Color Management Guide

Printing With Epson Premium ICC Profiles
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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® CS3, CS4, CS5, or Adobe Photoshop Lightroom®, follow the instructions in these sections for your operating system:

- “Windows 7, Windows Vista, and Windows XP” below
- “Mac OS X 10.5 and 10.6” on page 20
- “Mac OS X 10.4.11” on page 35

Windows 7, Windows Vista, and Windows XP

Follow the instructions in these sections:

- “Print With Adobe Photoshop CS5” below
- “Print With Adobe Photoshop CS3 and CS4” on page 8
- “Print With Adobe Photoshop Lightroom 1.4 - 3.x” on page 14

Print 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.
Set Up the Photoshop Environment

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


4. Click OK.

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

Assign 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 ColorMatch RGB or sRGB IEC61966-2.1
- A scanner profile for your scanner
- A camera profile for your digital camera

Also click the Preview box 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™ or Datacolor® Spyder3™.

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

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.

**Print 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:

   ![Quality Options Window](image)

   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)** in 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 “Solve Color Management Problems” on page 47.

**Print With Adobe Photoshop CS3 and CS4**

First set up your color management environment in Photoshop and assign a profile to your image. Then select your print settings and print (the steps show Photoshop CS4 screens).

**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.
**Set Up the Photoshop Environment**

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

![Color Settings](image)


4. Click OK.

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

**Assign 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 ColorMatch RGB or sRGB IEC61966-2.1
■ A scanner profile for your scanner
■ A camera profile for your digital camera

Also click the Preview box 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 or Datacolor Spyder3.

3. Click OK.
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. Select File, then select Print or Print with Preview.
8. Select your Epson professional printer in the Printer list, then select Color Management.


10. Under Color Handling, select Photoshop Manages Colors.

11. 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.
12. 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.

13. Select the Black Point Compensation checkbox.

14. Click the Print button.

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

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

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

![Epson Stylus Pro 3880 Properties](image)

**IMPORTANT:** Select Off (No Color Adjustment)

**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.

7. Click **OK** or **Print** to print your photo.

If you get unexpected results, see “Solve Color Management Problems” on page 47.
**Print With Adobe Photoshop Lightroom 1.4 - 3.x**

First select your printer and page setup options in Lightroom. Then set the color management options, select print settings, and print.

**Select Color Management Options**

1. Open Lightroom.
2. Select the photo you want to print.
3. Select the Print module, and 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.
Print 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:

   ![Quality Options window]

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

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

7. Click **OK** to print.

If you get unexpected results, see “Solve Color Management Problems” on page 47.
Mac OS X 10.5 and 10.6

Follow the instructions in these sections:
- “Print With Adobe Photoshop CS5” below
- “Print With Adobe Photoshop CS3 and CS4” on page 26
- “Print With Adobe Photoshop Lightroom 1.4 - 3.x” on page 30

Print 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.

Set Up the Photoshop Environment

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

4. Click OK.

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

**Assign 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 ColorMatch RGB or sRGB IEC61966-2.1
   - A scanner profile for your scanner
   - A camera profile for your digital camera

   Also click the Preview box 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 or Datacolor Spyder3.

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

5. Select your Epson professional printer in the Printer pop-up menu.


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.
Print Your Color-Managed Photo

1. Select your Epson professional printer in the Printer list.
2. Click ▼ to expand the Print window, if necessary.
3. Select the Paper Size setting that matches the size paper you’re printing on.
4. Select Printer Settings from the pop-up menu.
5. Select the Media Type setting for the paper you’ll use for the print.
6. In the Color Mode pop-up menu, select Off (No Color Adjustment).

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

7. If you are using an Epson Premium ICC profile, set the Print Quality setting to match your profile.
8. Turn off the High Speed option.
9. Select **Color Matching** from the pop-up menu.

10. Select **ColorSync**.

11. Click **Save**.
12. Select the correct orientation for your photo.

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

If you get unexpected results, see “Solve Color Management Problems” on page 47.


Print With Adobe Photoshop CS3 and CS4

First set up your color management environment in Photoshop and assign a profile to your image. Then select your print settings and print (the steps show Photoshop CS4 screens).

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.

Set Up the Photoshop Environment

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

4. Click OK.

Follow the steps in the next section to open the photo you want to print and assign a profile to it.
**Assign 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 **ColorMatch RGB** or **sRGB IEC61966-2.1**
   - A scanner profile for your scanner
   - A camera profile for your digital camera

   Also click the **Preview** box 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 or Datacolor Spyder3.

3. Click **OK**.

4. Select **File > Page Setup**.

   ![Page Setup](image)

5. Select your Epson professional printer in the **Format for** pop-up menu, then change the **Paper Size** and **Orientation** settings as necessary, and click **OK**.
6. Select **File**, then click **Print** or **Print with Preview**.
7. Select your Epson professional printer in the Printer list, then select **Color Management**.

8. Under **Color Management**, select **Document**.
9. Under **Color Handling**, select **Photoshop Manages Colors**.
10. 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.
11. 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.
12. Select the Black Point Compensation checkbox.
13. Click the Print button.

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

**Print Your Color-Managed Photo**

1. Select your Epson professional printer in the Printer list.
2. Click ▼ to expand the Print window, if necessary.
3. Select Printer Settings from the pop-up menu.
4. Select the Media Type setting for the paper you’ll use for the print.
5. In the Color Mode pop-up menu, select Off (No Color Adjustment).

![Print window settings](image)

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

6. If you are using an Epson Premium ICC profile, set the Print Quality setting to match your profile.
7. Turn off the High Speed option.
8. Click Print to print your photo.

If you get unexpected results, see “Solve Color Management Problems” on page 47.

**Print With Adobe Photoshop Lightroom 1.4 - 3.x**

First select your printer and page setup options in Lightroom. Then set the color management options, select print settings, and print.

**Select Color Management Options**

1. Open Lightroom.
2. Select the photo you want to print.
3. Select the Print module, and click the Page Setup button.

4. Select your Epson professional printer in the Format for pop-up menu.
5. Select the **Paper Size** setting for the paper size and source you are using, 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.

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

**Print Your Color-Managed Photo**

1. Select your Epson professional printer in the Printer list.
2. Click ▼ to expand the Print window, if necessary.
3. Select Printer Settings from the pop-up menu.
4. Select the Media Type setting for the paper you’ll use for the print.
5. In the Color Mode pop-up menu, select Off (No Color Adjustment).
Note:
Make sure that you select Off (No Color Adjustment). If you don’t, the printer driver will apply additional correction to the image data, producing inaccurate results.

6. If you are using an Epson Premium ICC profile, set the Print Quality setting to match your profile.
7. Turn off the High Speed option.
8. Click Print to print your photo.

If you get unexpected results, see “Solve Color Management Problems” on page 47.
Print With Adobe Photoshop CS3 and CS4

First set up your color management environment in Photoshop and assign a profile to your image. Then select your print settings and print (the steps show Photoshop CS4 screens).

**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.

**Set Up the Photoshop Environment**

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

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**Mac OS X 10.4.11**

Follow the instructions in these sections:

- “Print With Adobe Photoshop CS3 and CS4” below
- “Print With Adobe Photoshop Lightroom 1.4 - 2.x” on page 41

4. Click OK.

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

**Assign 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 ColorMatch RGB or sRGB IEC61966-2.1
   - A scanner profile for your scanner
   - A camera profile for your digital camera

   Also click the Preview box 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 or Datacolor Spyder3.

3. Click OK.

5. Select your Epson professional printer in the Format for pop-up menu.
6. Select the Paper Size setting for the paper size and source you are using, and the correct Orientation for your photo.

7. Click OK.
8. Select File, then click Print or Print with Preview.
9. Select your Epson professional printer in the Printer list, if necessary, then select Color Management.

11. Under Color Handling, select Photoshop Manages Colors.

12. 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.

13. 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.

14. Select the Black Point Compensation checkbox.

15. Click the Print button.

Follow the steps in the next section to select print settings to match the profile and print.
Print Your Color-Managed Photo

1. Select your Stylus professional printer in the Printer list.
2. Select Printer Settings from the pop-up menu.
3. Select the Media Type setting for the paper you'll use for the print.
4. Select Advanced as the Mode setting.
5. If you are using an Epson Premium ICC profile, set the Print Quality setting to match your profile.
6. Turn off the High Speed option.
7. Select **Color Management** from the pop-up menu.

![Color Management settings](image)

**IMPORTANT:**
Select **Off (No Color Adjustment)**

8. Select **Off (No Color Adjustment)**.

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

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

If you get unexpected results, see “Solve Color Management Problems” on page 47.
Print With Adobe Photoshop Lightroom 1.4 - 2.x

First select your printer and page setup options in Lightroom. Then set the color management options, select print settings, and print.

Select Color Management Options

1. Open Lightroom.
2. Select the photo you want to print.
3. Select the Print module, and click the Page Setup button.
4. Select your Epson professional printer in the Format for pop-up menu.
5. Select the **Paper Size** setting for the paper size and source you are using, 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.

10. 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.
Print Your Color-Managed Photo

1. Select your Epson professional printer in the Printer list.
2. Select Printer Settings from the pop-up menu.

3. Select the Media Type setting for the paper you’ll use for the print.
4. Select Advanced as the Mode setting.
5. If you are using an Epson Premium ICC profile, set the Print Quality setting to match your profile.
6. Turn off the High Speed option.
7. Select **Printer Color Management** from the pop-up menu.

8. Select **Off (No Color Adjustment)**.

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

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

   If you get unexpected results, see “Solve Color Management Problems” on page 47.
Solve 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 and/or has a yellow-brown cast, you probably turned off color management in both the application and the Epson printer driver.

  In Photoshop, return to the Print or Print with Preview instructions for Windows, Mac OS X 10.6 and 10.5, or Mac OS X 10.4.11. 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 and/or has a light blue cast, you probably turned on color management in both Photoshop and the Epson printer driver.

  Make sure to select Off (No Color Adjustment) as the Mode setting in Windows, as the Color Settings option in Mac OS X 10.6 and 10.5, or as the Color Management setting in Mac OS X 10.4.11 to turn off color management in your Epson printer driver.