriate ICC profile file.

Once the ICC profile(s) are installed on your computer, you can select them for use during soft-proofing, the editing-for-print process you will learn about shortly.

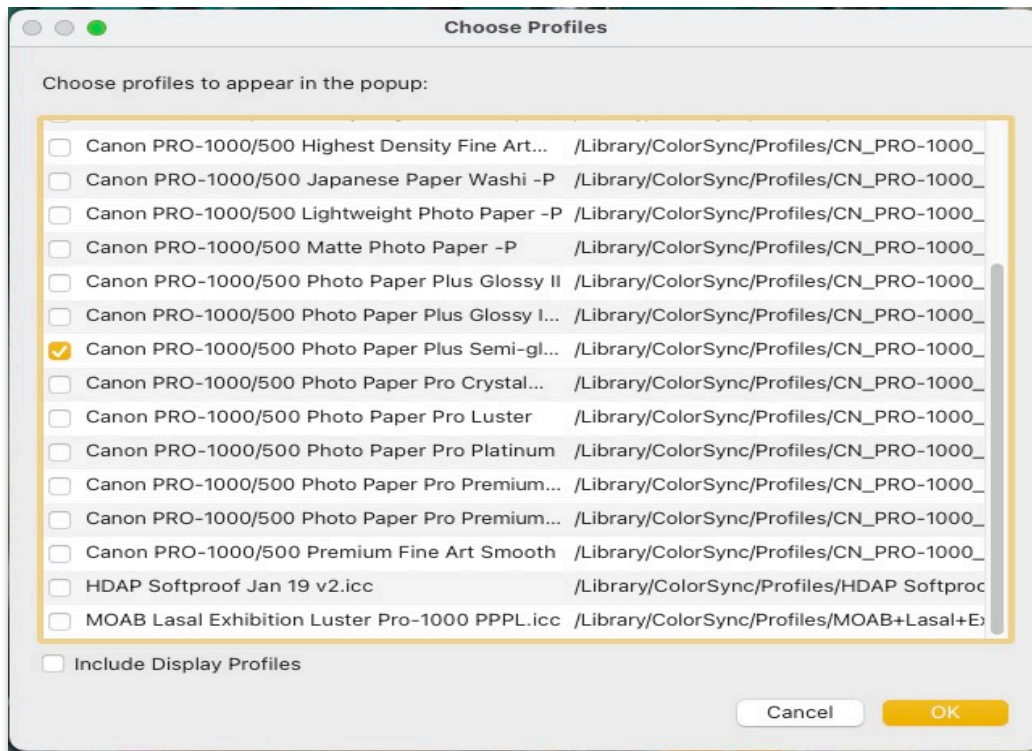


Figure 2: With soft proof enabled in the Develop module, there is a list of the ICC profiles available on my computer when I expand the Profile options in the Soft Proofing panel.

Selecting a paper

There are hundreds of papers to choose from when making a print, and it can be overwhelming to decide which paper is right for your image. As your skill in printing develops, learning which paper – with its physical qualities – is best suited to enhance the story behind your image is part of the art of printmaking. But that’s not what this guide is about.

As someone new to printing, you should choose a paper that can render a wide range of colors and tones, produces deep blacks without losing detail, provides good contrast, and is generally easy to work with.

These characteristics are found in Photo paper, rather than Matte paper. Semi-gloss or Luster photo papers are a great choice when getting started with printing.

Commercial Printers ICC Profiles

<u>Bayphoto</u>	<u>Epson Premium Luster</u> <u>Moab Lasal Exhibition Luster</u>
<u>White Wall</u>	<u>Epson Traditional Photo Paper</u>

Printer Manufacturer Papers

Canon	Photo Paper Plus Semi-gloss Photo Paper Pro Luster
Epson	Premium Photo Paper Semi-gloss

Editing for print

At this point, your image should be edited to achieve your artistic vision. The image's exposure, contrast, color correction, color grading, cropping, and any other edits necessary to articulate your story should be complete. The image should be at its native (post-cropping) resolution. This applies to images captured in RAW and edited by you or images captured in JPEG and edited by your camera/phone.

The image you see on the screen at this juncture should be thought of as “the truth.” This is the look you want to emulate in print, and it is the reference point for determining what edits need to be made to the print version of the image so they look the same (or reasonably close to the same).

Move into the Develop Module to begin editing for print. Your screen should resemble this.

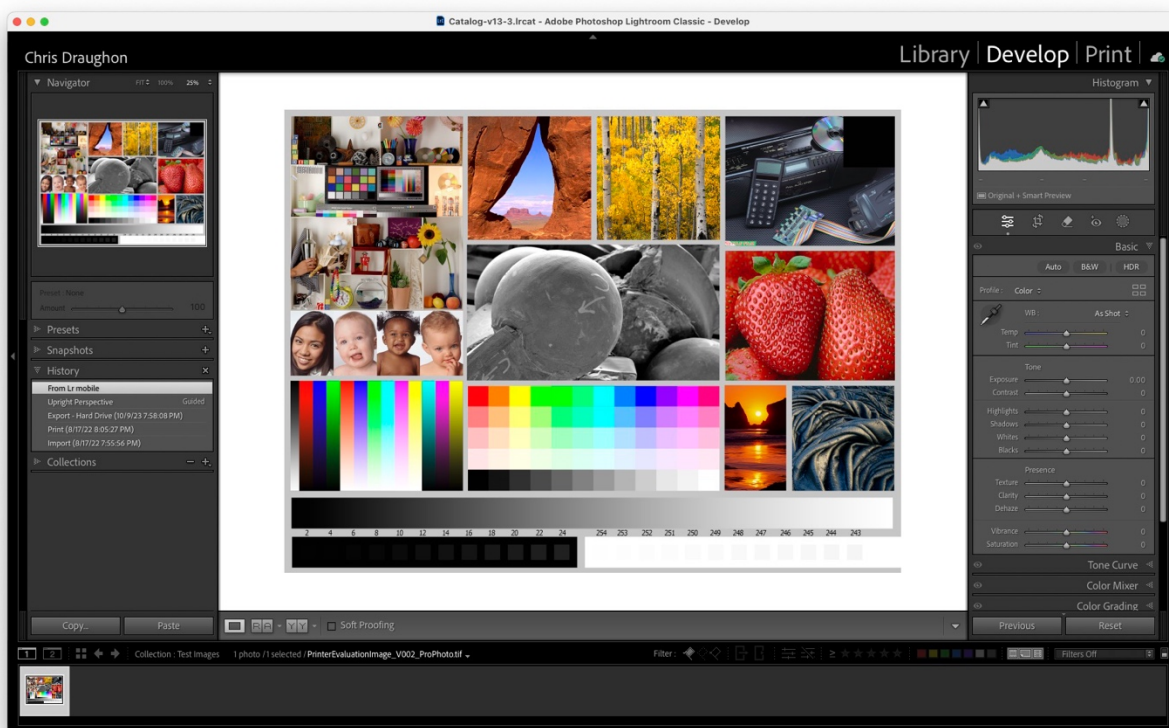


Figure 3: A sample image in the Develop module ready to be edited for printing.

Set the background of the workspace to White. This will emulate a sheet of paper.

Note that your image will likely have adjustments made in the Basic panel.

Enable Soft Proofing by checking the box located beneath the workspace. Next, click Create Proof Copy in the Soft Proofing Panel. Choose the ICC profile applicable to the paper/printer you will be using. If you will be using a commercial print lab, select the ICC profile you installed from their website. Finally, check the box to Enable Paper & Ink. This will create a virtual copy of the file for editing.

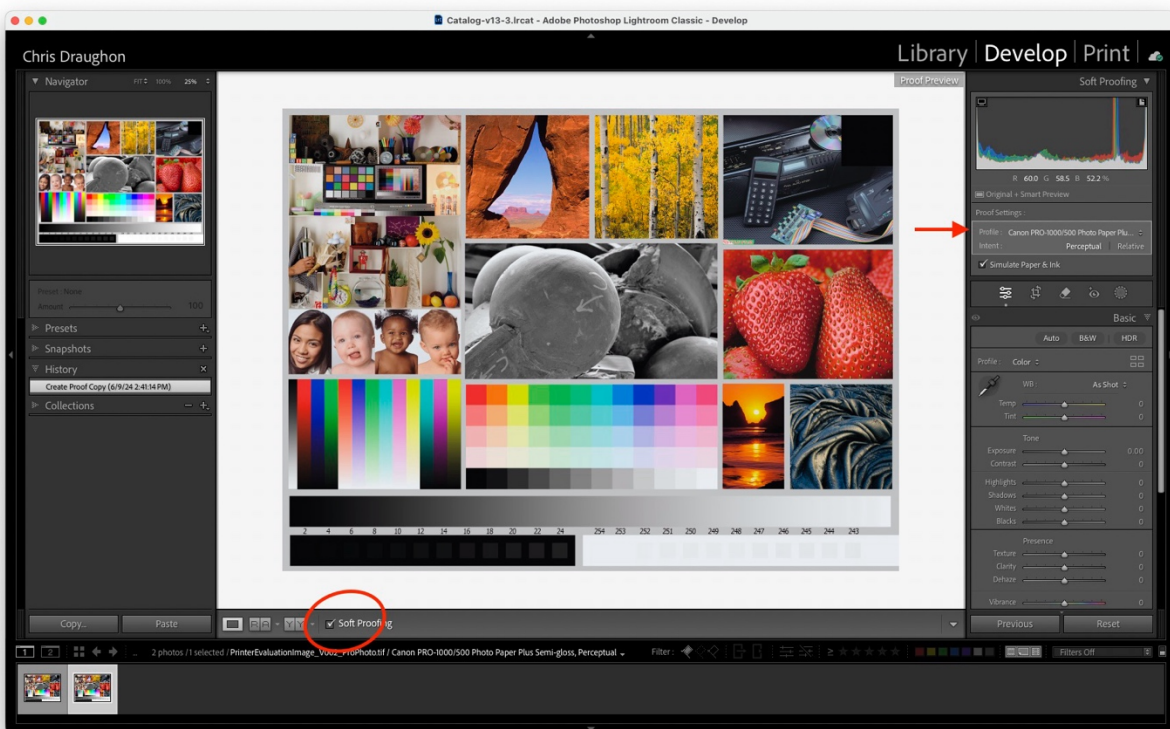


Figure 4: Check Soft Proofing below the workspace and Create Proof Copy in the Soft Proofing panel on the right. Select your paper's profile, Intent, and Simulate Paper & Ink.

With the virtual copy selected, toggle the Soft Proofing checkmark on and off. Notice how the image's tonality, colors, and saturation change. This is Lightroom showing you how your image will look when printed if no adjustments are made. Remember, prints reflect light, whereas monitors project it. As such, prints will always appear darker than what you see on a screen. Along with brightness, contrast, and saturation are reduced.

Before proceeding, click the box in the top right corner of the histogram. This will toggle on a warning about all the parts of the image that fall outside the color space of the paper/printer combination you are using to create your printed image.

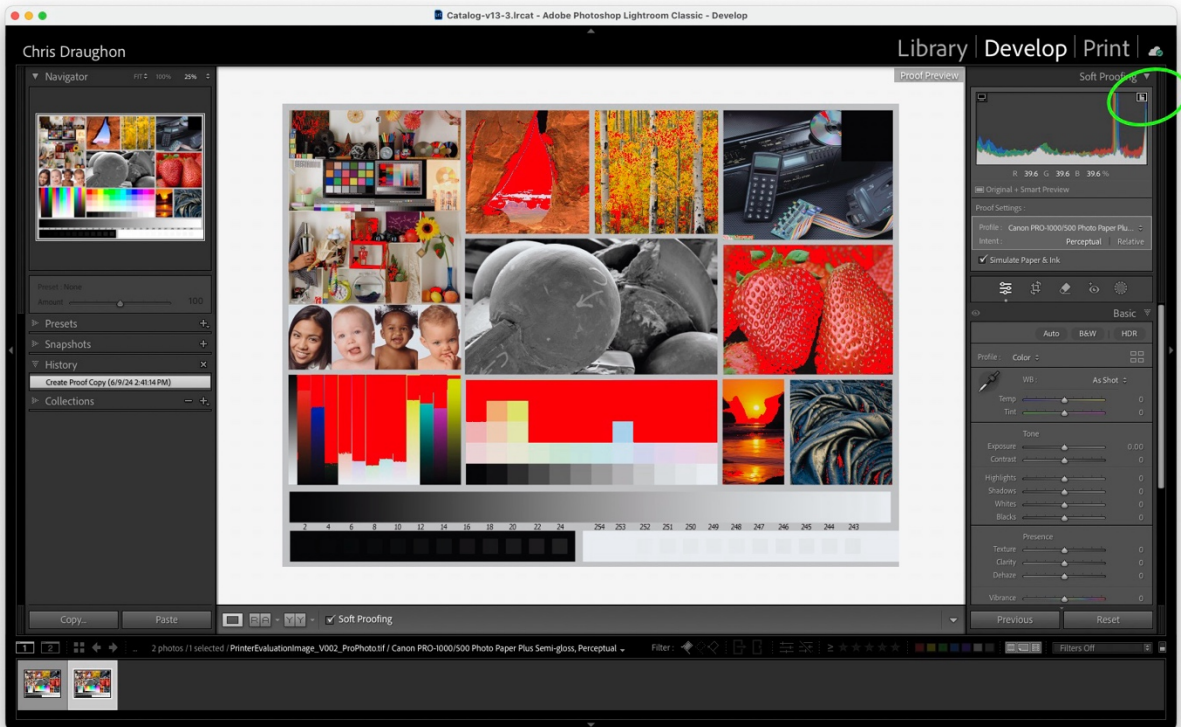


Figure 5: Using the warning triangles located in the histogram displays which part of an image will be out of gamut.

The goal of editing for print is to adjust the soft proof image to the point where you find it looks reasonably like the original version, understanding that the print may not look exactly like the digital. This process is as much “feeling” as it is science. The standard you are shooting for is, “Does it look good to me?” You will need to trust your eyes.

Viewing the final print under optimal lighting conditions is the ultimate judge of whether the print matches the digital. For now, we’ll use soft proofing to get as close as we can.

Let’s get started. If you haven’t already, turn the warnings off. In the Proof Settings, you can choose between two rendering intents: Perceptual and Relative. Toggle between these two options and see which one renders

your image closer to your original. Select the intent that is closest to the original image.

What about the image do you notice that needs to be adjusted? For me, three things jump out. First, the overall brightness of the image needs to be increased. Second, the contrast of the image can be improved. Third, the saturation of the colors needs to be increased.

These three types of adjustments are very common. Some images may require more adjustments than others. As your experience and skills improve, you may find you need to adjust local parts of an image rather than the entire scene. For example, perhaps only some of the colors in the scene need more saturation. Using masks is a great way to accomplish this.

If you've chosen to use Matte paper rather than Photo paper, you may need to adjust the White Balance of the soft proof to compensate for the paper's color cast. Matte papers tend to have a warm/yellow cast.

Adjusting the exposure can increase the brightness. It doesn't take much, maybe only +0.25 to 0.30. Toggle the eyeball at the top left of the Basic panel to note how the adjustment looks.

Moving on to contrast. The image looks flat to me so I need to increase the Contrast slider. Find an area of your image where you can easily see the adjustment being made. For me, I'm focusing on the black and white area in the middle of the image. I increase the Contrast slider to +40. If you place your cursor in the box of the slider, you can hold the shift and the up arrow keys to increase in increments of 10. I toggle the eyeball of the Basic panel on and off until I'm happy with the contrast across the scene.

Adjusting the Saturation slider +10 gets the colors to fall into place. Again, it doesn't take much adjustment to get the results you're looking for.

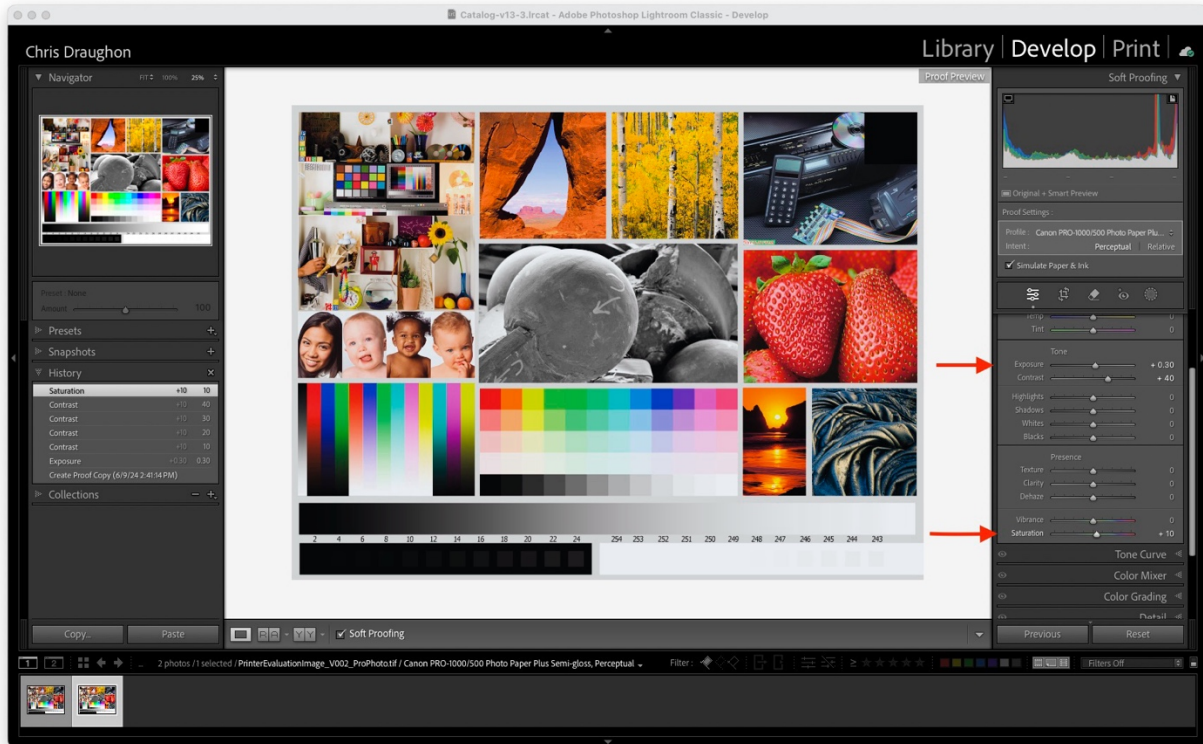


Figure 6: Editing the image for printing requires subtle adjustments.

Once you are happy with how the soft-proof version looks, you are ready to move on to printing.

Sending off to a commercial printer

With the soft proof version still selected, you can now export a file for sending to your printer of choice. Use the Export button located in the bottom left of the workspace to open the Export dialogue box.

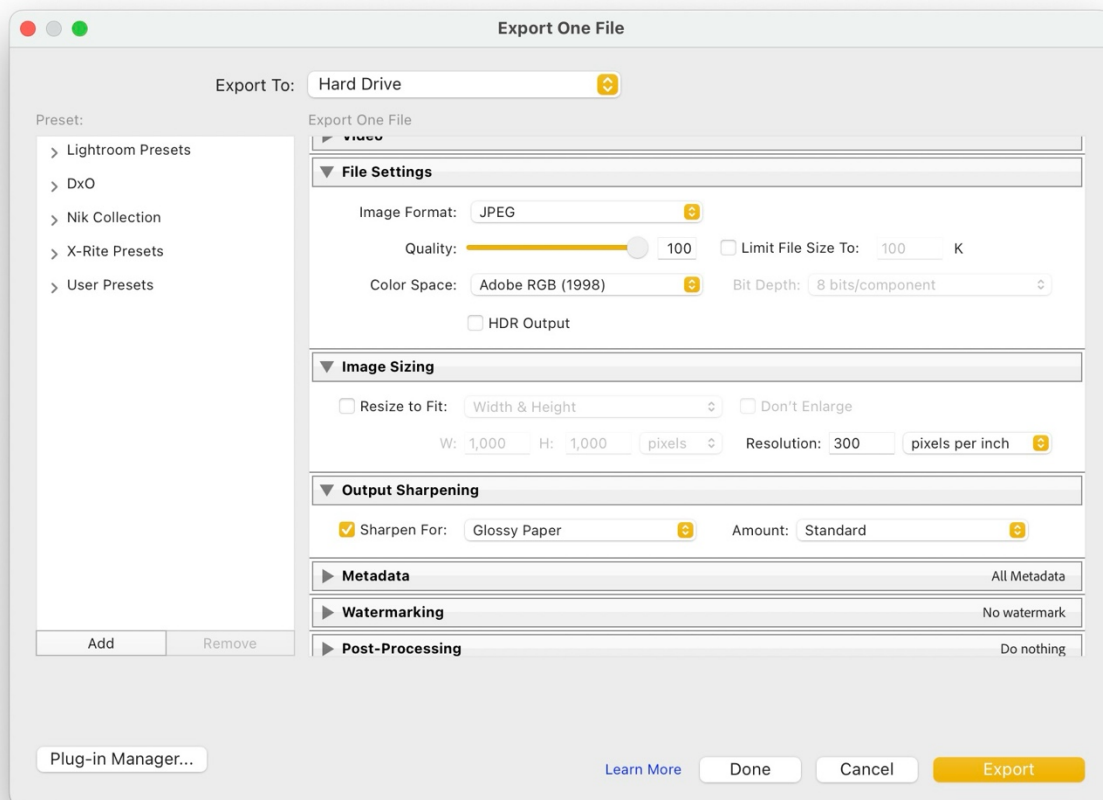


Figure 7: Lightroom's Export dialogue box is where you create files for uploading to your commercial printer.

The above image does not show the Export Location or File Naming. Be sure to designate an appropriate file location to receive your exported file. I recommend saving the file to your desktop. Give the file a meaningful name. For example, consider using “your name_file name_resolution size.”

Under File Settings, select JPEG as the image format, highest quality, and select Adobe RGB as the Color Space.

Under Image Sizing, set the Resolution to 300 pixels per inch. This is a good default setting and works well for prints that are 15 inches or smaller along their longest edge. You can determine the native size of your image (how big it will be at 100%) by dividing the width and height pixels by 300. Recall from the early example an image with dimensions of 6,000 x 4,000 pixels, the print will be 20 inches wide at 100% of its size.

Under Output Sharpening, check the Sharpen For box and select Glossy Paper and Standard for Amount. Images will inherently lose some of their sharpness when printed. This is due to the fibers of the paper and ink absorption. These settings will marginally increase the image sharpness so the final print looks as intended. You will note the increased sharpness of the image if you open the output file and view it on screen. Do not be alarmed by this. It is a compensating process that addresses the loss in sharpness of prints. If you elected to use a Matte paper, select it rather than Glossy from the options.

Upon clicking the Export button, your file will be created and stored in the designated location. You are now ready to send it to the commercial printer of your choice.

A note about cropping your image for print

It is very likely that the image you created in camera or after editing will have an aspect ratio that is different from the typical, standard print aspect ratios of 3x2, 4x5, 1x1, or 16x9 (or a multiple thereof). Unless you have been very conscious of maintaining your camera's aspect ratio through the editing process, your print-ready image may have dimensions that fall outside these standards. In that case, you will need to select a print size that is closest to your image size and then crop down the area to print using the commercial printer's online ordering tools. Ideally, you should be able to position the image in the template in a way that minimizes the impact of the scene.

Mounting and framing your print

The two online commercial printers referenced above will also mount and frame your image, making the entire process seamless. When it comes to matting, framing, and glazing, there are many options to choose from.

Should you include a mat border around your print? Mats serve both a functional and decorating purpose contributing to the longevity and visual appeal of the framed print. A mat provides a visual border that enhances the artwork by creating a transition between the frame and the print, drawing attention to the artwork more effectively. Mats can be used to adjust the proportion of the print in relation to the frame, creating a more balanced display. Finally, mats can help direct the viewer's focus to the print itself, minimizing distractions from surrounding elements.

Using the 24-megapixel image with a resolution of 6,000 by 4,000 pixels (or 20 inches by 13.33 inches), our image has a 3x2 aspect ratio. The closest standard option on the BayPhoto website is 18x12. Opting for this size will ensure that the entire image is maintained after reducing its size. If we add a 3-inch mat along with a 1-inch black frame, the overall artwork will be 26 inches wide and 20 inches tall. Notably, the mat is one-third the size of the width of the print, allowing for a nice amount of space between the frame and print, drawing attention to the print.

Glazing refers to the protective covering that is placed over the print within the frame. The covering is usually made of glass or acrylic.

All that's left is to pay for the print.

Printing with your own printer

If you've read this far and are still reading, I assume you own a [Canon](#) or [Epson](#) photography printer. Both companies make excellent printers. I use a Canon ImagePROGRAPH Pro-1000, but the process outlined below works for any printer.

It is important to note that if you do not own a photography-centric printer, the prints will not look as they should. Your best option will be to use a commercial printer or a friend with a printer.

This guide uses the Print module within Lightroom Classic. The module does a very good job of simplifying the layout of the print and workflow. The most efficient approach is to work from left to right in the workspace. I will cover the key elements you need to be aware of to create a great print.

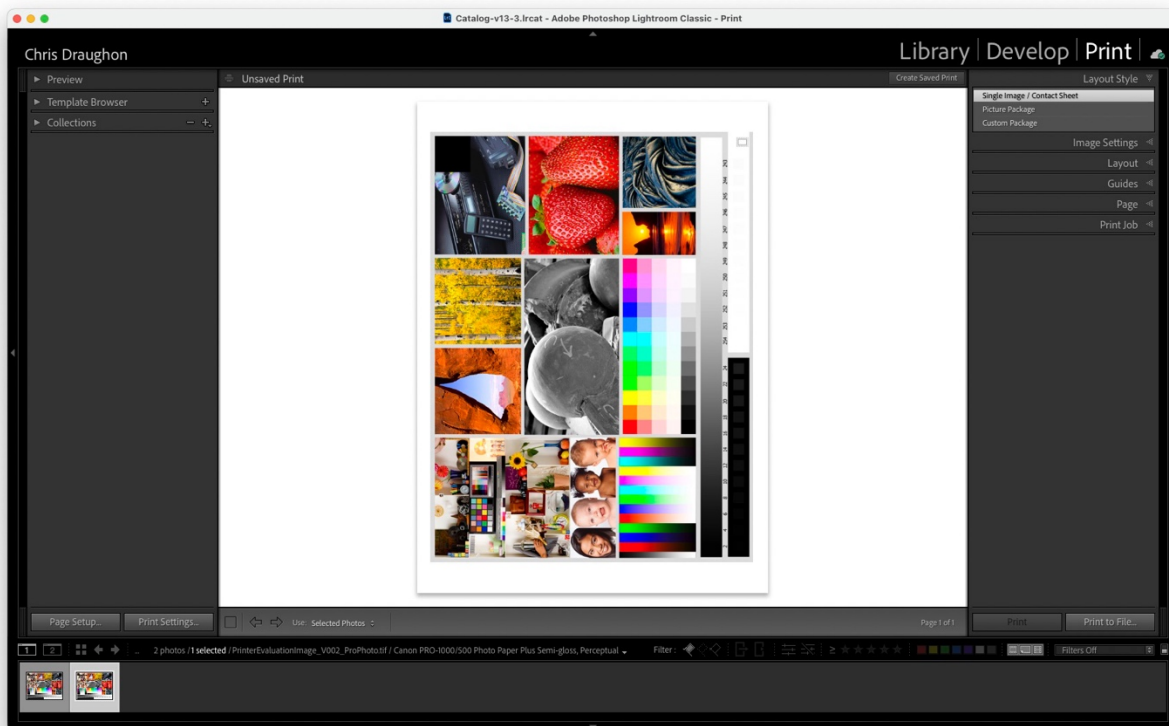


Figure 8: Lightroom Classic's Print module with soft proof version of the image selected.

Before making a finished print, it is good practice to execute a Nozzle Check of your printer using its Maintenance menu. This will print a diagnostic test to visually identify any problems with how your printer is

laying down ink. Presuming the test is positive, you can load a sheet of paper. If you are not familiar with a Nozzle Check, refer to your printer's manual for support.

I previously discussed paper selection, but let's talk about paper size now. Most home photography printers can support sheet sizes up to 13 by 19 inches. The size of the paper you use is influenced by the size of the print you want to make. The three sizes you are most likely to encounter are 8x10, 8.5x11, and 13x19. You might think you could use an 8x10 sheet for an 8x10 print, but that's not correct. You will need to leave at least an ½ inch margin around your image to accommodate mounting behind a mat. The paper you use will always be larger than the print you want to make.

The following tables provide standard image sizes along with appropriate frame sizes. These assume mats are included in the finished artwork.

4 x 5 Aspect Ratio Images

Image Size	Paper Size	Frame Size
8 x 10	8.5 x 11	11 x 14
16 x 20	Use commercial printer and framer	

2 x 3 Aspect Ratio Images

Image Size	Paper Size	Frame Size
8 x 12	13 x 19	12 x 16
10 x 15	13 x 19	16 x 20
12 x 18	13 x 19	18 x 24
16 x 24	Use commercial printer and framer	

In the event your image does not fit neatly into one of the above aspect ratios, you have two options. The first is to keep the aspect ratio of the image as is and apply the same principles when selecting your sheet and framing size. The second option will be to “zoom the fit” the image into a standard image size. The image will be cropped to fit the image cell, and you will need to manually align the part of the image you want your viewer to see in the print area. An example follows.

Please handle the paper with care. It is recommended to wear museum gloves to prevent oils and dust from getting on the paper. Before loading the paper into the printer, use a rocket blower or compressed air to ensure there is no dust on the paper. Check all corners to make sure the paper does not have any folds or defects. Finally, load the paper with the printable side facing the correct orientation. Photo paper typically only has one side that can receive ink.

With the Print module open and the soft proof version of your image selected, begin by opening the Page Setup dialogue box and selecting your printer, paper size, and Portrait orientation. Click “OK”. This dialogue box is responsible for telling Lightroom what printer will be used, what size the paper will be, and the orientation. The information will be used to build the page layout,

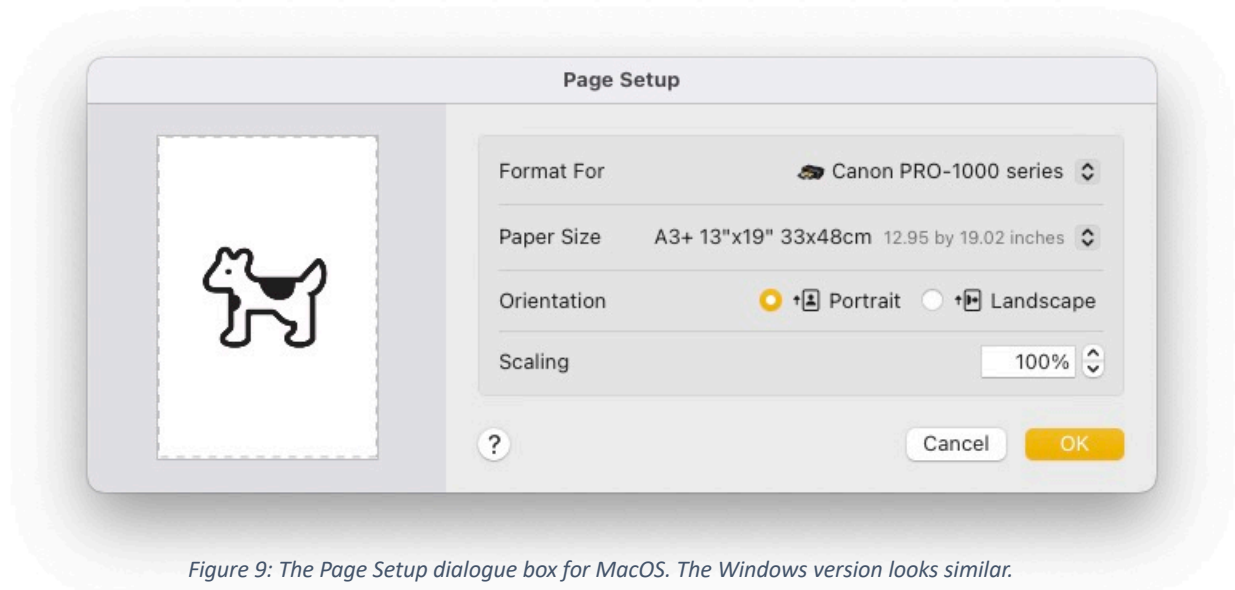


Figure 9: The Page Setup dialogue box for MacOS. The Windows version looks similar.

Next, use the button located next to Page Setup to open the Print Settings dialogue box. This opens the print driver for your specific printer, where you will define the paper profile, specific paper selection, and print quality. The Print Settings box will look different on a Windows PC, but the details are the same.

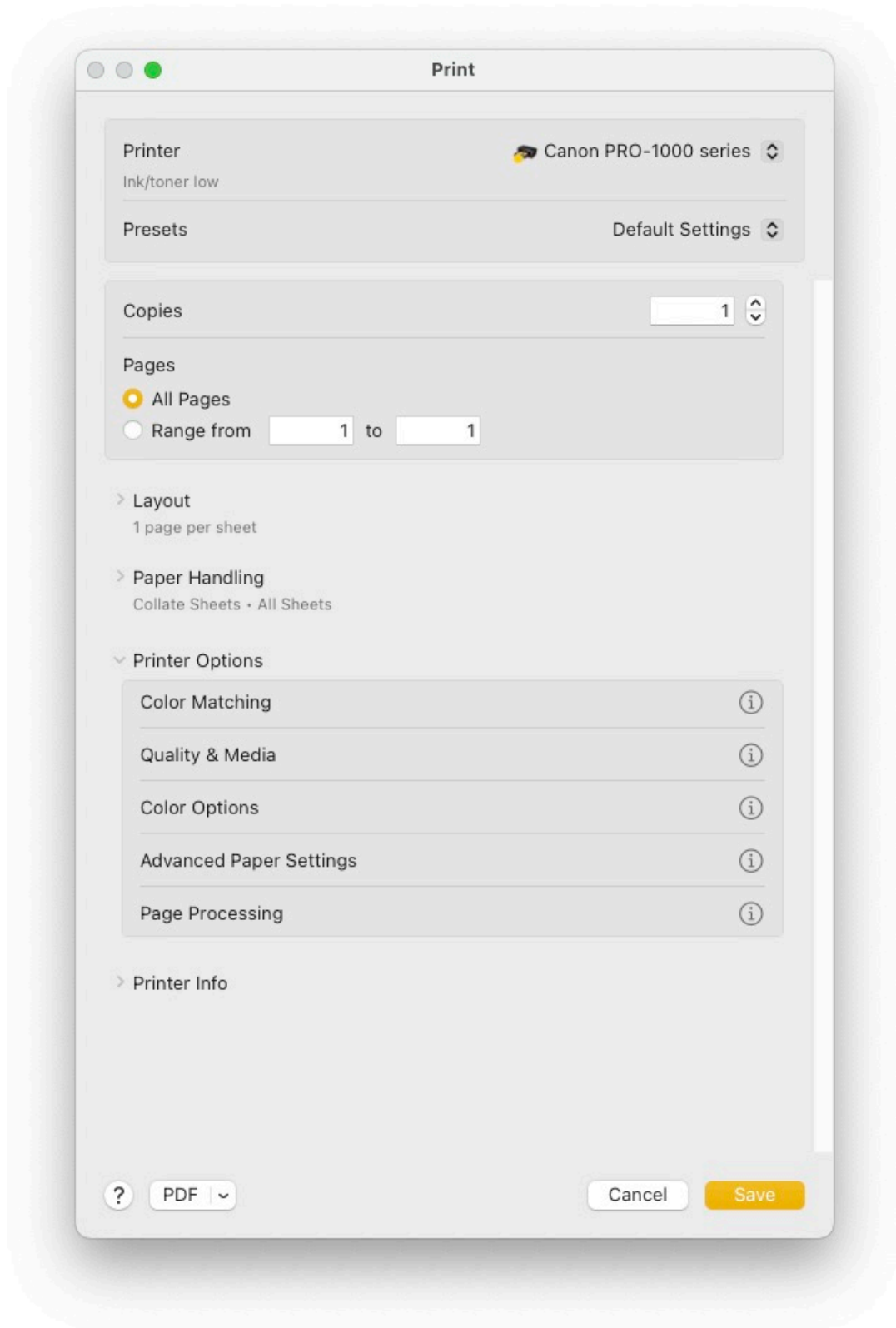


Figure 10: The Print Settings dialogue box on MacOS. The Printer Options section has been revealed.

Confirm your chosen printer is selected. The next options to designate are under Quality & Media and Color Matching.

Under Quality & Media, select the Media Type as the paper you will be printing on and select your preferred Print Quality. Standard or Highest will be fine.

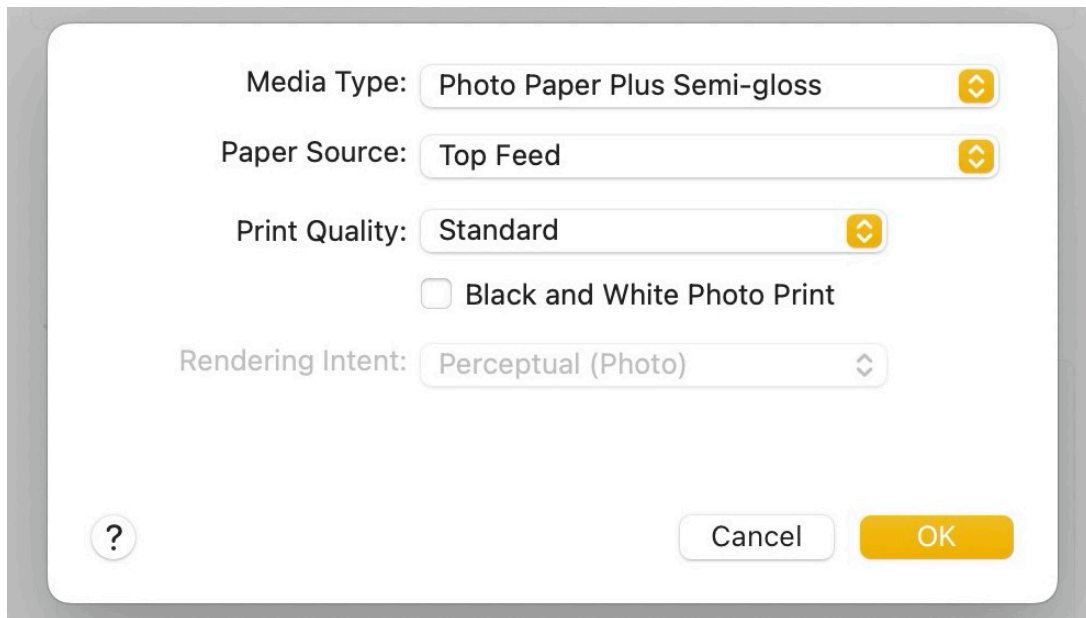


Figure 11: The Quality & Media dialog box is where you define the specific media and print quality. Do not check Black and White Point. Rendering Intent is controlled by the Print Job panel.

Next, select Color Matching. This dialog box uses the profile you designate in the Print Job panel, which I will demonstrate in a moment. If you use a paper profile in the Color Management section of the panel, ColorSync (Apple's process for using profiles) will be selected. Windows computers should have the profile defined here. If you opt to let the printer manage color, the alternative will be selected.

You should confirm this selection again after configuring the panel sections.

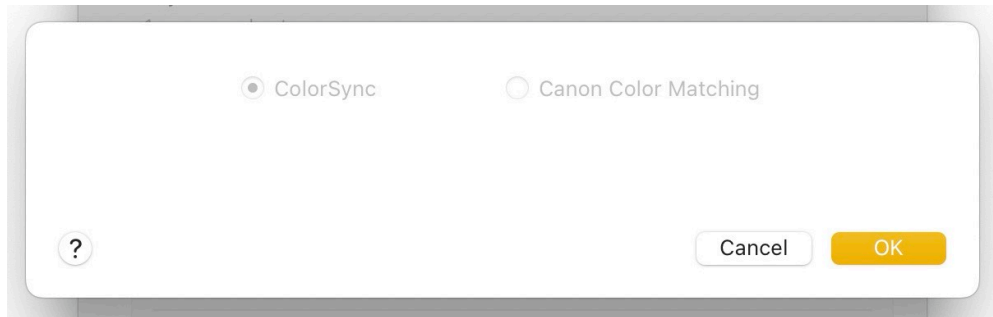


Figure 12: The Color Matching dialogue box on MacOs is different on Windows. ColorSync is selected by default since an ICC profile is being defined in the Print Job panel.

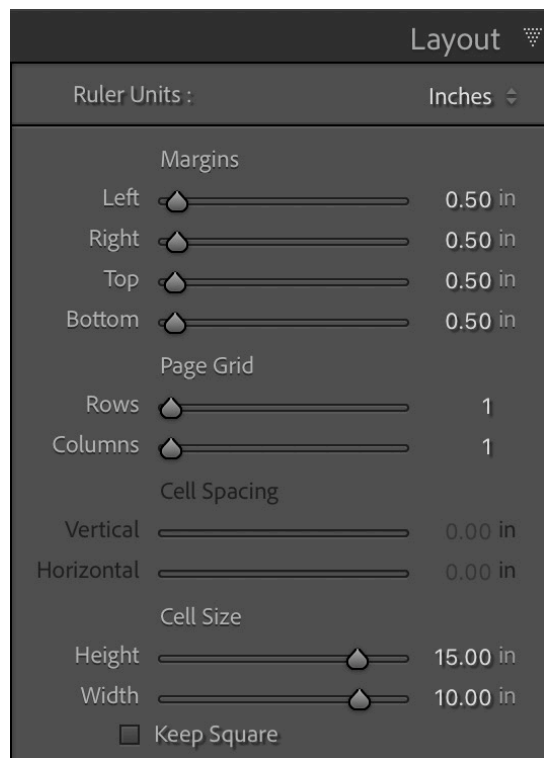
After making these settings, click “OK” and then “Save” to close the Print Settings dialogue box.

Moving on to the right side panels, under the Layout Style panel, select Single Image / Contact Sheet.

Under the Image Settings panel, click Rotate to Fit. Click Zoom to Fill to crop and size your image to a standard size. Leave it unclicked to print a nonstandard image size.

The Layout panel requires close attention. This is the panel where you define your image size cell and margins.

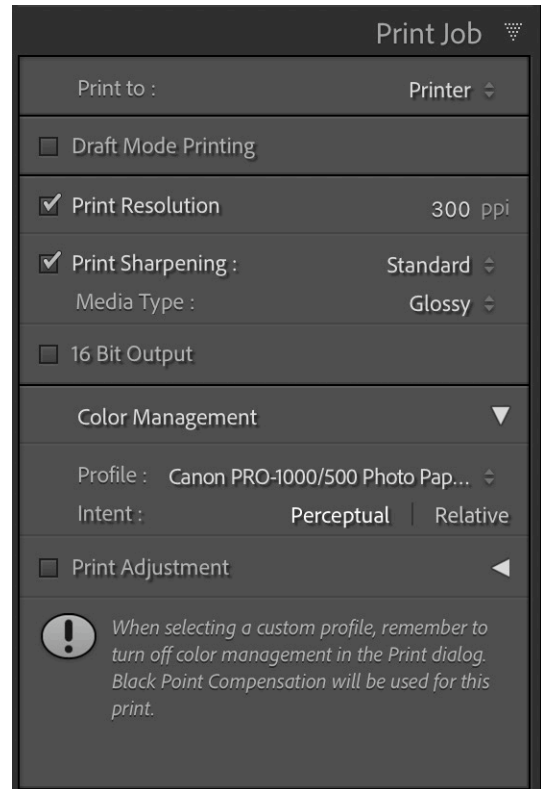
First, set the Height and Width of your cell size, i.e. the size of your image. Remember the page is oriented in Portrait position, so landscape orientation will be printed sideways. In my example, I am electing to use a 2 x 3 aspect ratio and sizing the maximum sizes for this particular paper. Next, input a consistent value for each margin. I recommend ½ inch for larger prints. You might find it easier to type the value rather than using the slider to define these values.



Nothing needs to be selected in the Guides or Page panels.

Open the Print Job Module and click Print Resolution, setting the resolution to 300 ppi for Canon printers and 360 ppi for Epson printers. Click Print Sharpening and select Standard.

Under Color Management, select the profile for your chosen paper. If you are using Canon paper and a Canon printer (or Epson paper and Epson printer), you can opt for Managed by Printer. Make sure to select the Intent you selected when editing your soft proof.



Before clicking print, go back to Print Settings, Color Matching and make sure ColorSsync (or the ICC profile) is selected if you designated the profile in the Print Job panel. If you opted for Managed by Printer, the Color Matching selection should indicate Managed by Canon/Epson.

If your printer has a front panel that allows for user input of paper size and media type, make sure those values match what you have defined in these settings.

Now you can click Print.

Judging your printed image for quality

Let your printed image sit for a few minutes before handling it. A couple of minutes should be enough time for the initial drying to take place and for it to be safe to handle.

Inspect your print for any noticeable defects. You might find minute areas where the ink flaked off due to dust being on the sheet. Another common issue is to have folds along one or more corners. This is likely due to physical handling rather than the printer. Most prints will turn out without any issues.

Occasionally, you will encounter more extensive problems like banding, blotches of ink in the margins, or missing sections. These are symptoms of printer maintenance. If you encounter these types of issues and are not familiar with resolving them, I recommend using a commercial printer to complete the artwork.

You should view your image under appropriate lighting to determine if it has the correct tonality. Many people feel like their prints are too dark. I have found they are viewing the print under dim lighting, which gives a false impression. Either view the print under direct sunlight or under a daylight-balanced (5500 to 6000 kelvin) light bulb. Refer to the image on the title page for an example of a simple viewing area. Do not use warm, sometimes referred to as soft lighting by the big box stores, to view your print. It will look dark.

Another great light source is the [Aputure MC](#), a handheld high quality daylight daylight-balanced LED light.

I will reiterate that the printed image will not look exactly like the digital image due to the nature of how light interacts with the mediums. The digital image will naturally appear brighter and more vibrant. Your measurement and determination of the print should ultimately rely upon your eyes - does it look good?

Assuming it does look good, it's time to mount and frame your image. The same information for mounting and framing described under the printing with a commercial printer section applies here. Take your print to a local

framer for mounting and framing. Michaels and Hobby Lobby both provide framing services.

Appendix

File Transfer From Smartphones To Computer

Samsung Galaxy

1. *Using a USB Cable*

- Use a USB cable to connect your Samsung phone to your computer.
- Swipe down from the top of your phone screen to access the notification panel, then select the USB notification and choose "Transfer files" or "File transfer" (MTP).

Windows PC

- Open File Explorer and locate your Samsung phone under "This PC."
- Navigate to the "DCIM" folder to find your photos.
- Copy and paste the desired photos to your computer.

Mac PC

- Download and install the Android File Transfer application from the official website.
- Open Android File Transfer and navigate to the "DCIM" folder to access your photos.
- Drag and drop the desired photos to your computer.

2. *Using Samsung Smart Switch*

- **Install Smart Switch:** Download and install Samsung Smart Switch on your computer.
- **Connect Phone:** Open Smart Switch and connect your Samsung phone to your computer using a USB cable.
- **Transfer Photos:** Follow the prompts in Smart Switch to transfer photos and other data to your computer.

3. *Using Google Photos*

Backup Photos to Google Photos:

- Open the Google Photos app on your Samsung phone.
- Tap on your profile picture and select "Photos settings" > "Back up & sync."
- Ensure "Back up & sync" is turned on.

Access Google Photos on Computer:

- Open a web browser and go to Google Photos (<https://photos.google.com>).
- Sign in with the same Google account used on your Samsung phone.
- Download the desired photos to your computer.

4. *Using Samsung Cloud or OneDrive*

Backup to Samsung Cloud:

- Go to Settings > Accounts and backup > Samsung Cloud.
- Ensure that Gallery sync is turned on.

Access Samsung Cloud on Computer:

- Go to the Samsung Cloud website and sign in with your Samsung account.
- Download your photos from the Gallery section.

Using OneDrive:

- Open the Gallery app on your Samsung phone.
- Enable "Sync with OneDrive" from the settings menu.
- Access OneDrive on your computer to download the synced photos.

5. *Using Bluetooth or Wi-Fi Direct*

Bluetooth:

- Pair your Samsung phone with your computer via Bluetooth.
- Select the photos you want to transfer, tap the share icon, and choose Bluetooth.
- Select your computer as the target device.

Wi-Fi Direct:

- Enable Wi-Fi Direct on both your Samsung phone and computer.
- On your phone, select the photos you want to transfer, tap the share icon, and choose Wi-Fi Direct.
- Select your computer from the list of available devices.

Apple iPhone

Mac PC

1. *Using AirDrop*

- Ensure both your iPhone and Mac are connected to the same Wi-Fi network and have Bluetooth enabled.

- On your iPhone, open the Photos app and select the images you want to transfer.
- Tap the Share icon (a box with an arrow pointing up).
- In the Share menu, select AirDrop.
- Choose your Mac's name from the list of available AirDrop devices.
- On your Mac, you will receive a notification asking if you want to accept the files. Click Accept.
- The files will be transferred to your Downloads folder. Click and drag the files to your preferred location.

2. *Using the Photos App*

- Provided your photos are synced to iCloud, open the Photos app.
- Select the photos you wish to export to a different folder. Use CMD+left click to select multiple files.
- Select File/Export/Export X photos from the menu bar.
- Select your preferred file format and click Export. (Remember, Apple's default format is HEIC.)
- Navigate to your preferred storage destination and click Export

Windows PC

1. *Using a USB Cable*

- Connect your iPhone to your computer using a USB cable.
- Unlock your iPhone. If prompted, tap "Trust This Computer" on your iPhone.
- On your computer, open File Explorer.
- In File Explorer, you should see your iPhone listed under This PC or Devices and Drives. It might be named something like Apple iPhone.
- Double-click your iPhone to open it. You might see folders like Internal Storage and DCIM.
- Open the DCIM folder. This is where your photos and videos are stored. You will see multiple folders with names like "100APPLE," "101APPLE," etc.
- Select the photos and videos you want to transfer. You can select multiple files by holding down the Ctrl key and clicking each file. Copy the selected files by right-clicking and choosing Copy or by pressing Ctrl+C.

- Paste the files to a location on your computer by navigating to the desired folder, right-clicking, and choosing Paste or by pressing Ctrl+V.

2. Using Your iCloud.com Account

- On your computer, sign in to your iCloud account in a web browser.
- Select the Photos icon from the group of available apps.
- Use Shift+left click to select the image files you wish to download to your computer.
- Right click on one of the selection and click Download X Items. The files will be placed in a Zip folder and saved to your Downloads folder.
- Open the Download folder in Finder and double-click the designated folder. It could be titled Icloud Folder.
- Copy and paste the files to the storage destination of your choice.