Color Management in QuarkXPress v2.0

On completion of this module you will have developed an understanding of professional DTP applications and some of the strategies that are used for color printing and color workflow.

The specific areas and applications covered are:

QuarkXPress 8

Module Training Overview

Target audience will be:

Any technician who completed "Basic Color 2" module in Professional level, or technicians studying to become a color specialist. This module will help to develop an understanding of color management and printing strategies within popular DTP applications such as QuarkXPress.

Attainment Targets:

- To understand management of ICC profile using QuarkXPress.
- To perform printing setting based on color management using QuarkXPress.

Contents

1 QuarkXPress

1.1 Quark XPress Default Color Management

1.1.1 Overview

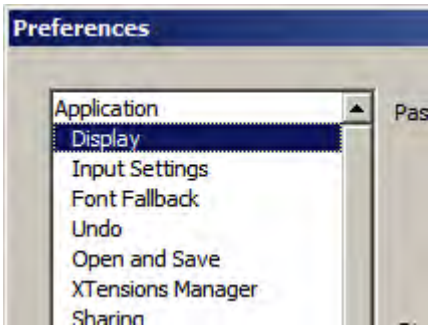
QuarkXPress has a powerful color management system that is built into the application. There are methods to control the workflow of color management, by matching profiles of your input and output devices.

QuarkXPress recommends using its carefully constructed default settings for most purposes, however advanced users can alter these settings for their needs.

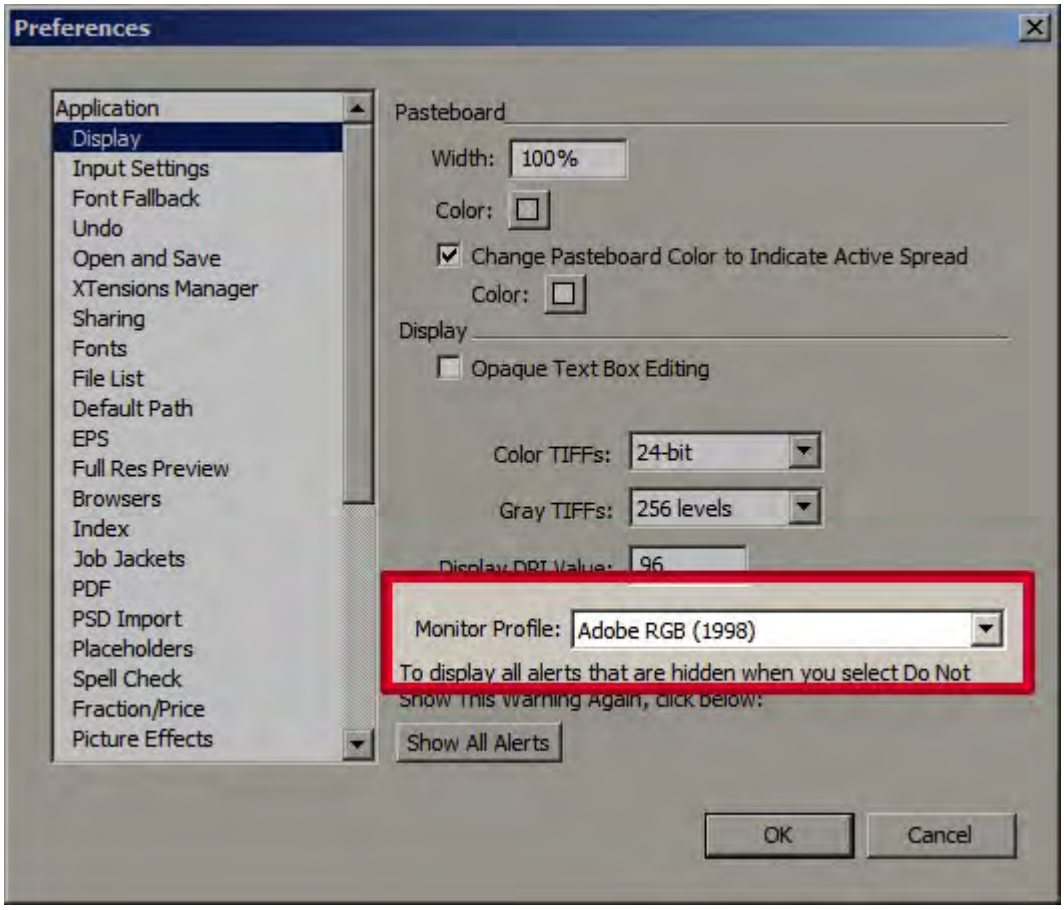
When setting preferences in QuarkXPress, determine if you are making changes to the application globally, or for the active open document. To set application-level color management preferences, apply the settings with no active document open. If there are color preference settings that are made with an open and active document, it will apply the settings which may be different from subsequent documents.

1.1.2 Setting a Monitor Profile

A properly configured monitor profile will help ensure that colors display correctly. To view the monitor profile used by QuarkXPress, choose Edit > Preferences to display the Preferences dialog box, and then click Display in the list on the left to see the Display pane.



Click the Monitor Profile drop-down menu to display the list of monitor profiles available on your computer. For monitors which are calibrated by a device such as X-Rite's *EyeOne Display* or *MonacoOPTIX*, choose its specific profile, otherwise select a generic monitor profile or leave as is (see Light Sources and Monitors in Color DTP v1.0).



Setting a monitor profile

1.1.3 Setting of Source Profiles

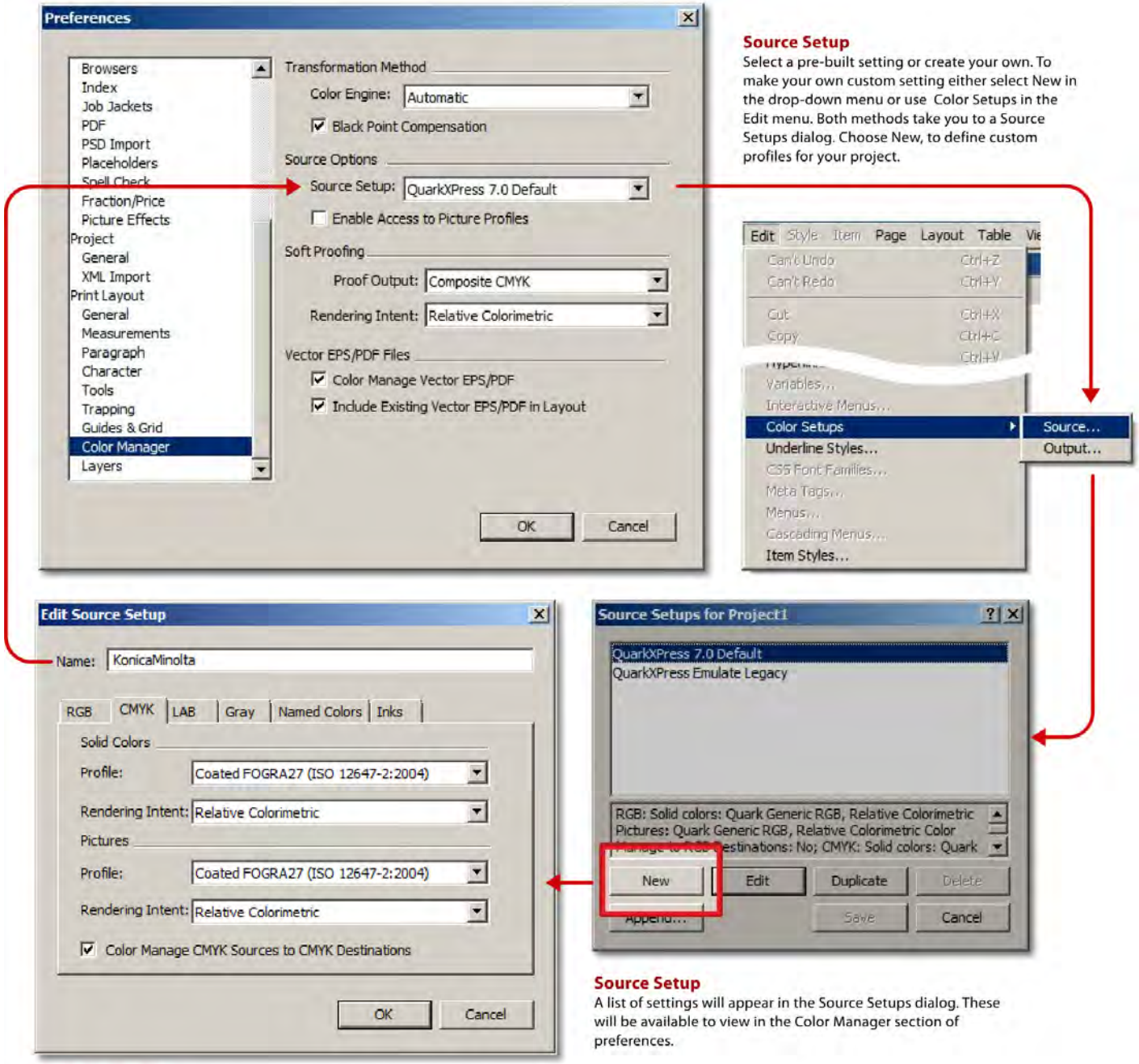
Quark assumes the source profile is to be used when it encounters an image which has no attached profile. If an image is placed in Quark with no qualifying profile, then Quark must assume a profile in order to be able to manage the color at all - it needs a starting point.

The default setting is adequate for most purposes, but to properly manage every aspect of the workflow, a custom setting will need to be generated. To create a custom setting which can be selected in the Color Manager section of Preferences, do either of the following:

Choose Edit > Color Setups > Source. From there select New to create a custom setting.

Choose File > Preferences > Color Manager > Source Setup and select New in the pop-up menu.

Either method will create a custom setting which defines the source of the colors. This will be saved in Source Setup (Preferences). See following diagram.



Source Setup

Select a pre-built setting or create your own. To make your own custom setting either select New in the drop-down menu or use Color Setups in the Edit menu. Both methods take you to a Source Setups dialog. Choose New, to define custom profiles for your project.

Source Setup

A list of settings will appear in the Source Setups dialog. These will be available to view in the Color Manager section of preferences.

Defining Profiles

RGB: this is where you set your current display profile.
CMYK: this is the profile of your intended output device. Separate settings can be defined for solid colors and pictures.
The Rendering Intent option allows for the method of converting out of gamut colors.

The process in setting Source profiles.

1.1.4 Setting of Output Profiles

The Destination Profiles section lets you choose International Color Consortium (ICC) profiles that correspond to your devices. Here you define what devices you have and what you will be doing with the result.

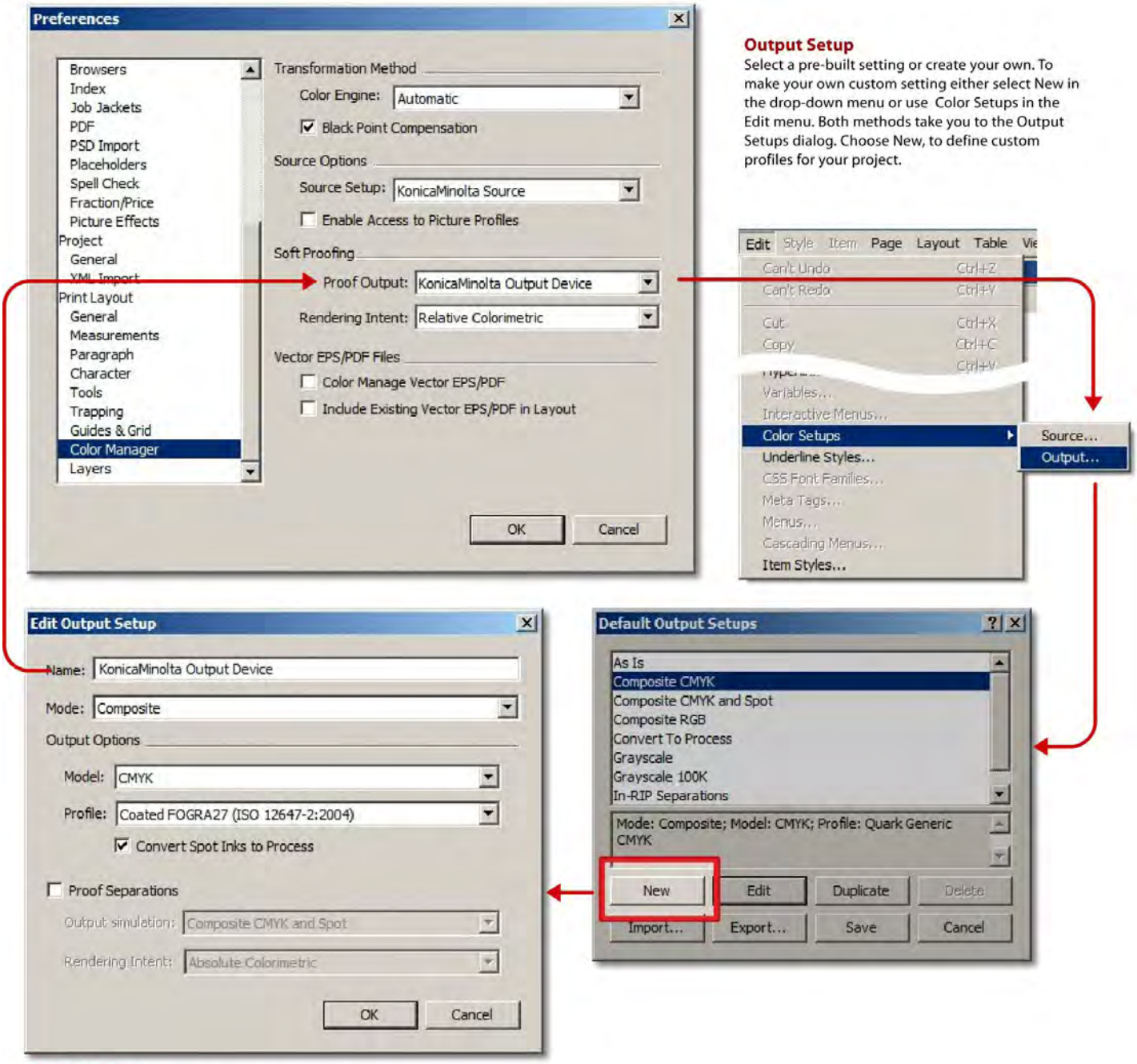
To understand how the profiles work refer to the diagram below. Each profile has an important role in color management by *describing* how the colors should appear. Without profiles each device would output or display its own version of those particular colors.

To create a custom setting which can be selected in the Color Manager section of Preferences, do either of the following:

Choose Edit > Color Setups > Output. From there select New to create a custom setting in the Edit Output Setup dialog. Select the appropriate profile for your output device.

Choose File > Preferences > Color Manager > Proof Output and select New in the pop-up menu. From there select New to create a custom setting in the Edit Output Setup dialog. Select the appropriate profile for your output device.

Either method will create a new custom setting which defines the output of the colors. This will be saved in Proof Output (Preferences). See following diagram.



Output Setup
Select a pre-built setting or create your own. To make your own custom setting either select New in the drop-down menu or use Color Setups in the Edit menu. Both methods take you to the Output Setups dialog. Choose New, to define custom profiles for your project.

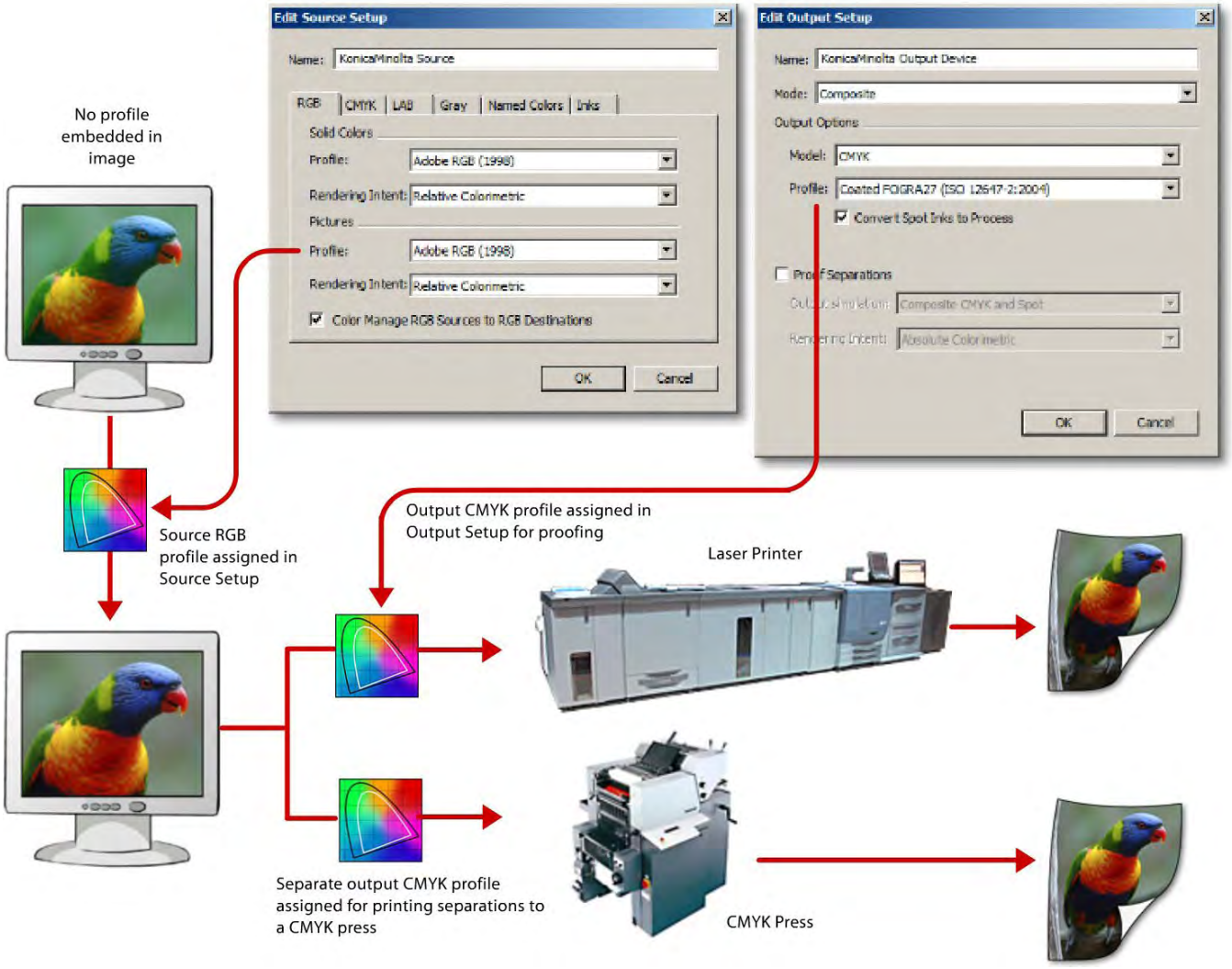
Output Setup
A list of settings will appear in the Source Setups dialog. These will be available to view in the Color Manager section of preferences.

The process in setting Output profiles.

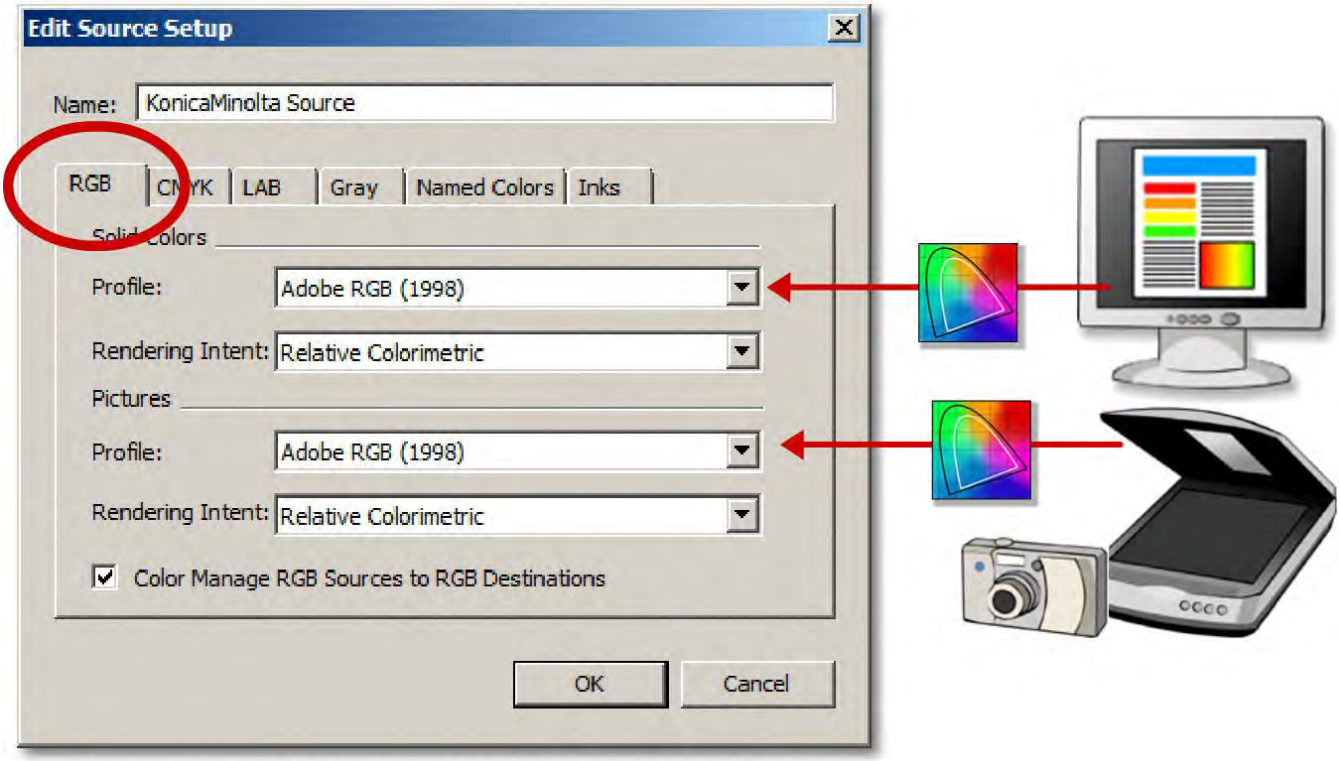
1.1.5 How Source and Output profiles work together

For proper color management, all the devices in the workflow will require a correctly assigned color profile. The Source profiles will describe the color of images coming into the workflow and will assign a profile based on your preferences. Likewise, the output profiles will need to be matched to corresponding devices used for proofing or printing.

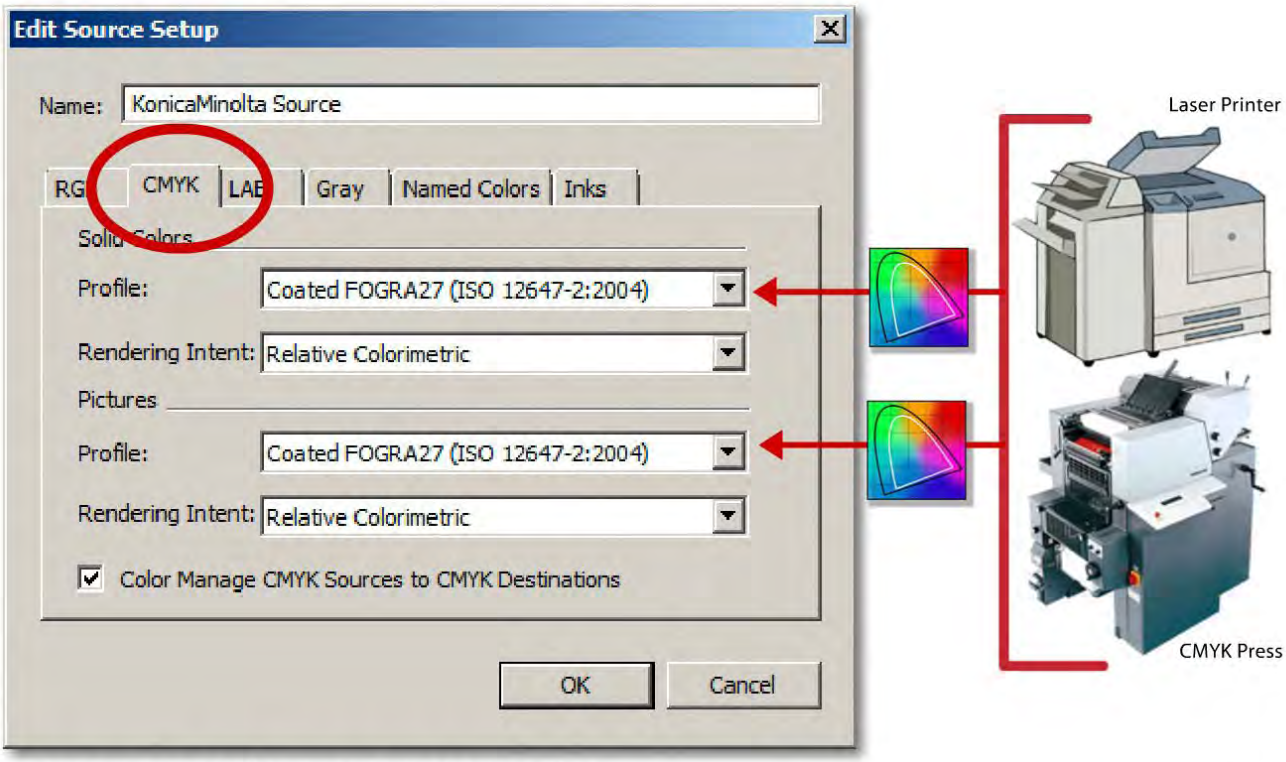
A *source setup* describes colors in a layout as they exist prior to output. You can think of a source setup as "where the colors came from." An *output setup* describes the capabilities of various types of output devices and determines how colors are handled in various output scenarios. You can think of an output setup as "where colors are going."



The color managed workflow for Source and Output profiles.



Choose appropriate profile for selected device, this will tell QuarkXPress the characteristics of the device and it's color gamut.
Unless you have a CMYK monitor or scanner (which are specialized devices), you should select the profile of your CMYK output device



Color Managing CMYK Sources to CMYK Destination
When not ticked, Quark CMS will only apply actual color correction when an image is in the wrong color space format for the chosen output. When ticked, Quark CMS will alter all output to a single profile when printed.

The source devices which need tagged profiles are defined in Edit Source Setup.

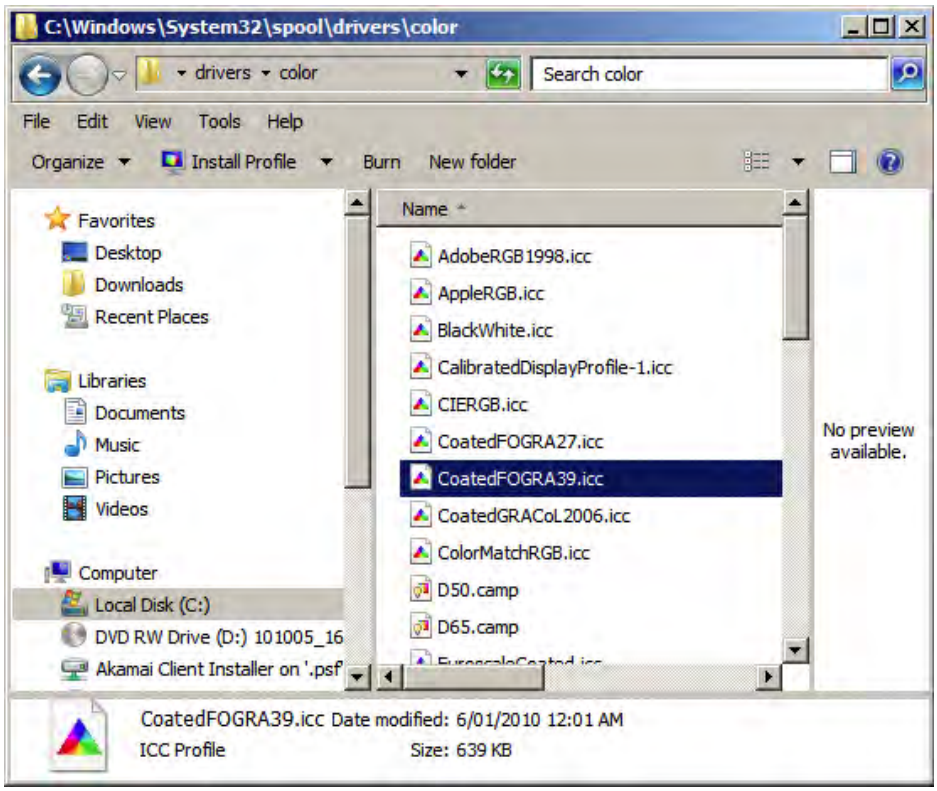
1.2 Profile Management

1.2.1 Installing Profiles

If you acquire new profiles from manufacturers, and those profiles are not automatically installed at the system level, you can install them in your operating system by dragging them into the appropriate location shown below (Refer to Color Printing Workflow in an Office Environment 2.1.3).

All ICC profiles (printer profiles and monitor profiles) are automatically installed here:

\Windows\system32\spool\drivers\color



Windows NT/2000:

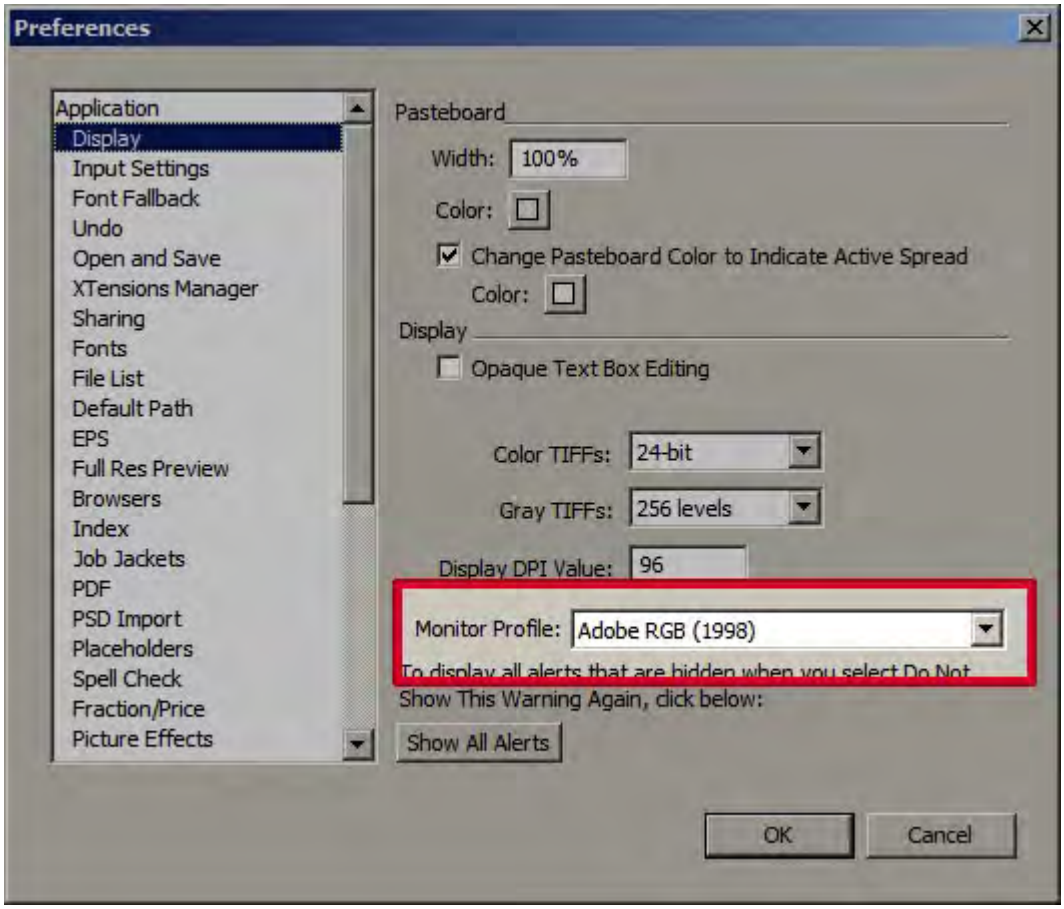
\Winnt\system32\spool\drivers\color

Windows 98/ME:

\Windows\System\Color

1.2.2 Display Simulation Profile

If you are "soft proofing" by using your monitor as your color-proofing device, select an appropriate profile in Monitor Profile (Preferences). For monitors which are calibrated by a device such as X-Rite's *EyeOne Display* or *MonacoOPTIX*, choose its specific profile, otherwise select a generic monitor profile or leave as is (see Light Sources and Monitors in Color DTP v1.0).

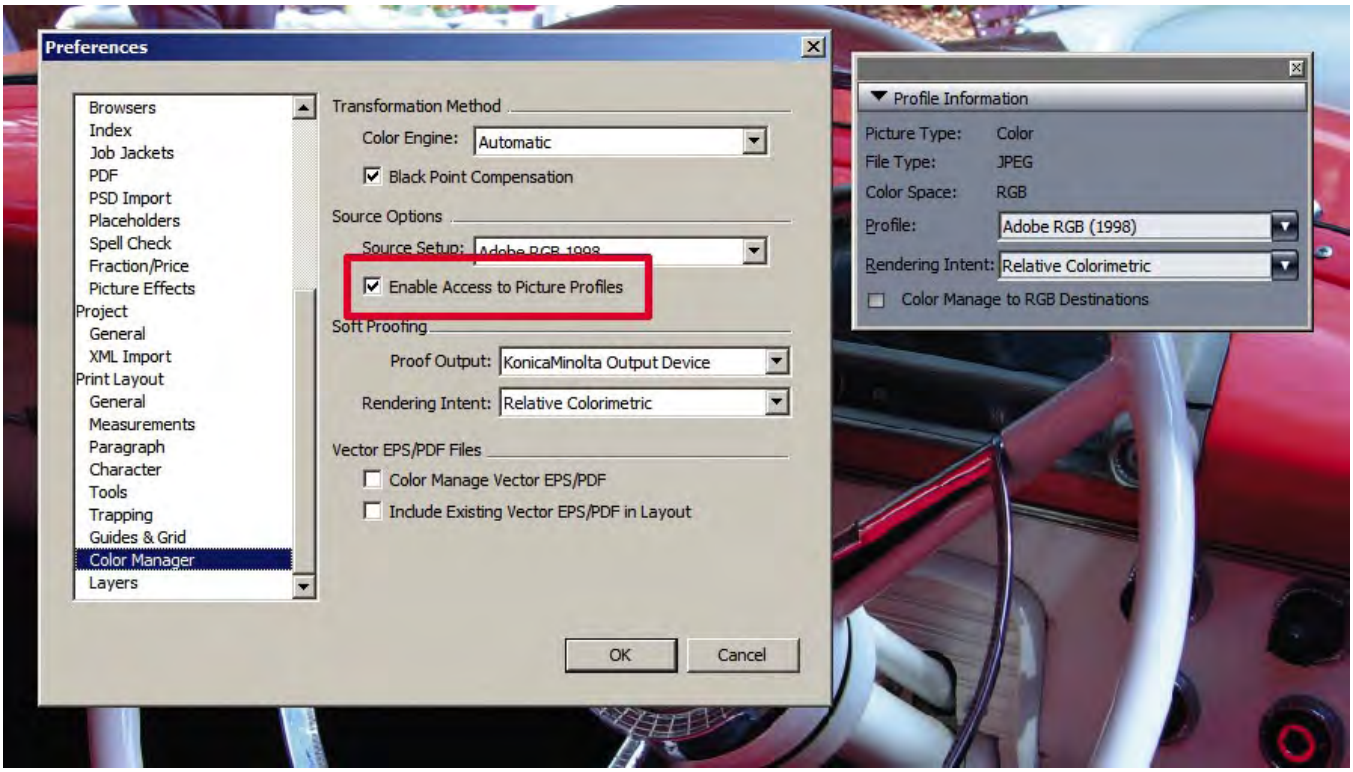


Display Simulation in Preferences.

1.2.3 Change of Image Profile

If you wish to change the profile of an existing image use Profile Information (Window menu). The Profile Information palette displays the Picture Type, File Type, and Color Space. You can change the Profile, Rendering Intent, and Color Manage to RGB Destinations/Color Manage to CMYK Destinations settings. When selecting Source Setup to be CMYK, Color Manage to CMYK Destinations settings will be displayed instead of Color Manage to RGB Destinations.

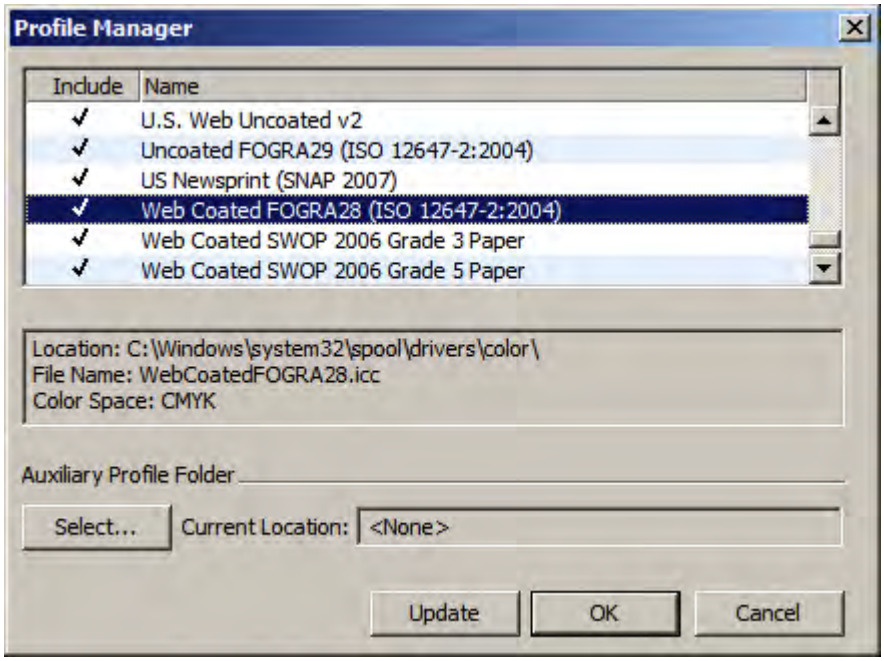
To enable access to change the image profiles, make sure that Enable Access to Picture Profiles is ticked in the Preferences dialog.



Profile Information (Window menu). Tick box must be checked in Preferences to enable changes to profile.

1.2.4 Profile Manager

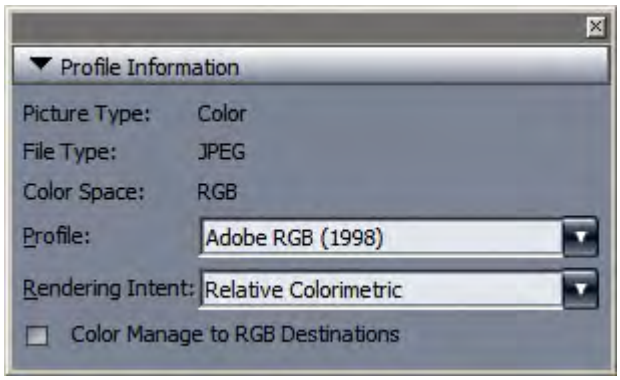
To view the profiles installed on your computer, choose Profile Manager (Utilities menu). If you select a profile, the area below the Profiles pop-up menu will display the location in the document where that profile is used.



Profile Manager (Utilities menu).

1.2.5 Check Profile Used for Document

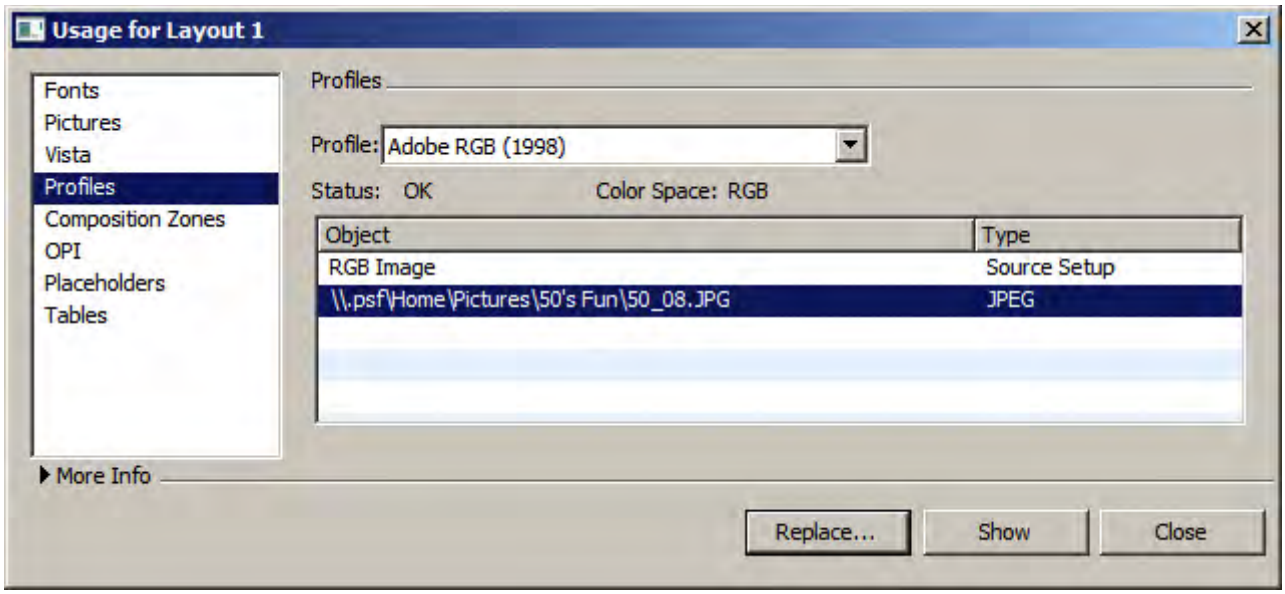
To check the profile that is attached to an image use Profile Information (Window menu).



Profile Information (Window menu).

1.2.6 Replacement of Profile

To change a profile, use Usage (Utilities menu). To change an image's profile, highlight the image name and select another from the Profile drop-down menu. This will have the same effect as changing the profile in Profile Information (Window menu).



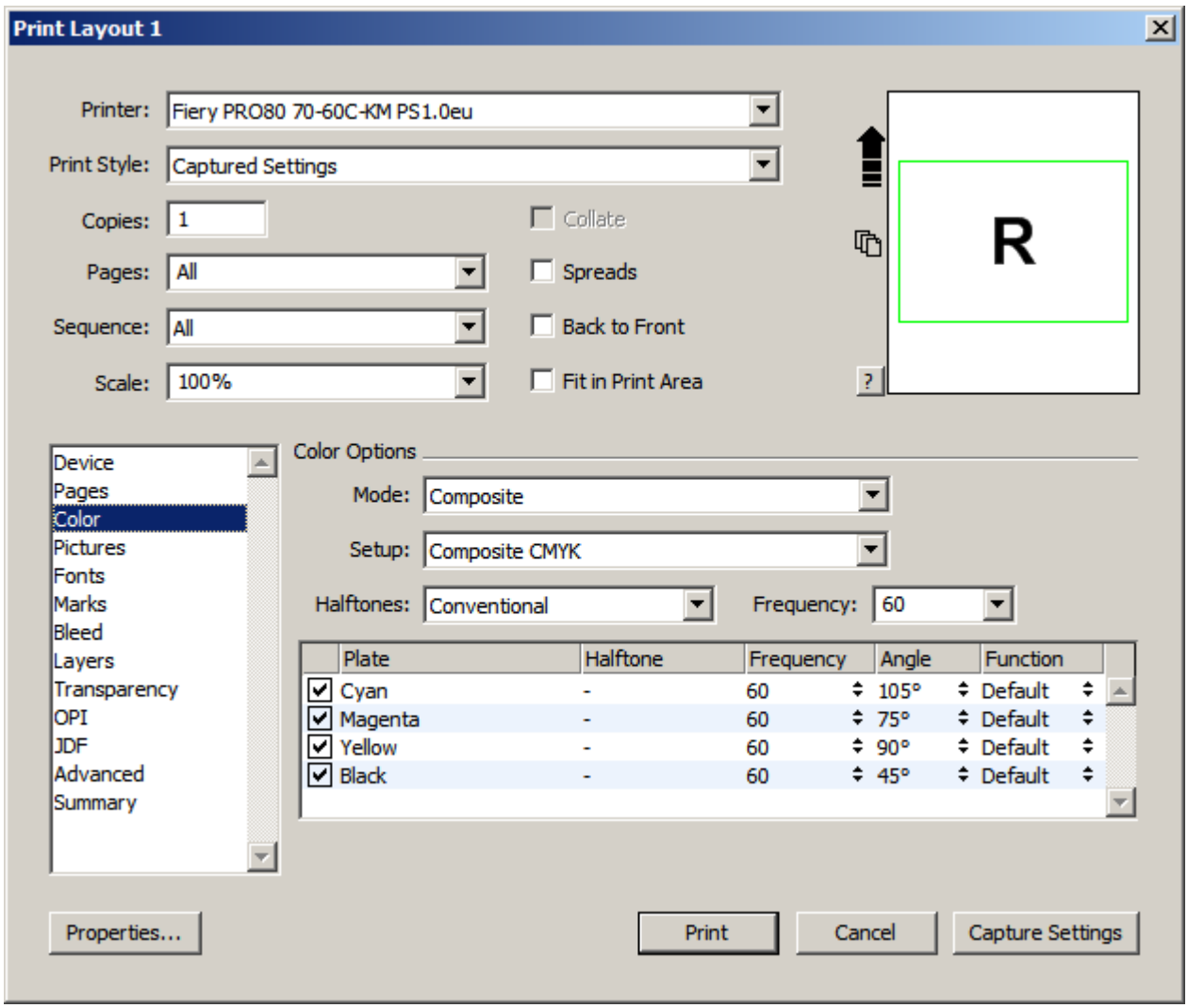
Usage… (Utilities menu).

1.3 Printing

1.3.1 Color Managed Printing

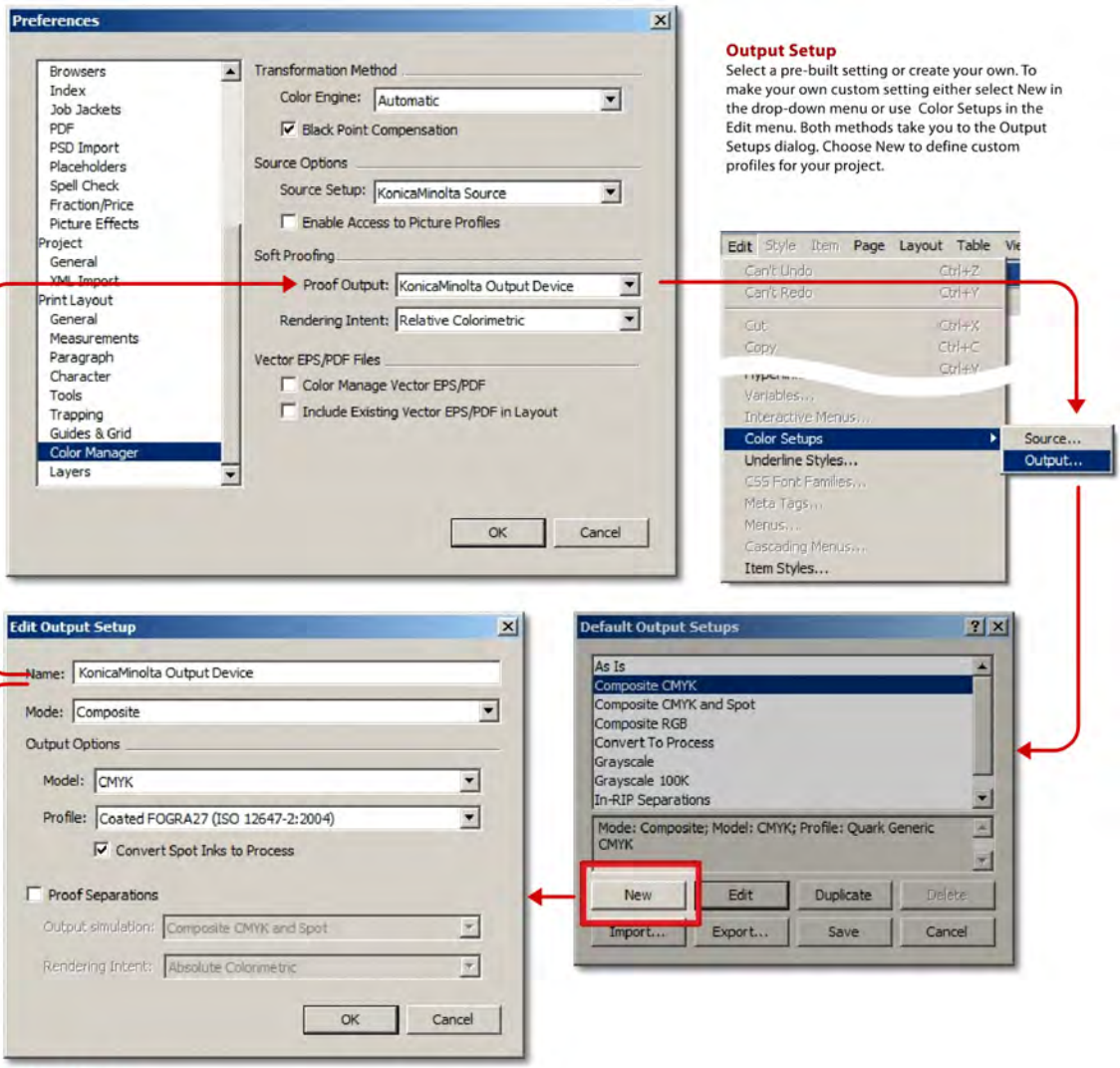
Printing from Quark is comprehensive with many functions available for customizing. The color management section is found in the Color pane. If you have a correctly setup color workflow, you will see a previously applied profile in the Setup menu within Color Options.

This profile has been assumed based on the document's color workflow, however you are free to change this profile if you are printing to different devices. To do so, choose a different profile from the pop-down menu in Setup.



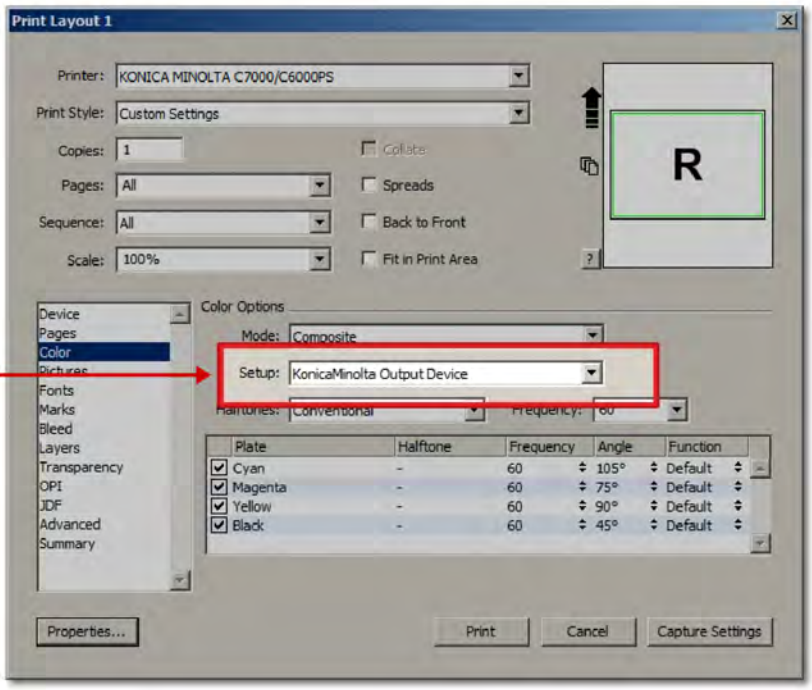
Printing dialog box displaying options for Composite or Separations (File menu).

The following diagram describes the workflow relationship of output profiles.



Output Setup
Select a pre-built setting or create your own. To make your own custom setting either select New in the drop-down menu or use Color Setups in the Edit menu. Both methods take you to the Output Setups dialog. Choose New to define custom profiles for your project.

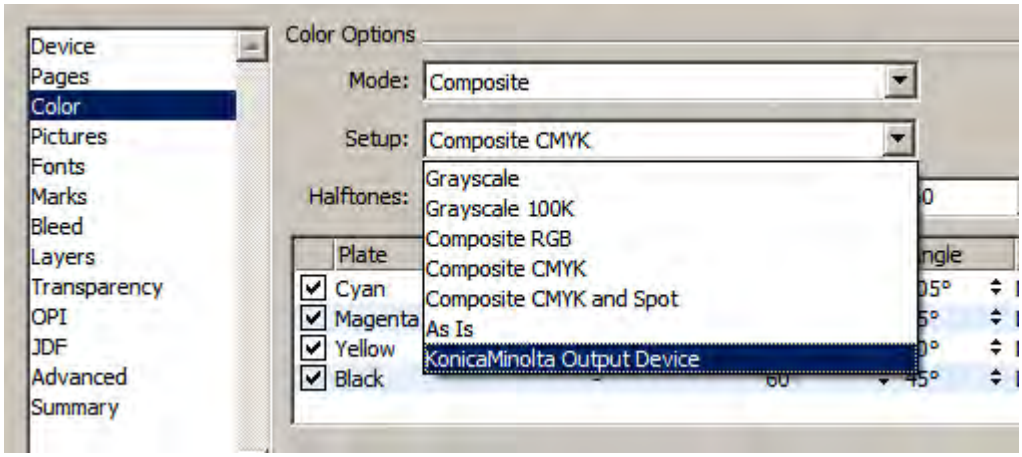
Output Setup
A list of settings will appear in the Output Setup dialog box. These will be available to view in the Color Manager section of preferences.



Print Setup
In the Color section of the print dialog box, select the custom profile you created.

1.3.2 Changing a Profile for Printing

Choose the Color tab in the Print dialog box. Profiles that are selected from the Separation Profile and Composite Profile pop-up, will override the Composite Printer and Separation Printer profiles specified in Preferences.



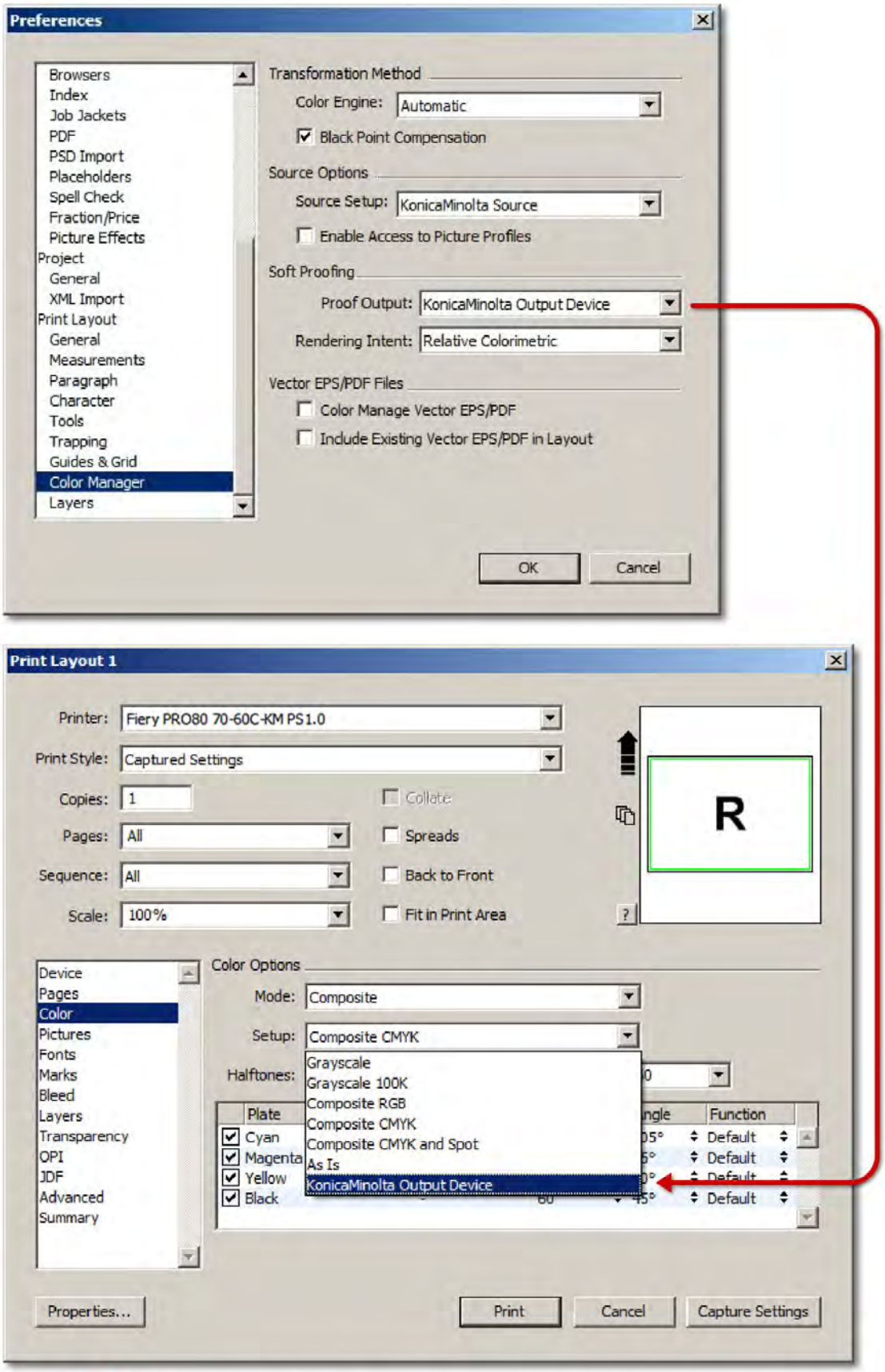
Profiles tab in Print dialog box (File menu).

1.3.3 Short Run Composite Printing

Printing to a local composite printer to produce short run output involves setting to the Composite option in Mode (Print > Color). Color management policies should be set as previous examples.

Printing short run to a local printer to ensure Composite printing.

The following diagram describes the relationship between settings that are created or chosen in Preferences, to that of the settings found in the Print dialog box. The printing profiles can always be overridden at the final output stage but is not recommended for most purposes.

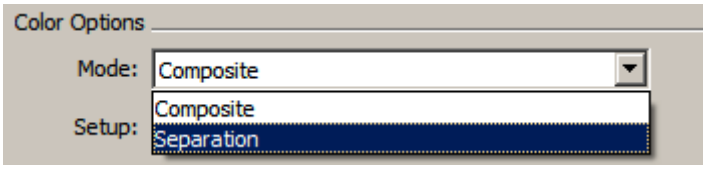


Composite Setup

The Print dialog box will show a selection of settings when choosing Composite from the Mode menu. This setting is derived from the Output setting in Preferences. You can override these settings at the print stage if necessary.

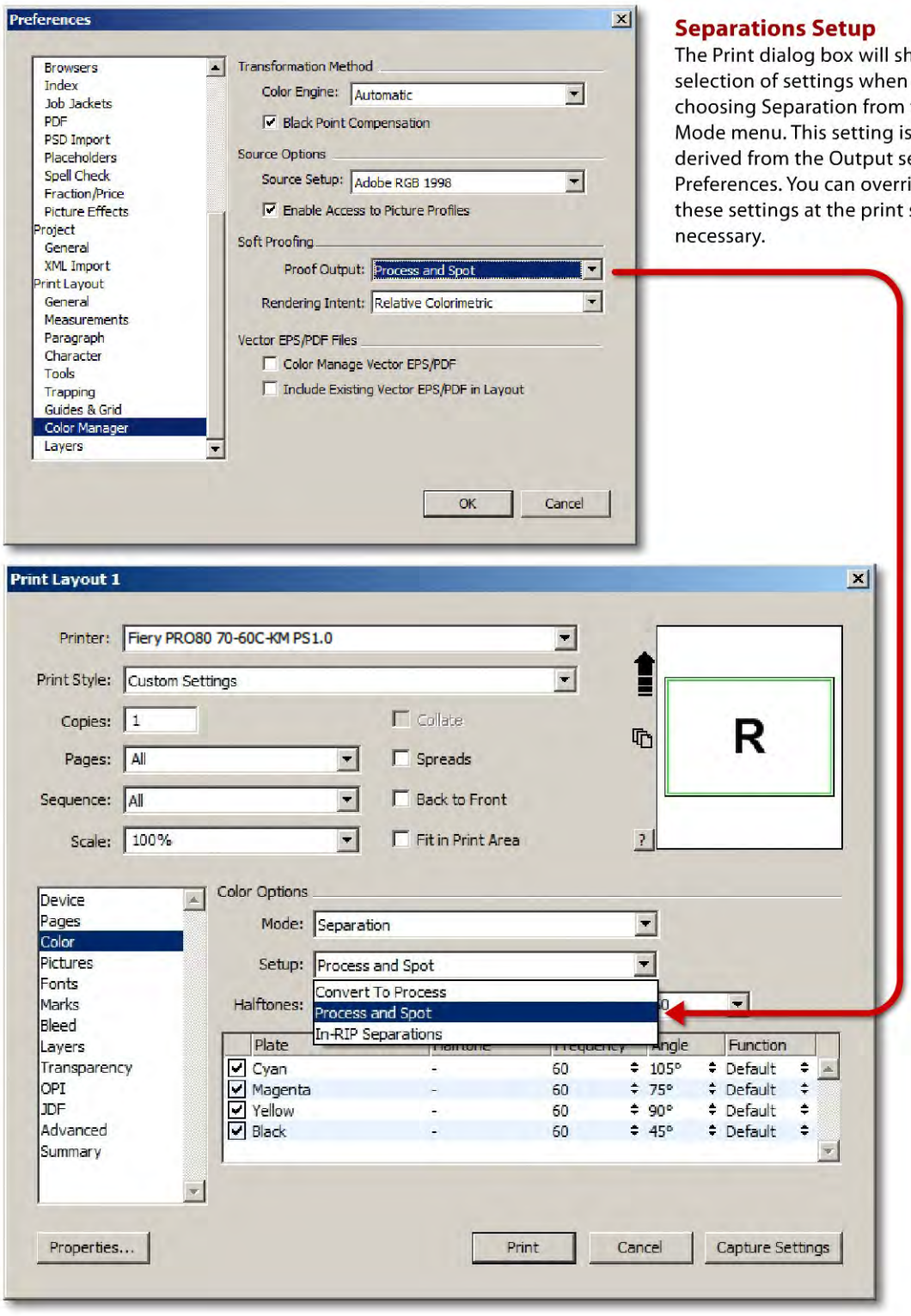
1.3.4 Separations Printing

Printing to a pre-press device for producing color plate separations involves selecting Separation as an option in Mode (Print > Color). Color management policies should be set as previous examples.



Printing short run to a local printer to ensure Separations.

The following diagram describes the relationship between settings created or chosen in Preferences to that to the settings found in Print. The printing profiles can always be overridden at the final output stage but is not recommended for most purposes.

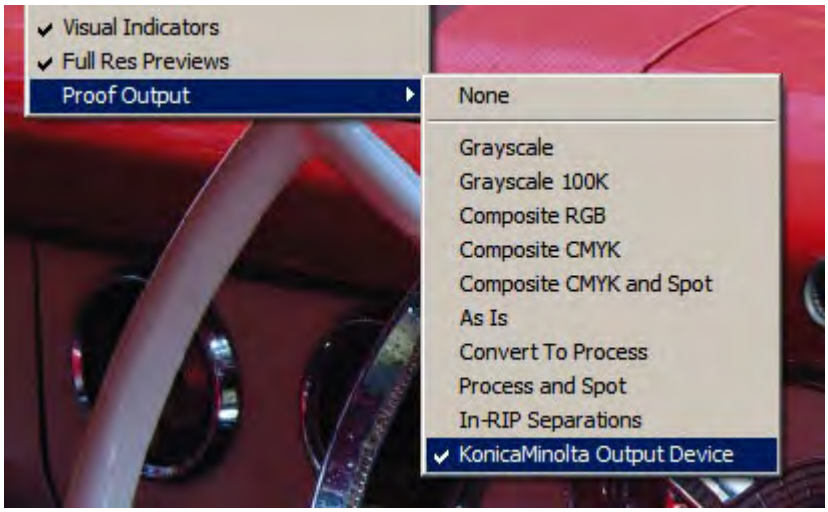


Separations Setup

The Print dialog box will show a selection of settings when choosing Separation from the Mode menu. This setting is derived from the Output setting in Preferences. You can override these settings at the print stage if necessary.

1.3.5 Soft Proofing

Click the Proof Output drop-down menu (View menu) to display the list of monitor profiles available on your computer which simulate output devices. If you have a properly configured monitor profile which was calibrated by a device such as X-Rite's *EyeOne Display* or *MonacoOPTIX*, choose its setting. Otherwise select a generic monitor profile or leave as is (see Light Sources and Monitors in Color DTP v1.0).



Setting a monitor profile for soft proofing.

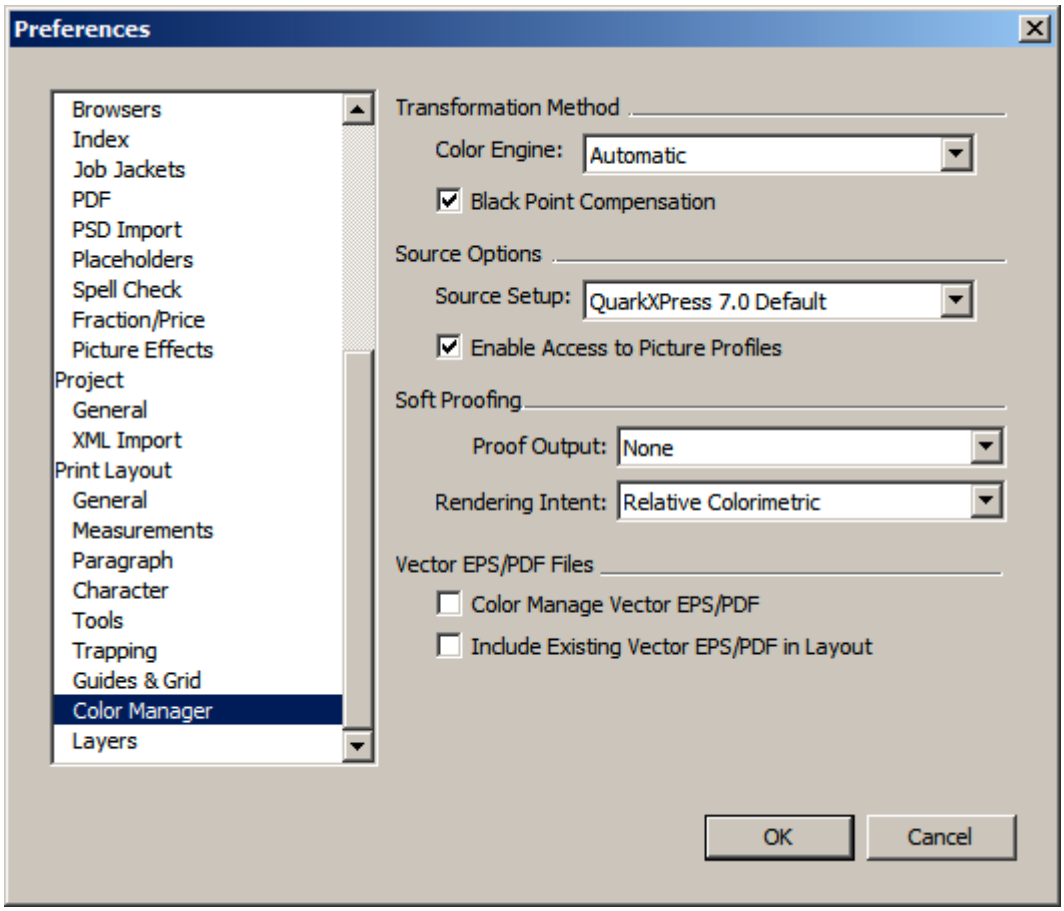
1.3.6 Hard Proofing

To print a hard copy from a composite printer which simulates a 4 or 6 color press, refer to 1.3.5 Short Run Composite Printing. Choose Composite from the Mode pop-up menu in the Color pane within the Print dialog box. Color management policies should be set as previous examples.

Printing a hard proof to a local printer.

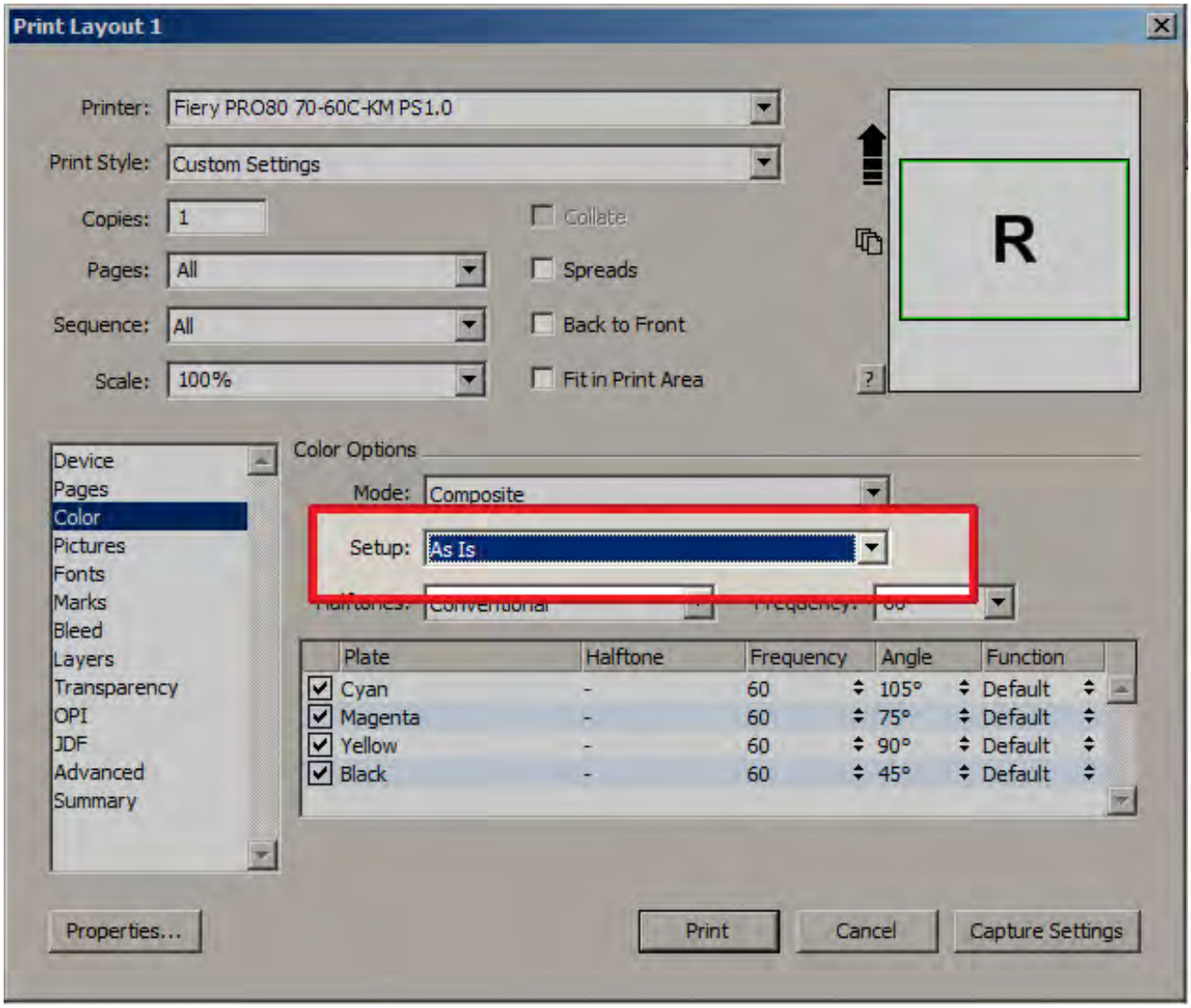
1.3.7 No Color Management

When color management is set to be inactive in QuarkXPress preferences, the Proof Output pop-up menu should be set to None. CMYK printing to non-postscript printers is not supported. There will be no profile assigned from these preferences.



1.3.8 Printing with no Color Management

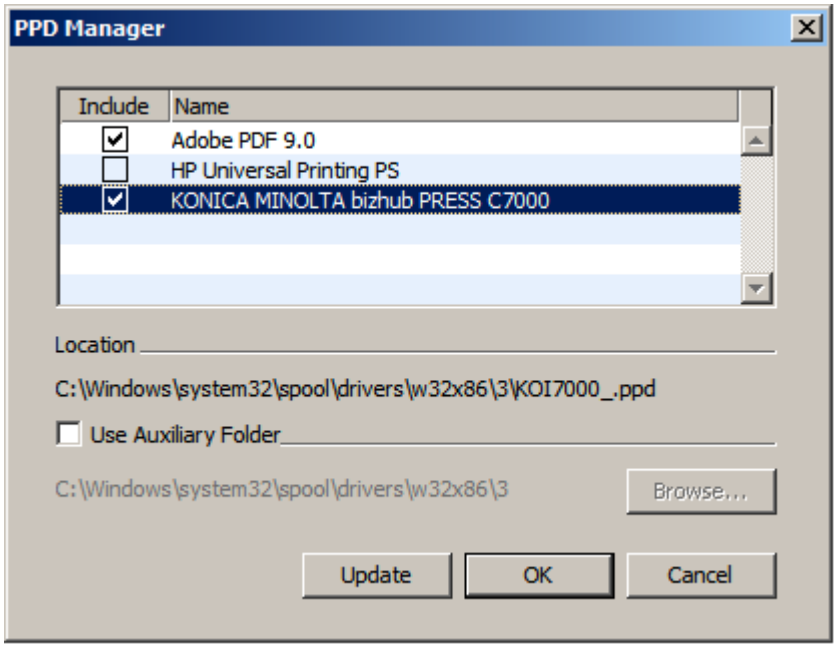
When color management is set to be inactive in QuarkXPress. This gives you the possibility to print a composite document which contains both RGB and CMYK images without Quark converting them. This is set by choosing “As Is” in the Color > Setup pop-up menu. This will retain the existing profile of the image.



Print dialog box with no color management options.

1.3.9 PPD Manager

A PPD informs desktop publishing applications such as QuarkXPress about the capabilities of a particular output device. The PPD Manager is used to locate or update Postscript Printer Description (PPD) files on your computer.



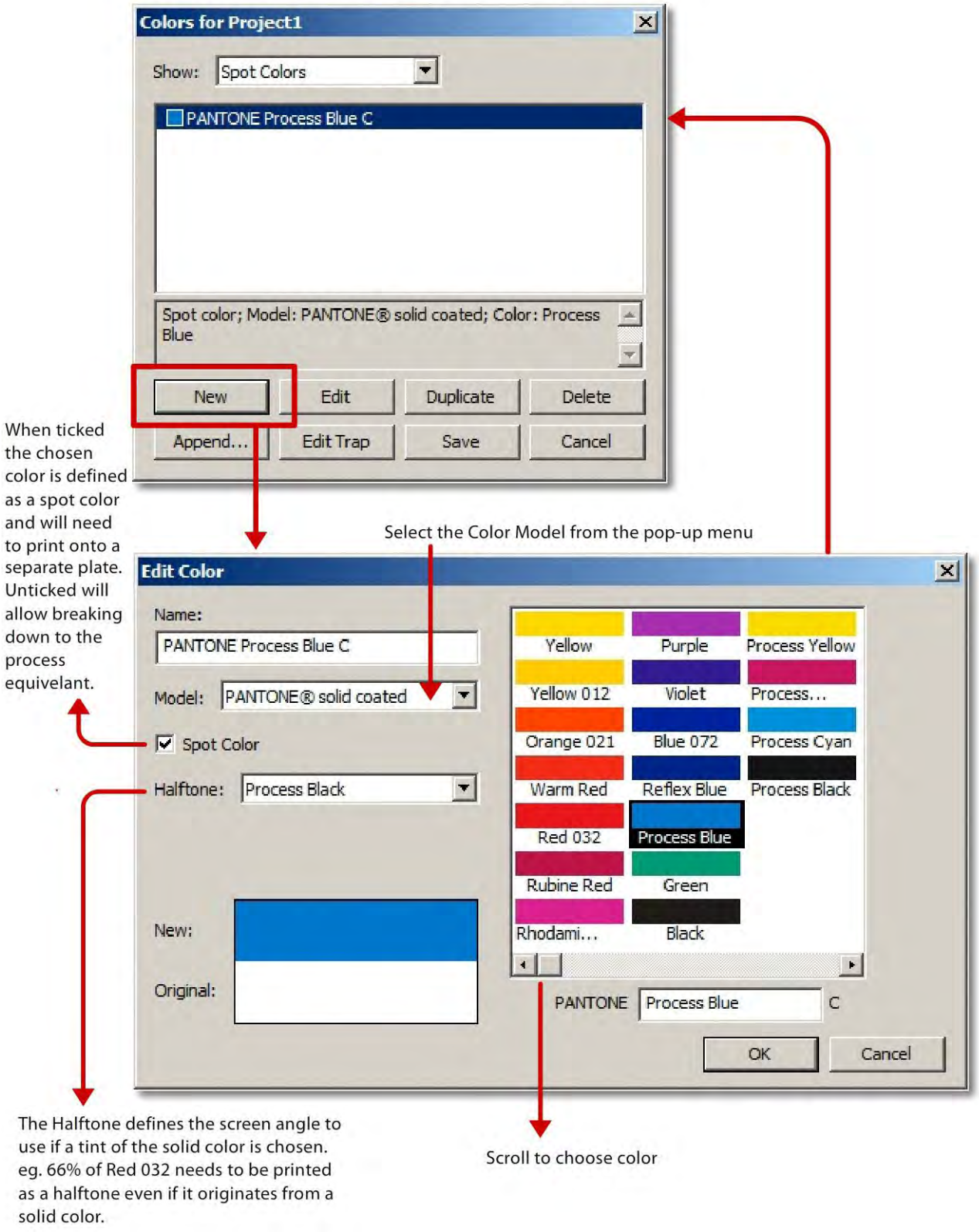
PPD Manager (Utilities menu)

1.4 Spot Color

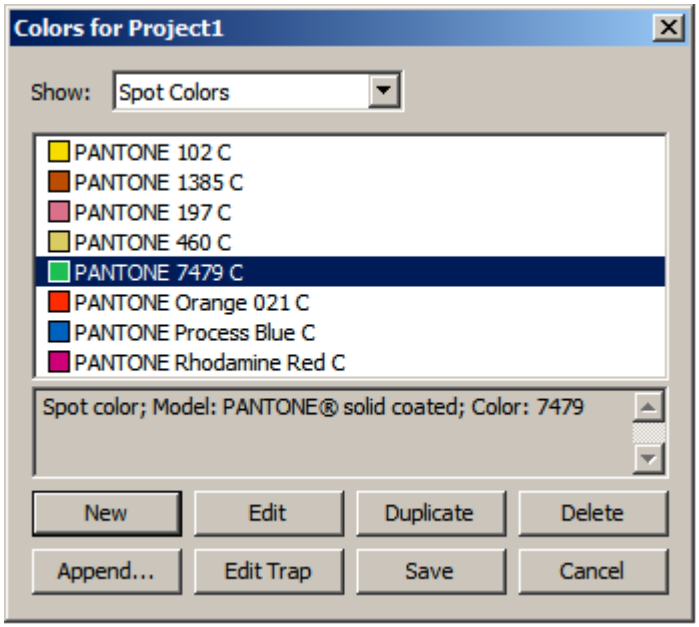
A Spot Color could be defined as being a non-process color (i.e. not made up of a CMYK mix). Spot colors need to be printed on a separate plate in the printing process. There are many spot color systems such as Pantone, Toyo, Trumatch and Focoltone each with their own range of colors, many of which fall outside the CMYK gamut. However, there are some systems such as Pantone Process Coated which are spot colors that fall within the CMYK gamut.

If you choose to print a spot color to a CMYK press the spot color will have a “nearest equivalent” process breakdown, this will produce a halftone screen simulation of the solid color.

Spot Color in QuarkXPress (Edit –> Colors)



1.4.1 Selection of Spot Color



New Colors dialog box (showing Spot Colors).

To add spot color to your document use Colors (Edit menu), in the pop-up select Spot Colors, click the New button to import the chosen colors. These colors will now be available for use in the Colors Palette.