Smart Ink Savings Guide

Fiery proServer always uses the lowest possible volume of ink, which makes it extremely cost effective. Even the default setting uses up to 15% less ink than is needed to create traditional color separations using ICC profiles.

By using smart ink savings, you can reduce costs still further by replacing expensive inks with lower-priced inks. Smart Ink Savings analyzes the design and applies sophisticated color algorithms to readjust the ink channel information for the ink configuration selected for the output device. However, be aware that smart ink savings causes a minimal color shift. You can define the amount of color shift in delta E.

Smart Ink Savings should be applied to the final design. Manual color editing — for example, in Adobe Photoshop — is not recommended after you apply Smart Ink Savings. Therefore, make sure that you perform all color-retouching steps before separating the design in the Fiery proServer software.

Smart Ink Savings provides the following benefits:

- Additional ink savings compared to default separations

- A color algorithm that takes the ink price into account

- A user-definable delta E to specify the amount of color shift

This document describes how to:

- Check if your profiling packages contains ink details (see page 3)

- Create a profiling package with ink details (see page 3)

- Configure ink prices (see page 5)

- Define a delta E value (see page 6)

- Evaluate ink savings (see page 7)

The final section provides answers to frequently asked questions (see page 8).

Introduction

To get the full benefit of smart ink savings, the following steps are necessary:

- Create a profiling package that contains ink details (ink supplier and ink ID)

- Configure the ink prices

- Define a delta E value

It is still possible to reduce ink consumption to a lesser degree, even if the Fiery proServer software does not have all this information.

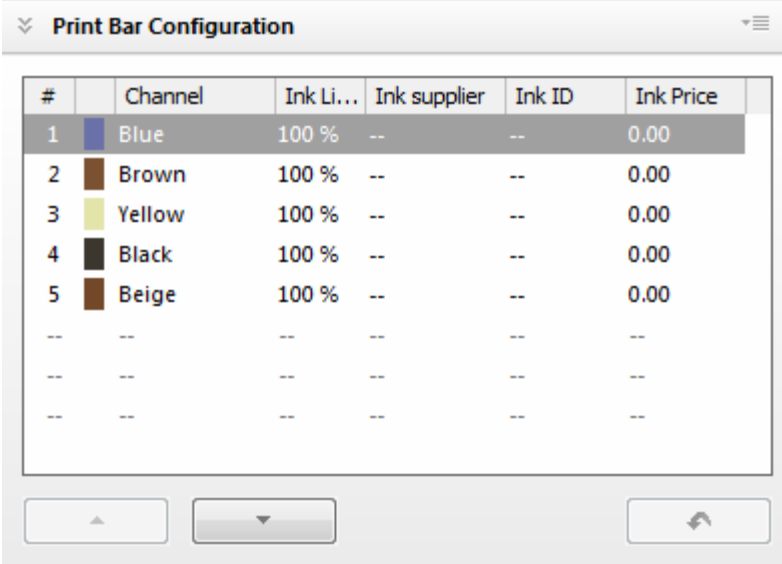| Ink details	Ink prices	Delta E	Description
✓	✓	✓	The Fiery proServer software replaces expensive inks with lower priced inks, while taking the defined delta E value into account to ensure a minimum loss of color quality.
-	✓	✓	If no ink details are available, the Fiery proServer software cannot differentiate between two different inks of the same color. However, you can still apply ink-price-related ink savings if you always use one type of ink per color — for example, blue ink with the order number B01. The Fiery proServer software reduces the ink volume as far as possible, while taking the defined delta E value into account to ensure a minimum loss of color quality.
-	-	✓	If no ink details and no ink prices are available, the Fiery proServer software assumes that all inks have the same price. However, you can still reduce ink costs by selecting a delta E value. In this case, the software tries to readjust the ink volumes to achieve the same color result. Be aware that a higher delta E value means reduced color accuracy, but the potential cost saving is greater.

Checking profiling packages for ink details

You can check quickly and easily if ink details are available in the profiling package.

TO CHECK THE PROFILING PACKAGE FOR INK DETAILS

1 **In Job Explorer, click the job. On the Output tab, open the Print Bar Configuration pane.**

If the Ink supplier and Ink ID columns are empty, it means that the profiling package does not contain ink details, and you must create a new profiling package.
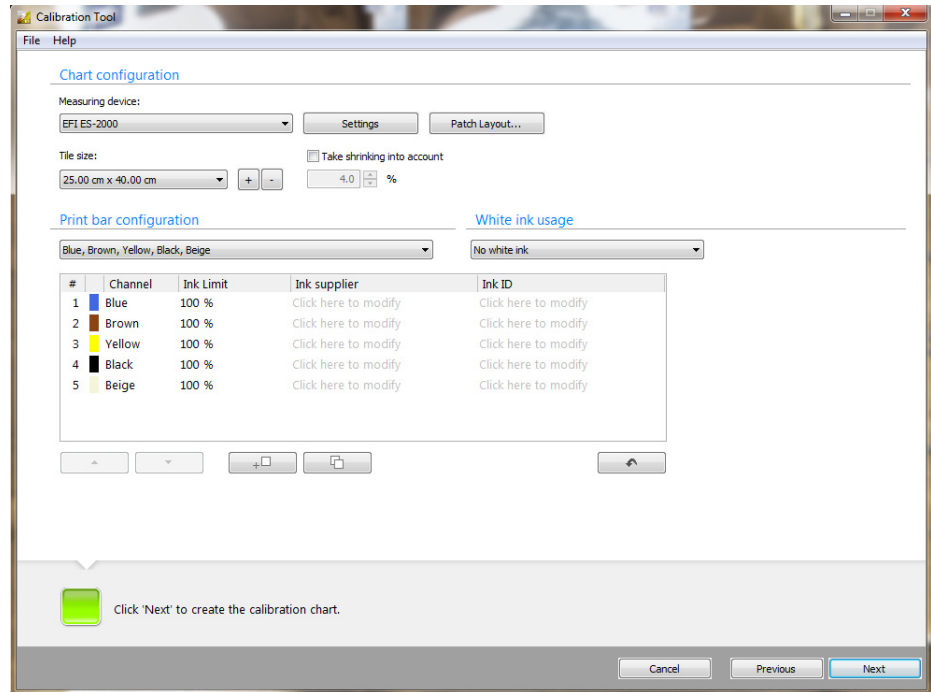

Creating a profiling package with ink details

If your profiling package was created without ink details, you must create a new one. For this step, you need measurement data from an existing profiling package. The measurement data was saved to the Client\Working folder when you created your current profiling package.

If no measurement data is available, follow the instructions in Calibration Tool to create a new profiling package from scratch. Make sure to enter an ink supplier and an ink ID so you do not have to perform additional steps later.

1 **In the Fiery proServer software, start Calibration Tool, and click Next.**

2 **Under "Print bar configuration", select the correct combination of inks.**

3 **In the table, enter an ink supplier and an ink ID for each print bar, and click Next.**

To enter ink details, single-click "Click here to modify". Then, click again, and overwrite the default text.

4 **Under "Measurement options", select "Measure the complete chart".**

5 **On the File menu, click Load Measurement Data and load the measurement data from the Working folder. Then, click Next.**

6 **Click "Create Package", and click Next.**

7 **Check carefully the summarized settings. Then, click Create Profile.**

You cannot overwrite the original profiling package. If a warning message appears, enter a new name. The profiling package is created in the My Profiles folder.

8 **Click Close, and save the current job.**

To select a new output device profile in the Fiery proServer software

1 **Go to Job Explorer, and select the job.**

2 **On the Output tab, open the Print Configuration pane.**

3   **Under "Device name" select the name of the Cretaprint printer.**

Make sure that you select the device name that is displayed in Calibrator Tool.

4   **Under "Profile name", select the new profile that is saved to the profiling package.**

If no profile is available for selection, check that you have selected the correct device name on this pane.

Be aware that all job variations are deleted when you apply a new profile.

5   **On the Output tab, open the Print Bar Configuration pane, and make sure that the ink details are displayed.**

If your profiling package contains details of your ink suppliers and ink IDs, you can configure the ink prices.

Configuring ink prices

For this step, you need a profiling package with ink details. For more information, see page 3.
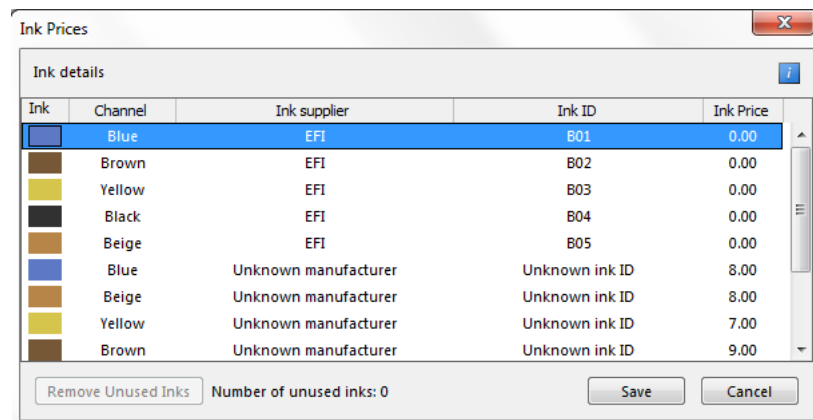
If your profiling package does not contain ink details, you can still apply ink-price-related ink saving if you always use one type of ink per color — for example, blue ink with the order number B01.

You can also use the procedure below to make price changes — for example, if your supplier changes the retail price, or if you switch supplier.

TO CONFIGURE SMART INK SAVINGS

1   **Make sure that you are logged on to the Fiery proServer software as a user with administrator rights.**

2   **In Job Explorer, select the job. On the Color tab, open the Ink Consumption pane.**

3   **On the pane bar, select the check box to activate the settings.**

4   **Click "Configure ink prices".**

Ink Prices dialog box:

Ink	Channel	Ink supplier	Ink ID	Ink Price
	Blue	EFI	B01	0.00
	Brown	EFI	B02	0.00
	Yellow	EFI	B03	0.00
	Black	EFI	B04	0.00
	Beige	EFI	B05	0.00
	Blue	Unknown manufacturer	Unknown ink ID	8.00
	Beige	Unknown manufacturer	Unknown ink ID	8.00
	Yellow	Unknown manufacturer	Unknown ink ID	7.00
	Brown	Unknown manufacturer	Unknown ink ID	9.00

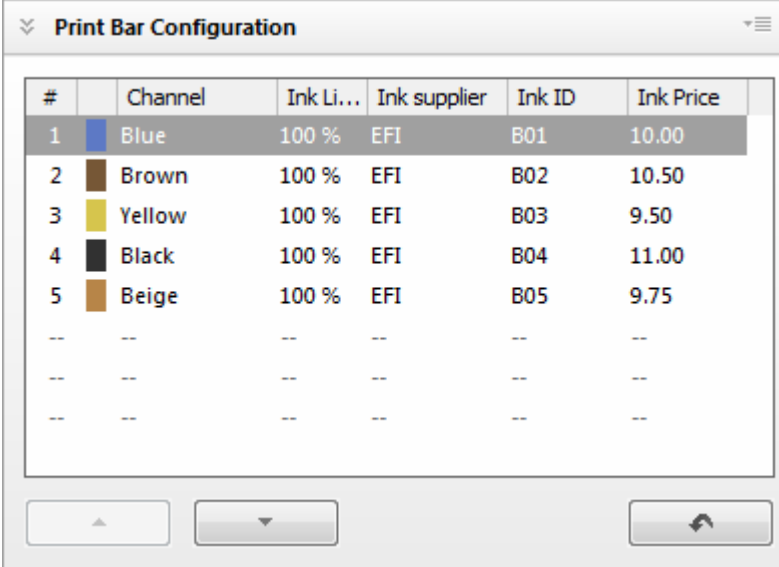Remove Unused Inks   Number of unused inks: 0   Save   Cancel

5 In the table, enter an ink price for each channel.

The price is not tied to any currency. The purpose of smart ink savings is to replace expensive inks with equivalent lower-priced inks, with a minimum loss of color quality. The cost saving is shown as a percentage of the original cost.

The table displays the channel colors from all the available profiling packages.

6 Click Save.

The Print Bar Configuration pane is updated with the ink prices.

When you have entered the ink prices, you must define a delta E value. A delta E value is essential for smart ink savings.

Defining a delta E value

The Fiery proServer software uses the lowest priced inks and the lowest ink volume to maintain the required color quality within a defined delta E range. The delta E values are based on the delta E 2000 definition, which is considered to be the most accurate for visual color assessments. The higher the delta E value, the greater the potential cost saving, but the greater the loss of quality. It is not possible to save ink if you do not define a delta E.

If no ink details and no ink prices are available, the Fiery proServer software assumes that all inks have the same price, and reduces only the ink volume.

TO DEFINE A DELTA E VALUE

1 In Job Explorer, select the job. On the Color tab, open the Ink Consumption pane.

2 On the pane bar, select the check box to activate the settings.

3 **Select "Smart ink savings", and define a delta E value, by moving the slider to the right.**

The selected delta E value is applied to the overall design. It represents the deviation from the original design.
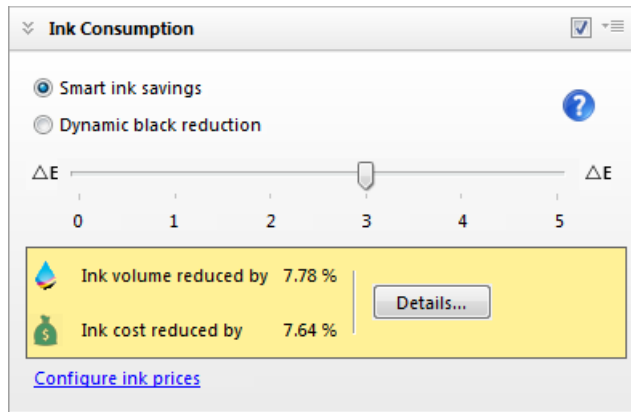
Be aware that your job variations are deleted when you change the delta E value.

4 **In the toolbar, click Print.**

The amount of ink saving is shown on the Ink Consumption pane.

Evaluating ink savings

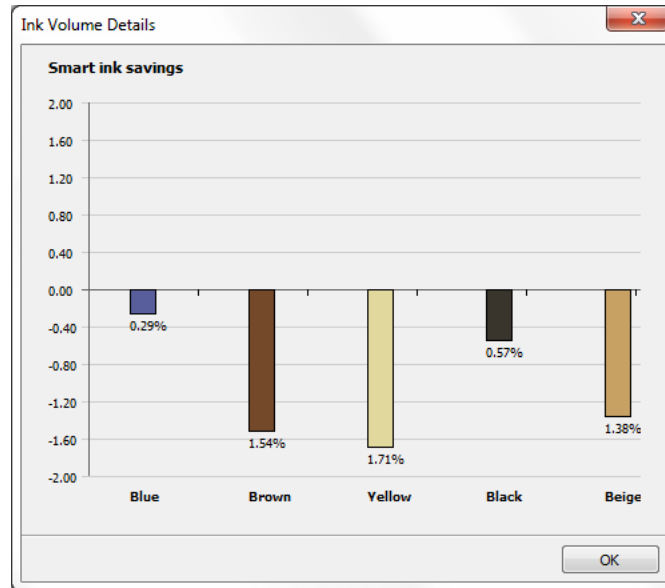The Ink Consumption pane displays the ink and cost saving for the selected job.

The job list displays an overview of the total ink and cost savings for all loaded jobs.

Job Status	File Name	Job ID	Printer	Workflow	Thumbnail	File Format	Ink Volume / Ink Cost	Color Space
Produced	original RGB.tif	00101	EFI Cretaprint CX3	Cretaprint Produ...		TIFF	-7.42 % / -7.32 %	RGB
Produced	original RGB.tif	00105	EFI Cretaprint CX3	Cretaprint Produ...		TIFF	-8.28 % / -8.11 %	RGB

The values are shown as a percentage of the ink consumption and cost that were calculated before smart ink savings were applied.

On the Ink Consumption pane, click the Details button to show how ink consumption has been adjusted in order to achieve the maximum cost saving. A graph shows the percentage of increased or decreased ink consumption for each channel.

A message appears at the bottom of the dialog box if ink prices are not available for all inks. In this case, you must configure the ink prices for the missing inks. For more information, see "Configuring ink prices" on page 5.

Frequently asked questions

Is it essential to add ink details to use smart ink savings?

No, not necessarily. If you always use the same set of inks, and no more than one ink per color, you can still use smart ink savings. All you have to do is to enter a price for each ink color. For more information, see "Configuring ink prices" on page 5.

If you have two differently priced inks of the same color, such as two blue inks from different suppliers, you must add full ink details (ink supplier and ink ID) to enable the Fiery proServer software to differentiate between them.

My supplier has changed his prices. Do I need to update the ink details in the Fiery proServer software?

Yes, you must keep ink details up to date. The Fiery proServer software uses the ink prices to calculate the cheapest combination of inks for the job. You will get incorrect results if the ink prices are not current. For more information, see "Configuring ink prices" on page 5.

I have changed ink suppliers. Can I tidy up the Ink Prices dialog box and remove inks that are no longer used?

Yes, you can remove inks that you no longer use. Make sure that the following is true before removing unused inks:

• You have deleted all profiling packages with the inks you no longer use.

• The inks are not currently assigned to a loaded job.

To remove inks that you no longer need, click Remove Unused Inks in the Ink Prices dialog box.

I am using a new profiling package with ink details and I have configured my ink prices. So why is my ink consumption not being reduced?

The chances are that you have not defined a delta E value. A slight reduction in color quality is inevitable when you use smart ink savings. The delta E value defines the acceptable level of color deviation from the original. The higher the delta E value, the greater the potential cost saving, but the greater the loss of quality. For more information, see "Defining a delta E value" on page 6.