Epson® Professional Imaging

Managing Color

Printing with ICC Profiles

EPSON®
EXCEED YOUR VISION

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Introduction

For the most precise color in your prints, you can use profiles designed specifically for your printer model and paper type. Basic profiles are installed with your printer driver, and you may also have downloaded Premium ICC profiles from Epson when you installed your printer software.

To print using Premium ICC profiles with Adobe® Photoshop® CC, CS6, CS5, or Adobe Photoshop Lightroom®, follow the instructions in these sections for your operating system:

- "Windows 8 and Windows 7" below
- "Mac OS X 10.8 and 10.7" on page 20

Windows 8 and Windows 7

Follow the instructions in these sections:

- "Printing with Adobe Photoshop CC or CS6" below
- "Printing with Adobe Photoshop CS5" on page 8
- "Printing with Adobe Photoshop Lightroom" on page 14

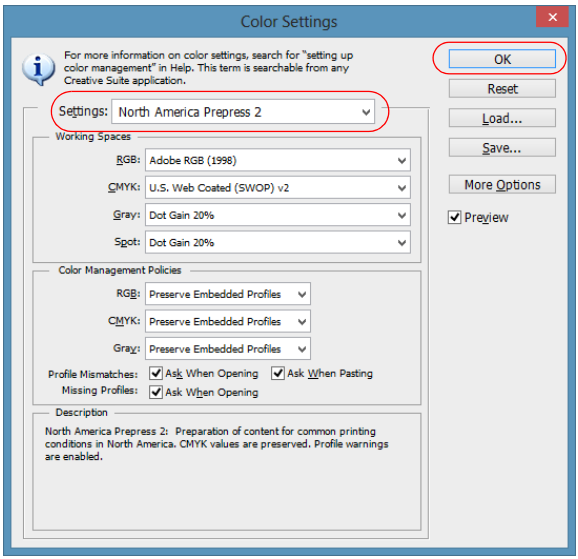
Printing with Adobe Photoshop CC or CS6

First set up your color management environment in Photoshop and assign a profile to your image. Then select your print settings and print.

Note:
Assigning a profile to your image doesn't alter it, only the interpretation of it by your software and how it appears on your monitor and in a printout. This is the best way to improve the color balance and contrast in your image.

Setting Up the Photoshop Environment

1. Open Photoshop.
2. Select Edit > Color Settings.



3. Select North America Prepress 2 from the Settings menu to set Adobe RGB (1998) as the RGB working space and activate all profile messages.
4. Click OK.

Follow the steps in the next section to open the photo you want to print and assign a profile to it.

Assigning a Profile to Your Photo

1. Open the photo you want to print.
2. If you see an Embedded Profile Mismatch message, select Use the embedded profile (instead of the working space) and click OK.

If you see a Missing Profile message, select **Assign working RGB: Adobe RGB (1998)** and click **OK**. When your image appears, evaluate the color balance and contrast as displayed on your monitor. If it looks incorrect, select **Edit** > **Assign Profile**.

Note:
If you see a dialog box regarding the appearance of layers, click **OK**.

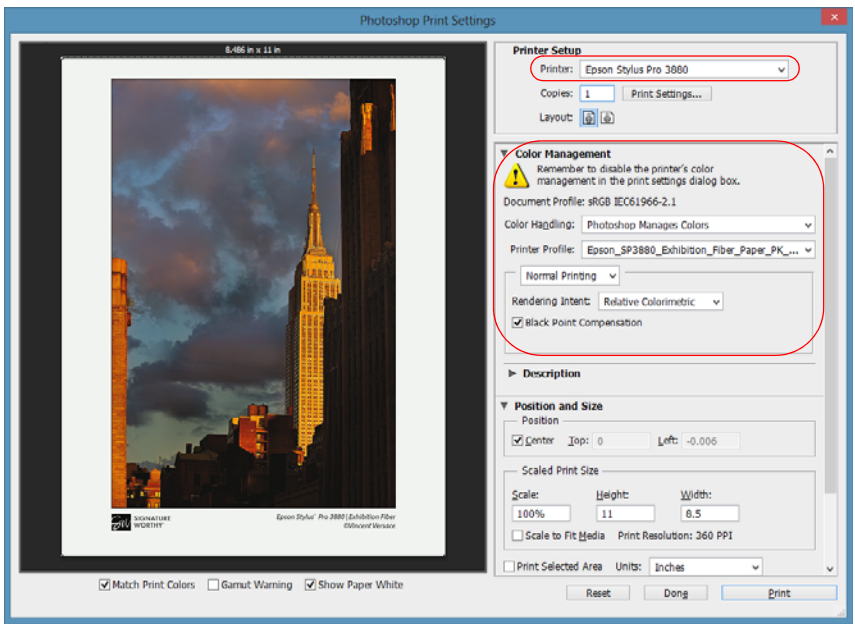
Select one of the following as the **Profile** setting:

- A different RGB working space (or Profile), such as **sRGB IEC61966-2.1**
- A camera profile for your digital camera
- A scanner profile for your scanner

Also select the **Preview** checkbox so you can see the effects of your profile choice on the screen.

Tip:
This is most effective when your monitor is calibrated using a hardware device such as the X-Rite® ColorMunki™ Display, i1 Display Pro, or Datacolor® Spyder™.

3. Click **OK**.
4. Select **File**, then select **Print**.
5. Select your Epson professional printer in the Printer list.



6. Under Color Handling, select Photoshop Manages Colors.
7. Under Printer Profile, select a profile for your printer and the paper you'll use. If you're printing with Epson Premium ICC profiles, select the profile that also matches the print quality you want to use.
8. For the Rendering Intent, select Relative Colorimetric.

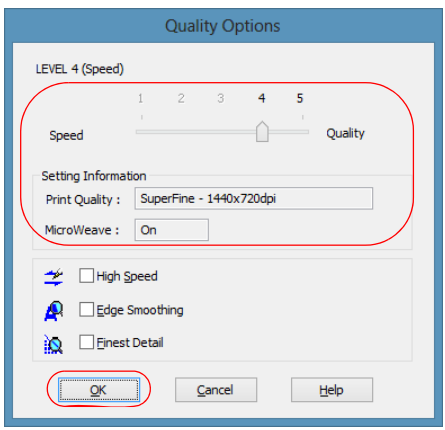
   Note:
   If your image contains very saturated colors, select Perceptual. This reduces the color saturation so that the colors fit within the printer's color gamut.
9. Select the Black Point Compensation checkbox.
10. Click the Print Settings button.

Follow the steps in the next section to select print settings to match the profile and print.

Printing Your Color-Managed Photo

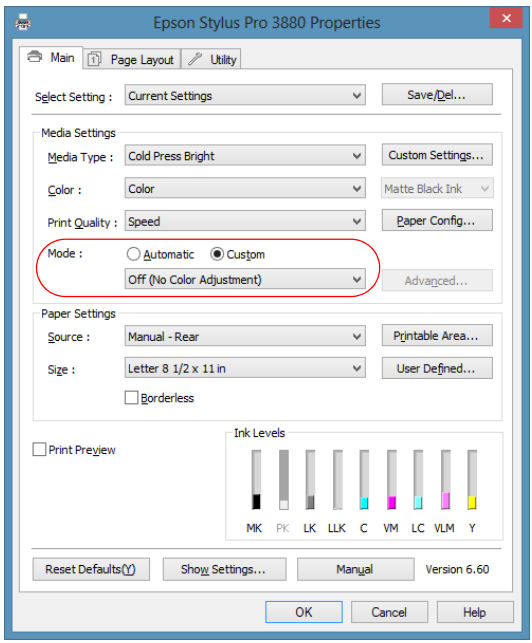
1. Select the Source and Media Type settings for the paper you'll use for the print.
2. Select Quality Options as the Print Quality setting.

   You see a window like this one:



3. If you are using an Epson Premium ICC profile, set the Print Quality setting to match your profile.

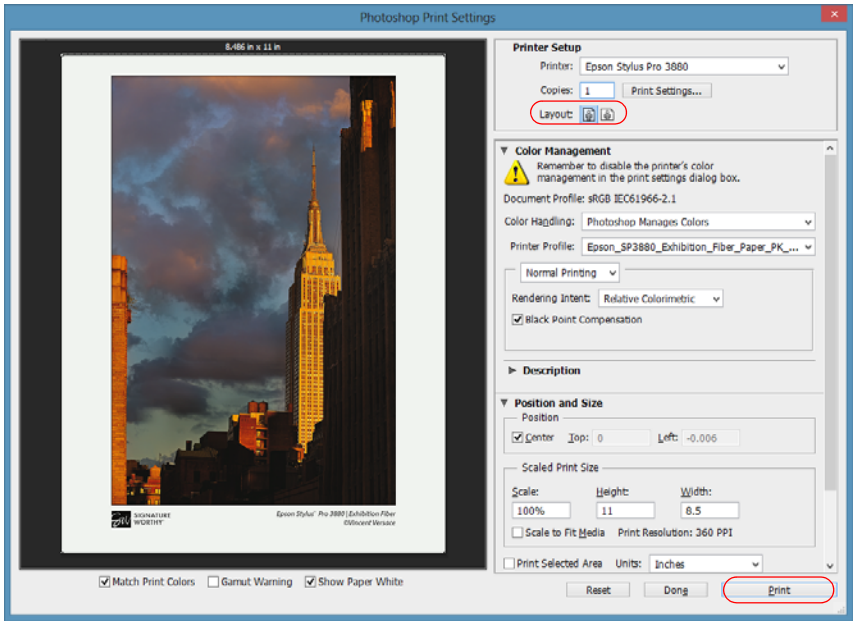
4. Turn off the **High Speed** and **Edge Smoothing** options, if they are available, then click **OK** to close the Quality Options window.
5. Select **Custom** as the Mode setting, then choose **Off (No Color Adjustment)** from the drop-down menu.



Note:
Make sure that you select **Off (No Color Adjustment)**. If you don't, the printer driver will apply additional correction to the image, producing inaccurate results.

6. Click **OK**.

7. Select the correct orientation for your photo.



8. Click **Print** to print your photo.

If you get unexpected results, see “Solving Color Management Problems” on page 34.

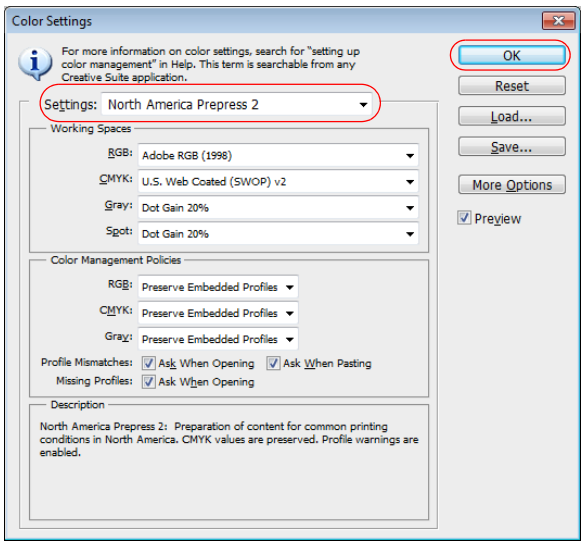
Printing with Adobe Photoshop CS5

First set up your color management environment in Photoshop and assign a profile to your image. Then select your print settings and print.

Note:
Assigning a profile to your image doesn’t alter it, only the interpretation of it by your software and how it appears on your monitor and in a printout. This is the best way to improve the color balance and contrast in your image.

Setting Up the Photoshop Environment

1. Open Photoshop.
2. Select Edit > Color Settings.



3. Select North America Prepress 2 from the Settings menu to set Adobe RGB (1998) as the RGB working space and activate all profile messages.
4. Click OK.

Follow the steps in the next section to open the photo you want to print and assign a profile to it.

Assigning a Profile to Your Photo

1. Open the photo you want to print.
2. If you see an Embedded Profile Mismatch message, select Use the embedded profile (instead of the working space) and click OK.

   If you see a Missing Profile message, select Assign working RGB: Adobe RGB (1998) and click OK. When your image appears, evaluate the color balance and contrast as displayed on your monitor. If it looks incorrect, select Edit > Assign Profile.

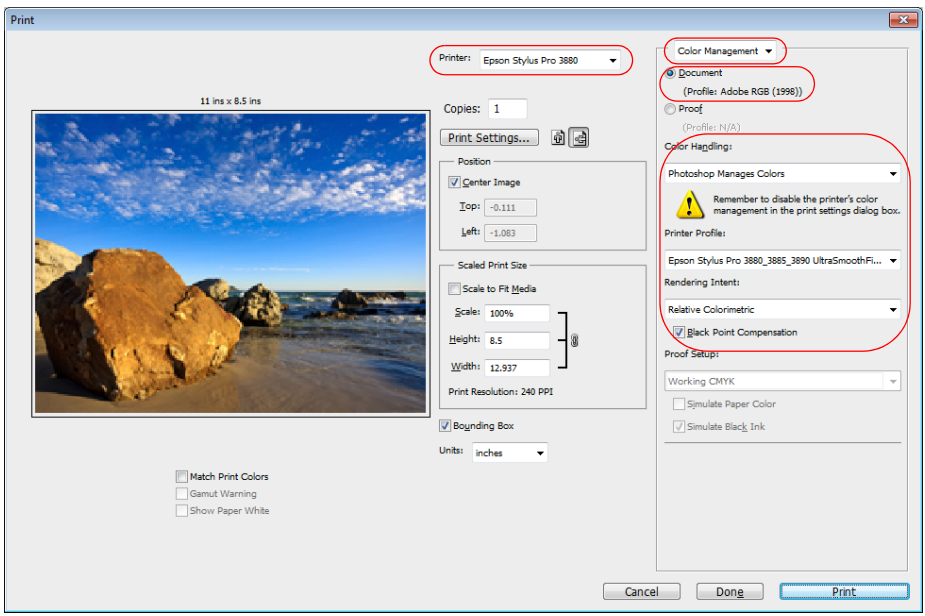
Select one of the following as the **Profile** setting:

- A different RGB working space (or Profile), such as **sRGB IEC61966-2.1**
- A camera profile for your digital camera
- A scanner profile for your scanner

Also select the **Preview** checkbox so you can see the effects of your profile choice on the screen.

Tip:
This is most effective when your monitor is calibrated using a hardware device such as the X-Rite ColorMunki Display, i1 Display Pro, or Datacolor Spyder.

3. Click **OK**.
4. Select **File**, then select **Print**.
5. Select your Epson professional printer in the Printer list, then select **Color Management**.



6. Under Color Handling, select **Photoshop Manages Colors**.
7. Under Printer Profile, select a profile for your printer and the paper you'll use. If you're printing with Epson Premium ICC profiles, select the profile that also matches the print quality you want to use.

8. For the Rendering Intent, select Relative Colorimetric.

   Note:
   If your image contains very saturated colors, select Perceptual. This reduces the color saturation so that the colors fit within the printer's color gamut.

9. Select the Black Point Compensation checkbox.

10. Click the Print Settings button.

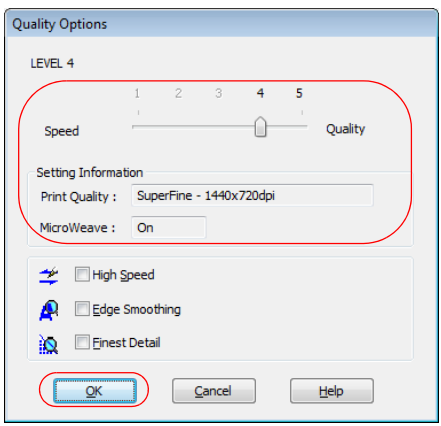
Follow the steps in the next section to select print settings to match the profile and print.

Printing Your Color-Managed Photo

1. Select the Source and Media Type settings for the paper you'll use for the print.

2. Select Quality Options as the Print Quality setting.

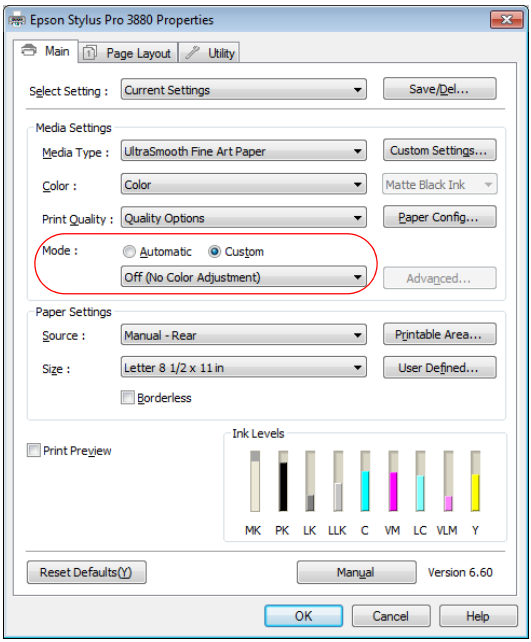
   You see a window like this one:



3. If you are using an Epson Premium ICC profile, set the Print Quality setting to match your profile.

4. Turn off the High Speed and Edge Smoothing options, if they are available, then click OK to close the Quality Options window.

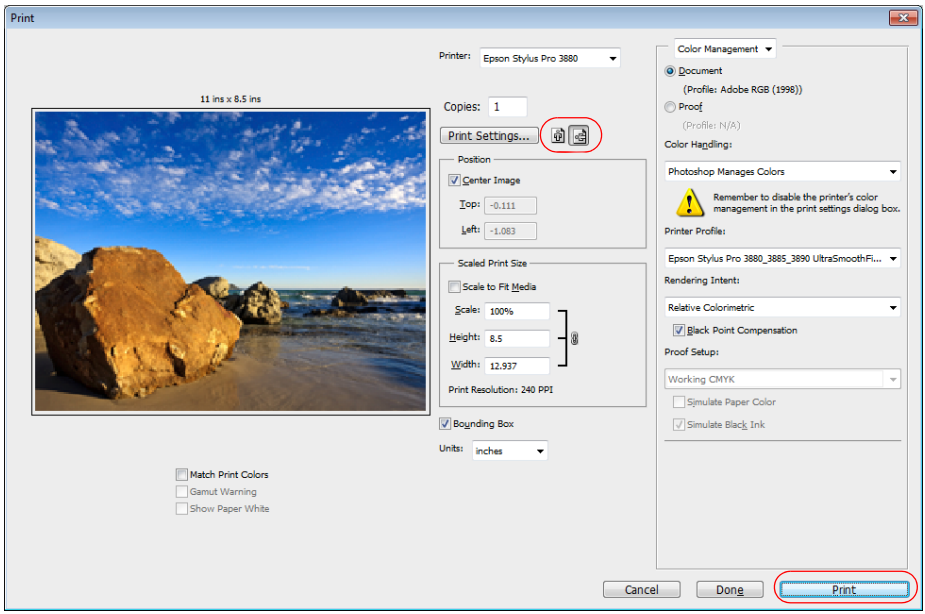
5. Select **Custom** as the Mode setting, then choose **Off (No Color Adjustment)** from the drop-down menu.



Note:
Make sure that you select **Off (No Color Adjustment)**. If you don't, the printer driver will apply additional correction to the image, producing inaccurate results.

6. Click **OK**.

7. Select the correct orientation for your photo.



8. Click **Print** to print your photo.

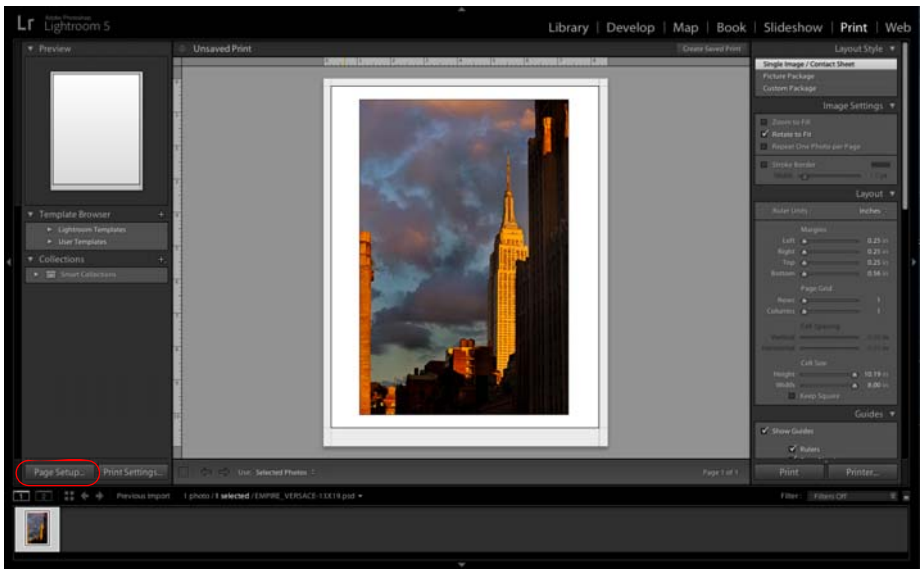
If you get unexpected results, see “Solving Color Management Problems” on page 34.

Printing with Adobe Photoshop Lightroom

This section explains how to set up your printing environment in Lightroom.

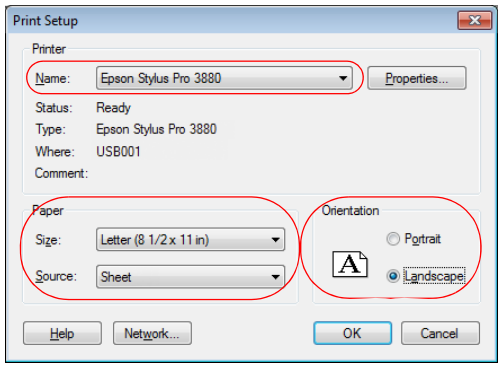
Selecting Color Management Options

1. Open Lightroom.
2. Select the photo you want to print.
3. Click the Page Setup button.

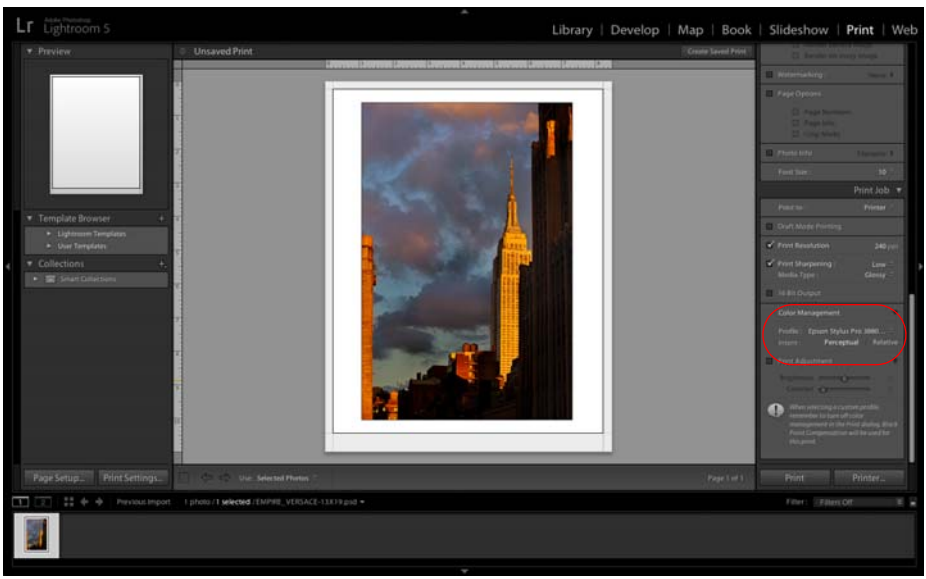


4. Make sure your Epson professional printer is selected.

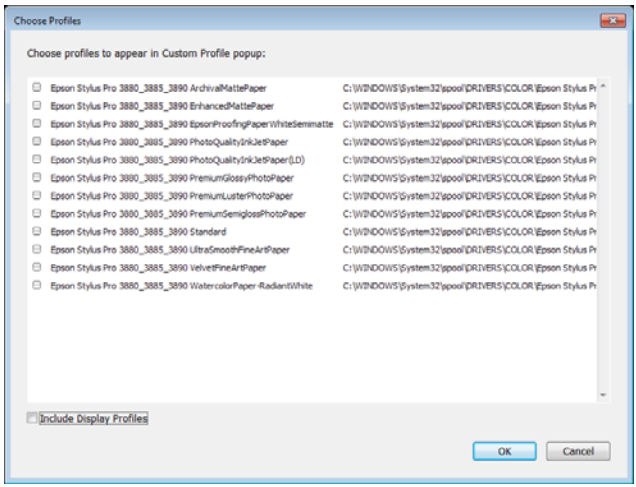
5. Select the **Size** of your paper, the **Source** you'll use to load it, and the correct **Orientation** for your photo.



6. Click **OK**.
7. Scroll down to the Print Job panel in Lightroom.
8. Under Color Management in the Print Job panel, select **Other** as the Profile setting.



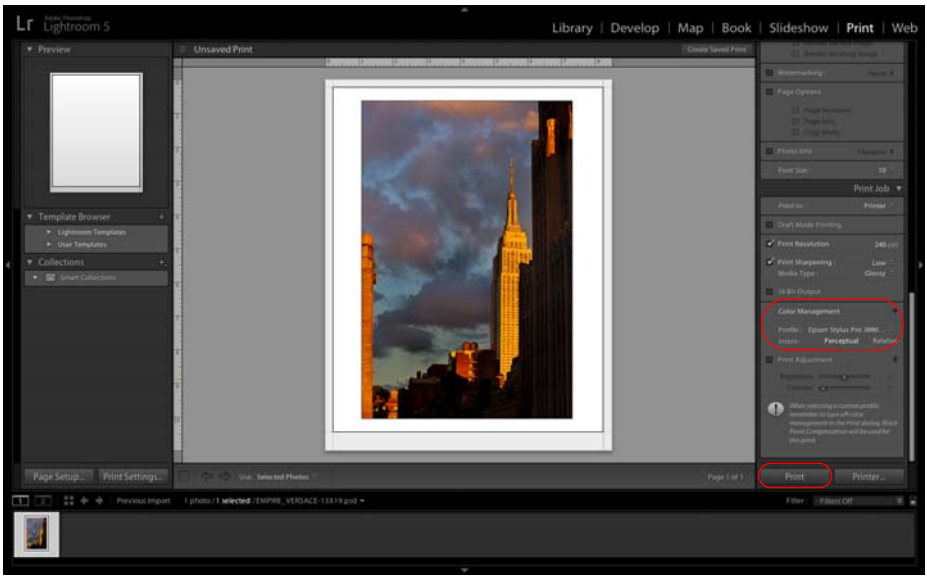
9. In the window that appears, select the profiles you want to add to the Profile list that correspond to the printer and the papers you'll use.



If you're printing with Epson Premium ICC profiles, select the profiles that also match the Print Quality you want to use.

10. Click **OK**.

11. Under **Profile**, select the profile for the paper you're going to print on. If you're printing with Epson Premium ICC profiles, select the profile that also matches the print quality you want to use.



12. For the Rendering Intent, select **Relative**.

Note:
If your image contains very saturated colors, select **Perceptual**. This reduces the color saturation so that the colors fit within the printer's color gamut.

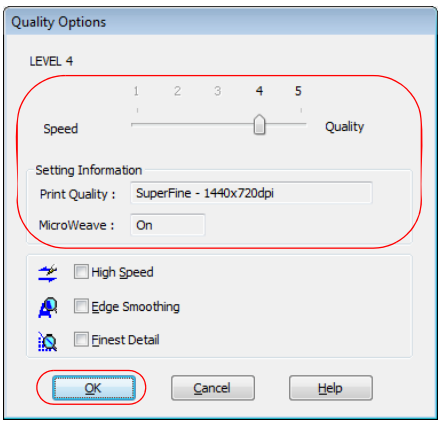
13. Click the **Print** button to print your photo.

Follow the steps in the next section to select print settings to match the profile and print.

Printing Your Color-Managed Photo

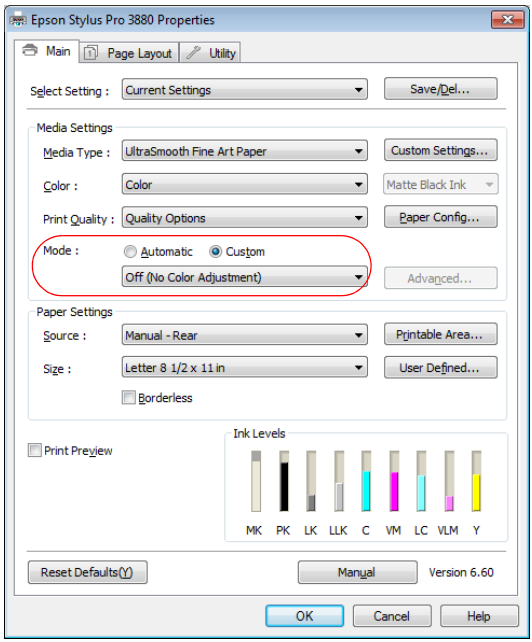
1. Make sure your Epson professional printer is selected, then click the Preferences or Properties button.
2. Select the Source and Media Type settings for the paper you'll use for the print.
3. Select Quality Options as the Print Quality setting.

   You see a window like this one:



4. Turn off the High Speed and Edge Smoothing options, if they are available, then click OK to close the Quality Options window.

5. Select **Custom** as the Mode setting, then choose **Off (No Color Adjustment)** from the drop-down menu.



Note:
Make sure that you select **Off (No Color Adjustment)**. If you don't, the printer driver will apply additional correction to the image, producing inaccurate results.

6. Click **OK** to print.

If you get unexpected results, see "Solving Color Management Problems" on page 34.

Mac OS X 10.8 and 10.7

Follow the instructions in these sections:

- "Printing with Adobe Photoshop CC or CS6" below
- "Printing with Adobe Photoshop CS5" on page 24
- "Printing with Adobe Photoshop Lightroom" on page 29

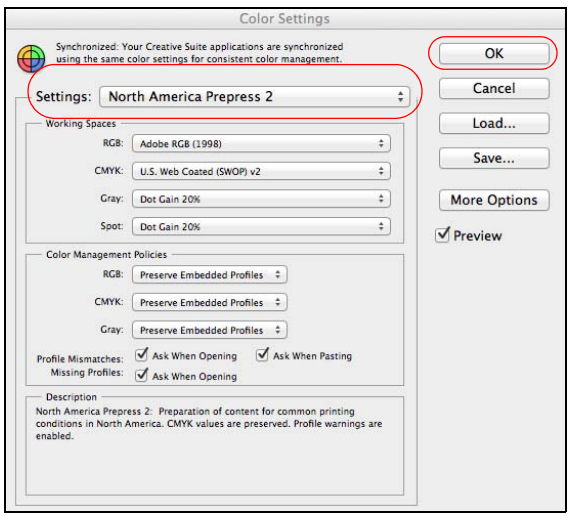
Printing with Adobe Photoshop CC or CS6

First set up your color management environment in Photoshop and assign a profile to your image. Then select your print settings and print.

Note:
Assigning a profile to your image doesn't alter it, only the interpretation of it by your software and how it appears on your monitor and in a printout. This is the best way to improve the color balance and contrast in your image.

Setting Up the Photoshop Environment

1. Open Photoshop.
2. Select Edit > Color Settings.



3. Select North America Prepress 2 from the Settings menu to set Adobe RGB (1998) as the RGB working space and activate all profile messages.
4. Click OK.

Follow the steps in the next section to open the photo you want to print and assign a profile to it.

Assigning a Profile to Your Photo

1. Open the photo you want to print.
2. If you see an Embedded Profile Mismatch message, select Use the embedded profile (instead of the working space) and click OK.

   If you see a Missing Profile message, select Assign working RGB: Adobe RGB (1998) and click OK. When your image appears, evaluate the color balance and contrast as displayed on your monitor. If it looks incorrect, select Edit > Assign Profile.

   Note:
   If you see a dialog box regarding the appearance of layers, click OK.

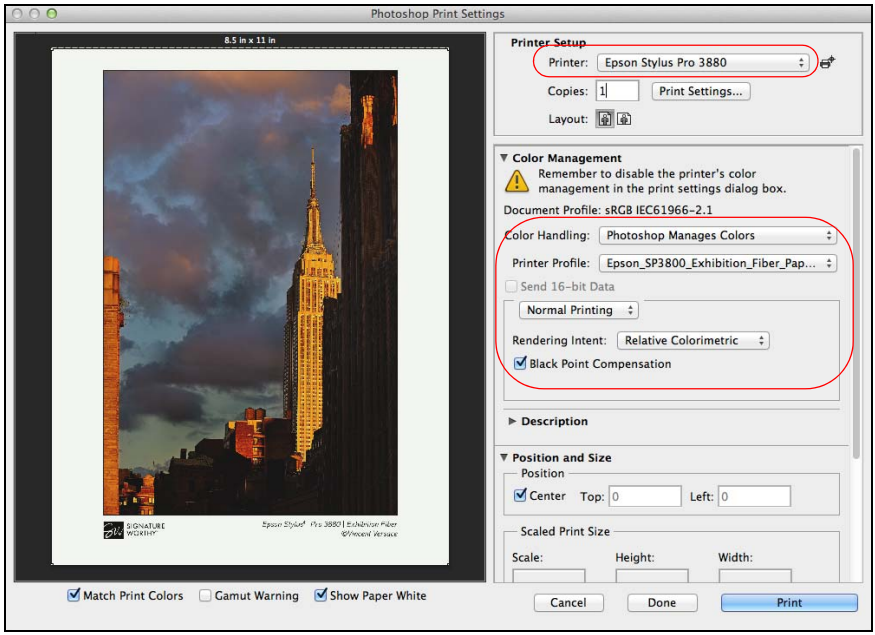
   Select one of the following as the Profile setting:

   - A different RGB working space (or Profile), such as sRGB IEC61966-2.1
   - A camera profile for your digital camera
   - A scanner profile for your scanner

   Also select the Preview checkbox so you can see the effects of your profile choice on the screen.

   Tip:
   This is most effective when your monitor is calibrated using a hardware device such as the X-Rite ColorMunki Display, i1 Display Pro, or Datacolor Spyder.
3. Click OK.

4. Select File > Print.



5. Select your Epson professional printer in the Printer pop-up menu.
6. Under Color Handling, select Photoshop Manages Colors.
7. Under Printer Profile, select a profile for your printer and the paper you'll use. If you're printing with Epson Premium ICC profiles, select the profile that also matches the print quality you want to use.
8. For the Rendering Intent, select Relative Colorimetric.

   Note:
   If your image contains very saturated colors, select Perceptual. This reduces the color saturation so that the colors fit within the printer's color gamut.
9. Select the Black Point Compensation checkbox.
10. Click the Print Settings button.

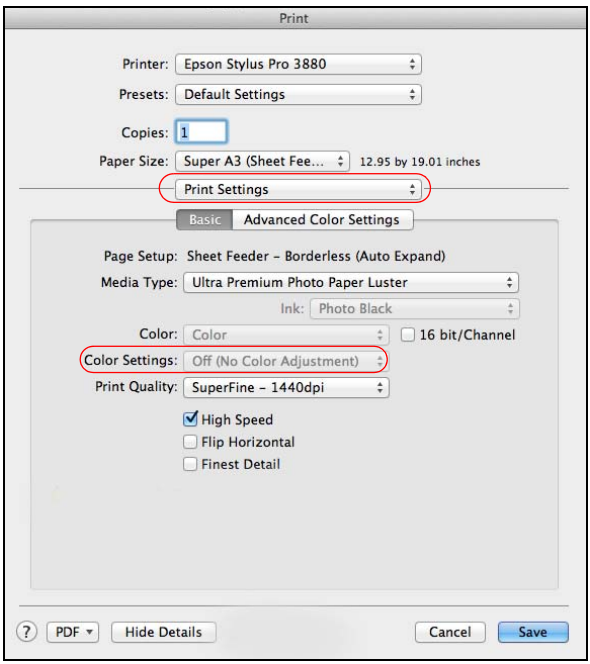
Follow the steps in the next section to select print settings to match the profile and print.

Printing Your Color-Managed Photo

1. Select your Epson professional printer in the Printer list.
2. Click Show Details or ▼ to expand the Print window, if necessary.
3. Select the Paper Size and media path settings that match the paper you're printing on.

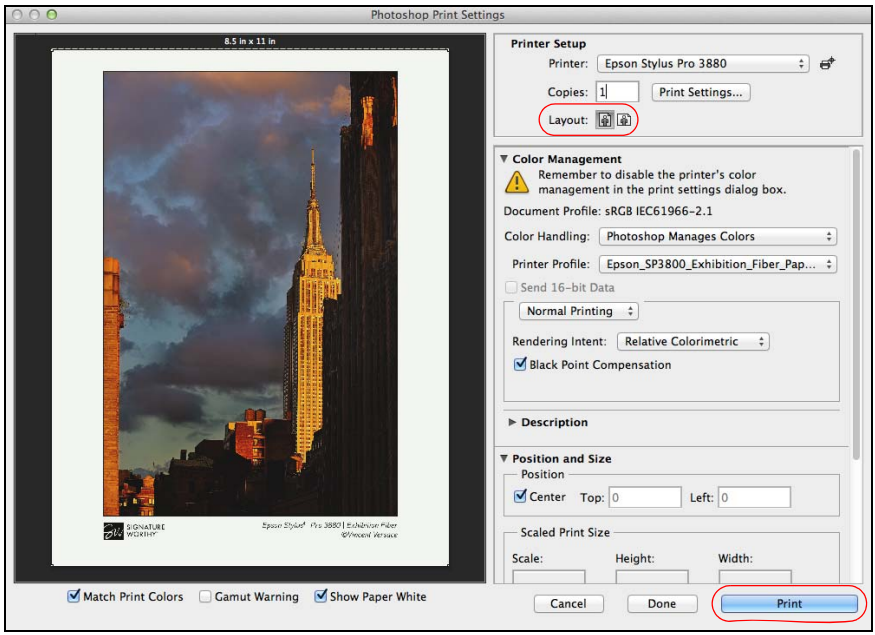
   Tip:
   If you're using a fine art paper, make sure you choose the correct media path or the media type selections will be grayed-out.
4. Click Layout on the pop-up menu and select Print Settings (Mac OS X 10.8) or Printer Settings (Mac OS X 10.7).
5. Select the Media Type setting for the paper you'll use for the print.

   Note:
   The Color Settings (Mac OS X 10.8) or Color Mode (Mac OS X 10.7) will show Off (No Color Adjustment).



6. If you are using an Epson Premium ICC profile, set the Print Quality (Mac OS X 10.8) or Output Resolution (Mac OS X 10.7) setting to match your profile.

7. Click **Save**.
8. Select the correct orientation for your photo.



9. Click **Print** to print your photo.

If you get unexpected results, see "Solving Color Management Problems" on page 34.

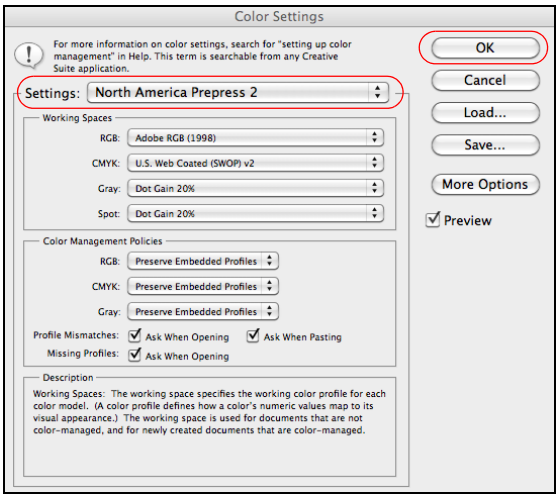
Printing with Adobe Photoshop CS5

First set up your color management environment in Photoshop and assign a profile to your image. Then select your print settings and print.

Note:
Assigning a profile to your image doesn't alter it, only the interpretation of it by your software and how it appears on your monitor and in a printout. This is the best way to improve the color balance and contrast in your image.

Setting Up the Photoshop Environment

1. Open Photoshop.
2. Select Edit > Color Settings.



3. Select North America Prepress 2 from the Settings menu to set Adobe RGB (1998) as the RGB working space and activate all profile messages.
4. Click OK.

Follow the steps in the next section to open the photo you want to print and assign a profile to it.

Assigning a Profile to Your Photo

1. Open the photo you want to print.
2. If you see an Embedded Profile Mismatch message, select Use the embedded profile and click OK.

   If you see a Missing Profile message, select Assign working RGB: Adobe RGB (1998) and click OK. When your image appears, evaluate the color balance and contrast as displayed on your monitor. If it looks incorrect, select Edit > Assign Profile.

   Select one of the following as the Profile setting:

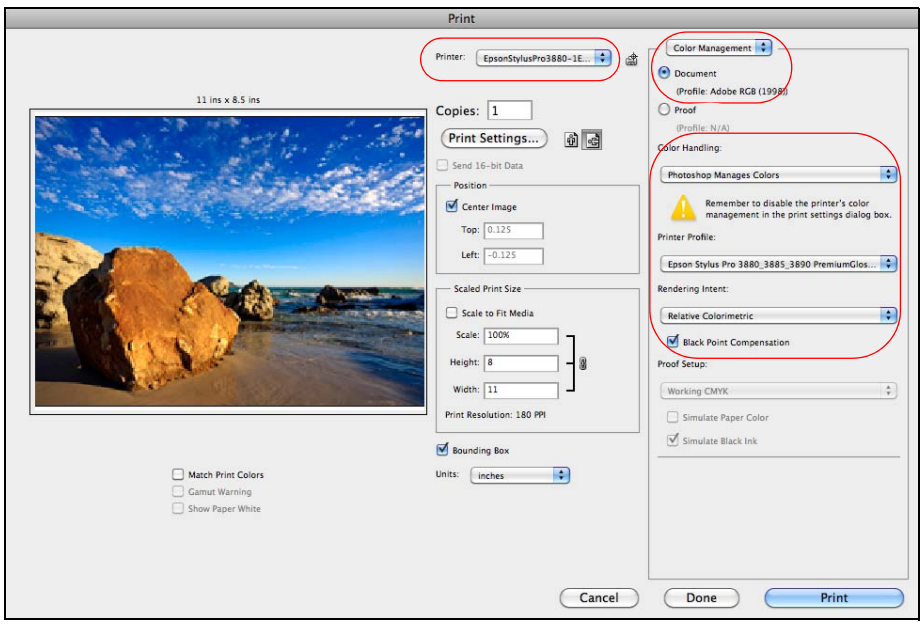
   - A different RGB working space (or Profile), such as sRGB IEC61966-2.1

- A camera profile for your digital camera
- A scanner profile for your scanner

Also select the **Preview** checkbox so you can see the effects of your profile choice on the screen.

Tip:
This is most effective when your monitor is calibrated using a hardware device such as the X-Rite ColorMunki Display, i1 Display Pro, or Datacolor Spyder.

3. Click **OK**.
4. Select **File** > **Print**.



5. Select your Epson professional printer in the Printer pop-up menu.
6. Under Color Management, select **Document**.
7. Under Color Handling, select **Photoshop Manages Colors**.
8. Under Printer Profile, select a profile for your printer and the paper you'll use. If you're printing with Epson Premium ICC profiles, select the profile that also matches the print quality you want to use.
9. For the Rendering Intent, select **Relative Colorimetric**.

Note:
If your image contains very saturated colors, select Perceptual. This reduces the color saturation so that the colors fit within the printer's color gamut.

10. Select the Black Point Compensation checkbox.
11. Click the Print Settings button.

Follow the steps in the next section to select print settings to match the profile and print.

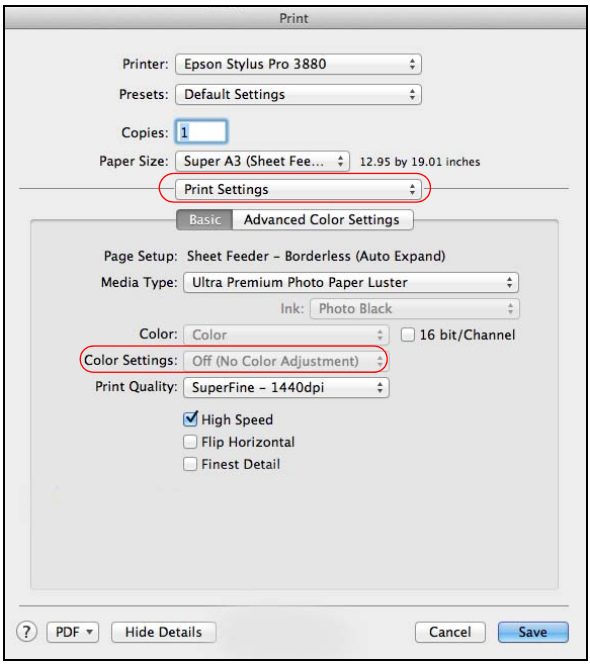
Printing Your Color-Managed Photo

1. Select your Epson professional printer in the Printer list.
2. Click Show Details or ▼ to expand the Print window, if necessary.
3. Select the Paper Size and media path settings that match the paper you're printing on.

   Tip:
   If you're using a fine art paper, make sure you choose the correct media path or the media type selections will be grayed-out.

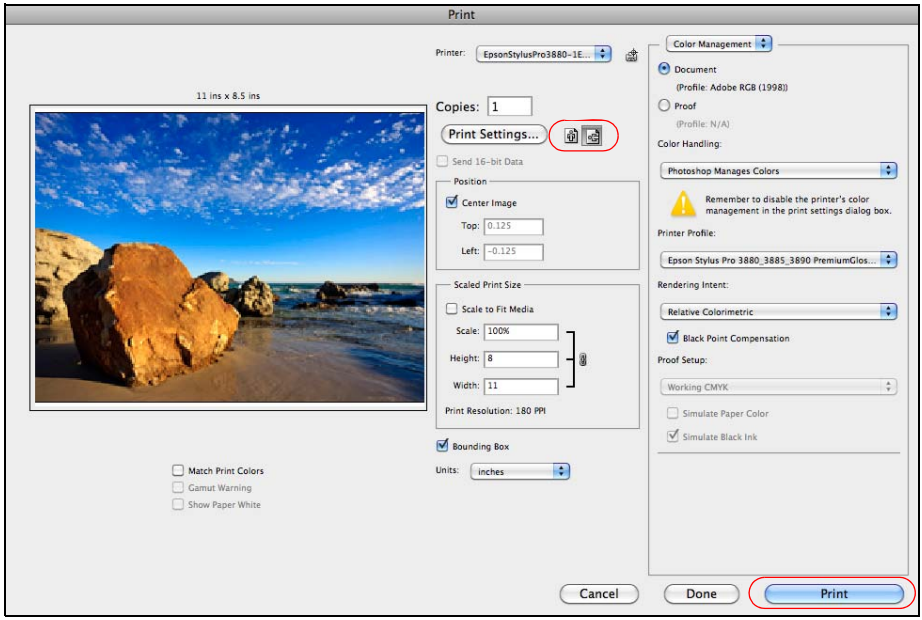
4. Click Layout on the pop-up menu and select Print Settings (Mac OS X 10.8) or Printer Settings (Mac OS X 10.7).
5. Select the Media Type setting for the paper you'll use for the print.

Note:
The Color Settings (Mac OS X 10.8) or Color Mode (Mac OS X 10.7) will show **Off (No Color Adjustment)**.



6. If you are using an Epson Premium ICC profile, set the **Print Quality** (Mac OS X 10.8) or **Output Resolution** (Mac OS X 10.7) setting to match your profile.
7. Click **Save**.

8. Select the correct orientation for your photo.



9. Click **Print** to print your photo.

If you get unexpected results, see "Solving Color Management Problems" on page 34.

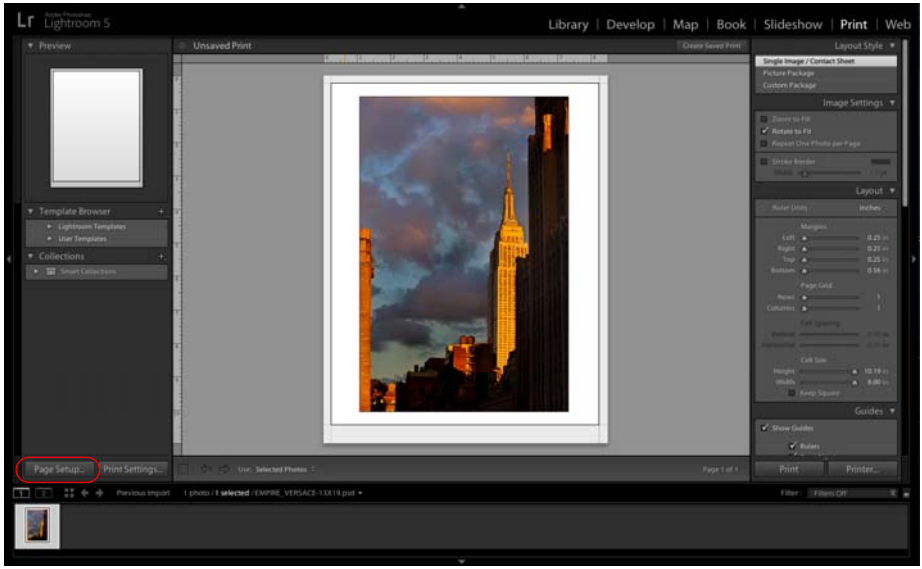
Printing with Adobe Photoshop Lightroom

This section explains how to set up your printing environment in Lightroom.

Selecting Color Management Options

1. Open Lightroom.
2. Select the photo you want to print.

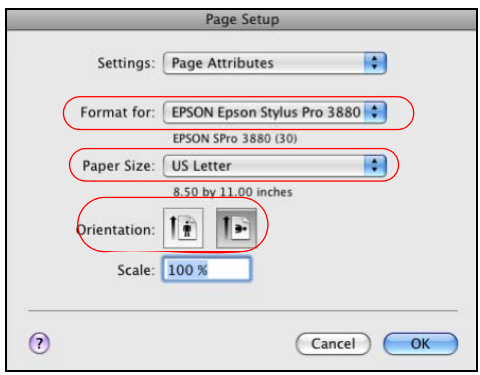
3. Click the Page Setup button.



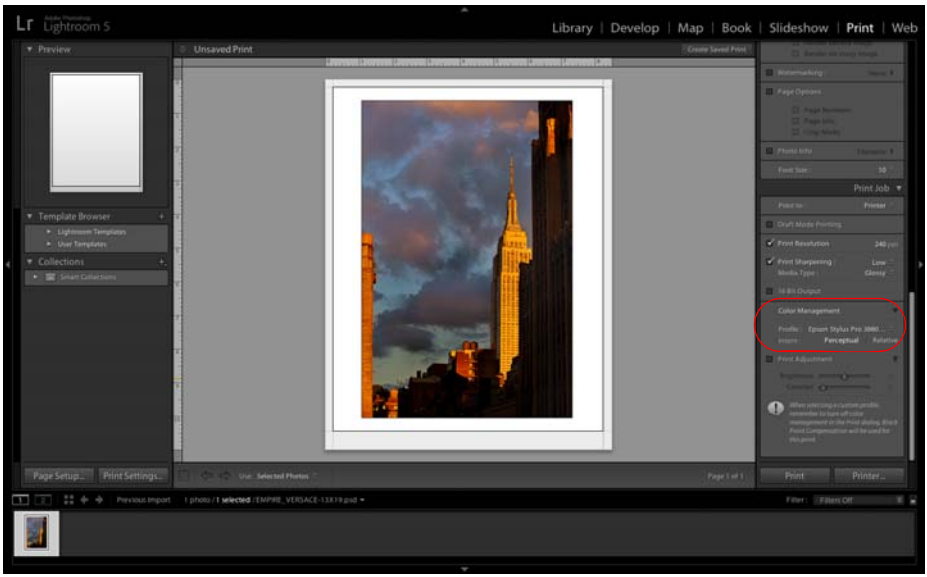
4. Select your Epson professional printer in the Format for pop-up menu.
5. Select the Paper Size and media path settings that match the paper you're printing on.

   Tip:
   If you're using a fine art paper, make sure you choose the correct media path or the media type selections will be grayed-out.

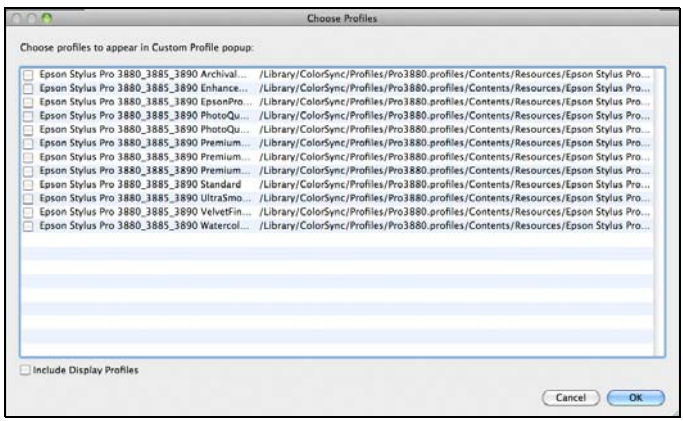
6. Select the correct Orientation for your photo.



7. Click **OK**.
8. Scroll down to the **Print Job** panel in Lightroom.
9. Under Color Management in the Print Job panel, select **Other** as the Profile setting.

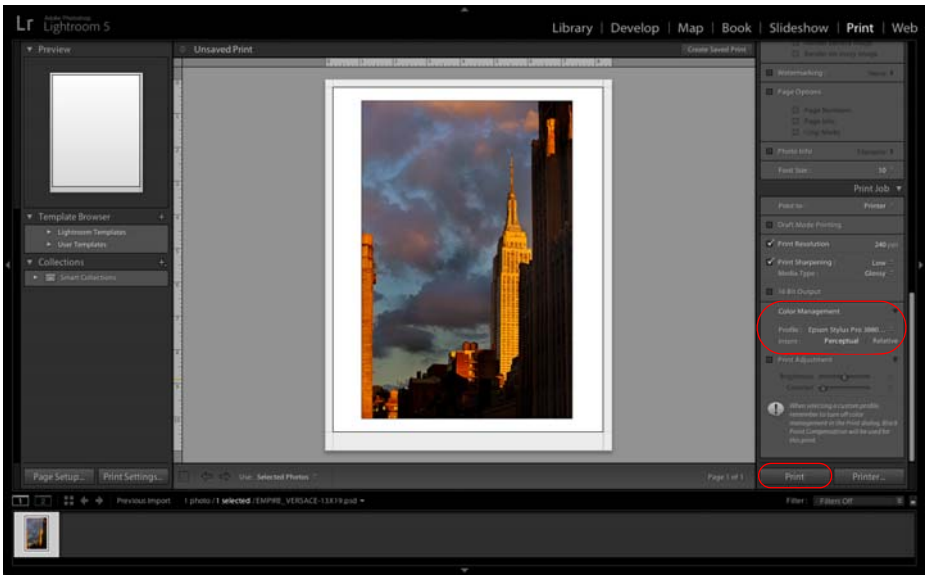


10. In the window that appears, select the profiles you want to add to the Profile list that correspond to the printer and the papers you'll use.



If you're printing with Epson Premium ICC profiles, select the profiles that also match the print quality you want to use.

11. Click **OK**.
12. Under Profile, select the profile for the paper you're going to print on. If you're printing with Epson Premium ICC profiles, select the profile that also matches the print quality you want to use.



13. For the Rendering Intent, select **Relative**.

Note:
If your image contains very saturated colors, select **Perceptual**. This reduces the color saturation so that the colors fit within the printer's color gamut.

14. Click the **Print** button.

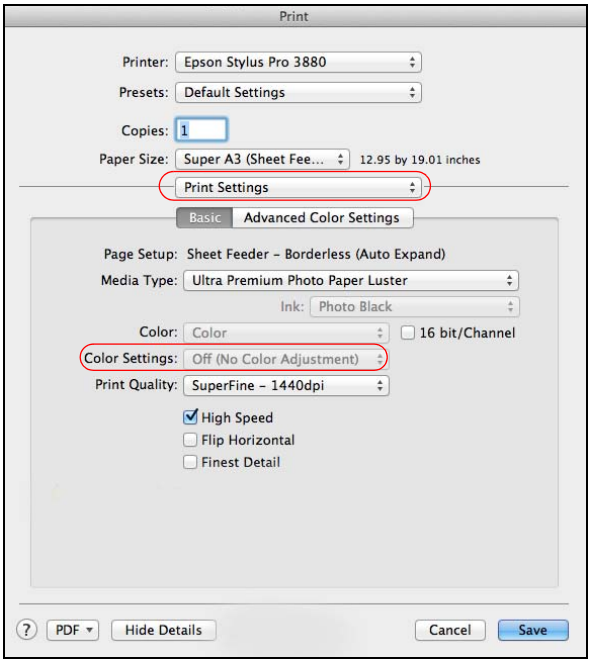
Follow the steps in the next section to select print settings to match the profile and print.

Printing Your Color-Managed Photo

1. Select your Epson professional printer in the Printer list.
2. Click **Show Details** or ▼ to expand the Print window, if necessary.

3. Click **Layout** on the pop-up menu and select **Print Settings** (Mac OS X 10.8) or **Printer Settings** (Mac OS X 10.7).
4. Select the Media Type setting for the paper you'll use for the print.

   Note:
   The Color Settings (Mac OS X 10.8) or Color Mode (Mac OS X 10.7) will show **Off (No Color Adjustment)**.



5. If you are using an Epson Premium ICC profile, set the **Print Quality** (Mac OS X 10.8) or **Output Resolution** (Mac OS X 10.7) setting to match your profile.
6. Click **Save**, then click **Print** to print your photo.

If you get unexpected results, see "Solving Color Management Problems" on page 34.

Solving Color Management Problems

If you selected the wrong combination of source profile, printer profile, and color management settings, you'll get unexpected results. Try these solutions:

- If your printed image is darker than expected, you may have turned off color management in both the application and the Epson printer driver.

  In Photoshop, return to the printing instructions for Windows or Mac OS X 10.8 and 10.7. Make sure the Document option is not set to Untagged RGB. Also make sure you selected the correct profile for your printer in the Profile menu.

  In Lightroom, make sure you selected the profile for the paper you're going to print on as the Profile setting. If you're printing with Epson Premium ICC profiles, select the profile that also matches the print quality you selected.

- If your printed image is lighter than expected, you may have turned on color management in both Photoshop and the Epson printer driver.

  Make sure the Off (No Color Adjustment) Mode setting is selected in Windows or Mac OS X 10.8 and 10.7 to turn off color management in your Epson printer driver.