

11 Ensuring Consistent Color



When your document must meet color standards set by clients and designers, viewing and editing color consistently becomes critical, all the way from scanning source images to creating final output. A color management system reconciles color differences among devices so that you can be reasonably certain of the colors your system ultimately produces.

In this lesson, you'll learn how to do the following:


- Specify a color management engine.
- Specify default source and destination ICC profiles.
- Assign ICC profiles in InDesign.
- Embed ICC profiles in graphics created in other Adobe programs.

Note: *This lesson is designed for Adobe Illustrator 8.01 and Adobe Photoshop 5.0 or later, with additional suggestions if you're using Illustrator 9. If you do not have those programs, you can set up default source and destination ICC profiles in InDesign, but you cannot complete the step-by-step instructions for color-managing graphics from Illustrator and Photoshop.*

Getting started

In this lesson, you'll set up color management for an advertisement for a fictitious chocolate company called Tiffins Truffles. The ad will run in a variety of publications, so getting consistent and predictable color is of primary concern. You will set up the color management system using a CMYK press-oriented workflow, build the document using graphics from other Adobe products, and specify ICC profiles for individual graphics to ensure color integrity.

This lesson uses a CMYK workflow, which requires a PostScript printer. If you have a non-PostScript printer (Windows only) and want to use color management, you'll need to use an RGB workflow.

 See “An RGB/LAB-based workflow” in the Adobe InDesign online Help.

Important: *Successfully calibrating and characterizing your monitor as explained in Lesson 10 is a prerequisite for doing this lesson. Therefore, do not restore the InDesign default preferences in this lesson as you have done in other lessons or you will override the calibration settings and monitor profile. If you skip Lesson 10, the on-screen colors will be unreliable.*

1 Start Adobe InDesign.

To begin working, you'll open an existing InDesign document.

2 Choose File > Open, and open the 11_a.indd file in the ID_11 folder, located inside the Lessons folder within the IDCIB folder on your hard disk. If an alert message appears that asks which dictionary file you want to use, click No (Windows) or Document (Mac OS).

Notice that the brown colors and images look muddy and lack clarity, and the overall color is saturated. This is because you have not enabled color management.

3 Choose File > Save As, rename the file **11_truffles.indd**, and save it in the ID_11 folder.

4 If you want to see what the finished document will look like, open the 11_b.indd file in the Final folder in the ID_11 folder. The ad consists of graphics created in InDesign and other Adobe applications. You will color-manage those graphics to achieve consistent color output from InDesign.

***Note:** Although color management is turned on for this document, the colors may still lack clarity because you have not yet set up color management for your computer or set a Preferences setting for displaying all available high-resolution image data.*



A. InDesign object **B.** Photoshop PSD file **C.** Legacy (archived) CMYK file
D. Illustrator file exported as a bitmap

● For a color version of the finished document, see the color section.

5 When you're ready to resume work on the lesson document, choose its name from the Window menu.

Components of a CMYK press-oriented workflow

In a CMYK workflow, you work with CMYK images prepared for a specific printing press or proofing device, or legacy (archived) CMYK images. You generate a source profile based on your press or contract-proofing standard and embed it into the CMYK images or assign the profile in InDesign. The profile enables consistent CMYK printing at other color-managed sites, such as when printing a national magazine on presses in many different cities. Because you use color management, the reliability and consistency of color display improves across all of your workstations. For final printed output, you assign a separations profile that describes your contract-proofing standard or your printing press.

Setting up color management in InDesign

Color management setup involves specifying default application-wide settings for the color management engine and destination profiles, and default document-level settings for source profiles and rendering intents.

Specifying the Adobe CMS engine

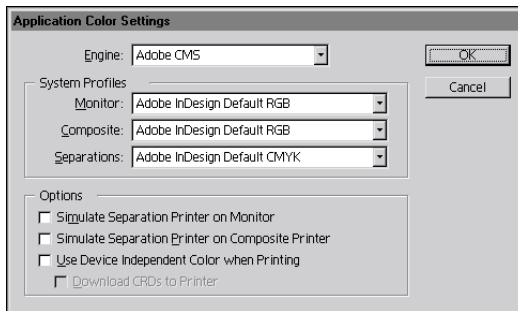
Different companies have developed various ways to manage color. To provide you with a choice, a color management system lets you choose a *color management engine* that represents the approach you want to use. The color management engine translates colors from the source device or standard to the destination device or standard.


- 1 Choose Edit > Color Settings > Application Color Settings.

The color management engine and other settings you choose in the Application Color Settings dialog box are saved with InDesign and apply to all InDesign documents you work on in the future.

- 2 For Engine, choose Adobe CMS, InDesign's built-in color management engine.

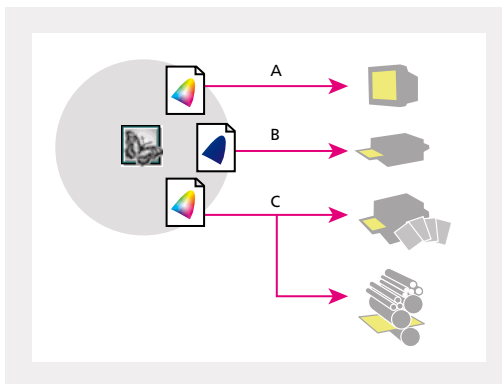
3 Leave the dialog box open so you can use it in the next section.



 Choose Adobe CMS unless your prepress service provider recommends another engine. Use the same engine throughout your workflow. To match CM engines across Adobe programs, in InDesign and Adobe Illustrator 8.0 choose Adobe CMS, and in Adobe Illustrator 9.0 choose Adobe (ACE). In Adobe Photoshop 5.0 and later, choose File > Color Settings > CMYK Setup, click ICC, and choose Built-In as the engine.

Setting up default destination profiles

To complete the application-wide color management setup, you'll choose destination profiles for the devices you will use to reproduce the color, including your monitor, composite proofing device, and final separations standard. InDesign refers to these destination profiles as system profiles.



A. Monitor profile **B.** Composite profile **C.** Separations profile (which can be an output device or press standard, such as SWOP or TOYO)

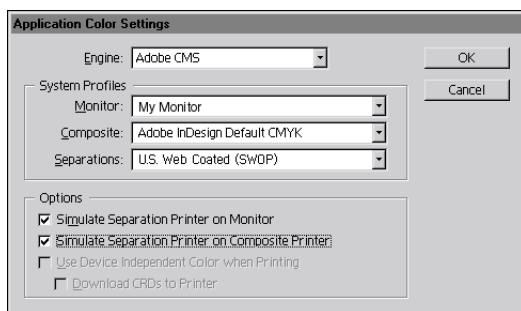
 For a color version of destination profiles, see figure 11-1 in the color section.

- 1 For Monitor, choose the profile you created when you calibrated your monitor in Lesson 10. This profile describes the calibrated color space of your monitor.
- 2 For Composite, choose the profile that best matches your color desktop printer. If you don't have one, choose Adobe InDesign Default CMYK, a generic profile for a composite color-proofing device. InDesign uses the composite profile to reproduce press colors as much as possible on your composite printer.
- 3 For Separations, choose U.S. Web Coated (SWOP). This profile describes the CMYK output standard that determines the final colors on press.
- 4 Select Simulate Separation Printer on Monitor to “soft-proof” your document on your monitor. This option uses the monitor profile to reproduce the press colors (described by the separations profile) within your monitor's gamut.

In a later section, you'll set the on-screen display of images to full resolution so that InDesign can color-manage all available image data.

- 5 Select Simulate Separation Printer on Composite Printer, and click OK.

This option uses the composite profile to reproduce the press colors (described by the separations profile) as much as possible within your composite printer's gamut.



Note: Unless you are using a product such as Adobe PressReady™, with its host-based PostScript 3™ RIP (raster image processor) and color management capabilities for certain desktop inkjet printers, the reliability of proofing on desktop printers is limited. Desktop printers don't use the same colorants (inks) or substrates (paper stocks) as a printing press.

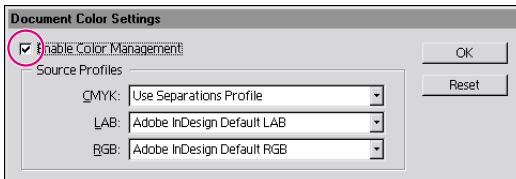
Turning on color management

By default, color management for the document is off, because successful color management requires that you set it up properly before depending on it.

- 1 Choose Edit > Color Settings > Document Color Settings.

The color management setting and other settings you choose in the Document Color Settings dialog box are stored with a document and can be different for each document.

- 2 Select Enable Color Management.

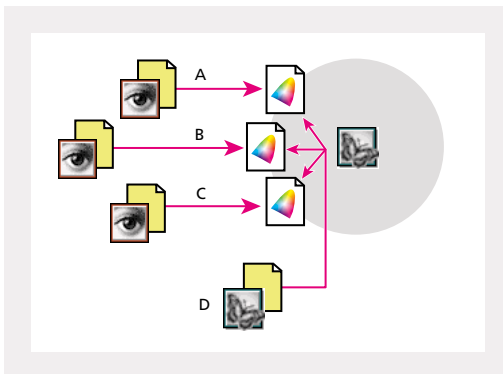


Note: If you turn on color management after you open a document, color management settings apply only to the current document. For color management to become the InDesign default, turn it on when no documents are open.

- 3 Leave the dialog box open so you can use it in the next section.

Specifying default source profiles

Source profiles describe the color space InDesign uses when you create colors in InDesign and apply them to objects, or when you import an RGB, CMYK, or LAB color graphic that wasn't saved with an embedded profile. When you import an image with embedded profiles, InDesign will color-manage the image using the embedded profiles rather than the profiles you choose here, unless you override the embedded profiles for an individual image.




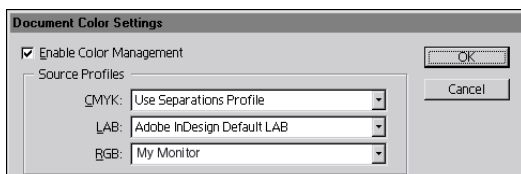
A. LAB profile B. RGB profile C. CMYK profile D. InDesign document applying a profile that matches the color model of each image that lacks a profile


● For a color version of source profiles, see figure 11-1 in the color section.

1 For CMYK, choose Use Separations Profile, which uses the same separations profile you specified when you set up destination profiles in the previous section. This way, the CMS won't unnecessarily convert CMYK colors you've specified with your final output already taken into account.

Because this project uses CMYK images exclusively, and all colors in the InDesign document have been created using the CMYK color mode, you can leave the settings for LAB and RGB as they appear now.

 For information on other workflows where LAB and RGB settings would apply, see “Color management workflows for commercial printing” in the Adobe InDesign online Help.




 If you do not have a scanner profile and you are replacing RGB scans directly in InDesign, use Adobe RGB (1998).

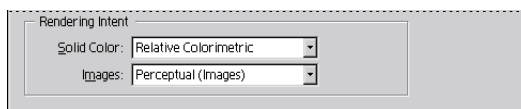
2 Leave the dialog box open so you can use it in the next section.

Specifying the rendering intent

The rendering intent determines how the color management engine translates colors from one device's color space to another. You'll specify the color translation method for InDesign's color management engine to apply to the graphics in the ad.

 For descriptions of different rendering intents, see “About translating colors between gamuts” in the Adobe InDesign online Help.

1 In the Document Color Settings dialog box, leave Relative Colorimetric selected for the Solid Color option. This option preserves individual colors at the expense of color relationships, so it's appropriate for business logos and other such graphics.



2 For Images, leave Perceptual (Images) selected. This option preserves color relationships to match the way the eye sees real-world objects, so it's appropriate for photographs.

3 Move the dialog box out of your way and study the colors in the ad.

Notice the heavy use of brown. You'll see a noticeable difference in the browns when you apply color management by closing the dialog box in the next step.

4 Click OK.

Several colors change in the ad, but most noticeably the browns; they appear to have more detail. It's important to note that although the images look better than they did when you opened the document, the images themselves have not been altered—only the display of the images has changed. Specifically, what you see now represents the color characteristics of:

- The program or scanner that saved the image, using the source profile embedded in the image.
- The final output device for the document, using the destination profile you set up earlier in the lesson.
- The monitor on which you're viewing the document, using the monitor profile you created using Adobe Gamma in Lesson 10.

It's easy to see that the success of color management ultimately depends on the accuracy of your profiles.

Using full resolution display with color management

When you use image display resolutions lower than Full Resolution so that screen redraw is faster, image color display is also made faster by displaying their colors less precisely. Image colors display most precisely when you view images at full resolution (in addition to turning on color management).

1 Choose Edit > Preferences > General.

2 For Display, make sure Full Resolution is selected and click OK.

It's especially important to view color-managed images at full resolution when you work with duotones.

3 Choose File > Save.


When color management is on, image display is set to full resolution, and you use accurate profiles that are applied properly, you see the best possible color representation that your monitor is capable of.

***Note:** To conserve disk space, the sample files for this lesson are 150 pixels per inch (ppi), so the colors do not appear as precise as they would using a higher resolution.*

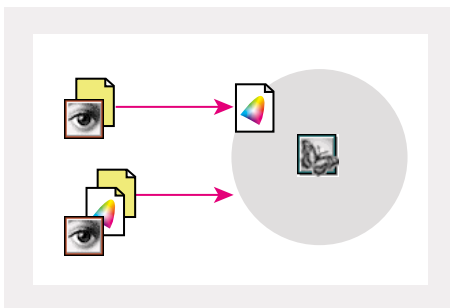
Color-managing imported graphics in InDesign

When you import a graphic, you can control its color management in your document. If you know that an imported graphic contains an accurate embedded profile with an appropriate rendering intent, you just import it and continue working. InDesign will read and apply the embedded profile to the graphic, integrating it into the CMS for the document. If an imported bitmap image does not include an embedded profile, InDesign applies the default source profile (CMYK, RGB, or LAB) to the image. InDesign also applies a default source profile to InDesign-drawn objects. You can assign a different profile within InDesign or open the graphic in the original application and embed the profile there.

In general, InDesign can color-manage vector graphics if you save them as PDF or EPS (when using PostScript color management), but for the purposes of color management it's usually most reliable to export them as bitmap images such as TIFF, JPEG, or PSD. Regardless of the format, you must enable the source program's option for embedding ICC profiles. You'll read specific procedures for color-managing graphics from Photoshop and Illustrator later in this lesson.

 For information on PostScript color management, see “PostScript color-managed output workflows” in the Adobe InDesign Online Help.”

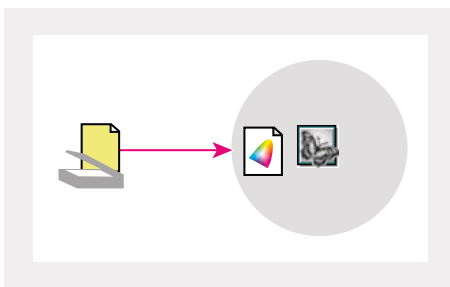
The ad already includes two images that were saved without embedded profiles. You'll integrate those images into the document CMS using two different methods: assigning a profile within InDesign and opening the original image so you can embed the profile. Later in the lesson, you'll import two additional graphics and practice two methods of assigning a profile before you place them in the ad.



You can assign ICC profiles to any bitmap image within InDesign (top), or use the originating application to embed profiles in image files (bottom).


Assigning a profile after importing an image

When you import images into InDesign that were saved without embedded profiles, InDesign applies its default source profile to the image. If an imported image was not created in the default color space, you should assign the profile that describes the image's original color space.



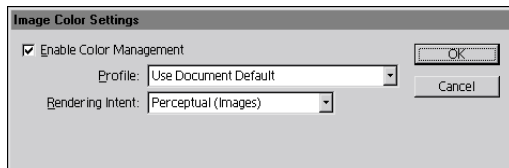
InDesign applies its default source profile to any bitmap image without embedded profiles.

You'll work with an image that was imported into InDesign before you turned on color management. First you'll confirm the default profile InDesign is using to color-manage the image. Then within InDesign, you'll assign a new profile because the image's original color space is different from the default color space.

- 1 Using the selection tool (), select the plate of truffles on the left side of the ad.



- 2 Choose Object > Image Color Settings.



Notice that Enable Color Management is selected and the profile is Use Document Default. InDesign enables color management for each imported image and assigns the default source profile you set up earlier in this lesson. You can disable color management for individual images using the Image Color Settings dialog box. You can also assign a new profile here. Because you are assigning the profile within InDesign, the change will apply only to the selected image in this document.

- 3 For Profile, choose Light GCR 280 UCR CMYK US Negative Proofing to match the image's original color space. This profile represents the color lookup tables used by the scanner operator who originally scanned this as a CMYK image.

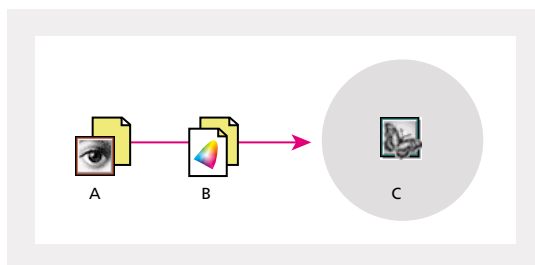
- 4 Leave the Rendering Intent as Perceptual (Images) and click OK.

InDesign will color-manage the image using the newly assigned profile.

Embedding a profile in a Photoshop TIFF image

As a general rule, you should embed ICC profiles in files before importing the files into another document that uses color management. That way, images with embedded profiles will more likely appear as intended in InDesign or other color-managed programs without requiring any additional work.

In this section, you'll work with a previously imported color bitmap image that does not contain an embedded profile.



A. Image's working CMYK color space B. Image with embedded ICC profile C. InDesign uses embedded profile

Note: If you don't have Photoshop installed on your system, you can use the Photoshop files provided in the lesson folder. The steps indicate when to do so.

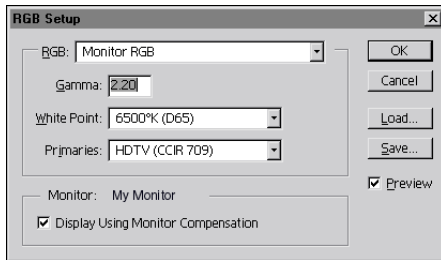
Setting up color management in Photoshop

First you'll define the *working color spaces* (used for viewing and editing) for the image's RGB and CMYK color modes.

- 1 Start Photoshop, and choose File > Color Settings > RGB Setup.

The RGB Setup dialog box defines the RGB color space Photoshop uses for displaying and editing RGB images. Because you're working in a CMYK workflow, you do not need to adjust most RGB Setup information. However, you'll make sure a certain option is selected.

2 Leave the settings in the top half of the dialog box as they appear now, but make sure Display Using Monitor Compensation is selected. Selecting this option instructs Photoshop to display images using the profile defined by the Adobe Gamma utility, which you set up in Lesson 10. This setting produces more reliable on-screen colors when you soft-proof CMYK images, because it takes into account the color characteristics of your monitor. Click OK.



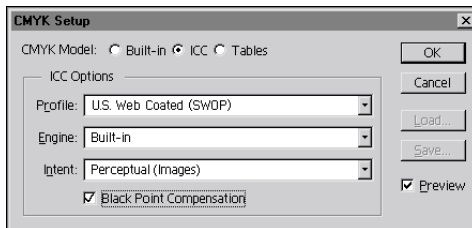
3 Choose File > Color Settings > CMYK Setup.

The CMYK Setup dialog box defines which CMYK space to use for displaying and editing CMYK images.

4 For CMYK Model, select ICC to base the CMYK color space on the ICC profile of the press standard you choose in the next step.

5 For Profile, choose U.S. Web Coated (SWOP) so that the embedded profile matches the default separations profile you specified in InDesign.


6 Leave the Engine setting as Built-In (which corresponds to Adobe CMS in InDesign), and the Intent as Perceptual (Images). Then click OK.



InDesign will use this CMYK color space for displaying the chocolate image.

Embedding the profile


Now that you have specified the working color spaces for the Photoshop image, you'll embed the specified profile.

1 In InDesign, use the selection tool () to select the large chocolate image. Click in the upper right area of the ad.



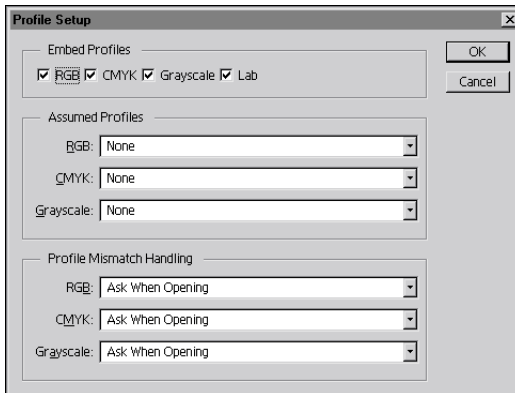
2 Choose File > Links to display the Links palette.

3 With the image still selected, do one of the following:

- If you don't have Photoshop, you can read the information in this section and the next one, and then skip to step 2 in "Updating the image within InDesign" on page 374 to use the Photoshop file provided in the lesson folder.
- If you have Photoshop, click the Edit Original button () at the bottom of the Links palette to open the image in Photoshop. The image has been converted to CMYK so you can use it in your CMYK press-oriented workflow. If the image were RGB, you would need to convert it before continuing.

4 In Photoshop, choose File > Color Settings > Profile Setup.

5 Make sure all options for Embed Profiles are selected. Leave the rest of the settings in the dialog box as they appear now—they are not relevant because you are saving the file. (The other options apply to opening files.) Then click OK.



6 To embed the profile, choose File > Save As, rename the file **11_dprof.tif**, and save it in the ID_11 folder. In the TIFF Options dialog box, click OK to accept the default.

7 Close the image and exit Photoshop.

Updating the image within InDesign


Now that you've embedded the ICC profile in the Photoshop file, you can update the image in InDesign. InDesign will color-manage the image using the embedded profile.

1 In InDesign, select the large chocolate image.

2 Do one of the following:

- If you followed Photoshop instructions in the previous sections, click the Relink button (↻) at the bottom of the Links palette. Click Browse and locate the 11_dprof.tif file you just saved in the ID_11 folder. Double-click the file.
- If you don't have Photoshop or skipped the previous two sections, click the Relink button (↻) at the bottom of the Links palette. Click Browse and locate 11_dprof.tif in the Final folder (you may need to select All Files for Files of Type). Double-click the file.

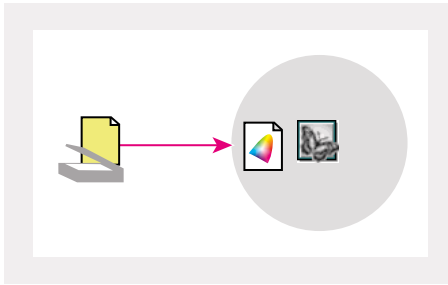
3 To confirm that the embedded profile is being used, position the pointer on the black triangle to the right of the Links palette tab and choose Link Information from the Links palette menu. In the dialog box, check that the Profile says U.S. Web Coated (SWOP), and then click Done.

 A quick way to check profiles for all graphics in a document is by using the Preflight feature to view document components.

Now that you have fixed existing graphics in the document, you will finish the ad by importing two additional graphics and setting options as you import.

Assigning a profile while importing a graphic

If you know a color-managed image uses a color space that is different from the color space described by the default source profile, you can assign a profile to it while you're importing the image into InDesign. You'll import a legacy (archived) CMYK image scanned without a profile, and assign a profile before you place it in the ad.

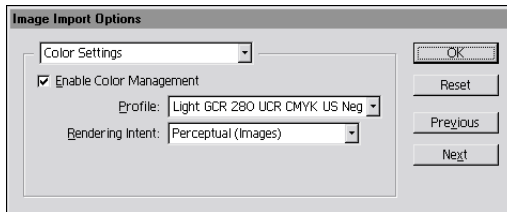


You can assign a profile while you import an image.

- 1 In InDesign, choose View > Show Frame Edges to show the outline of the frame for the graphic you're about to place—and the outlines for all the graphics frames in the ad.
- 2 Using the selection tool () , select the top-most empty frame in the lower right area of the ad.



- 3 Choose File > Place.
- 4 Select Show Import Options so that you can specify a profile.
- 5 Locate and double-click the 11_e.psd file in the ID_11 folder, located inside the Lessons folder within the IDCIB folder on your hard disk.
- 6 Choose Color Settings from the menu at the top of the Image Import Options dialog box.
- 7 Make sure Enable Color Management is selected. For Profile, choose Light GCR 280 UCR CMYK US Negative Proofing to match the image's original color space.



- 8 Leave the Rendering Intent as Perceptual (Images), and then click OK.



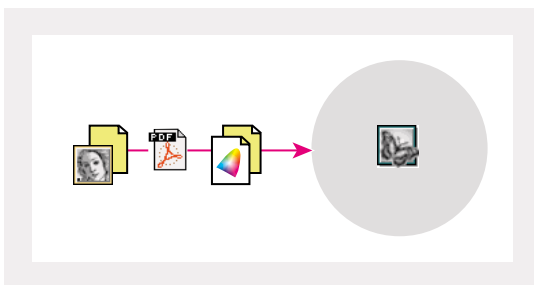
The image appears in the selected frame. InDesign will color-manage the image using the profile you assigned.

Embedding a profile in an Illustrator graphic

In this lesson, you'll set up Illustrator 8 so that its color management settings match InDesign. You'll then save a color-managed Illustrator graphic and place it in an InDesign document.

InDesign can color-manage vector graphics created in Illustrator 8 when you save them in formats that embed profiles, such as PDF or TIFF. In this lesson, you'll save a file as PDF and then place the graphic in InDesign.

Note: If you don't have Illustrator 8 or 9 installed on your system, you can read the information in the next two sections, and then skip to step 2 in "Placing a color-managed Illustrator file into InDesign" on page 380 to use the Illustrator file we provide.



InDesign color-manages a PDF file using the profiles saved with the PDF version of the file.


Setting up color management in Illustrator

First you'll set up color management in Illustrator 8 so that it matches color management settings in InDesign. This ensures that the colors are consistent from Illustrator to InDesign on screen and in print. Setting up color management in Illustrator also enables you to embed an ICC profile in an exported version of the Illustrator file. When you place the exported Illustrator file in the InDesign layout, InDesign will color-manage the logo using the embedded profile.

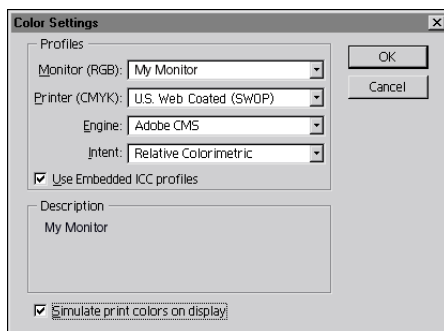
Note: If you are using Illustrator 9, see the sidebar for Illustrator 9 later in this lesson, because the color settings required for this lesson are significantly different than those used in Illustrator 8.

- 1 Start Adobe Illustrator, and choose File > Color Settings.

- 2 In the Color Settings dialog box, select the monitor profile you created in Lesson 10 using Adobe Gamma.
- 3 From the Printer (CMYK) menu, select U.S. Web Coated (SWOP) for your final output device.

 *If you are printing a proof to a desktop printer and then printing to the final output device, be sure to select the profile for the final output device once you have printed your proof to a desktop printer.*

- 4 For Engine, leave Adobe CMS selected.
- 5 For Intent, select Relative Colorimetric to leave colors that fall inside the gamut unchanged. This method usually converts out-of-gamut colors to colors that have the same lightness but fall just inside the gamut.
- 6 Select the Use Embedded ICC Profiles option to save the profile with the PDF version of the Illustrator file you'll create in the next section.
- 7 Select the Simulate Print Colors on Display option so that on-screen colors simulate the printed output. Then click OK.

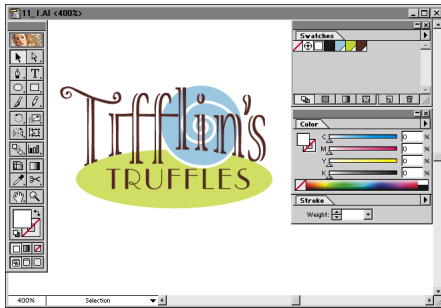


You have finished setting up color management in Illustrator 8.

Embedding a profile in a graphic from Illustrator

An Illustrator 8 file can embed an ICC profile when exported to PDF or a bitmap format, and InDesign can use the profile to color-manage the graphic. In this lesson, you'll export a file to PDF format, and then place the graphic in an InDesign document.

1 In Illustrator 8, choose File > Open. Locate and double-click the 11_f.ai file in the ID_11 folder, located inside the Lessons folder within the IDCIB folder on your hard disk.



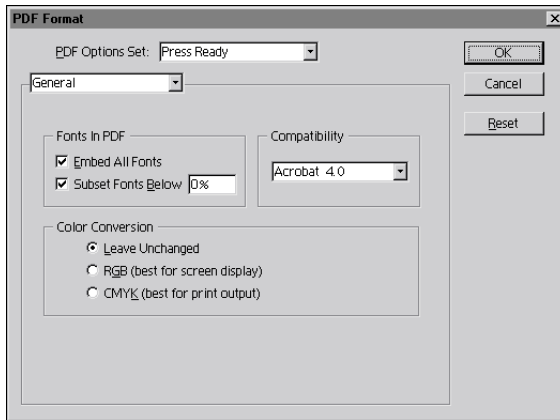
2 Choose File > Save As.

3 Name the resulting PDF file **11_Logo.pdf**, and choose Acrobat PDF from the Save as Type (Windows) or Format (Mac OS) menu. Make sure the ID_11 folder is selected, and then click Save to display the PDF Format dialog box.

4 Make sure Press Ready is selected in the PDF Options Set menu. The Press Ready option creates output appropriate for printing to high-resolution presses.

Note: The Press Ready option set is intended to prepare a document for a printing press. There is no connection between the Press Ready option and Adobe PressReady software.

5 For Compatibility, choose Acrobat 4.0. This setting ensures that the profile is saved with the PDF file. Then click OK.



6 Close the file and exit Illustrator 8.

Placing a color-managed Illustrator file into InDesign

Now that you have created a PDF file of the Illustrator 8 document, you'll place it in InDesign.

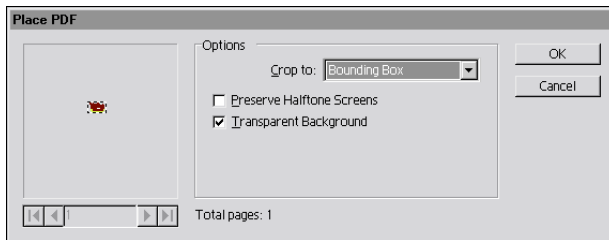
1 In InDesign, select the empty frame in the bottom right area of the ad.



2 Do one of the following:

- If you followed Illustrator instructions in the previous sections, choose File > Place and select the 11_Logo.pdf file you created.

- If you don't have Illustrator or skipped the previous two sections, choose File > Place and select the 11_Logo.pdf file in the Final folder in the ID_11 folder, located inside the Lessons folder within the IDCIB folder on your hard disk.
- 3 Make sure Show Import Options is selected, and then click Open (Windows) or Choose (Mac OS).
 - 4 For Crop To, choose Bounding Box. This option places only the logo's bounding box—the minimum area that encloses the logo.
 - 5 Make sure Transparent Background is selected so that you can see any text or graphics behind the bounding box, and then click OK.



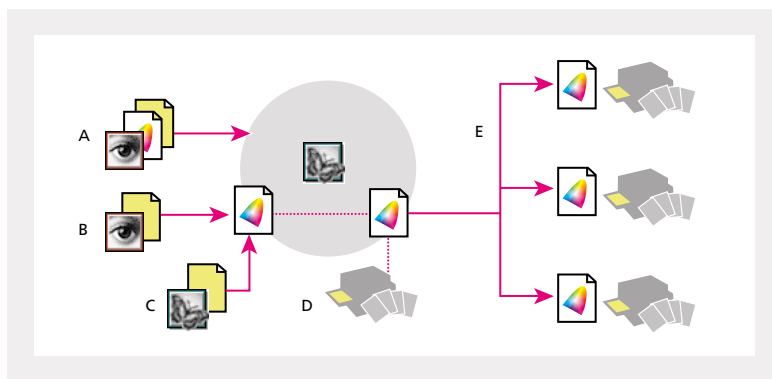
The logo appears in the selected frame. InDesign will color-manage the PDF file using the embedded profile.



- 6 Save the file.

In this lesson, you have learned how to set up color management across three Adobe applications—an admirable achievement. You have learned several methods for incorporating graphics so that they can be color-managed when placed in InDesign documents. Because you described your color environment to the other Adobe applications whose graphics you imported, you can expect predictable, consistent color for those graphics across the applications.

At this time, you could either hand off the native InDesign file with all the linked files, or export the InDesign file as PDF, embedding the ICC profiles you assigned. If you create a PDF file of the document, the colors in the ad will look the same across all publications that use the ad, regardless of the color-management settings used by the publication's layout application. A CMS at the press will translate the color information in the document to the color space of the press.



A. Image with embedded CMYK profile **B.** Image with CMYK profile assigned in InDesign **C.** InDesign document using a CMYK profile based on **D.** A separation profile **E.** Different separation profiles when targeting different presses

Color-managing Illustrator 9 files

Illustrator 9 includes expanded color-management options that more closely match InDesign. See the following guidelines when working with Illustrator 9 files.

Note: These settings are chosen to be appropriate for the document in this lesson, and for Illustrator 9 they replace the same headings earlier in this lesson. You may want to customize these settings for your own work.

To set up color management in Illustrator 9:

- 1 Choose **Edit > Color Settings**.
- 2 In the **Color Settings** dialog box, choose **US Prepress Defaults** from the **Settings** menu, and click **OK**.

The **US Prepress Defaults** setting matches the InDesign settings for this lesson and is a good starting point for commercial printing; you may want to specify a CMYK working space that matches your CMYK proofing standard.

To embed a profile in a graphic from Illustrator 9:

- 1 Choose **File > Export**.
- 2 In the **Export** dialog box, specify the name and location for the file.
- 3 Choose **Photoshop (PSD)** from the **Format** menu, select **Append File Extension**, and press **Enter** or **Return**.
- 4 In the **Photoshop Options** dialog box, specify the following options appropriate for a printing press:
 - For **Color Model**, choose **CMYK**.
 - For **Resolution**, select **High (300 dpi)**.
 - Select **Embed ICC Profile**.

Note: The **Embed ICC Profile** option is also available when you specify a vector graphics file format in the **Illustrator Save As** or **Export** dialog box; however, a profile embedded by Illustrator 9 will be recognized throughout the workflow only if you save or export to a bitmap format that supports ICC profile embedding.

–For more information about saving and exporting, see the *Adobe Illustrator 9.0 User Guide*.

Review questions

- 1 What do source profiles describe?
- 2 What are three ways to attach an ICC profile to a graphic so that InDesign can color-manage the graphic?
- 3 Why would you embed an ICC profile in a graphic?
- 4 Which file formats embed ICC profiles for use in both Windows and Mac OS?

Review answers

- 1 Source profiles describe the color space InDesign assigns to objects you create using the drawing tools, or when you import an RGB, CMYK, or LAB color graphic that wasn't saved with an embedded profile.
- 2 You can embed the profile in the original file, assign a profile within InDesign, or use the default profile you specified when you set up color management in InDesign.
- 3 Embedding an ICC profile ensures that the graphic displays correctly in any application that uses ICC-compliant color management. The application that uses the graphic honors the embedded profile rather than applying a default one.
- 4 A growing number of formats can contain an embedded ICC profile, but the most widely supported formats to use with embedded ICC profiles at this time are bitmap image formats such as Photoshop (PSD), TIFF, and JPEG.