

My Prints Doesn't Match the Monitor

January 29, 2026

with Printer Setup Addendum

February 17, 2026

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Is Trying to Match the Monitor and the Print A Fool's Errand? - Short answer, "Yes"

The Monitor

- Emits light.
- RGB colors.
- Higher color space.
- Dependent on settings.
- Dependent on viewing environment.

The Print

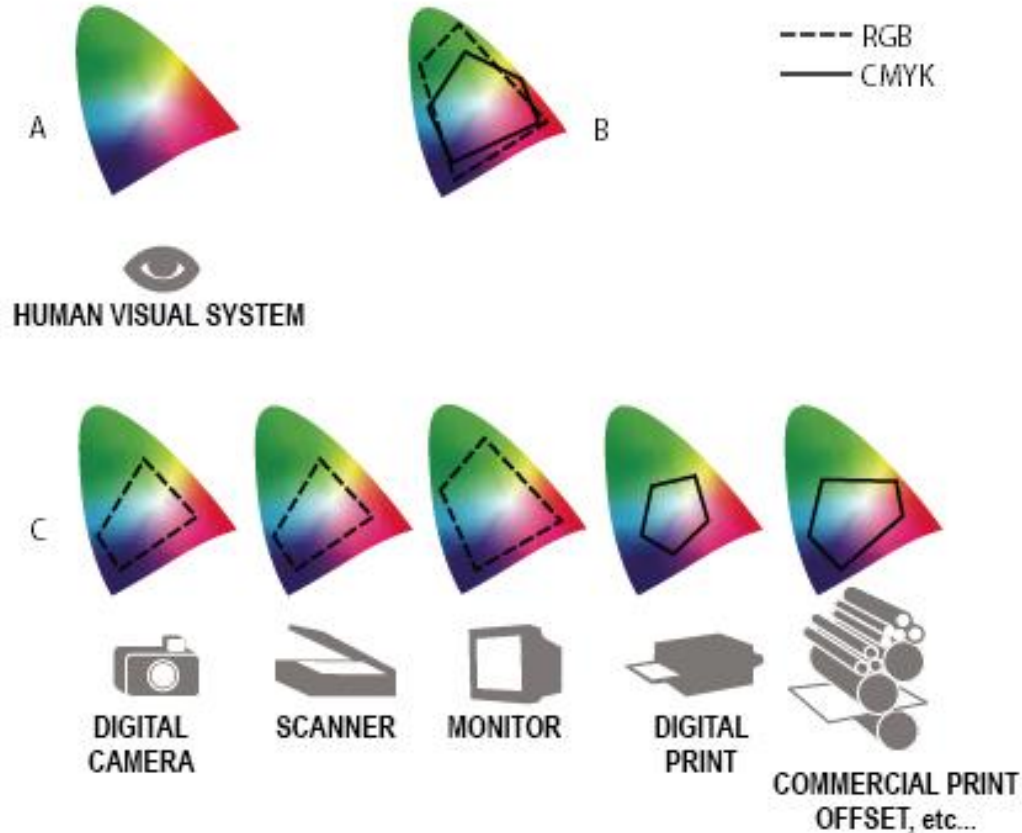
- Reflects light
- CMYK colors
- Smaller color space.
- Dependent on the printer inks and the paper.
- Dependent on viewing environment.

All Hope is Not Lost

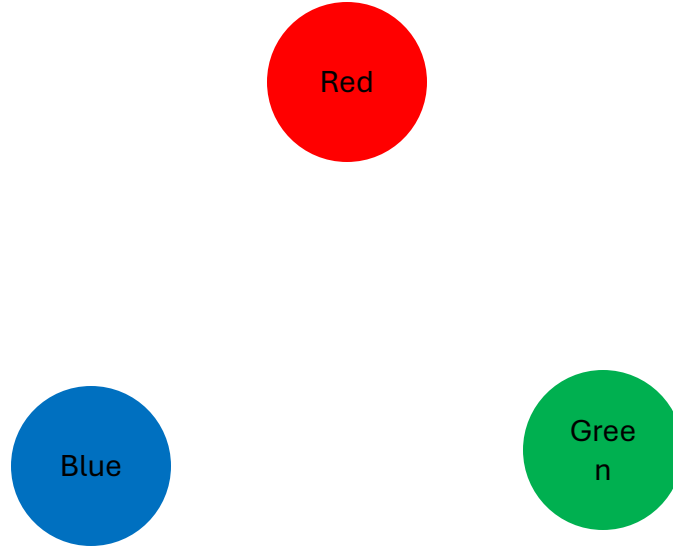
- Have realistic expectations. Mine are:
Produce a print that meets my artistic expectations (knowing it will not exactly match the monitor).
- Calibrate your monitor.
- Control the editing environment.
- Use ICC profiles for color prints.
- Control your print viewing environment.
- Know your printer and papers.
- Learn to soft proof.
- Print early and print often.

Some Basics

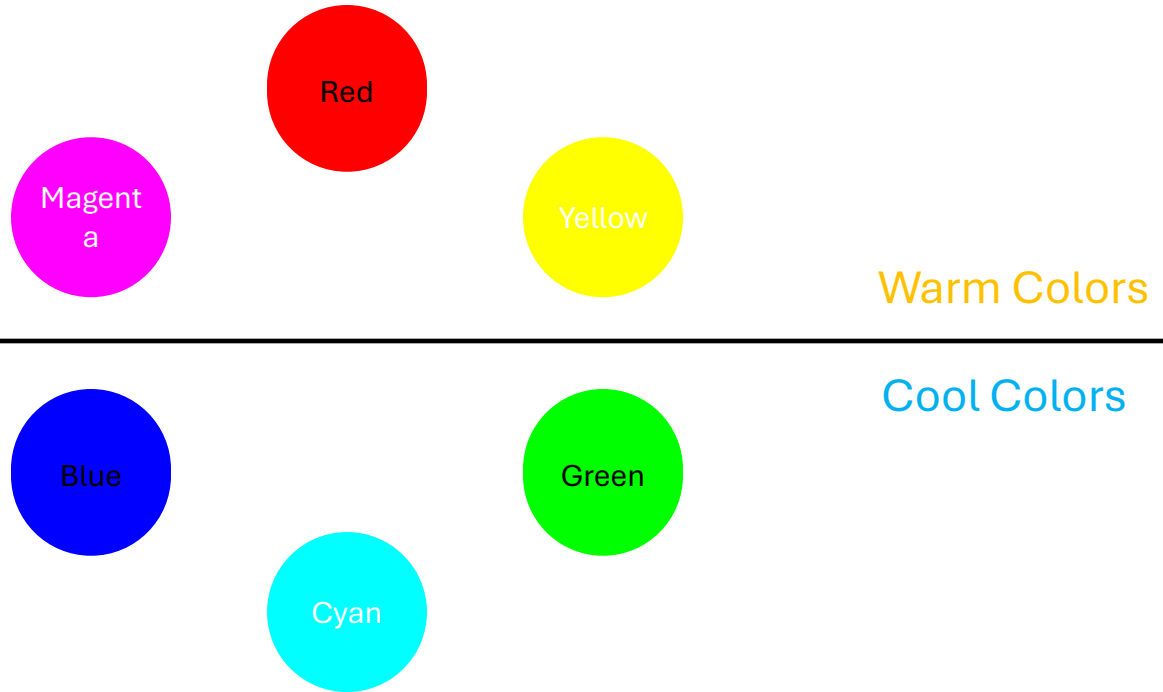
From the “real world” to the print



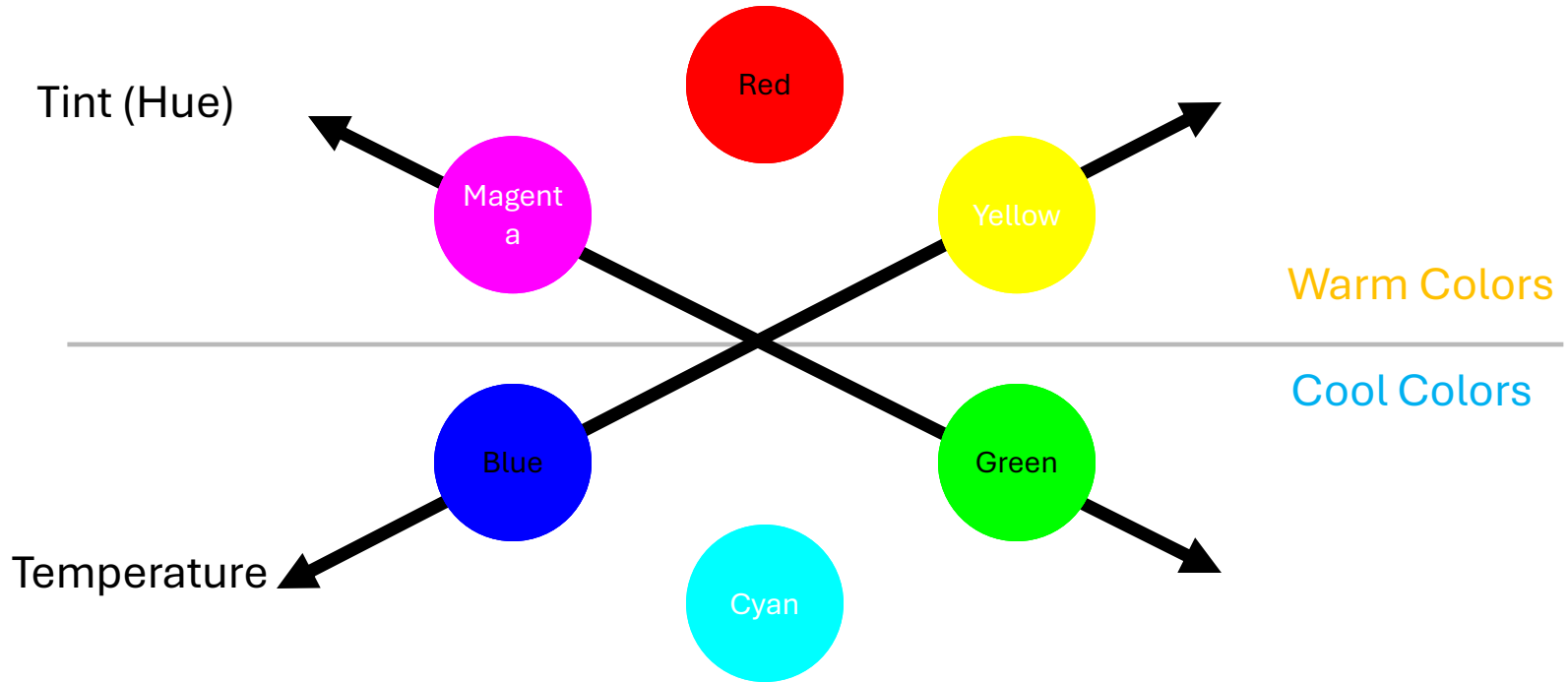
Primary Colors in Photography (RGB)

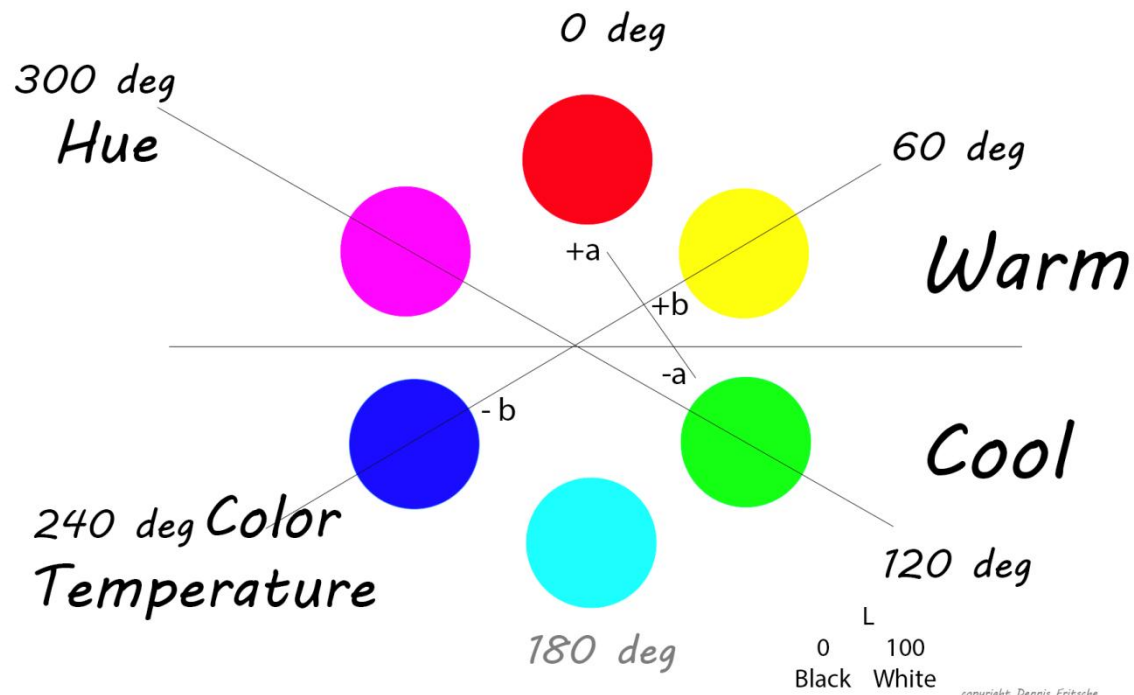


Add the Secondary Colors (CYM)



White balance controls





What is “white balance”

- White balance is adjusting the colors to make the subject appear “natural”.
- When we view white piece of paper under different light our brain adjusts the color for us and makes things “natural” and comfortable.
- When we take a picture, the subject takes on the color of the light and it is much more apparent that there could be a colorcast.
- We can adjust the colors at the time of capture or in post processing.
- While shooting, use your camera’s setting or create a custom white balance setting for the lighting conditions.
- In post processing, use the color picker or custom set the colors.
- Doing this guarantees that white, grays, and blacks are neutral and that the other colors are correct.

Is White balance important?

- Yes. It is an important part of the photograph.
- If you are photographing people or products, you will want to be very careful about getting a neutral white balance.
- Otherwise, the white balance is an artistic decision. Some like it hot and some like it cold.
- I shoot outdoor scenes under natural light with the camera set at “Daylight”. And will occasionally adjust based on the scene. This renders
 - Neutral daylight
 - Cool shadows
 - Warm sunsets
- The “Automatic” settings are also good

Two Main Problems We Encounter in Matching the Print and Monitor

Colors Don't Match

- Monitor not Calibrated
- Not using printer ICC profiles
- Colors are Out of Range for the Paper and Ink
- Image editing environment

Print is Too Dark

- Monitor is too bright
- Image editing Environment
- Print viewing environment
- Not using printer ICC profiles

Good color management and coping strategies are essential to achieving repeatable results.

Color management

- Your camera, monitor, and printer each interpret colors differently. And they each have a different range of colors they can represent.
- *Color Management* refers to calibrating (profiling) all your devices to know standards so that you have a better chance of getting the color you want.
- A good overview can be found here.
http://www.xritephoto.com/ph_learning.aspx?action=browse
- Your camera is profiled by the software manufacturer such as Adobe (for RAW) and is generally acceptable. You can profile your camera with a device such as the *Color Checker Passport*.
- Your printer/paper combination is profiled by the paper manufacturer (.icc profile) and is generally very good. You can make custom profiles with a colorimeter.
- You must profile (calibrate) your monitor.

Editing Environment

- Try to keep a consistent environment.
- Avoid direct light on the monitor to minimize reflections.
- Keep the room illumination low but not dark.



Monitor Calibration

- Monitor calibration consists of
 - A color measuring device (colorimeter)
 - Software
- Colorimeters
 - Calibrite (previously i1Display) *Display Pro* (\$279)
 - Calibrite *Display 123* (\$119)
[Display devices - Calibrite - United States](#)
 - Datacolor *SpyderExpress Colorimeter* (\$119)
[Color Management Tools - Color Management | Datacolor](#)
- Software – supplied by the colorimeter maker or the monitor maker.
- My recommended settings are
 - Advanced (may need to adjust your monitor)
 - Set luminance to 75 for my room (125 for normally lit room)
 - Target White Point D65
- A profile for your monitor is generated and saved. The system automatically uses it when you start up.

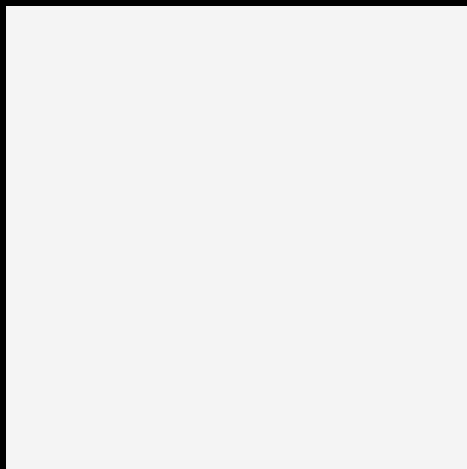
Print Too Dark

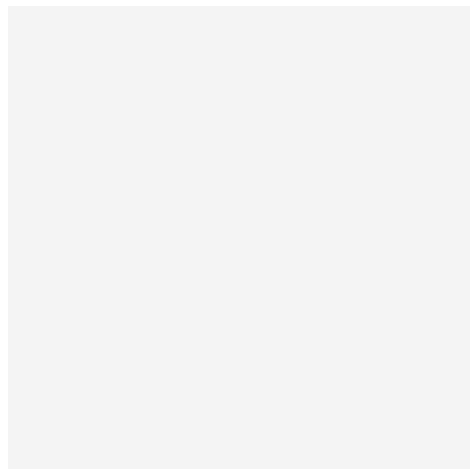
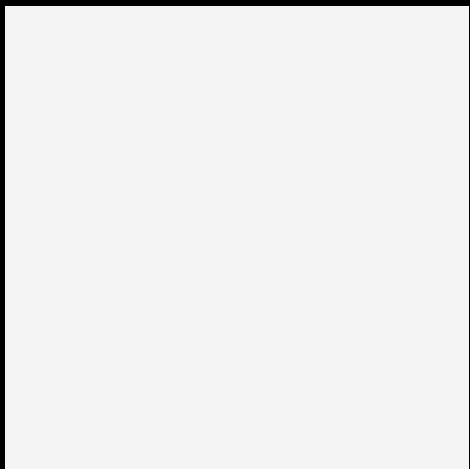
The Issues

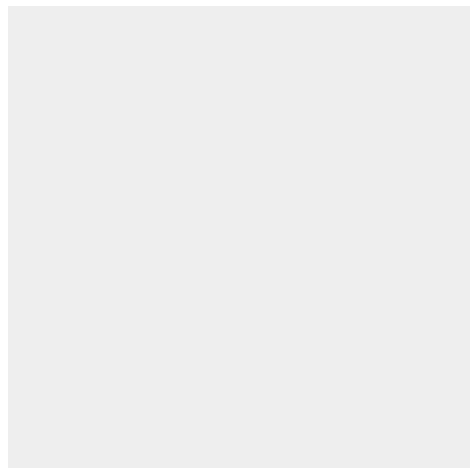
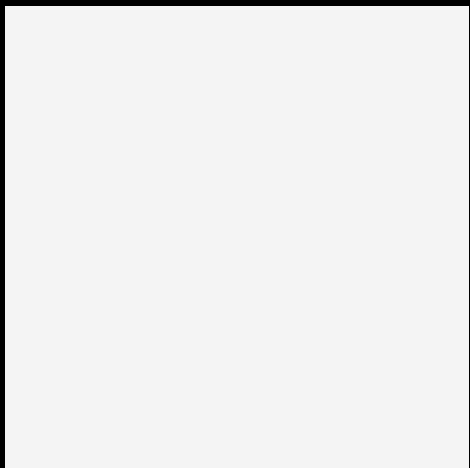
- **Monitor is too bright** - you lower the exposure to make it look right, but then it prints dark.
- **Viewing with a black background** – which makes the image look brighter.
- **Expecting too much** from your printer and paper combination.

Your Brain and its games

- Your brain is very flexible and will change reality to make you more comfortable.
- For instance, a white object in sunlight and incandescent light both look “white” although they are not the same.
- If you stare a photograph on your monitor and keep making small changes to the colors, the image may look reasonable, but you can quickly get out of bounds and have a mess.







Coping

- To cope with your problem brain – keep it off balance
 - Take breaks and look at the real world.
 - Look away from the screen and back again for a brief glance.
 - Flip your photograph upside down.
 - Look at several images at the same time.
- Set Up you editing environment
- Soft Proof to simulate your printer and paper.

Print Viewing

- Print early and often
- Leave the print on display with other prints
- Wait to make additional adjustments
- Try for a controlled viewing environment.



Soft Proof

- Both Lightroom and Photoshop allow you to “soft proof” your image.
- *Soft proofing is a digital workflow process, primarily in Lightroom or Photoshop, that simulates how an image will look when printed on a specific paper and printer combination using ICC profiles. It enables photographers to identify out-of-gamut colors, adjust tones, and minimize, or eliminate, unexpected color shifts before committing to expensive, time-consuming physical prints. (Al and I agree)*
- Demo

Dennis' Practices

- Shoot in RAW format for greatest quality and flexibility.
- Set camera white balance (WB) to *daylight* for all outdoor photography or use *custom white balance*. *Auto* WB works pretty well but can get confused. Try to use the indoor settings for indoor situations.
- In post processing
 - Use the largest color space available – *proPhoto RGB*
 - Calibrated monitor
 - In programs such as Lightroom or ACR, experiment with the different camera profiles.
 - For printing use *.icc* profiles for my paper and printer.

Printer Setup
Addendum Presented
February 17, 2026

Setting Up the Printer and the Software for Color

1. Get the right profile
2. Install them in the right location
[Get Comprehensive and Easy Installation Instructions.](#)
3. Tell your photo software to manage colors.
4. Select the profile in your software's print dialog
5. Set your printer settings according to the profile's instructions
6. No, you will not see the printer profile name in the printer's media selection list!
7. Tell your printer to turn off its color management
8. Make a profile for this paper type, paper size, and printer so you never have to do this again.

1. Get the right profile

- Red River Paper

[ICC Profiles & Inkjet Printer Color Profiles](#)

- Canson Infinity Paper

[ICC Profiles & Printer Settings - Canson Infinity](#)

- Hahnemühle Paper

[ICC Profile](#)

2. Install them in the right location

- [Get Comprehensive and Easy Installation Instructions.](#)
- Windows > System32 > spool > drivers > color
- On **Mac OSX** **profiles** are located at one of the following two locations: **Mac** HD/Library/ColorSync/**Profiles** - if located here all **users** can use them, but only admin **users** and authenticated installers can add or remove them.

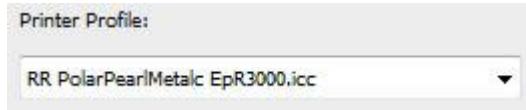
The other would be in the User / Library / ColorSync / Profiles.

Note: Restart the software after install a new profile so it shows up.

3/4. Tell your photo software to manage colors and Select the profile in your software's print dialog



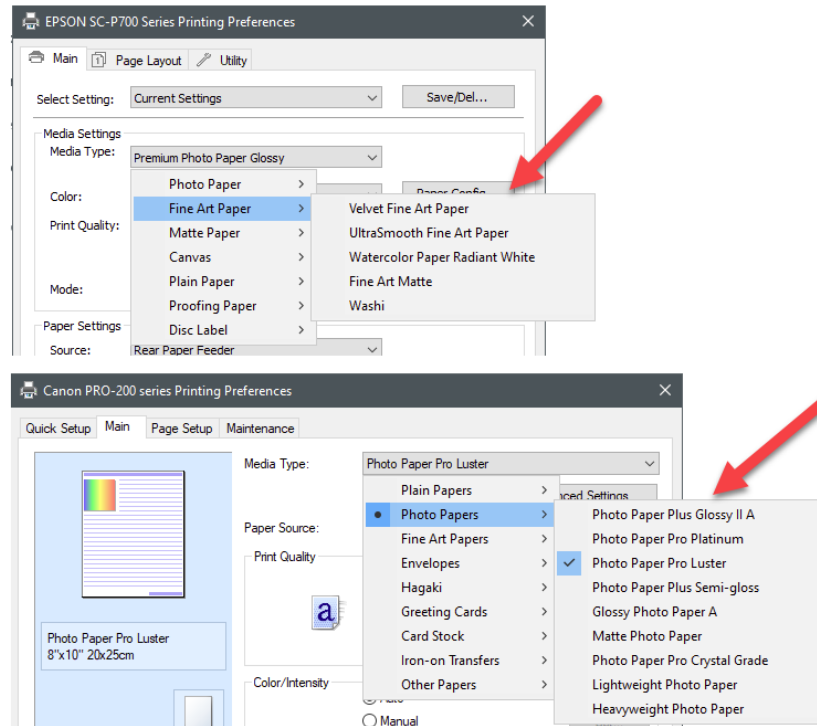
In Photoshop or Elements, this is done with a drop down option in the print dialog. With Lightroom and Aperture, simply choosing a profile name in the Print Module does the job.



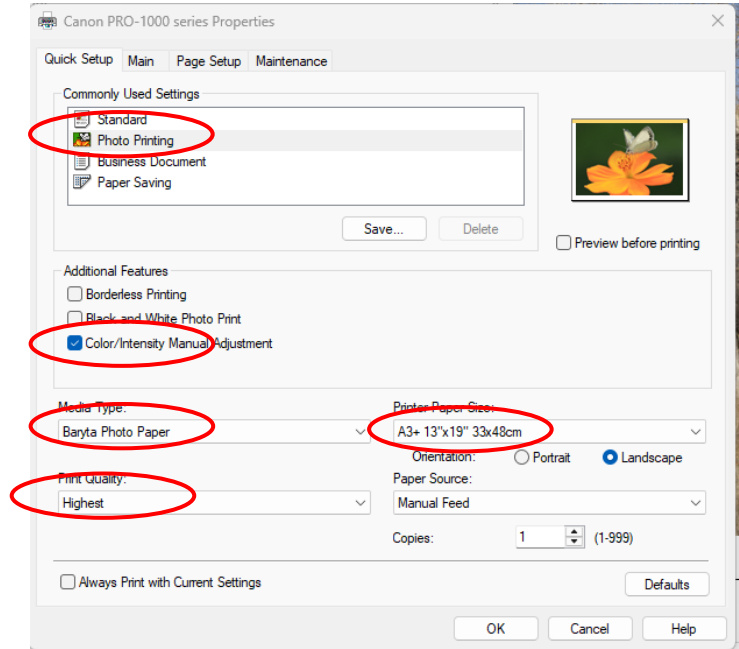
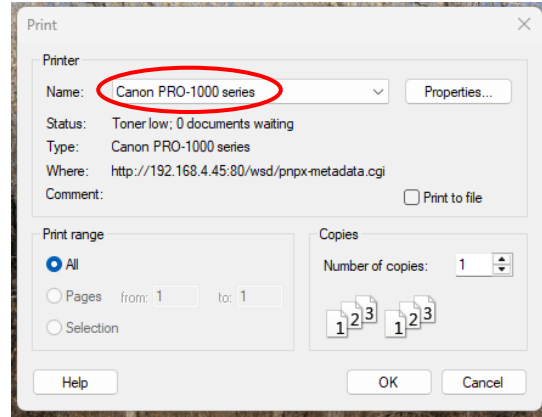
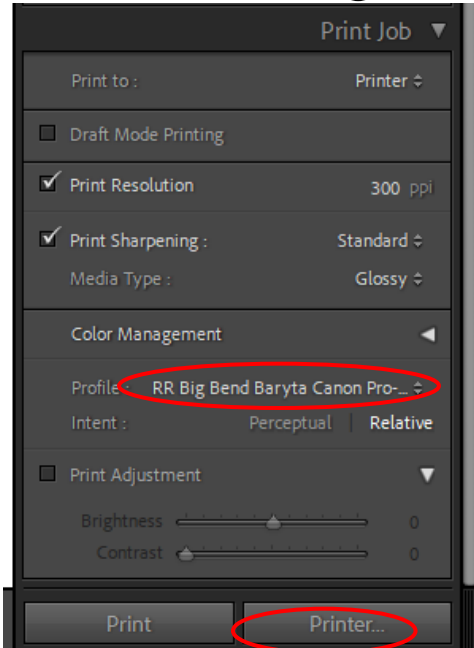
Provided you installed the profile correctly, it will be visible inside the printer profile drop down menu of your photo software. The list of profiles will likely be large, as it is displaying profiles of all types (not just inkjet papers) in this list. Scroll down in the alphabetical listing until you see your profile.

5/6 Set your printer settings according to the profile's instructions and No, you will not see the printer profile name in the printer's media selection list!

What is Media Type in Your Printer Driver / Preferences

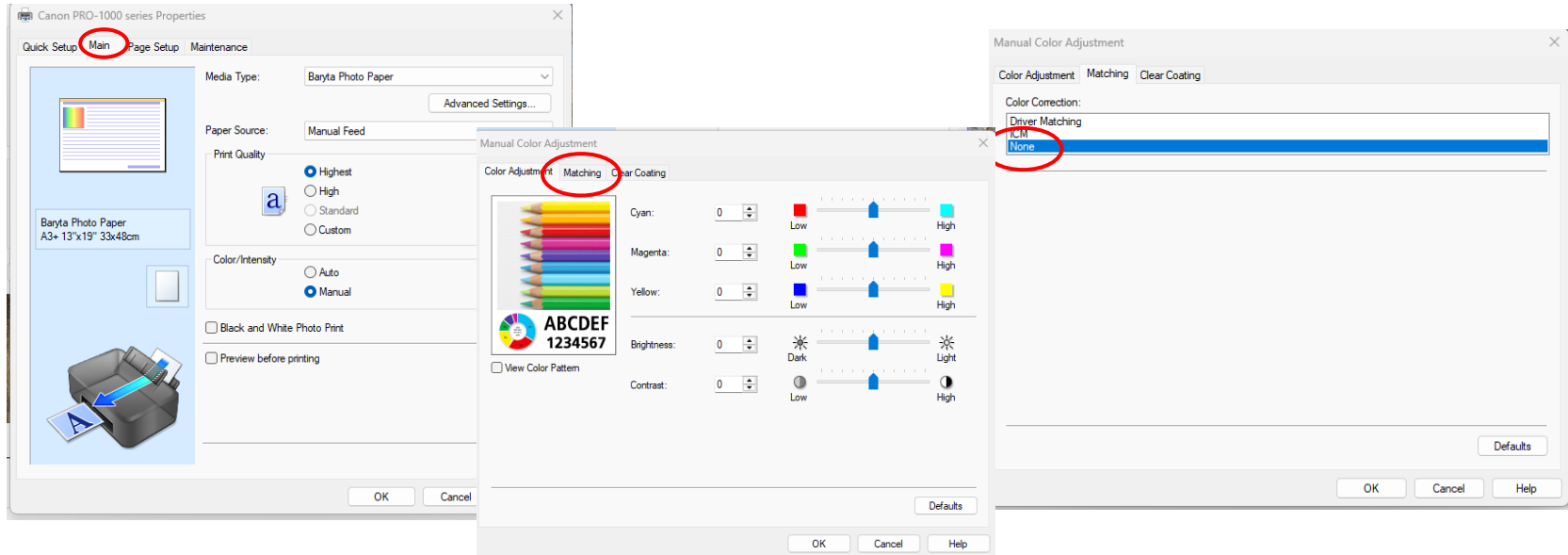


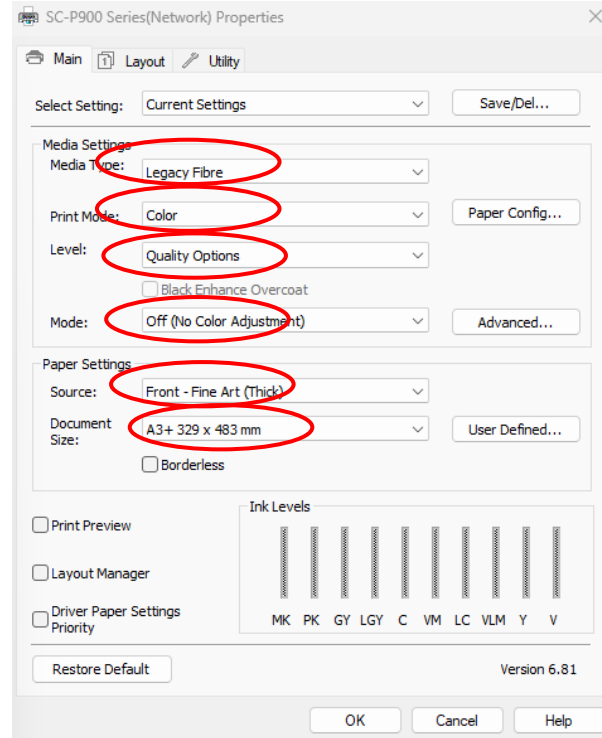
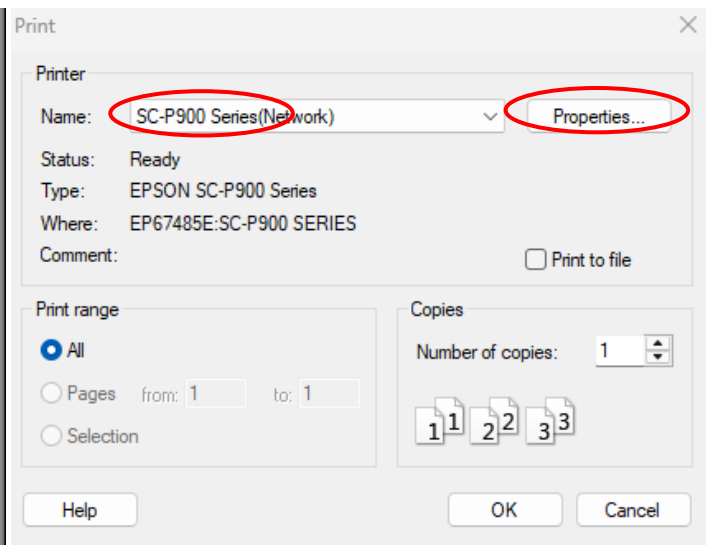
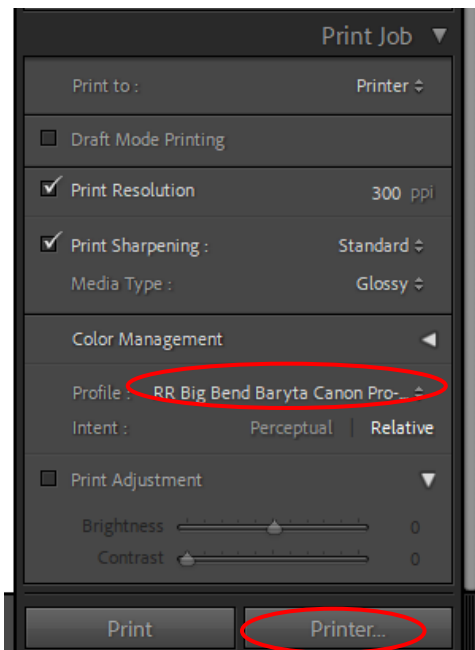
7 Tell your printer to turn off its color management – Canon



7 Tell your printer to turn off its color management – Canon

- Properties, then



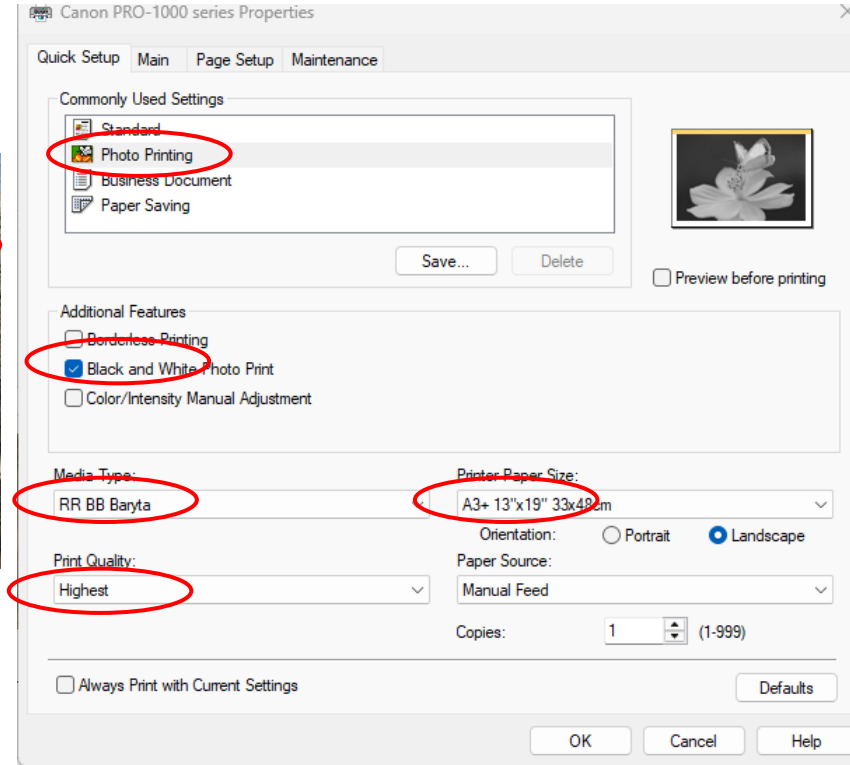
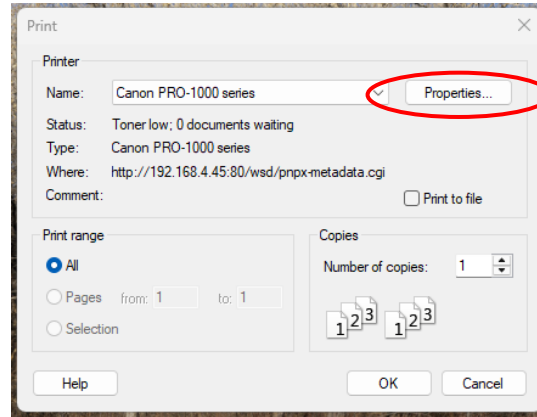
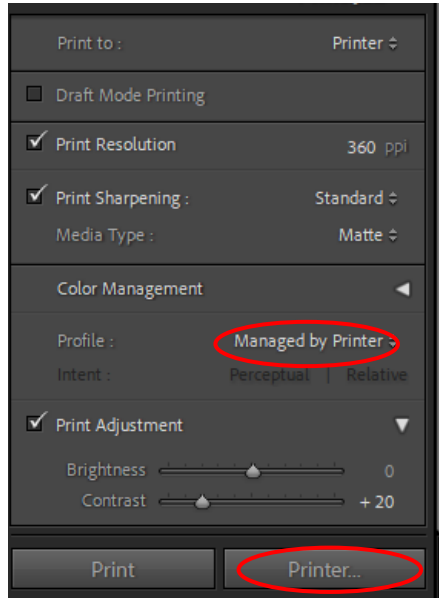


Setting Up the Printer and the Software for B&W (PC)

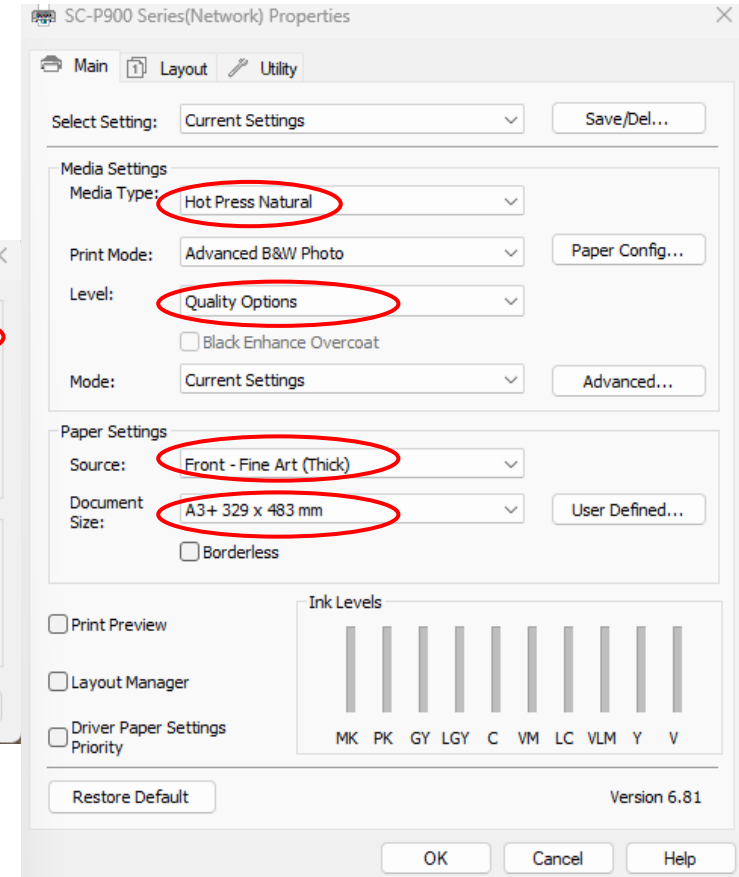
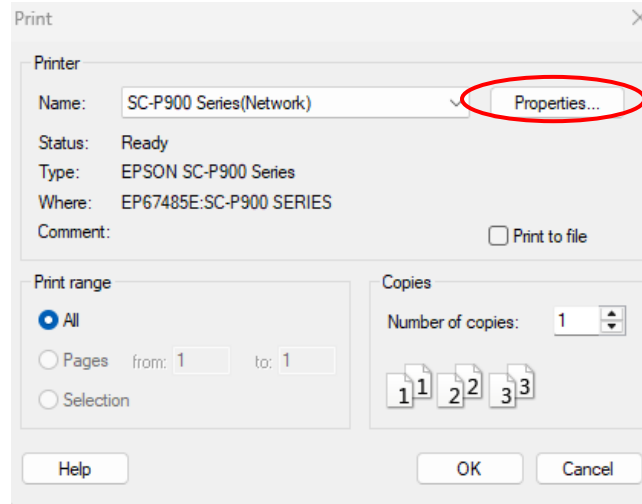
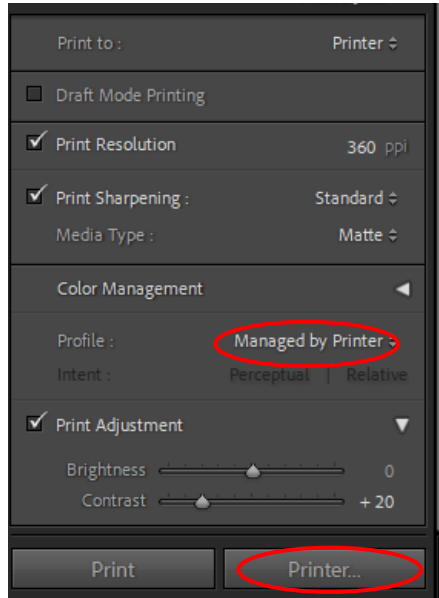
1. Tell your photo software to have the printer manage colors.
2. Set your printer settings according to the profile's instructions
3. Set your printer settings to print black and white
 1. Epson ABW (Advanced Black&White)
 2. Canon – Black and White Photo Print
4. Make a profile for this paper type, paper size, and printer so you never have to do this again.

7 Set your printer settings to print black and white

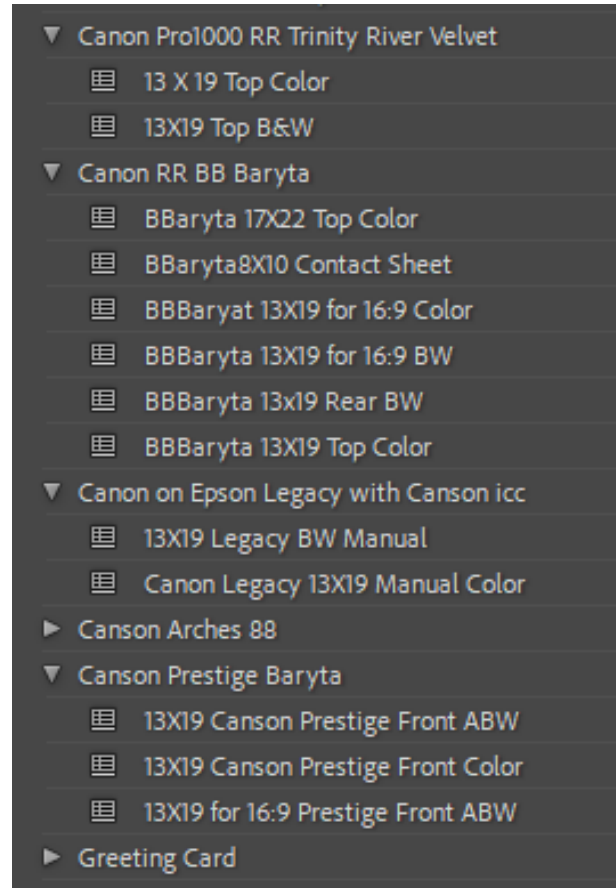
– Canon



7 Set your printer settings to print black and white – Epson



8. Make a profile for this paper type, paper size, and printer so you never have to do this again.



ICC Profiles & Inkjet Printer Color Profiles

- [How to Install ICC Color Profiles on Windows](#)
- [Video Guide to Install ICC Color Profiles Mac OS](#)
- [How to Use ICC Color Printer Profiles for Inkjet Printers](#)
- [Red River Paper Printer Color Profile FAQ](#)
- [Seven Tips for Using Printer Color Profiles](#)

Summary

To achieve repeatable results, use good color management and coping strategies.