



SmartColour™ iVue

Installation and User Guide
for Adobe PhotoShop CS3

Version 3.0



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Introduction

SmartColour™ iVue is an innovative color management system that allows everyone in the packaging design workflow to view predicted spot color at every stage of the process. Not paint-on-plastic-to-give-you-a-rough-idea color, but real color. With real ink. On real substrates. Using real print processes. The same color whether it's on the screen. On a proof. Or on a shelf. Anywhere in the world.



SmartColour iVue System Requirements

Hardware

- PowerPC G4 or G5, or Intel processor
- 2 GB of RAM
- 64 MB of video RAM

Suggested Monitor

- 23-inch Apple Cinema HD Display
- Eizo CE240W LCD Monitor

Operating System

Mac OS 10.4 or higher

Software

- Adobe Photoshop CS3
- GretagMacbeth ProfileMaker Pro Version 5

Suggested Printers

- Canon PIXMA Pro9000 Printer
- Epson Stylus Photo R2400

Suggested Paper

- Canon Photo Paper Pro

Network

Access to the Internet

Spectrophotometer

- X-Rite/GretagMacbeth EyeOne-IO with monitor attachment



Setting up for SmartColour iVue

This section includes the following procedures:

- Installing SmartColour iVue on Mac OS X
- Setting Color Picker to SmartColour
- Toggling Color Pickers
- Calibrating and Profiling the Device
- Setting Photoshop Color Settings



Installing SmartColour iVue on Mac OS X

This section describes how to install iVue on Mac OS X.

To install iVue on Mac OS X:

1. Quit Adobe Photoshop.
2. Insert the iVue Installation CD.
3. Follow the prompts and proceed with the installation.

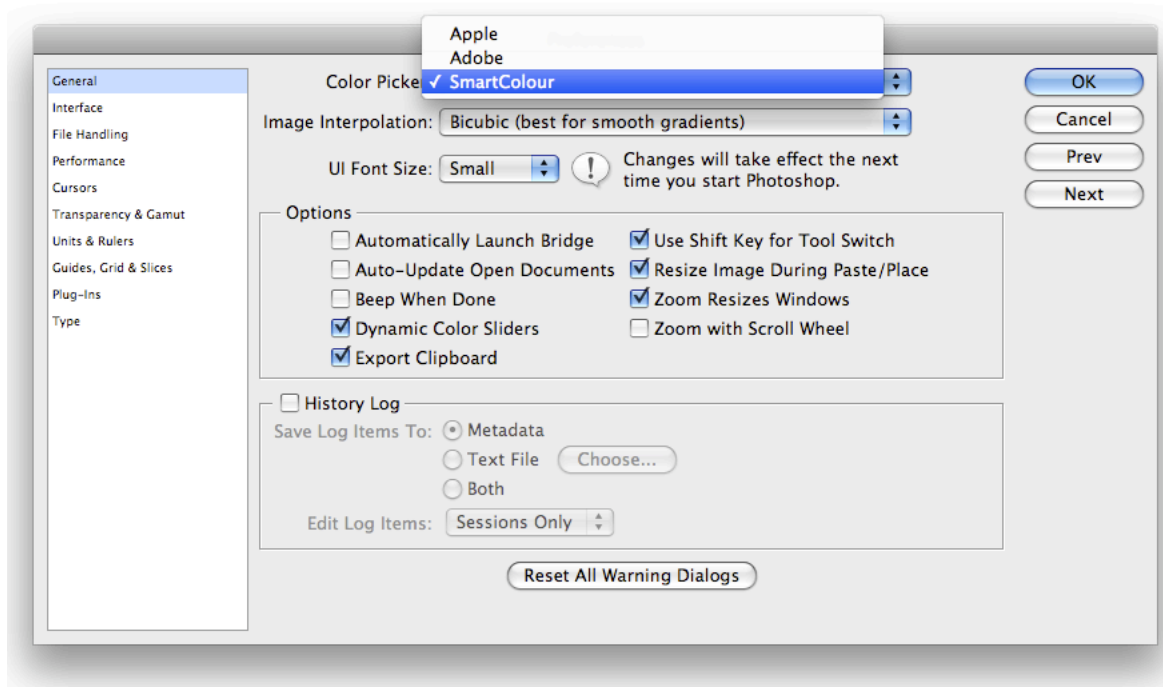


Setting your Color Picker to SmartColour

You set your Color Picker to SmartColour so you can use SmartColour colors in Adobe Photoshop. As an alternative, you can use the procedure that follows to toggle between Color Pickers.

To set the Color Picker to SmartColour:

1. In Photoshop, choose **Photoshop>Preferences>General**.
2. Select the Color Picker pop-up menu, and choose **SmartColour**.



3. Select **OK** to close the Preferences panel.

Toggling Color Pickers

You can use the following procedure to switch back and forth between the SmartColour Picker and the color picker you were using previously.

To toggle the Color Picker:

1. In Photoshop, choose **Filter>SmartColour>Toggle Color Picker...**



Calibrating and Profiling the Device

This guide includes the recommended parameters for device profiling. For detailed instructions on how to calibrate and profile your device, refer to the user guide provided with your profiling software.

Profiling a Monitor

Note: While profiling the monitor, you should avoid all ambient lighting.

To profile a monitor:

1. Clean the monitor surface.
2. Place the measurement device at the center of the monitor.
3. Open the preferences for your profiling software.
4. Select Expert mode if it is available.
5. Define the following parameters:

Profiling Chart	Set to a minimum of 99 color patches
Profile White Point	5000K
Profile Gamma	2.2
Target White Luminance	150 cd/m ²
Target Black Luminance	0.5 cd/m ²

6. Apply the Profile in the Display settings of the System Preferences.
7. Store the profile in **HD>Library>ColorSync>ICC Profiles**.



Profiling a Printer

Note about ICC profile versions: Be aware that ICC Version 2 does not support the perceptual intent correctly and it can be broken by an embedded profile in the workflow. ICC version 4 is more accurate than the version 2, however, SmartColour iVue does not fully support ICC version 4. This is not an issue as long as colorimetric is the rendering intent. When creating a profile, select ICC version 4 if available and if the rendering intent is colorimetric.

Note: Avoid all ambient lighting while performing the measurement.

To profile a printer:

1. Check the ink level is sufficient.
2. Perform a nozzle check and clean the print heads if necessary.
3. Perform a print head alignment.
4. Set the Profiling chart to a minimum of 918 patches. (1728 patches is preferred.)
5. Print a test chart for the printer with color management off and no color correction in the print dialog option.
6. Wait 30 to 60 minutes before measuring the printed chart.
7. Select the largest profile size (or the largest profile lookup table) available for profile creation.
8. Set the viewing light source to D50.
9. Store the profile in **HD>Library>ColorSync>ICC Profiles**.



Setting Photoshop Color Settings

To set the color settings:

1. In Photoshop, choose **Edit> Color Settings**.
2. Define the following parameters in the Color Settings panel:

Working Spaces	
RGB	Choose your Monitor ICC Profile.
CMYK	Ensure the CMYK profile you choose has a paper white point similar to the paper white point of the SmartColour library you choose. For example, U.S. Web Coated (SWOP) v2.
Gray	Gray Gamma 2.2
Color Management Policies	
RGB	Off
CMYK	Off
Gray	Off
Conversion Options	
Engine	Apple CMM
Intent	Absolute Colorimetric
Use Black Point Compensation	Unchecked
Use Dither	Unchecked
Advanced Controls	
Desaturate Monitor Colors	Unchecked
Blend RGB Colors Using Gamma	Unchecked

3. Select **OK**.



Using SmartColour iVue

This section describes the following procedures:

- Logging in and Loading a SmartColour iVue Library
- Changing Libraries
- Adjusting Spot Channel Dot Gain
- Applying SmartColour Spot Colors to Spot Channels
- Previewing Design Files
- Setting up Gamut Checking
- Printing Design Files



Logging in and Loading a SmartColour iVue Library

You need to log in to the SmartColour iVue server before you load a SmartColour library into Adobe Photoshop. You will need to choose an Owner Group and a SmartColour library.

If you have a new file open, the library will be loaded and you will be able to assign spot colors from the new library. If the file contains spot colors, SmartColour colors will automatically be assigned to the spot colors in your design document.

Note: The connection to the server will automatically time-out after 30 minutes.

To log in to SmartColour iVue and load a SmartColour library:

1. In Photoshop, open a design file with spot colors.
2. Choose **Filter>SmartColour>Choose Library**.

SmartColour Server Login

Enter your SmartColour customer ID and password to connect.

Customer ID:

Password:

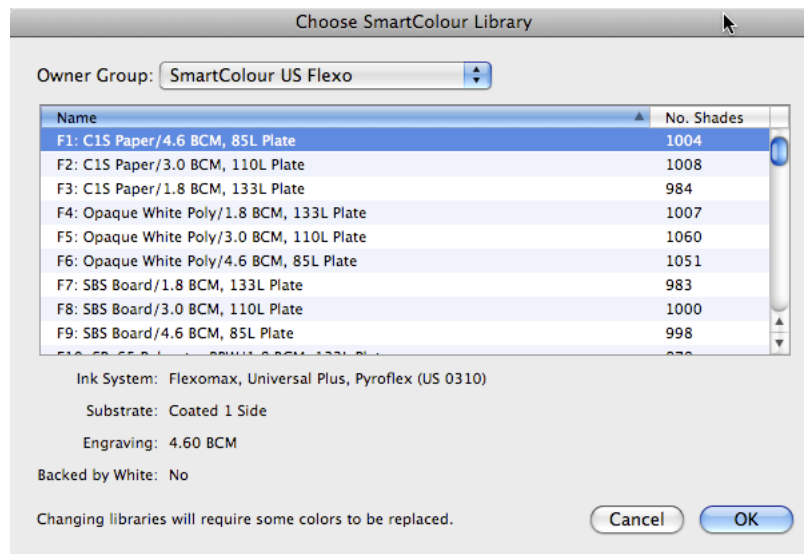
Remember this password in my keychain

Cancel Log in

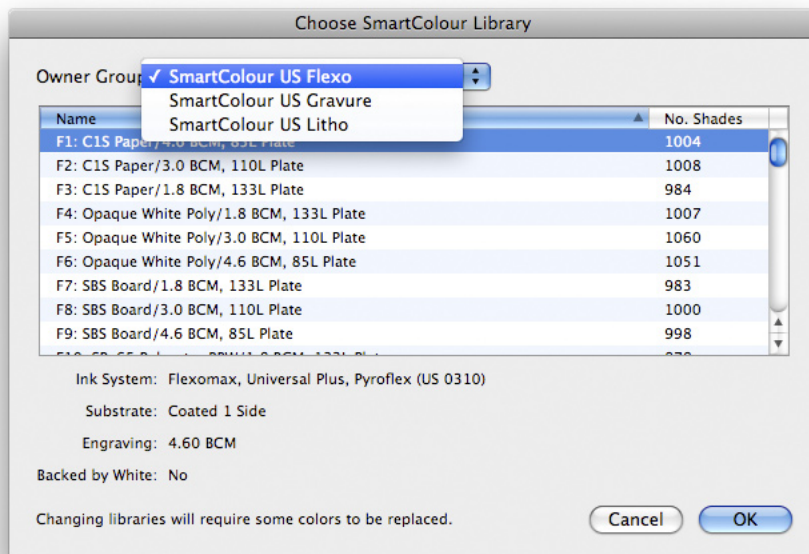
3. Type your **Customer ID**.
4. Type your **Password**.
5. Select **Log in**.



Photoshop connects to the server and the Choose SmartColour Library panel displays.



6. Choose an **Owner Group**.

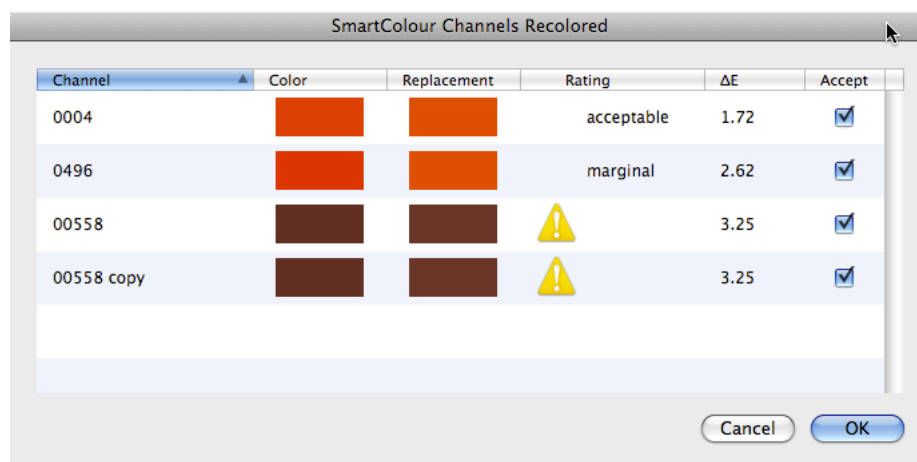


7. Select a library.

8. Select **OK**.



- If this is a new file, the colors will be downloaded and you will be able to use the colors from the SmartColour library in your new design file.
- If your design file contains spot colors, the colors will be downloaded and SmartColour iVue will suggest new colors to replace the spot colors in your design file. The **SmartColour Channels Recolored** panel will display.



9. (Optional) If you don't want to accept a suggested replacement color, disable the checkbox. You will need to manually edit the spot color channel in Photoshop using the procedure, *Applying SmartColour Spot Colors to Spot Channels*.
10. Select **OK** to accept the replacement color(s).

The SmartColour library colors are applied to the spot colors in the file.



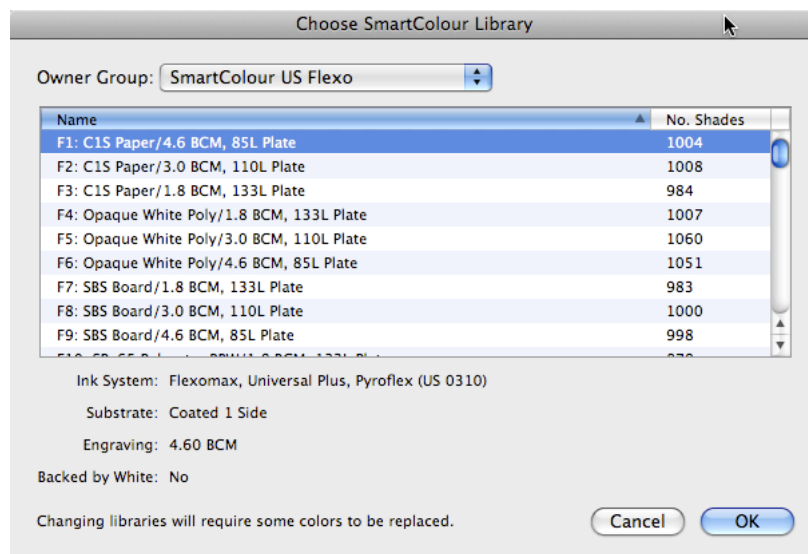
Changing Libraries

Use the following procedure if a SmartColour library is already loaded and you want to change to a different SmartColour library.

To change libraries:

1. Choose **Filter>SmartColour>Choose Library**.

The Choose SmartColour Library panel displays.

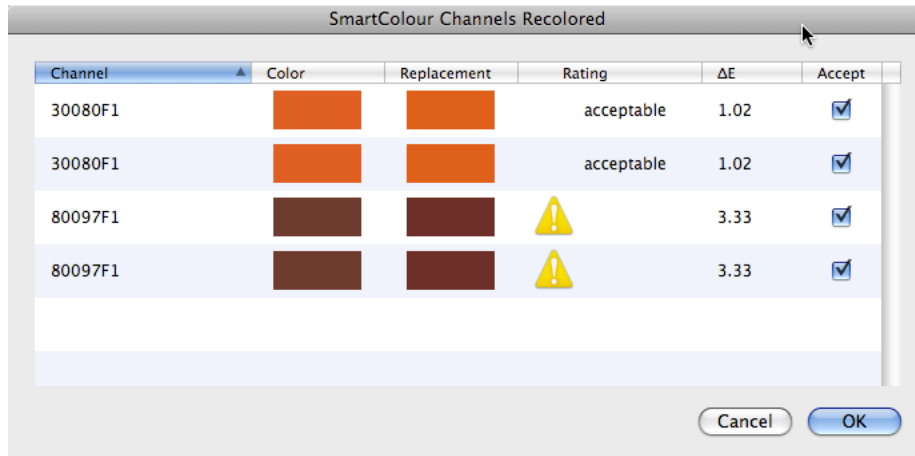


2. Choose an **Owner Group**.
3. Select the new library.



4. Select **OK**.

The new colors are loaded, and the **SmartColour Channels Recolored** panel displays.



5. Select **OK**.

Replacement colors are applied to the image.

When you assign spot colors, you will choose from the colors in the library you loaded.



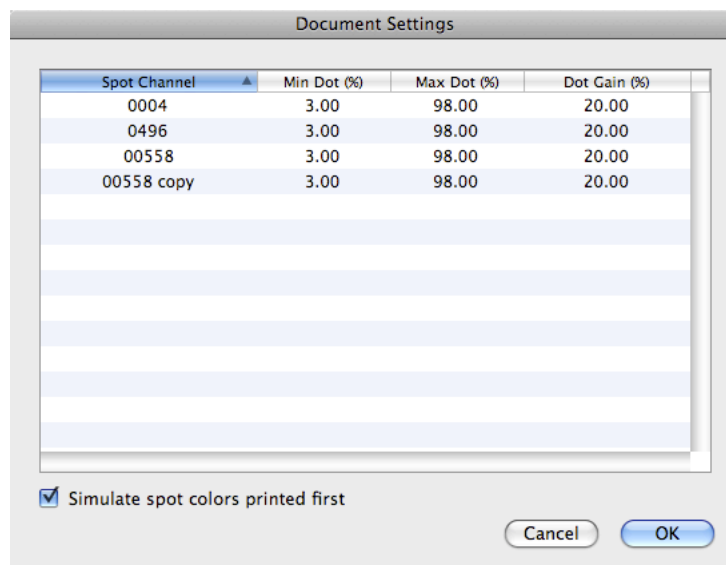
Adjusting Spot Channel Dot Gain

You can adjust the spot channel dot gain by using the Document Settings option in iVue SmartColour.

To adjust the spot channel dot gain:

1. In Photoshop, open a design file.
2. Choose **Filter>SmartColour>Document Settings**

The Document Settings panel displays.



3. To change the Min Dot, Max Dot, or Dot Gain, drag the cursor over the number you wish to change. The pointer cursor will change to a text cursor, then you can type in the new number.
4. (Optional) If you want to simulate printing spot colors before process colors, enable **Simulate spot colors printed first**.
5. Press **OK**.



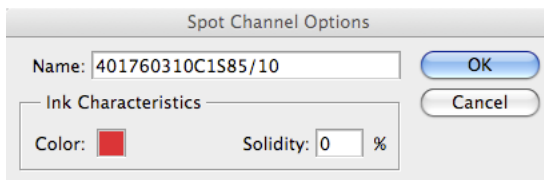
Applying SmartColour Spot Colors to Spot Channels

Note: Ensure you have set the Color Picker to SmartColour in your Photoshop Preferences before you apply SmartColour spot colors to spot channels.

To apply SmartColour spot colors to spot channels:

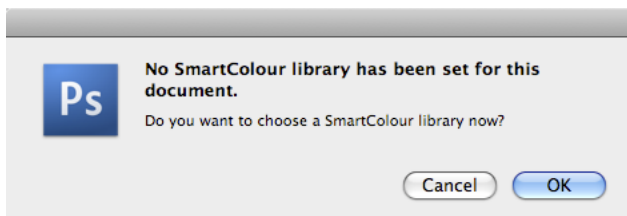
1. Open the design file in Photoshop.
2. Select the **Window** menu and verify the **Channels** option is enabled.
3. Double click on the channel that you wish to apply color to from the SmartColour library.

The **Spot Channel Options** panel displays.



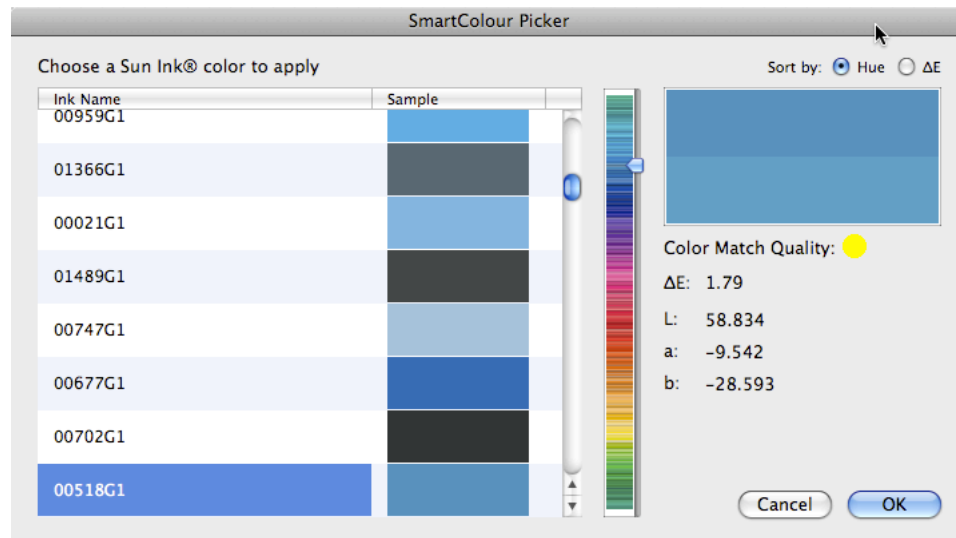
4. Click on the color swatch.

Note: If you haven't loaded a SmartColour library yet, the following prompt is displayed. You will need to connect to the server, choose and load a SmartColour library.





If you have loaded a SmartColour library already, the 'SmartColour Picker' box displays with information (Lab values, Color match quality, and ΔE value) regarding the library's closest match.



5. (Optional) If you don't want to accept the suggested color, perform the following steps:
 - Sort the colors.
By default, the colors are sorted by hue. Select the radio button in the upper right-hand corner of the SmartColour Picker to sort by Delta E. (This will sort the colors by the closest match.)
 - Choose a new color.
6. Select **OK**.
7. Select **OK** again to close the Spot Channel Options panel.
8. If you want to you apply another SmartColour library color, repeat Steps 3 to 7.



Previewing Design Files

Once the colors from the SmartColour library have been applied, you can preview your design.

In the preview window, you can choose to use a whitepoint from a profile in the “Simulate Media White” list, or choose to use the whitepoint of the SmartColour media that the library’s inks are intended for.

Note: If you choose a profile from the “Simulate Media White” list, it will change the printer output.

To preview a design file:

1. Choose **Filter>SmartColour>Preview**.

The colors are downloaded and the **SmartColour Preview** panel displays.



2. (Optional) Under **Simulate Media White**, choose a media to simulate from the **Media** pop-up menu.



Setting up Gamut Checking

You set up gamut checking so you can view the areas that will be out of the printer's gamut when you print. It does not affect printer output.

To setup gamut checking:

1. Choose **Filter>SmartColour>Preview**.

The colors are downloaded and the **SmartColour Preview** panel displays.



2. Configure the following parameters in the **SmartColour Preview** panel.

- Enable **Show Profile Gamut Warning**.
- In the **Gamut** pop-up menu, choose a printer profile to check warnings against.

The areas that are out of gamut are highlighted in the color that has been configured in your Photoshop Preferences.



Printing Design Files

Once the colors from the SmartColour library have been applied, you can print your design.

Note: The print profile should be created and loaded into the ColorSync library before Adobe Photoshop is launched.

To print a design file:

1. Choose **Filter>SmartColour>Preview**.

The colors are downloaded and the **SmartColour Preview** panel displays.



2. (Optional) Under **Simulate Media White**, choose a media to simulate from the **Media** pop-up menu.



3. Choose a print profile.
4. (Optional) Change the scale of the printed image by entering a number between 1 and 100 in the **Scale** field.
5. Select **Print**.
The **Print** panel displays.
6. Choose your print options.
 - Select the correct media type.
 - Turn off color management or color correction.
7. Select **OK**.





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