# File Preparation Guide

## Digital Version

Creating and Printing the 5th Color

## Ricoh 5th Color Station

Pro C7100X / C7110X / C7100SX / C7110SX

RICOH
imagine. change.

# Welcome to the *Ricoh 5th Color Station* File Preparation Guide

Pro C7100X / C7110X / C7100SX / C7110SX

Get ready to change the game with unique and captivating 5th Color Station techniques that will impress your customers, expand your range of creative capabilities, and open doors to new revenue streams.

This informative and visual guide will walk you through the different steps for setting up and saving files to get the maximum impact with 5th Color elements. Guidelines, tips, and best practices for printing are also included to ensure your output matches the intended design.

The file preparation steps in this guide assume a working knowledge of Adobe Creative Suite®, including Adobe Illustrator®, InDesign® and Photoshop®. Printing instructions assume operator experience with Fiery® Command WorkStation. Screen shots have been taken from both MAC and PC platforms and may differ slightly from what you see on your screen.

*Please note: The creative examples included on these printed pages do not include or reflect actual output when printed with 5th Color elements on specialty substrates. These examples are included for instructional reference only. To see the impact and effect of the White and Clear Toner, please refer to the printed samples included in your Ricoh 5th Color Station Kit.*

# Table of Contents

## Creating the **5th Color Layer**


1. Creating the 5th Color Layer – **Clear**, in **Adobe Illustrator®**
   Adding a vector Clear Spot over CMYK artwork on non-specific Media ..... 9

2. Creating the 5th Color Layer – **White**, in **Adobe InDesign®**
   Adding a vector White Spot layer for use on Dark Colored Media ..... 13

3. Creating a 5th Color Raster Element – **White**, in **Adobe Photoshop®** for use on **Dark Colored Media**
   Defining the White Spot Color in a PSD for placement within Illustrator or InDesign ..... 17

4. Creating the 5th Color – **White**, for use on **Transparent Media**
   Adding a vector White Spot layer behind CMYK artwork for reverse display ..... 23

5. Creating the 5th Color – **White**, to create a **Metallic Effect**
   Adding the White Spot layer underneath CMYK artwork creating a white base layer on Metallic Media..... 27

6. Creating the 5th Color – **White**, for use on **Colored Media**
   Adding the White Spot layer underneath CMYK artwork creating a white base layer on Colored Media ..... 33

## Printing the 5th Color from **Fiery® Command WorkStation**


1. Printing a PDF file ***with*** **pre-defined Clear Spot Color** from Fiery Command WorkStation ..... 40

2. Printing a PDF file ***without*** **pre-defined Clear Spot Color** from Fiery Command WorkStation ..... 42

3. Printing a **1-Pass** PDF file ***with*** **pre-defined White Spot Color** from Fiery Command WorkStation..... 46

4. Printing **2-Pass** PDF files ***with*** **pre-defined White Spot Color** from Fiery Command WorkStation ..... 50

5. Using the EFI™ Fiery **Multi Pass White Application**..... 54

6. Printing a PDF file with **Dynamic HD Text & Graphics** from Fiery Command WorkStation ..... 62


## Tips and **Best Practices**


**10 Tips** to follow when Creating and Printing the 5th Color Layer..... 66

# Creating the 5th Color Layer

RICOH
imagine. change.

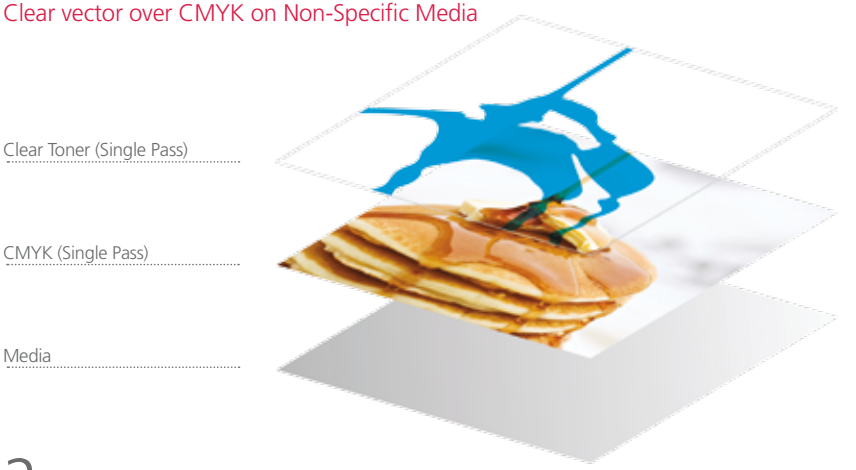
# Introduction

Whether it's Clear or White, the following techniques will help you quickly and easily integrate eye-catching, 5th Color features into your digital print jobs.

(Illustrator, InDesign and Photoshop can all be used.)

## 1.

Clear vector over CMYK on Non-Specific Media




## 2.

White vector on Dark Colored Media

## 3.

### White halftones on Dark Colored Media

White (Single Pass)

Dark Colored Media

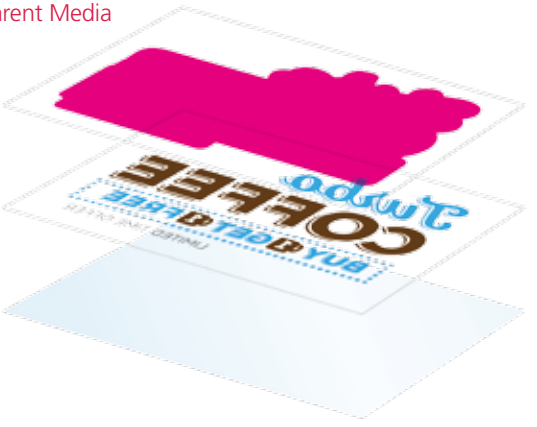
## 4.

### White & CMYK on Transparent Media

White Toner (Single Pass)

CMYK (Single Pass)

Transparent Media



## 5.

### CMYK over White on Metallic Media

CMYK (Second Pass)

White Toner (First Pass)

Metallic Media

## 6.

### CMYK over White on Colored Media

CMYK (Second Pass)

White Toner (First Pass)

Colored Media

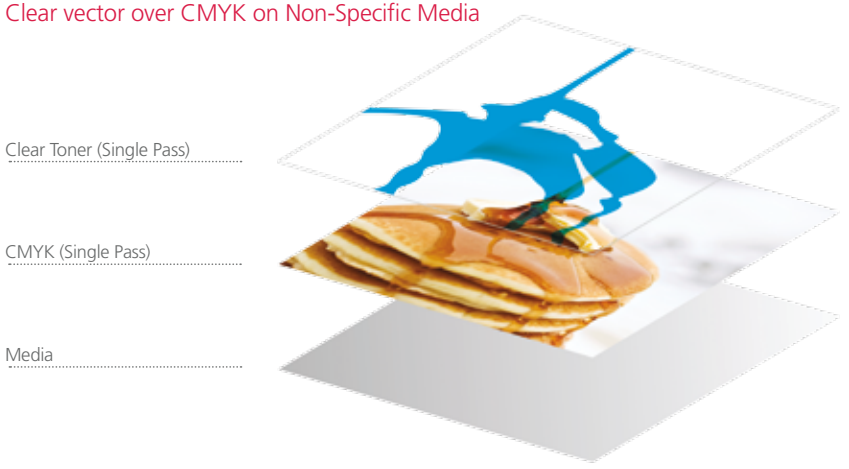
# 1. Creating the 5th Color Layer – **Clear**, in **Adobe Illustrator**

This tutorial will explain and demonstrate how to create and add a **Clear** Spot Color to a CMYK layout.

In this example, a swatch and layer will be created, which will allow **Clear Toner** to be applied only to the maple syrup.

Before areas of the file are masked off, begin by creating a New Color Swatch, which the Fiery® Command WorkStation will use when applying the Clear Toner.

Clear vector over CMYK on Non-Specific Media



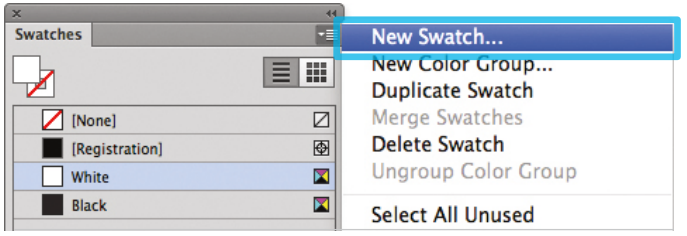

*Please note: Image on opposite page is for reference only. It does not reflect actual output when printed with 5th Color. Please refer to samples provided with your kit.*

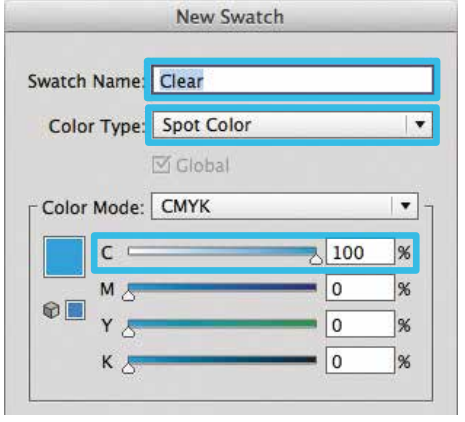
# Creating the 5th Color Layer

**1.** Open or create the Illustrator (or InDesign) file you are looking to enhance with Clear Toner.

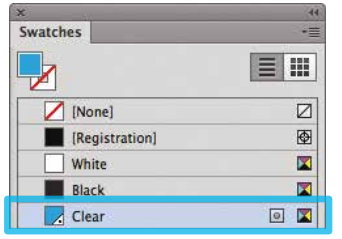
**2.** Create a **New Swatch**.

a. Name the swatch "**Clear**."
b. Select "**Spot Color**" for Color Type.
c. It's recommended to choose a color that stands out, such as 100% Cyan, to easily see where the Clear will print.



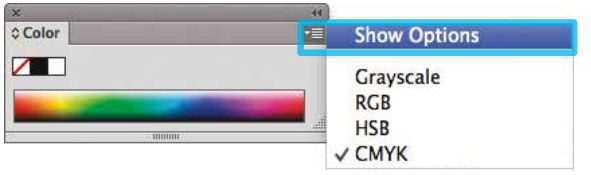



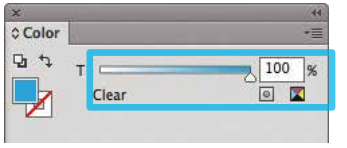

**3.** The Clear / Cyan Spot Color will represent the Clear Toner.



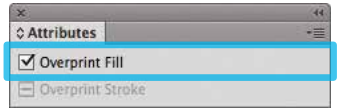

**4.** The amount of toner density can be adjusted in the color panel on the Density Scale.

a. From the Menu bar select "Window" then "Color" to display the Color Panel. If the Density Scale is not displayed, select *Show Options.*
b. Drag the Density Scale or enter the percentage in the box to adjust the density.

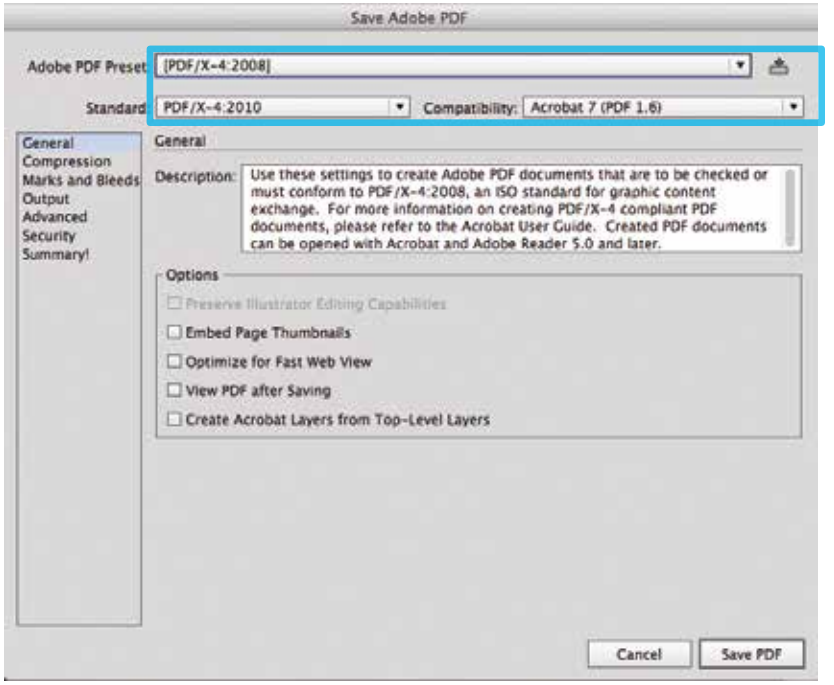


**5.** Now you can mask off the areas with the 5th Color, Clear. Be sure to click on **Overprint Fill**, under the Attributes panel, while the mask is selected.



**6.** Export / Save file as a PDF/X-4, (PDF1.6 or newer).




*Refer to "Printing the 5th Color from Fiery® Command WorkStation" for steps on Printing PDFs.*

SAVE THE DATE
CARLY & TODD
SATURDAY, AUGUST 29

# 2. Creating the 5th Color Layer – **White**, in **Adobe InDesign**

This tutorial will explain and demonstrate how to create and use a **White** Spot Color on **Dark Colored Media**.

In this example, a swatch and layer will be created in InDesign, which will allow for the type and pattern of this invitation to be printed with **White Toner**.

Before areas of the file are applied, begin by creating a New Color Swatch, which Fiery® Command WorkStation will use when applying the White Toner.

White vector on Dark Colored Media

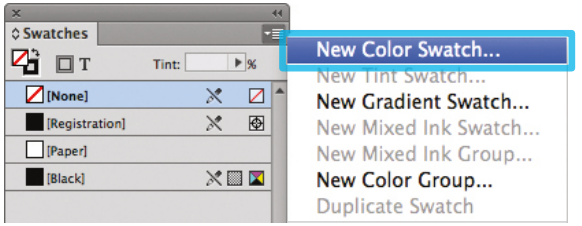
*Please note: Image on opposite page is for reference only. It does not reflect actual output when printed with 5th Color. Please refer to samples provided with your kit.*

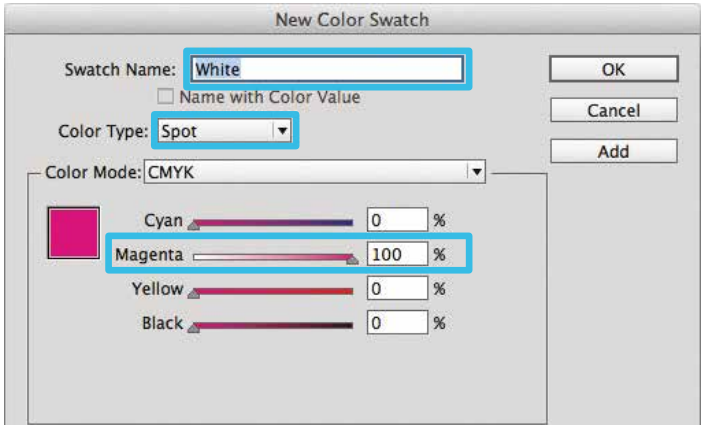
# Creating the 5th Color Layer

**1.** Open or create the InDesign (or Illustrator) file you are looking to enhance with White Toner.

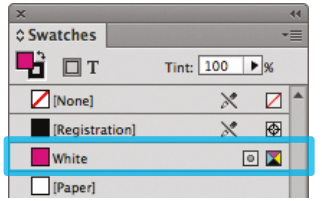
**2.** Create a **New Color Swatch**.

a. Name the swatch "**White**."
b. Select "**Spot**" for the Color Type.
c. It's recommended to choose a color that stands out, such as 100% Magenta, to easily see where the White will print.



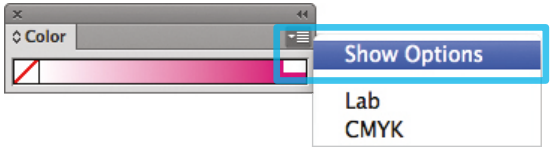



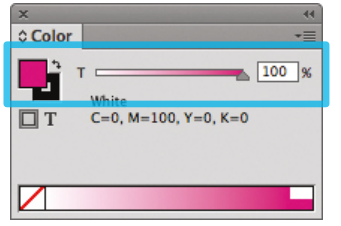

**3.** The White / Magenta Spot Color will represent the White Toner.



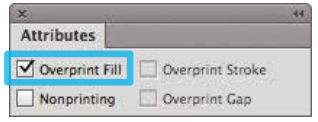

**4.** The amount of toner density can be adjusted in the color panel on the Density Scale.

a. From the Menu bar select "Window" then "Color" to display the Color Panel. If the Density Scale is not displayed, select *Show Options*.
b. Drag the Density Scale or enter the percentage in the box to adjust the density.

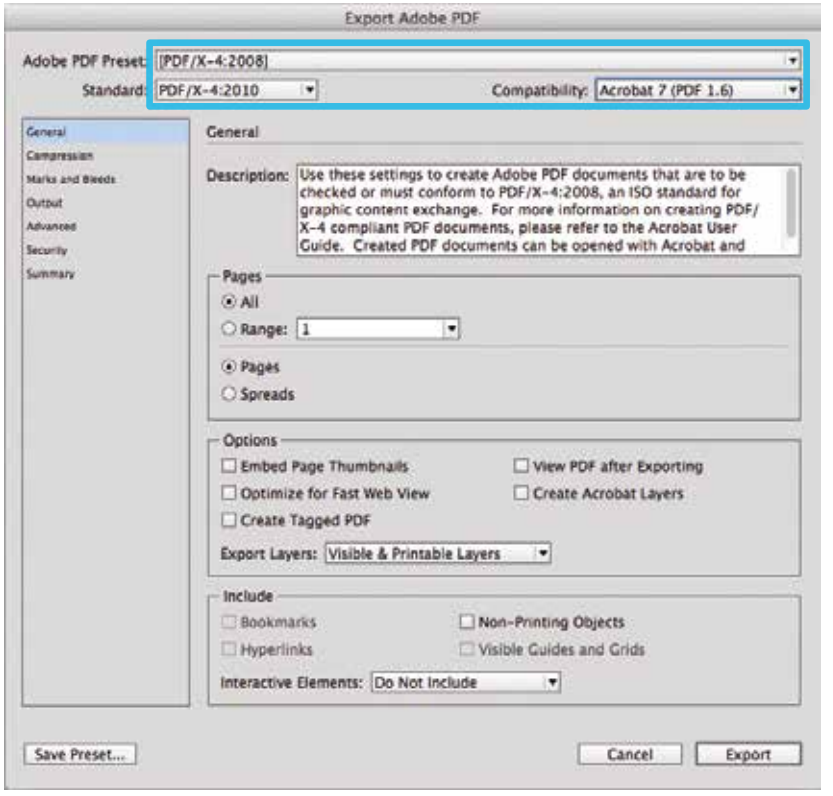


**5.** Now we can create Objects and fill with the 5th Color, White. Be sure to turn on **Overprint Fill**, under the Attributes panel.



**6.** Export / Save file as a PDF/X-4, (PDF1.6 or newer).




*Refer to "Printing the 5th Color from Fiery® Command WorkStation" for steps on Printing PDFs.*

# 3. Creating and Placing the 5th Color **Raster Element – White**, in **Adobe Photoshop** for use on **Dark Colored Media**

This tutorial will explain and demonstrate how to create a **White** Spot Color in a PSD image for placement within Illustrator or InDesign using halftones to be printed on **Dark Colored Media**.

The image will need to be prepared in **Photoshop** to carry the 5th Color information into the layout.

In this example, we are using a black and white photo and printing onto black media using White Toner. Before the file is laid out, the image must be inverted and monotoned.

White halftones on Dark Colored Media

*Please note: Image on opposite page is for reference only. It does not reflect actual output when printed with 5th Color. Please refer to samples provided with your kit.*

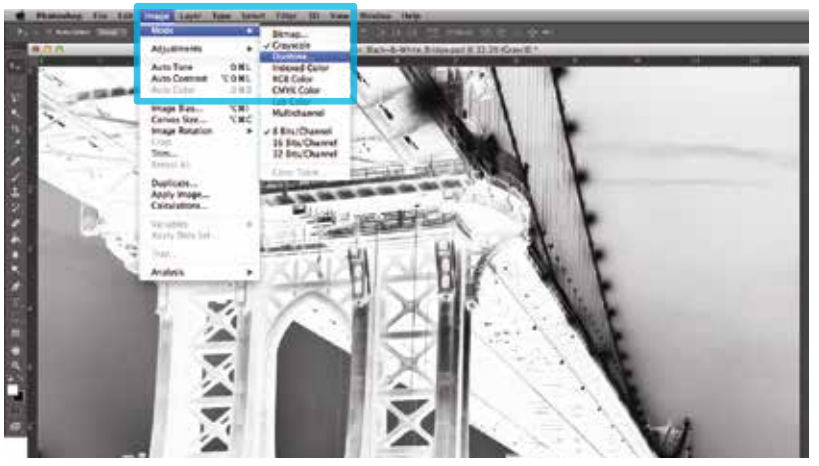
# Creating the 5th Color Layer

**1.** Open the image that you would like to print with White Toner on Dark Colored Media in Photoshop.

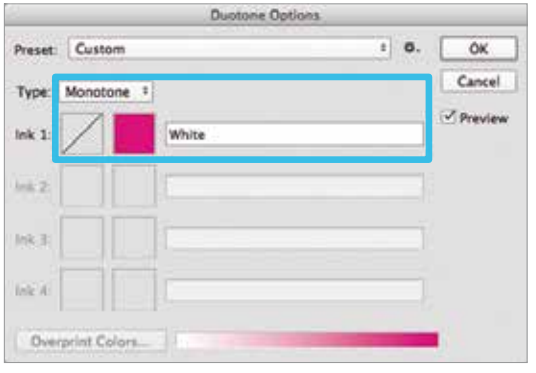
**2.** Convert to Grayscale (Image > Mode > **Grayscale**). *You may need to increase image contrast to improve toner coverage.*

**3.** Invert the image (Image > Adjustments > **Invert**).

**4.** Convert to Duotone (Image > Mode > **Duotone**).



**5.** Select **Monotone**, under "Type." Set Ink 1 to: CMYK: 0 | 100 | 0 | 0 and name it "**White**."




**6.** Save your file as a Photoshop **PDF** or **PSD** to retain monotone / 5th Color data.

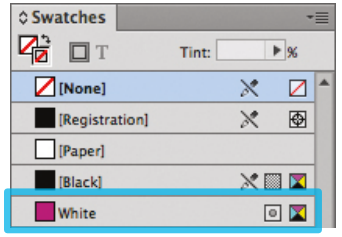
*Continued on next page*

# Creating the 5th Color Layer

*Now the prepared 5th Color image can be placed into an Adobe InDesign layout.*

**7.** Open an existing InDesign document or create a new layout.

**8.** Place the image and notice the addition of the new "White" Spot Color swatch that is brought in via the monotone image.

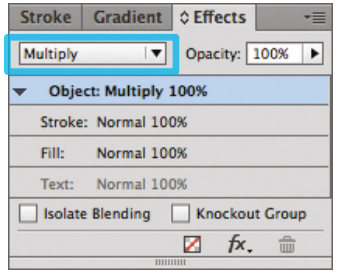


**9.** With the image in its final position, ensure all elements are colored appropriately for print on Dark Colored Media.

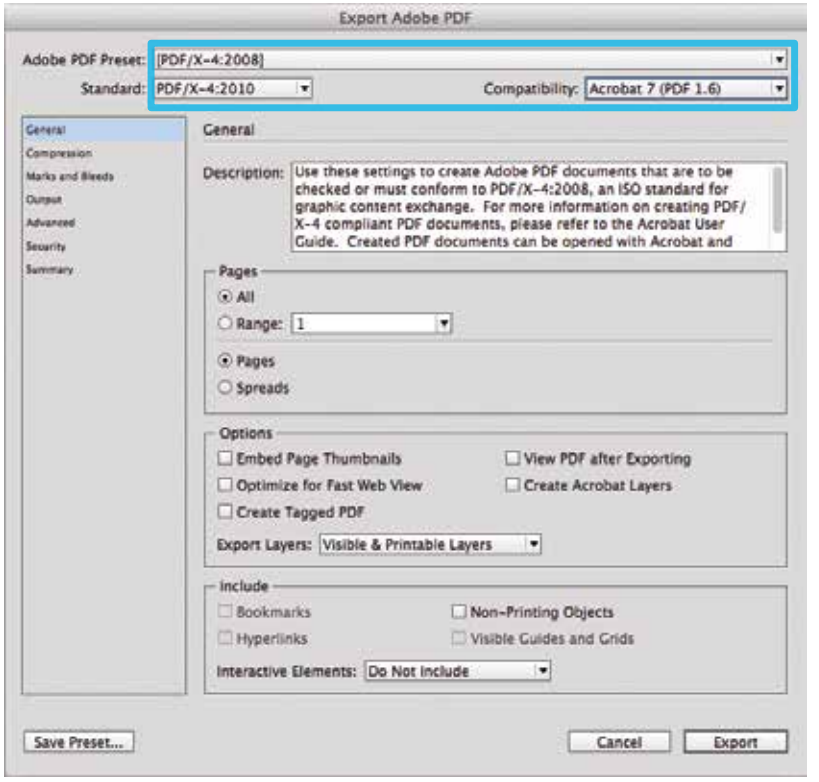
*The Magenta Spot Color represents the White Toner when printing.*

**10.** *If* printing OVER artwork, use the blend mode "**Multiply**," which will overprint the image rather than knocking it out from any artwork beneath it.

(The "on-screen" result of this may make the image difficult to see, but it will print as intended.)




**11.** Export / Save file as a PDF/X-4, (PDF1.6 or newer).




*Refer to "Printing the 5th Color from Fiery® Command WorkStation" for steps on Printing PDFs.*

Turbo
COFFEE
BUY 1 GET 1 FREE
LIMITED TIME OFFER

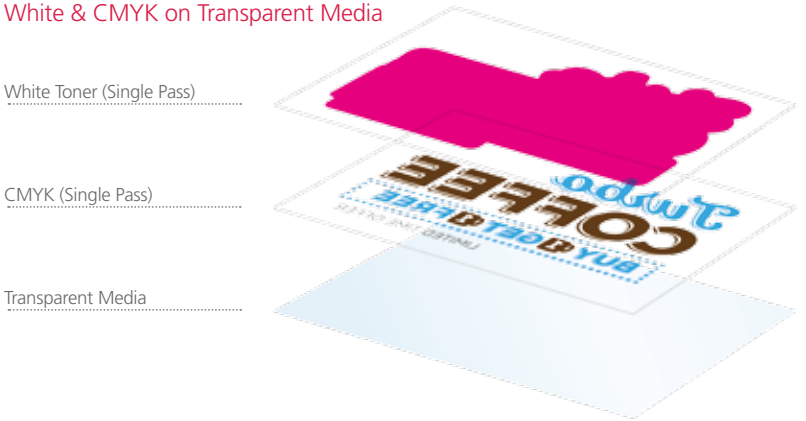
# 4. Creating the 5th Color – **White**, for use on **Transparent Media**

This tutorial will explain and demonstrate how to create a **White** Spot Color for printing on **Transparent Media**.

In this example, a swatch and layer will be created in Illustrator, allowing the application of **White Toner** behind artwork on a static window cling.

When using the White 5th Color layer on Transparent Media, the artwork must be flipped, as the 5th Color layer prints *after* the CMYK.

White & CMYK on Transparent Media



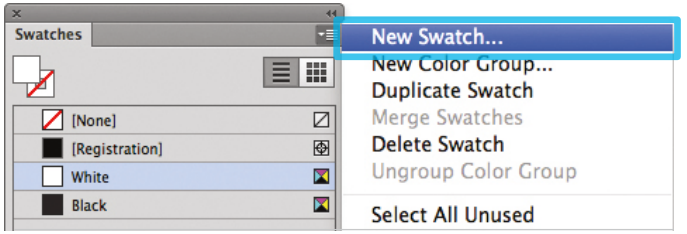

*Please note: Image on opposite page is for reference only. It does not reflect actual output when printed with 5th Color. Please refer to samples provided with your kit.*

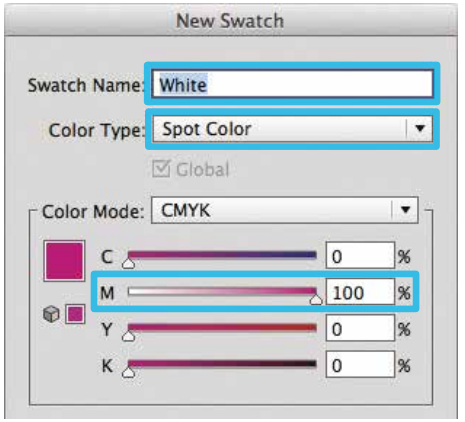
# Creating the 5th Color Layer

**1.** Open or create the InDesign / Illustrator file you are looking to enhance with White Toner.

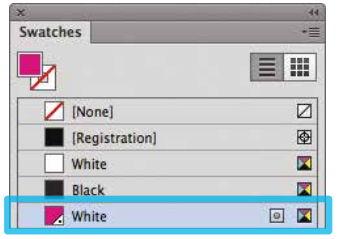
**2.** Create a **New Swatch**.

a. Name the swatch "**White**."
b. Select "**Spot Color**" for Color Type.
c. It's recommended to choose a color that stands out, such as 100% Magenta, to easily see where the White will print.



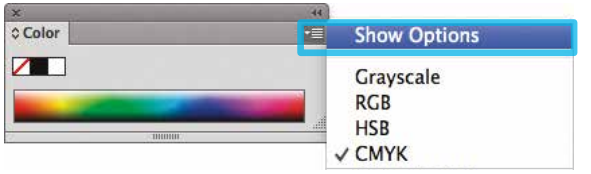



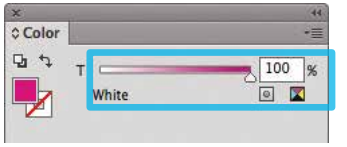

**3.** The White / Magenta Spot Color will represent the White Toner.



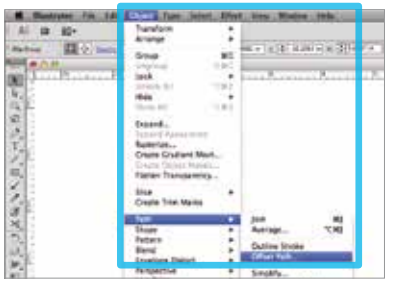

**4.** The amount of toner density can be adjusted in the color panel on the Density Scale.

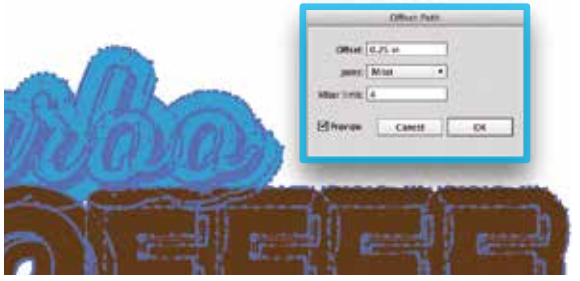
a. From the Menu bar select "Window" then "Color" to display the Color Panel. If the Density Scale is not displayed, select *Show Options.*
b. Drag the Density Scale or enter the percentage in the box to adjust the density.



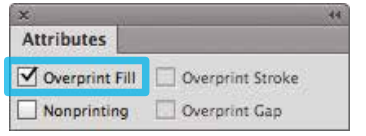
**5.** Create a shape that will "Back" the artwork by creating an **Offset Path** (Object > Path > **Offset Path**). *You may need to clean up the artwork to achieve full coverage.*



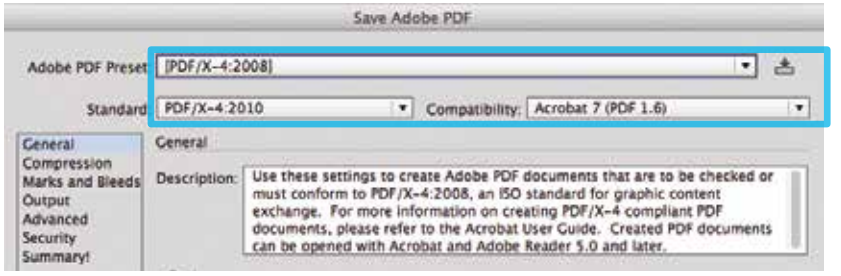


**6.** Flip the artwork as the 5th Color layer prints last.

**7.** Fill with the 5th Color – White. Click on "**Overprint Fill**," under the Attributes panel.

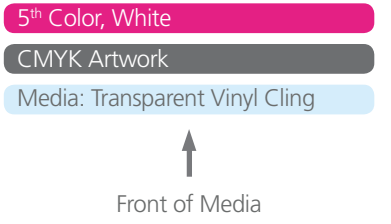


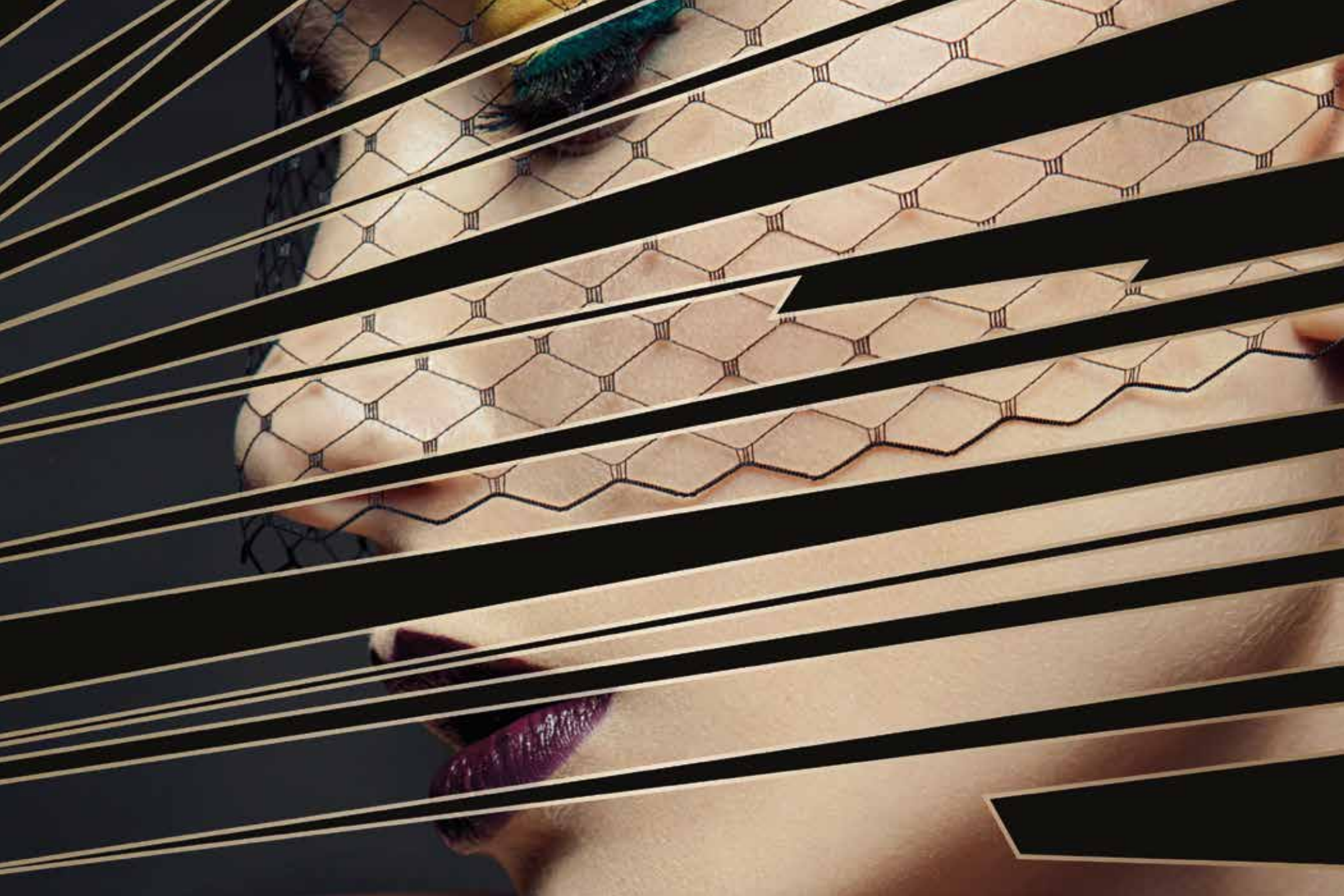

**8.** Export / Save file as a PDF/X-4, (PDF1.6 or newer).




*Refer to "Printing the 5th Color from Fiery® Command WorkStation" for steps on Printing PDFs.*

Layering of the White Toner and CMYK.





# 5. Creating the 5th Color – **White**, to create a **Metallic Effect**

This tutorial will explain and demonstrate how to print a **White** Spot Color on metallic media, creating a mask for the metallic media to show through.

In this example, a swatch and layer will be created in Illustrator which, when outputted, will simulate metallic properties in specific areas on the final output.

This is a **2-Pass Process**, where the 5th Color layer is printed first, followed by CMYK. The areas that do not have a 5th Color base layer will yield a metallic effect. 2 PDF files will be created and printed, resulting in one final print.

CMYK over White on Metallic Media

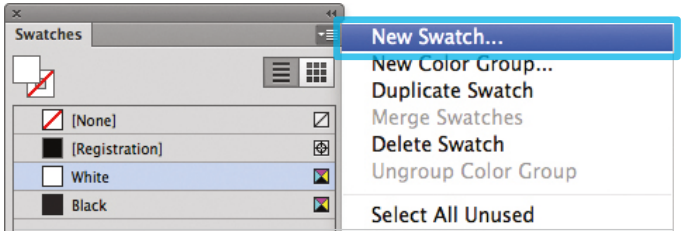
*Please note: Image on opposite page is for reference only. It does not reflect actual output when printed with 5th Color. Please refer to samples provided with your kit.*

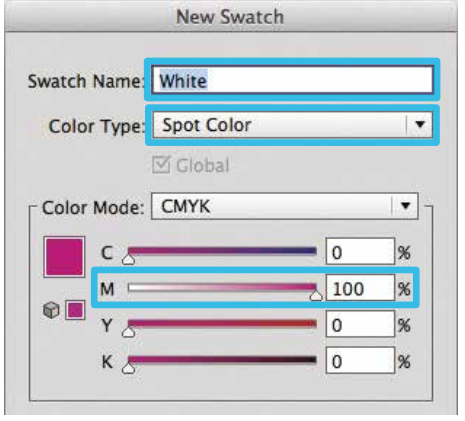
# Creating the 5th Color Layer

**1.** Open or create the Illustrator / InDesign file you are looking to enhance with White Toner.

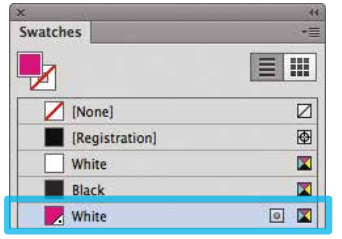
**2.** Create a **New Swatch**.

a. Name the swatch "**White**."
b. Select "**Spot Color**" for Color Type.
c. It's recommended to choose a color that stands out, such as 100% Magenta, to easily see where the White will print.



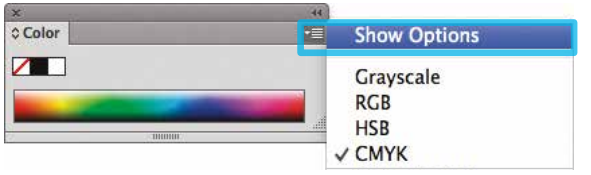



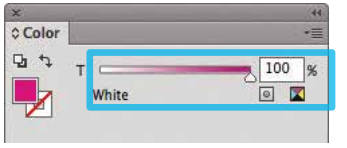

**3.** The White / Magenta Spot Color will represent the White Toner.



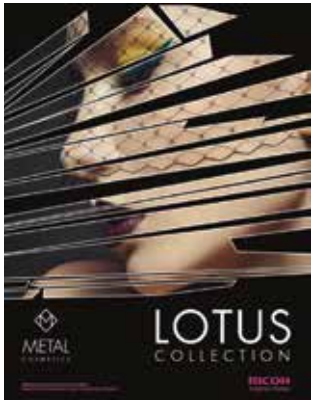

**4.** The amount of toner density can be adjusted in the color panel on the Density Scale.

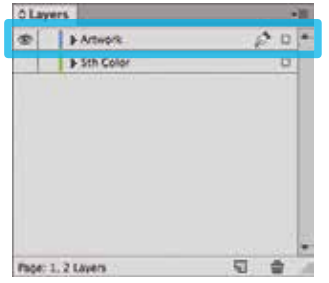
a. From the Menu bar select "Window" then "Color" to display the Color Panel. If the Density Scale is not displayed, select *Show Options.*
b. Drag the Density Scale or enter the percentage in the box to adjust the density.



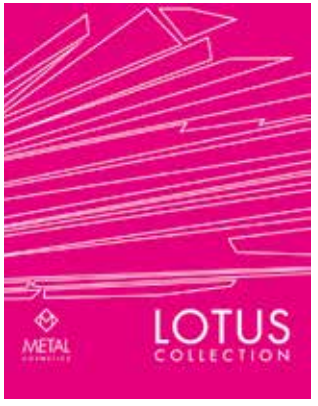



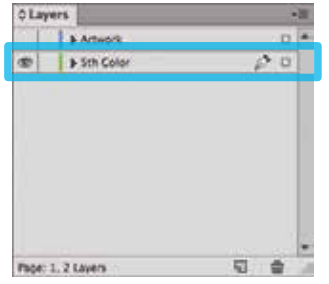
**5.** Create an Artwork layer and a 5th Color layer in the layout. The 5th Color layer will become the 1st Pass White Toner Base Layer. The Artwork layer will become the 2nd Pass CMYK Layer.




*(Eyeball icon indicates layer visibility)*

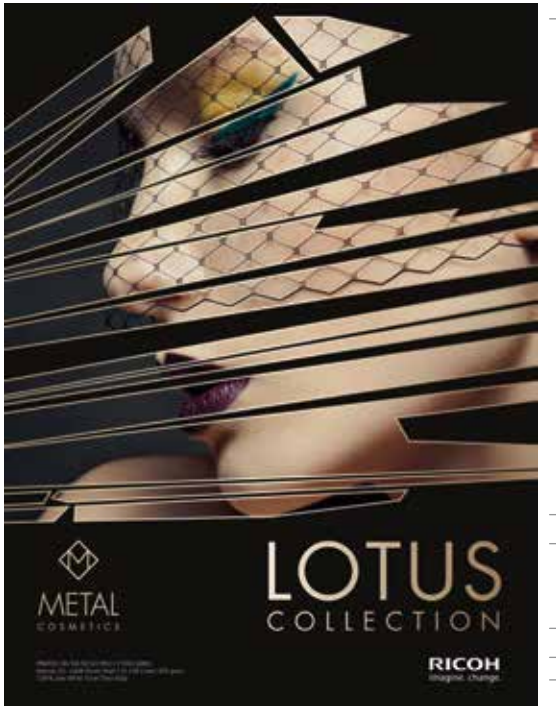



*(Eyeball icon indicates layer visibility)*

**6.** The Magenta / White layer in this example covers the majority of the layout allowing only small portions of the metallic media to show through.

Any White areas in the "Artwork" layer will not print, creating a metallic effect.




*Womans face and black background print on top of the White Toner Base Layer, (which is concealing the metallic media.)*

*Broken glass outlines reveal metallic media.*

*Metal Cosmetics logo and Lotus Collection reveal metallic media.*

*Ricoh logo and media callout will print White (using the 5th Color) on the 2nd Pass, which will be a double hit of White Toner.*

*Continued on next page*

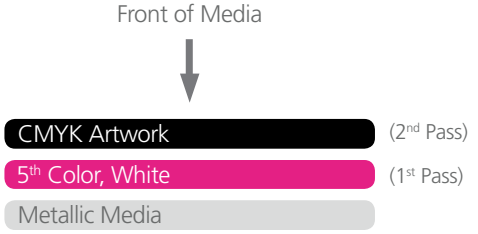
# Creating the 5th Color Layer

**7.** After the design / layout is finalized, isolate elements and export 2 PDFs.

*2nd Pass layout*

*1st Pass layout*

Layering of the
White Toner and CMYK.

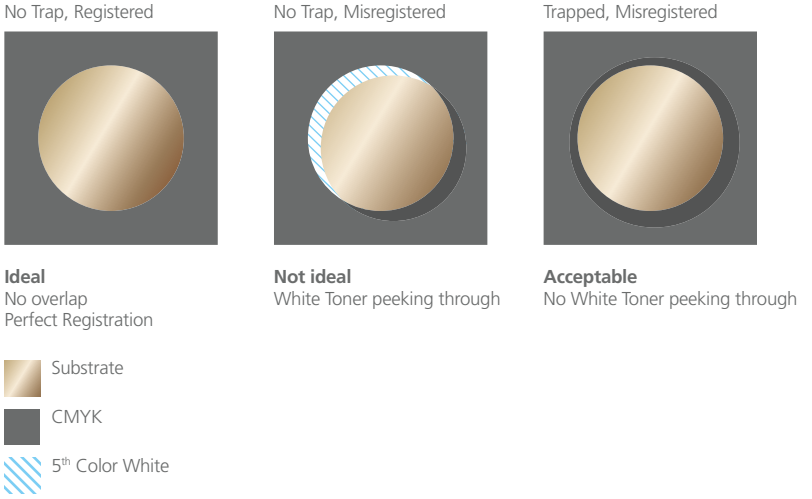



**NOTE:** To ensure acceptable registration and toner coverage, (with relation to the 1st Pass White Layer), the layout *may* need to be **Trapped** by either Choking or Spreading the respective layers. They both solve the same issue.

1. **Choke**: in which the *White Layer* coverage is contracted, increasing the percentage of substrate that will show through.

2. **Spread**: in which the *Artwork Layer* coverage is expanded, reducing the percentage of substrate that will show through.

Both techniques require the Offset Path tool, assuming Illustrator is being used, in the creation of these examples. (Object > Path > Offset Path…)

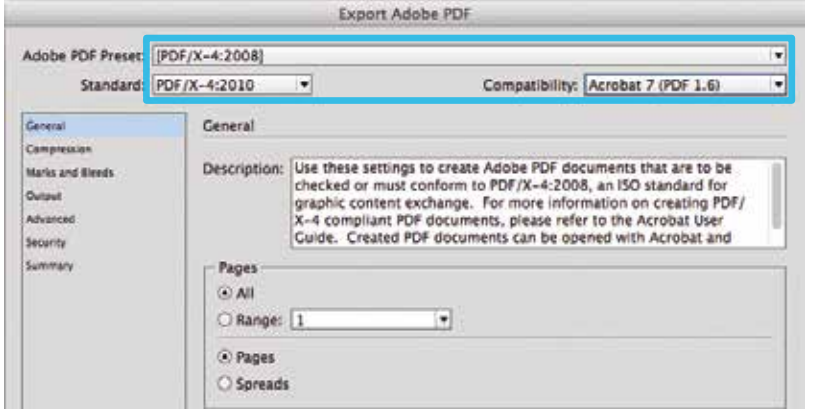


**8.** Save the **First PDF** to contain only the **5th Color, White Layer**.
(Only the isolated 5th Color layer should be visible.)

Save the **Second PDF** to contain only the **CMYK Artwork Layer**.
(Only the CMYK artwork should be visible.)

To save the 2 individual files with only their specific layers, simply **Turn Off** the layer that isn't required by clicking the "**Eyeball**" icon on the Layers panel (shown in **Step 5**).

**9.** Export **2 PDF files** as PDF/X-4 (PDF1.6 or newer).
The **First file** should be the **5th Color, White Layer** only.
The **Second file** should be the **CMYK Artwork Layer** only.




**10.** Print the **5th Color, White Layer** PDF first. Once the 1st Pass is completed, then print the **CMYK Artwork Layer** PDF.

*Refer to "Printing the 5th Color from Fiery® Command WorkStation" for steps on Printing PDFs.*

# 6. Creating the 5th Color – **White**, for use on **Colored Media**

This tutorial will explain and demonstrate how to print a **White** Spot Color onto Colored Media (red in this case), and provide an area which can be overprinted with CMYK via second pass.

In this example, a swatch and layer will be created in Illustrator and will use an image, which will show through specific areas on the print.

This is a **2-Pass Process**, where the 5th Color layer is printed first, followed by CMYK. The areas that do not have a 5th Color base layer will show the colored media through the CMYK artwork.2 PDF files will be created and printed, resulting in one final print.

CMYK over White on Colored Media

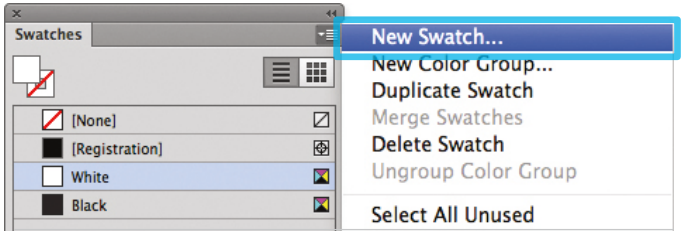
*Please note: Image on opposite page is for reference only. It does not reflect actual output when printed with 5th Color. Please refer to samples provided with your kit.*

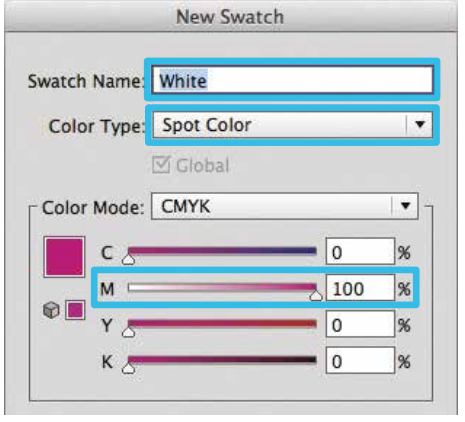
# Creating the 5th Color Layer

**1.** Open or create the Illustrator / InDesign file you are looking to enhance with White Toner.

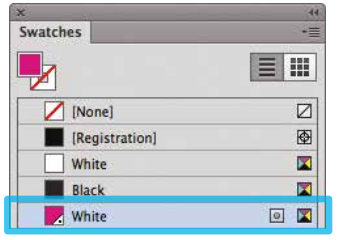
**2.** Create a **New Swatch**.

a. Name the swatch "**White**."
b. Select "**Spot Color**" for Color Type.
c. It's recommended to choose a color that stands out, such as 100% Magenta, to easily see where the White will print.



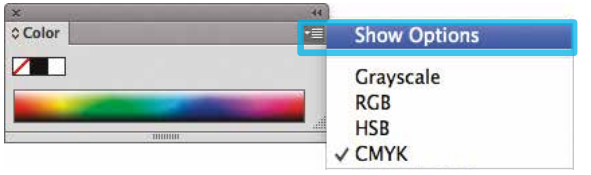



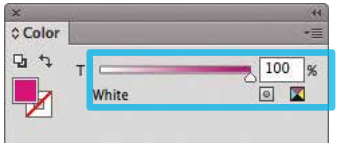

**3.** The White / Magenta Spot Color will represent the White Toner.



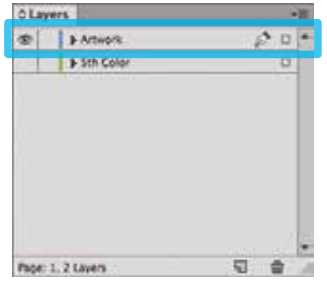

**4.** The amount of toner density can be adjusted in the color panel on the Density Scale.

a. From the Menu bar select "Window" then "Color" to display the Color Panel. If the Density Scale is not displayed, select *Show Options.*
b. Drag the Density Scale or enter the percentage in the box to adjust the density.

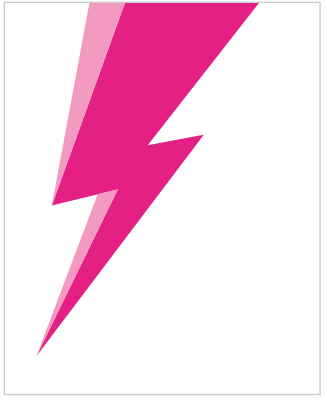


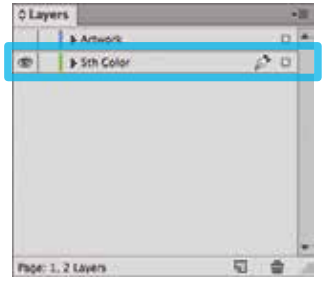



**5.** Create an Artwork layer and a 5th Color layer in the layout. The 5th Color layer will become the 1st Pass White Toner Base Layer. The Artwork layer will become the 2nd Pass CMYK Layer.




*(Eyeball icon indicates layer visibility)*

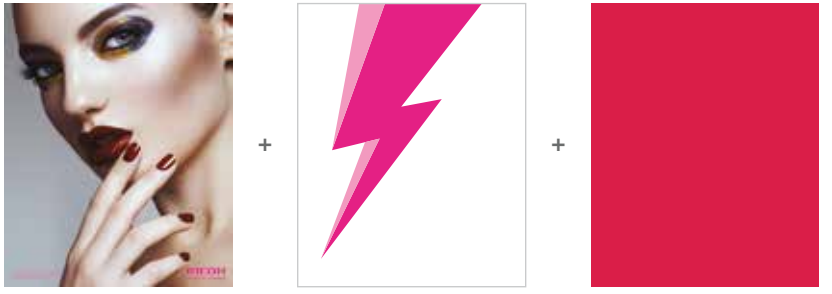


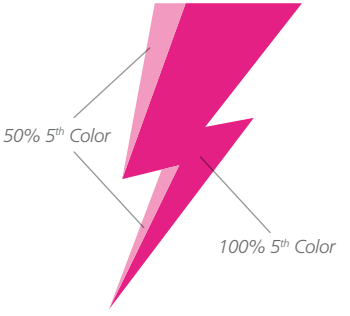



*(Eyeball icon indicates layer visibility)*

**6.** Position shape for effect.

*(It may be useful to use some masking and multiplying effects to simulate the final look, prior to prepping the file and exporting the PDFs.)*






*The "Lightning Bolt" will be used as the 1st Pass White Toner base layer. Part of the Bolt will print only 50% white, creating a partial coverage effect.*

*Continued on next page*

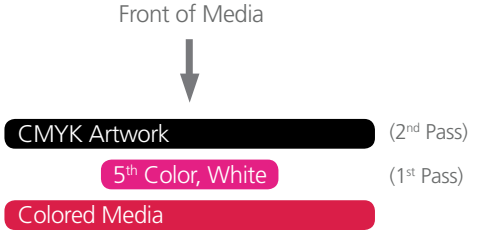
# Creating the 5th Color Layer

**7.** After the design / layout is finalized, isolate elements and export 2 PDFs.

*2nd Pass layout*

*1st Pass layout*

Layering of the
White Toner and CMYK.

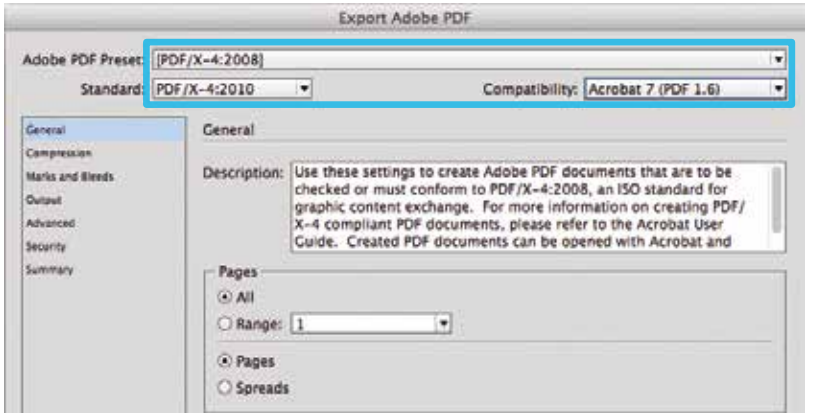



**8.** Save the **First file** to contain only the **5th Color, White Layer**.
(Only the isolated 5th Color layer should be visible.)

Save the **Second file** to contain only the **CMYK Artwork Layer**.
(Only the CMYK artwork should be visible.)

To save the 2 individual files with only their specific layers, simply **Turn Off** the layer that isn't required by clicking the "**Eyeball**" icon on the Layers panel (shown in **Step 5**).

**9.** Export **2 PDF files** as PDF/X-4 (PDF1.6 or newer).
The **First file** should be the **5th Color, White Layer** only.
The **Second file** should be the **CMYK Artwork Layer** only.




**10.** Print the **5th Color, White Layer** PDF first. Once the 1st pass is completed, then print the **CMYK Artwork Layer** PDF.

*Refer to "Printing the 5th Color from Fiery® Command WorkStation" for steps on Printing PDFs.*

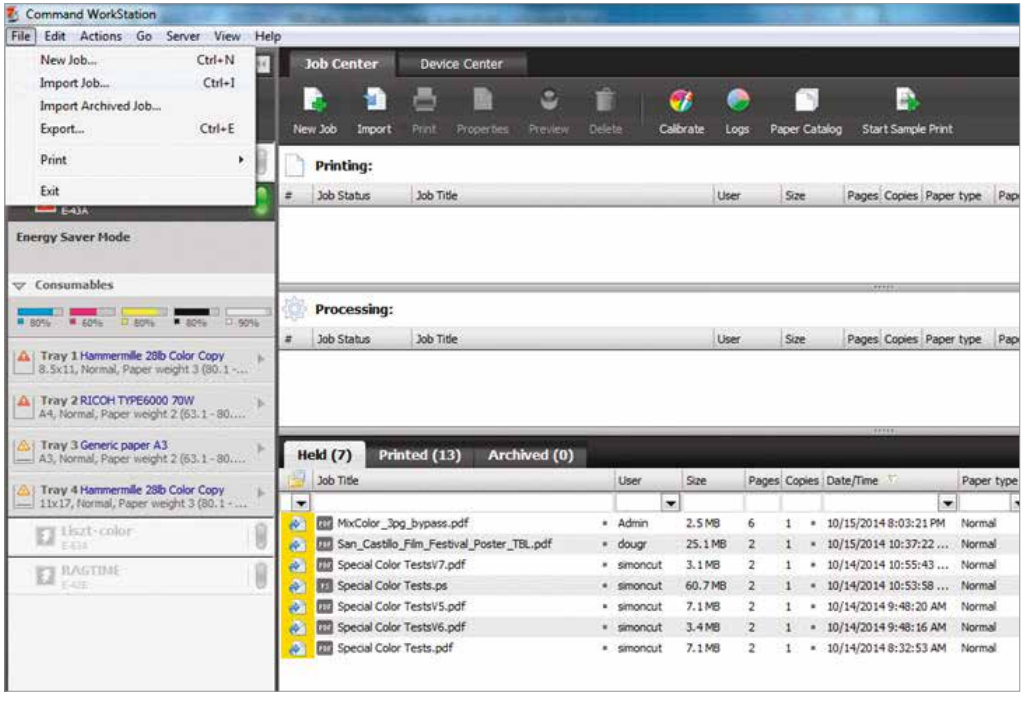
# Printing the 5th Color from Fiery® Command WorkStation

RICOH
imagine. change.

# Printing a PDF file ***with*** **pre-defined Clear Spot Color** from Fiery Command WorkStation

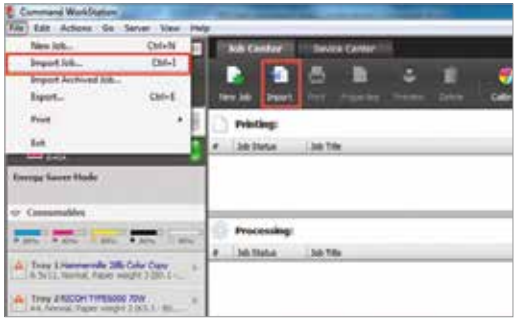
This tutorial will explain and demonstrate how to print a **prepared PDF** using the features provided in Fiery Command WorkStation.

These steps will be touched upon again when using only Fiery Command WorkStation to print 5th Color with an unprepared PDF.

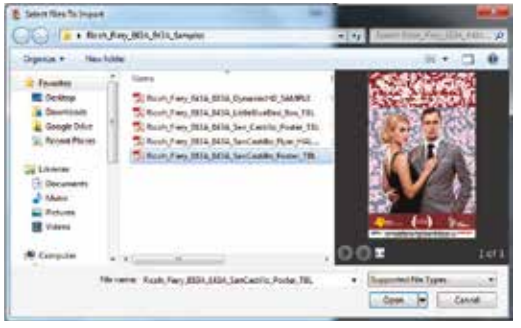


# Printing a PDF file ***with*** **pre-defined Clear Spot Color** from Fiery® Command WorkStation

**1.** Open Fiery Command WorkStation and import the desired file by clicking on **File > Import Job** or by clicking on the Import button under the **Job Center tab**.



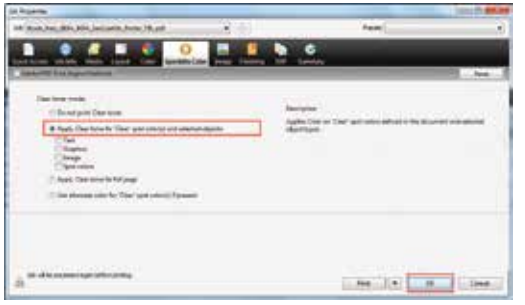
**2.** To import the file, click on **Add**, browse to the file location, then select **Hold**, which will send the file to the Held queue in Fiery Command WorkStation.

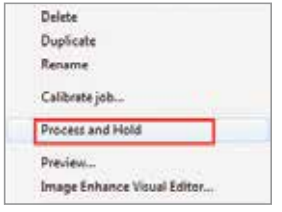


**3.** Select the file in the Held queue and open **Job Properties** by right-clicking and selecting Properties or by clicking on the Properties button under the **Job Center tab**.

Once opened, go to the **Specialty Color** tab and make sure "**Apply Clear Toner to 'Clear' spot color(s) and selected objects:**" is selected.

This will apply Clear Toner to objects within the file that are defined in Clear Spot Color. **Click OK**. Select the job in the Held queue and **right-click** to **Process** and **Hold** it.






**4.** You can verify that there is a Clear Spot Color by checking with **Fiery ImageViewer** (standard for Fiery E-83A and optional for Fiery E-43A).

To access it, **right-click** on the file in the Held queue and select **Fiery ImageViewer**. A new window will open and you will see the **Clear Spot Color** represented as a separate channel and displayed in orange. This makes it easy to identify where Clear Toner will be applied.

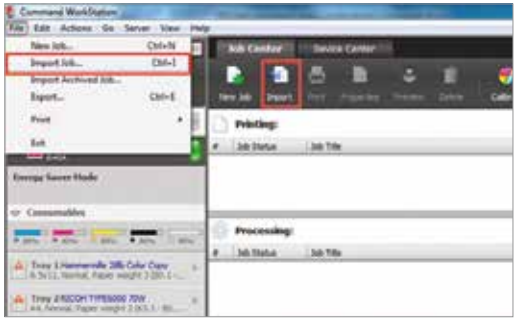
**5.** Select any additional settings, such as media type, number of copies, finishing options, and click Print.

# Printing a PDF file ***without*** **pre-defined Clear Spot Color** from Fiery Command WorkStation

This tutorial will explain and demonstrate how to print an **unprepared PDF** using the features provided in Fiery Command WorkStation.

This example will use a Film Festival Poster that contains vector artwork, live type, a raster image and Spot Colors in the layout.

**1.** Open Fiery Command WorkStation and import the desired file by clicking on **File > Import Job** or by clicking on the Import button under the **Job Center tab**.



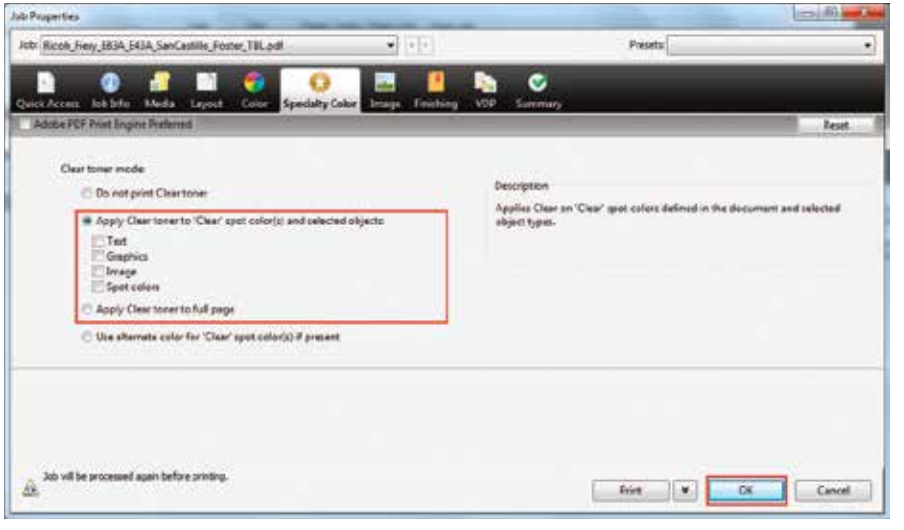
**2.** To import the file, click on **Add**, browse to the file location, then select **Hold**, which will send the file to the Held queue in Fiery Command WorkStation.

**3.** Select the file in the Held queue and open **Job Properties** by right-clicking and selecting Properties or by clicking on the Properties button under the **Job Center tab**.

Once opened, go to the **Specialty Color** tab and make sure "**Apply Clear Toner to 'Clear' spot color(s) and selected objects:**" is selected.

Because there is no defined Clear Spot Color in the design, you will have options to choose from: Text,Graphics, Image or Spot Colors.

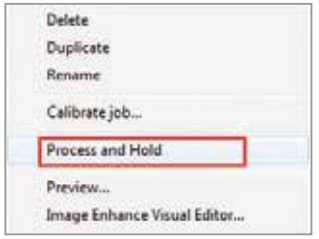
- *Text* will apply Clear Toner on any text within the file as long as it is not outlined.
- *Graphics* will apply Clear Toner on any vector graphics in the file, including outlined text.
- *Image* will apply Clear Toner on all the images within the file.
- *Spot Colors* will apply Clear Toner on all spot colors present in the document by overriding their existing values.




*Continued on next page*

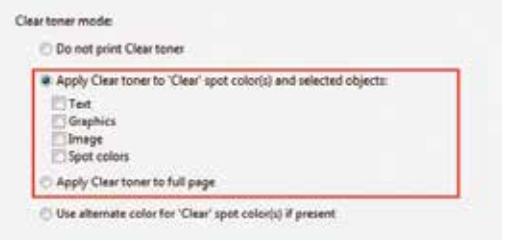
**3.** Another alternative is to select the option "Apply Clear Toner to full page," which will flood the whole page with Clear Toner.

Once you choose the setting that you need, **Click OK**. Select the job in the Held queue and right-click to **Process and Hold** it.




**4.** Select any additional settings, such as media type, number of copies, finishing options, and click **Print**.

# Modes Explained:




*Note: Cyan represents Clear Toner coverage*

☑ Text

Only Live, Editable text will be covered. (If text is outlined, then it will not be selected.)

☑ Graphics

Only Vector Artwork will be covered. (Outlined text may fall into this category.)

☑ Image

Only Raster, non-vector images will be covered.

☑ Spot colors

Will override existing Spot Color values adding Clear Toner.

Text

Graphics

Image

Spot Colors

*Please note: Images for reference only. They do not reflect actual output when printed with 5th Color.*

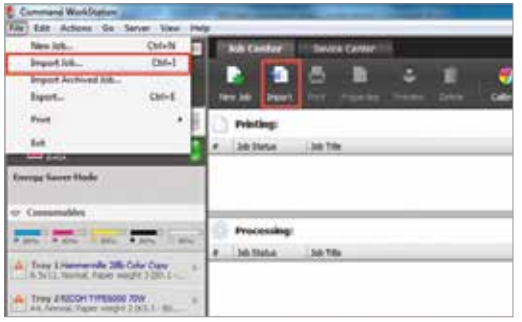
# Printing a **1-Pass** PDF file ***with*** **pre-defined White Spot Color** from Fiery Command WorkStation

The purpose of this tutorial is to demonstrate how to print a PDF file that has **White Spot Color** incorporated in the design using Fiery Command WorkStation in a **Single Pass**.

This example will use bakery packaging in which the White will be printed OVER the CMYK artwork.

# Printing a **1-Pass** PDF file ***with*** **pre-defined White Spot Color** from Fiery® Command WorkStation

**1.** Open Fiery Command WorkStation and import the desired file by clicking on **File > Import Job** or by clicking on the Import button under the **Job Center tab**.

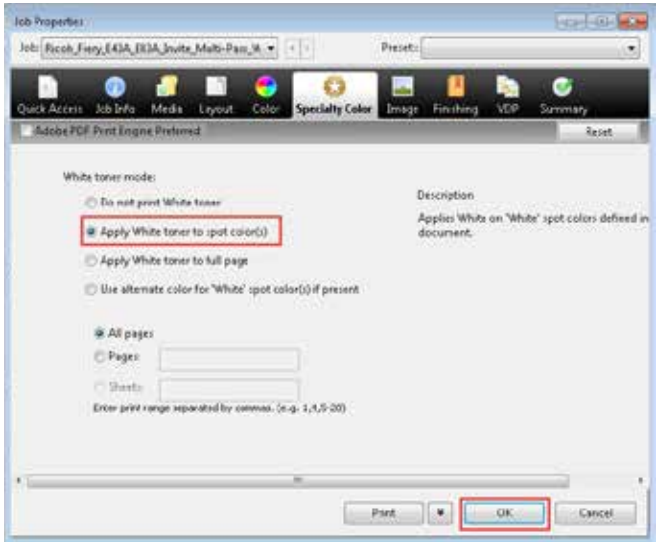


**2.** To import the file, click on **Add**, browse to the file location, then select **Hold**, which will send the file to the Held queue in Fiery Command WorkStation.

**3.** Select the file in the Held queue and open **Job Properties** by right-clicking and selecting Properties or by clicking on the Properties button under the **Job Center tab**.

Once opened, go to the **Specialty Color** tab and make sure "**Apply White Toner to spot color(s)**" is selected. This will apply White Toner on any objects within the file that are defined in White Spot Color.

**Click OK**. Select the job in the Held queue then right-click to **Process and Hold**.



*Continued on next page*

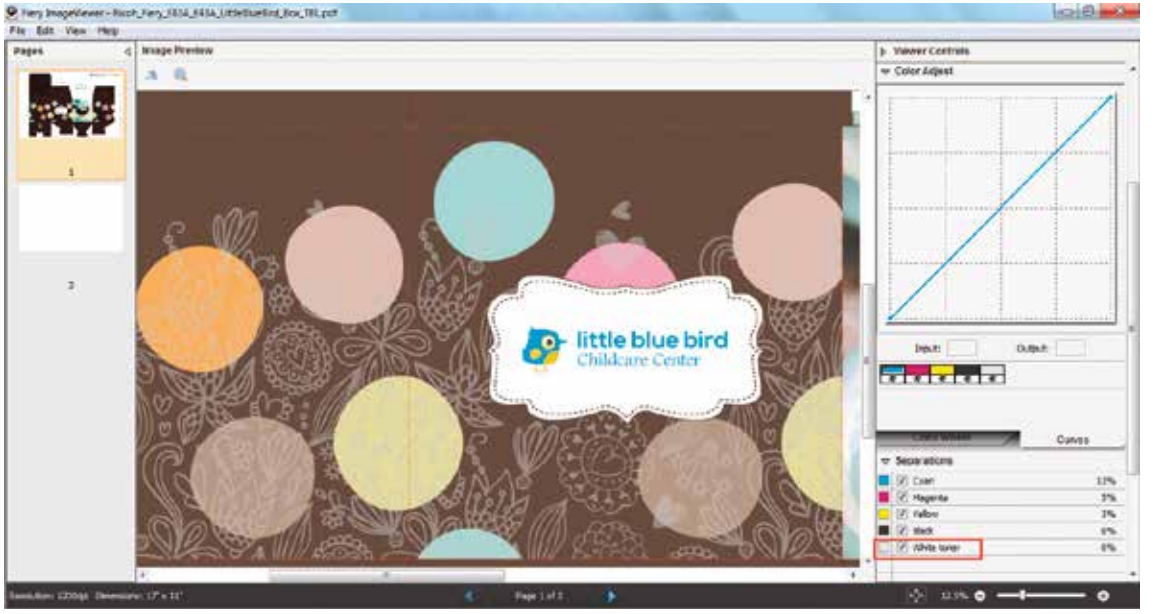
# Printing the 5th Color from **Fiery® Command WorkStation**

4. You can verify that there is a White Spot Color by checking with **Fiery ImageViewer** (standard for Fiery E-83A and optional for Fiery E-43A).

   To access it **right-click** on the file in the Held queue and select **Fiery ImageViewer**. A new window will open and you will see the **White Spot Color** represented as a separate channel and displayed in light gray. This makes it easy to identify where White Toner will be applied.

5. Select any additional settings, such as media type, number of copies, finishing options, and click **Print**.

**Note:** *This file is created with the 5th Color White on top of the CMYK. Therefore, it's able to be printed with a Single Pass.*



To a
Very Special
MOM
Baked with love

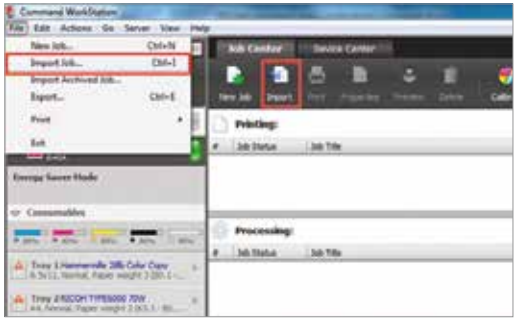
# Printing **2-Pass** PDF files ***with*** **pre-defined White Spot Color** from Fiery Command WorkStation

The purpose of this tutorial is to demonstrate how to print PDF files that have a **White Spot Color** incorporated in the design using Fiery Command WorkStation in a **2-Pass Process**.

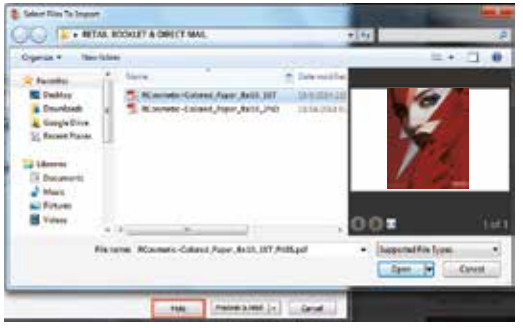
This example will use this retail sell sheet, where the White will be printed 1st on the substrate, providing a neutral white base layer for the CMYK to print over top in the 2nd Pass.

# Printing **2-Pass** PDF files ***with*** **pre-defined White Spot Color** from Fiery® Command WorkStation

**1.** Open Fiery Command WorkStation and import the desired file by clicking on **File > Import Job** or by clicking on the Import button under the **Job Center tab**.



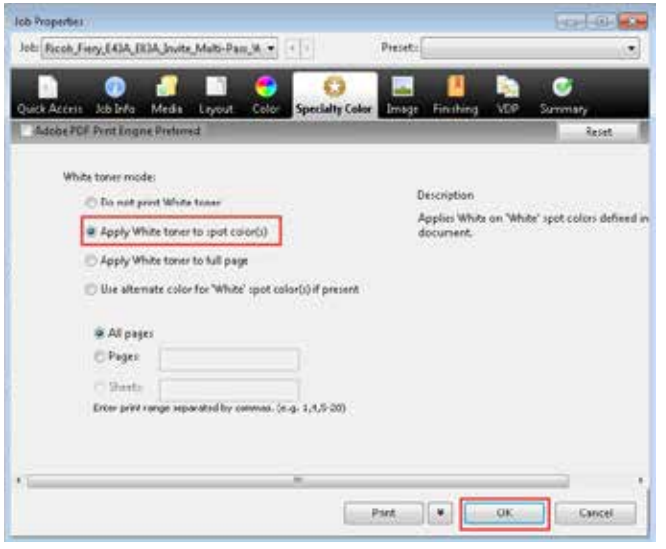
**2.** To import the file, click on **Add**, browse to the file location, then select **Hold**, which will send the file to the Held queue in Fiery Command WorkStation.



**3.** Select the file in the Held queue and open **Job Properties** by right-clicking and selecting Properties or by clicking on the Properties button under the **Job Center tab**.

Once opened, go to the **Specialty Color** tab and make sure "**Apply White Toner to spot color(s)**" is selected. This will apply White Toner on any objects within the file that are defined in White Spot Color.

**Click OK**. Select the job in the Held queue then right-click to **Process and Hold**.



*Continued on next page*

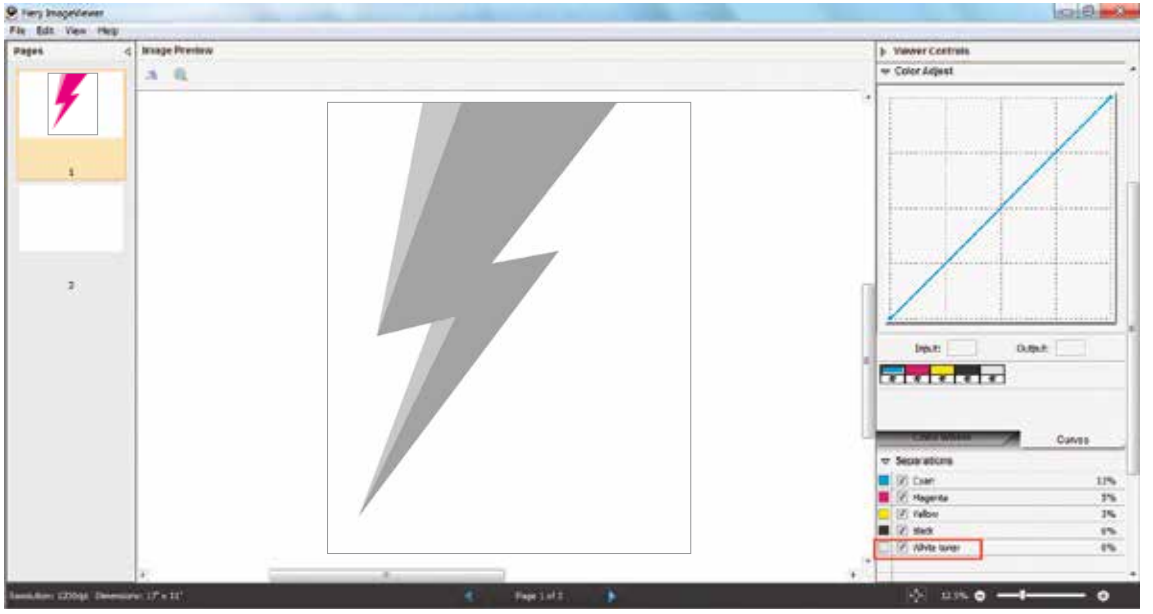
# Printing the 5th Color from **Fiery® Command WorkStation**

**4.** You can verify that there is a White Spot Color by checking with **Fiery ImageViewer** (standard for Fiery E-83A and optional for Fiery E-43A).

To access it **right-click** on the file in the Held queue and select **Fiery ImageViewer**. A new window will open and you will see the **White Spot Color** represented as a separate channel and displayed in light gray. This makes it easy to identify where White Toner will be applied.

**Note:** *These files are created with the 5th Color White underneath the CMYK. Therefore, the final output is achieved with 2 Passes.*

**5.** Select any additional settings, such as media type, number of copies, finishing options, and click **Print**.

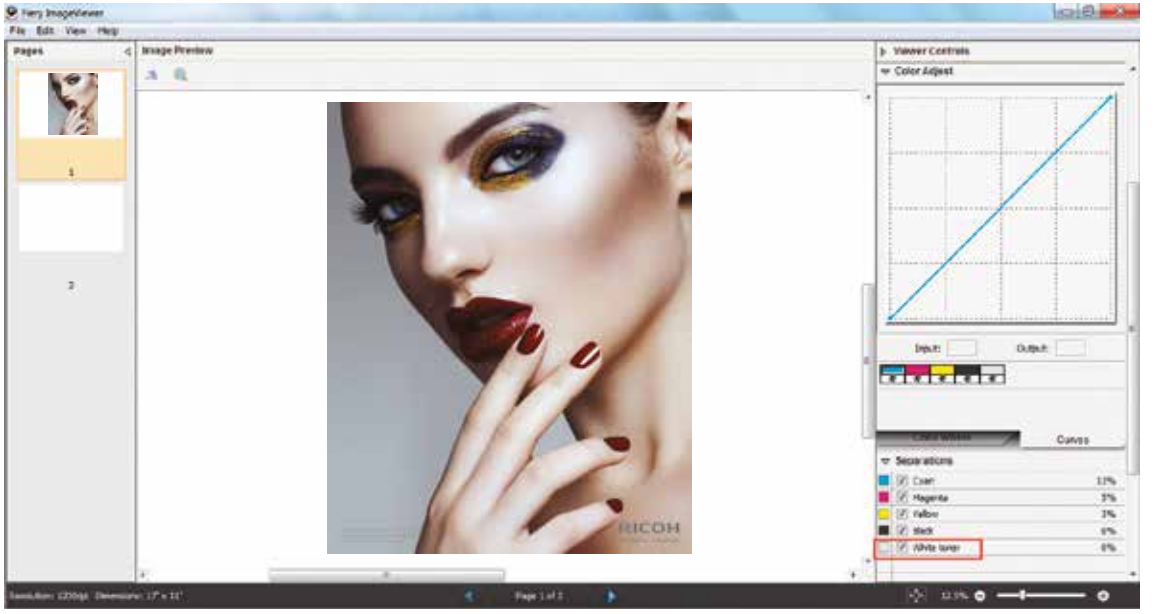



*1st Pass layout*

**6.** Remove the 1st Pass print from the exit tray and reload the sheet, face up, in the appropriate paper tray for the 2nd Pass.

**7.** Repeat Steps 1–5 using the 2nd Pass PDF.

**Note:** *This second file example includes 5th Color White elements as well as CMYK.*




*2nd Pass layout*

# Using the EFI™ Fiery **Multi Pass White Application**

EFI created a Fiery Multi Pass White Application that enables printing designs with White Toner on specific media types that require multi pass processing. Users can choose from three pre-defined workflows:

- **Metallic Substrate – Print 2-Pass PDF files with White Toner**
  This workflow applies White Toner as a background and omits areas where Silver Spot Color is applied for the metallic substrate to show through. White is printed on the first pass. CMYK is printed on the second pass.

- **Color Substrate – Print 2-Pass PDF files with White Toner**
  This workflow applies White Toner to mask the color of the substrate and provide a white area for printing CMYK over. White is printed on the first pass. CMYK is printed on the second pass.

- **Backlit Substrate – Print PDF files with White Toner**
  This workflow is a single pass that mirrors the CMYK design elements and floods the whole sheet with White Toner to serve as white background. CMYK objects are printed first and White Toner is applied on top. The White Spot Color does not need to be specified in the job. The output is backlit from the printed side and viewed from the unprinted side.

*The Multi Pass White Application is available as a system patch and can be installed via system update. You can also contact your technical representative for more information on how to get the application installed on your Fiery server.*

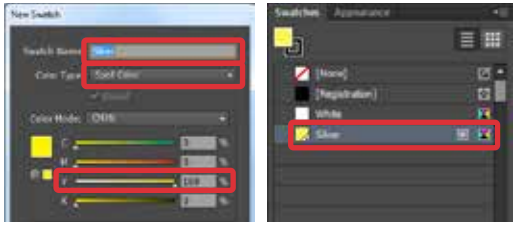
# Metallic Substrate

The purpose of this tutorial is to demonstrate how to print a PDF file in a 2-Pass workflow with "Silver" Spot Color incorporated in the design, applying White Toner on a metallic substrate using Fiery Command WorkStation and EFI Fiery Multi Pass White Application.

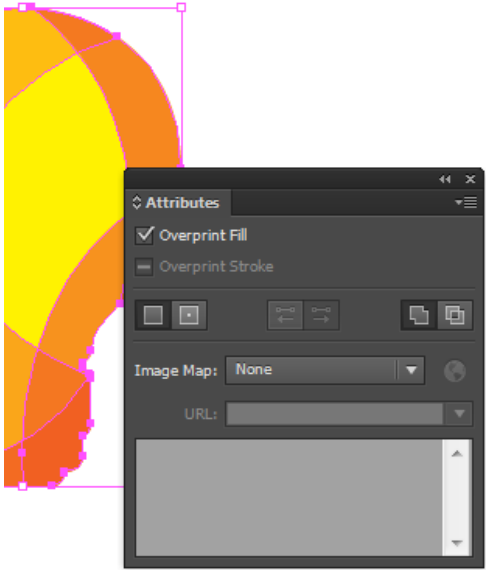
## Design File Setup Steps

1. Open or create the Illustrator / InDesign file that will be printed on metallic substrate and will have White Toner in the design.

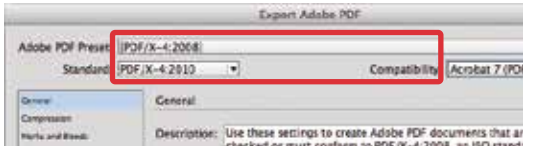
2. Create a **New Swatch** and name it "**Silver**." This particular workflow inverts the White Toner placement so we need to define where the metallic would show through, rather than indicate where the White Toner will be applied. Make sure you select "**Spot Color**" for Color Type. It's recommended to represent the New Swatch with a color that stands out, such as 100% Yellow.



3. Apply "Silver" Spot Color anywhere in the design where you want the metallic color of the substrate to show though. To create CMYK colors with metallic finish, place "Silver" Spot Color underneath the desired CMYK objects. Make sure the CMYK elements are set on "**Overprint Fill**."




4. Export **1 PDF file** as PDF/X-4 (PDF1.6 or newer).




## Printing

1. Open Fiery Command WorkStation and import the desired file by clicking on **File > Import Job** or by clicking on the Import button under the **Job Center tab**.

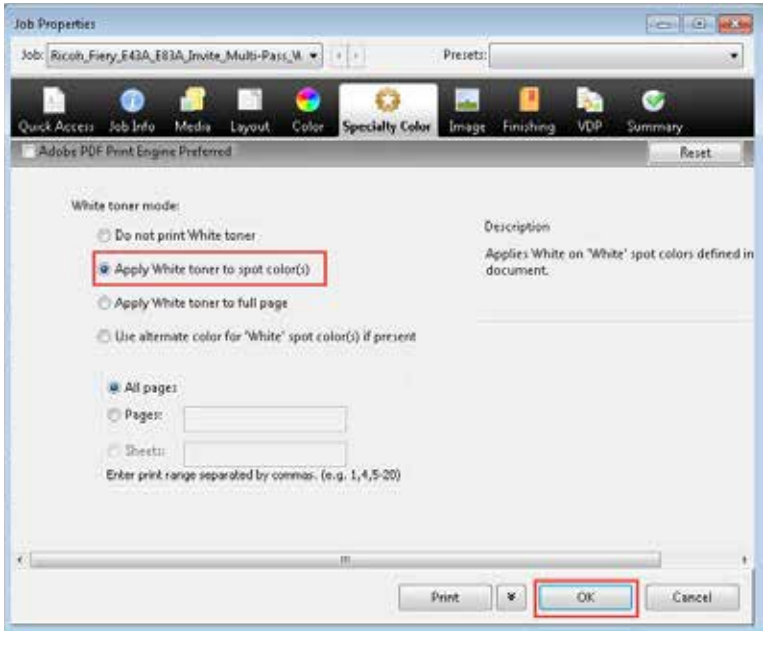
2. To import the file, click on **Add**, browse to the file location, then select **Hold**, which will send the file to the Held queue in Fiery Command WorkStation.

*Continued on next page*

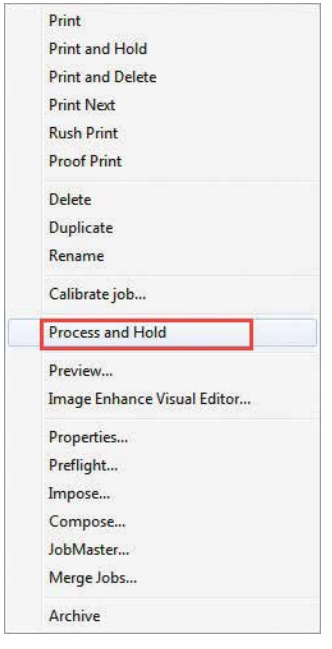
# Printing the 5th Color from **Fiery® Command WorkStation**

**3.** Select the file in the Held queue and open **Job Properties** by right-clicking and selecting Properties or by clicking on the Properties button under the **Job Center tab**.

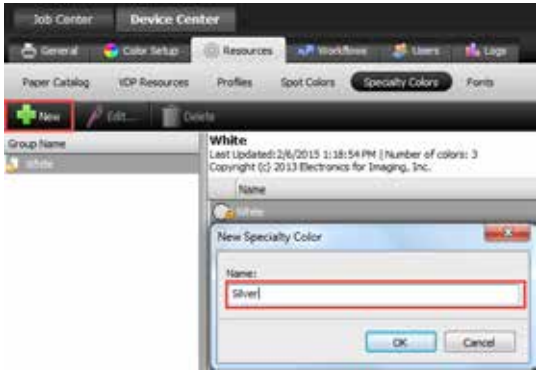
Once opened, go to the **Specialty Color** tab and make sure "**Apply White Toner to spot color(s)**" is selected.



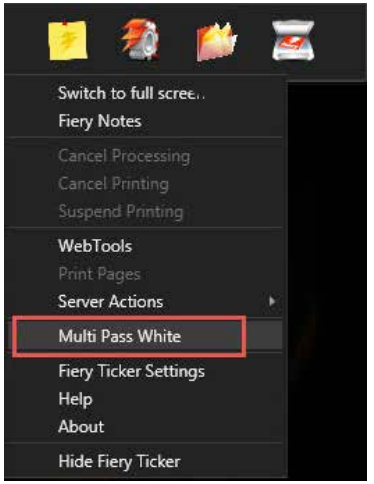

Select any other print settings e.g. media type, media weight, number of copies and then **Click OK**. Select the job in the Held queue then right-click to **Process and Hold**.




Before you print you need to add "**Silver**" Spot Color to the specialty color group in Fiery Command WorkStation. Go to Device Center, click on the **Resources tab**, and select **Specialty Colors**. Select the White specialty color group and click **New**. Type the name of the Spot Color exactly as it is used in your document and **Click OK**.



**4.** To access the application go to the Fiery Advanced Controller Interface desktop, click in the upper left corner and select Multi Pass White from the drop-down menu.




**5.** Choose the job from the list.

*Note: Only the jobs in the Held queue that are enabled for printing with White Toner appear in the list. If your job does not appear in the list, right-click anywhere in the Multi Pass White window and select "Reload."*

Choose the **Metallic Substrate** mode.
Click on the Print First Pass button. The printer will print the first pass of the job (White Toner only).

**6.** Before you print the second pass, there are a few steps that you need to complete. **Pick up the print** from the output tray. **Place** the printed sheet **in** the **same input tray** that you specified for the job. **Click Print Next Pass**.

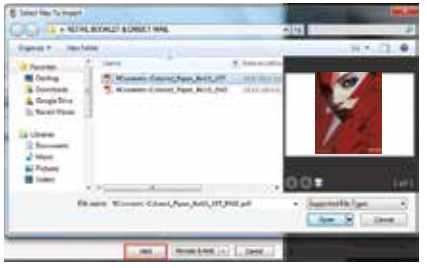
# Color Substrate

The purpose of this tutorial is to demonstrate how to print a PDF file in a 2-Pass workflow on color substrate with "White" Spot Color incorporated in the design using Fiery Command WorkStation and EFI™ Fiery Multi Pass White Application. **Reference pg. 36 for proper file construction, outputting only 1 PDF**.

## Printing

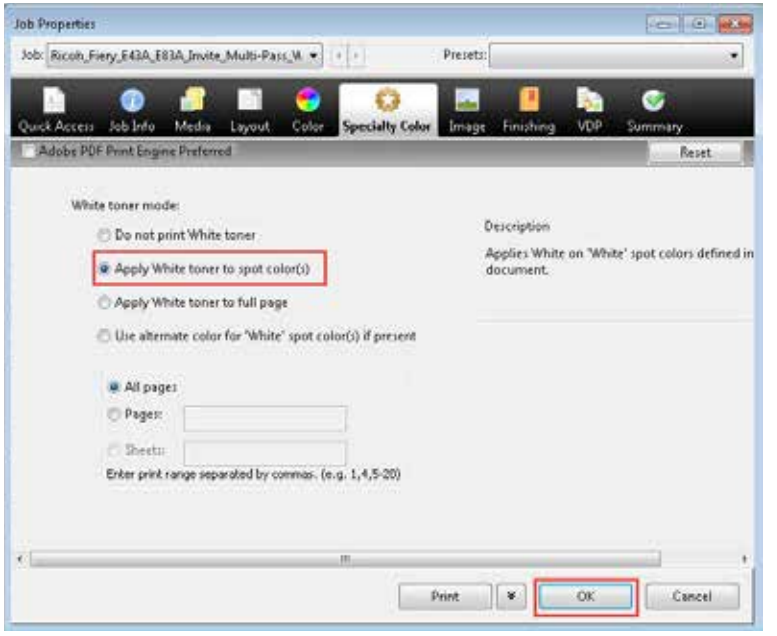
1. Open Fiery Command WorkStation and import the desired file by clicking on **File > Import Job** or by clicking on the Import button under the **Job Center tab**.

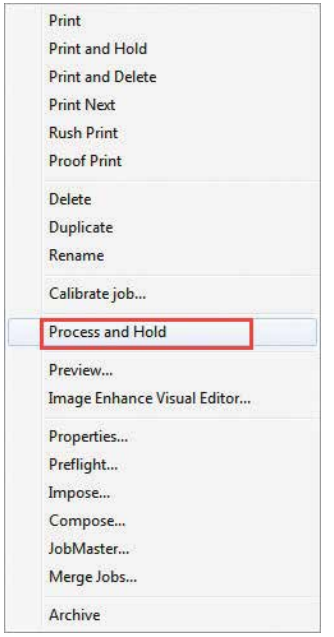
2. To import the file, click on **Add**, browse to the file location, then select **Hold**, which will send the file to the Held queue in Fiery Command WorkStation.



3. Select the file in the Held queue and open **Job Properties** by right-clicking and selecting Properties or by clicking on the Properties button under the **Job Center tab**.

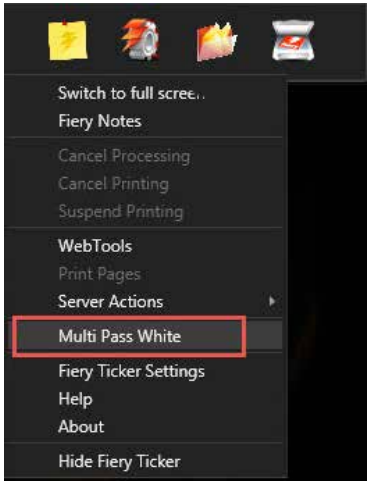
   Once opened, go to the **Specialty Color** tab and make sure "**Apply White Toner to spot color(s)**" is selected. This will apply White Toner on any objects within the file that are defined in White Spot Color.




Select any other print settings e.g. media type, media weight, number of copies and then **Click OK**. Select the job in the Held queue then right-click to **Process and Hold**.

**4.** To access the application go to the Fiery Advanced Controller Interface desktop, click in the upper left corner and select Multi Pass White from the drop-down menu.




**5.** Choose the job from the list.

*Note: Only the jobs in the Held queue that are enabled for printing with White Toner appear in the list. If your job does not appear in the list, right-click anywhere in the Multi Pass White window and select "Reload."*

Choose the **Color Substrate** mode.
Click on the Print First Pass button. The printer will print the first pass of the job (White Toner only).

**6.** Before you print the second pass, there are a few steps that you need to complete. **Pick up the print** from the output tray. **Place** the printed sheet **in** the **same input tray** that you specified for the job. **Click Print Next Pass**.

# Backlit Film

The purpose of this tutorial is to demonstrate how to print a PDF file that has "White" Spot Color incorporated in the design on backlit film (transparent media) using Fiery Command WorkStation and EFI™ Fiery Multi Pass White Application.

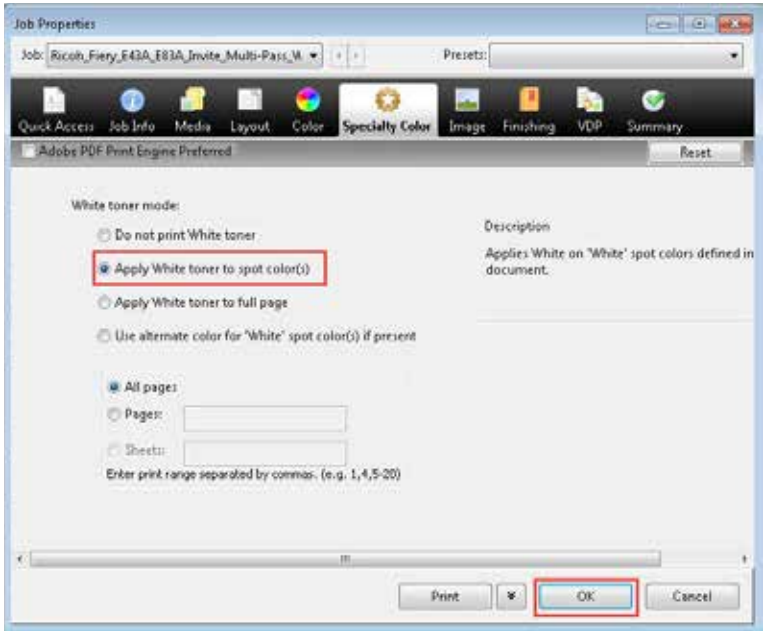
## Printing

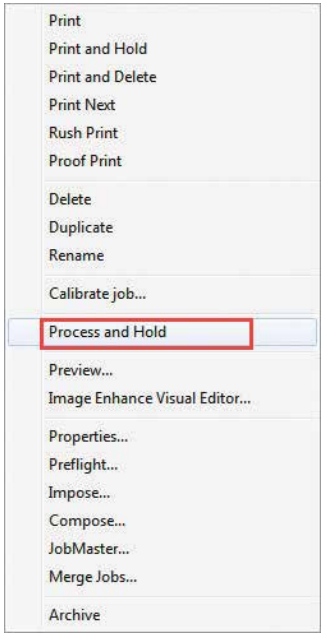
1. Open Fiery Command WorkStation and import the desired file by clicking on **File > Import Job** or by clicking on the Import button under the **Job Center tab**.

2. To import the file, click on **Add**, browse to the file location, then select **Hold**, which will send the file to the Held queue in Fiery Command WorkStation.

3. Select the file in the Held queue and open **Job Properties** by right-clicking and selecting Properties or by clicking on the Properties button under the **Job Center tab**.

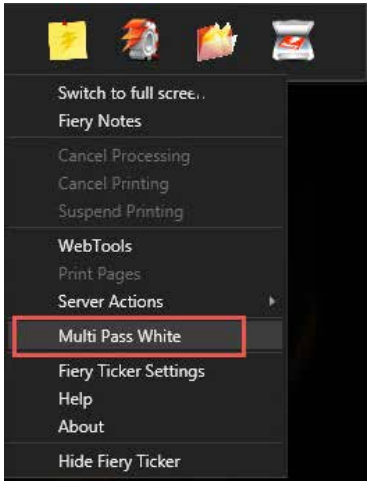
   Once opened, go to the **Specialty Color** tab and make sure "**Apply White Toner to spot color(s)**" is selected.




Select any other print settings e.g. media type, media weight, number of copies and then **Click OK**. Select the job in the Held queue then right-click to **Process and Hold**.

**4.** To access the application go to the Fiery Advanced Controller Interface desktop, click in the upper left corner and select Multi Pass White from the drop-down menu.



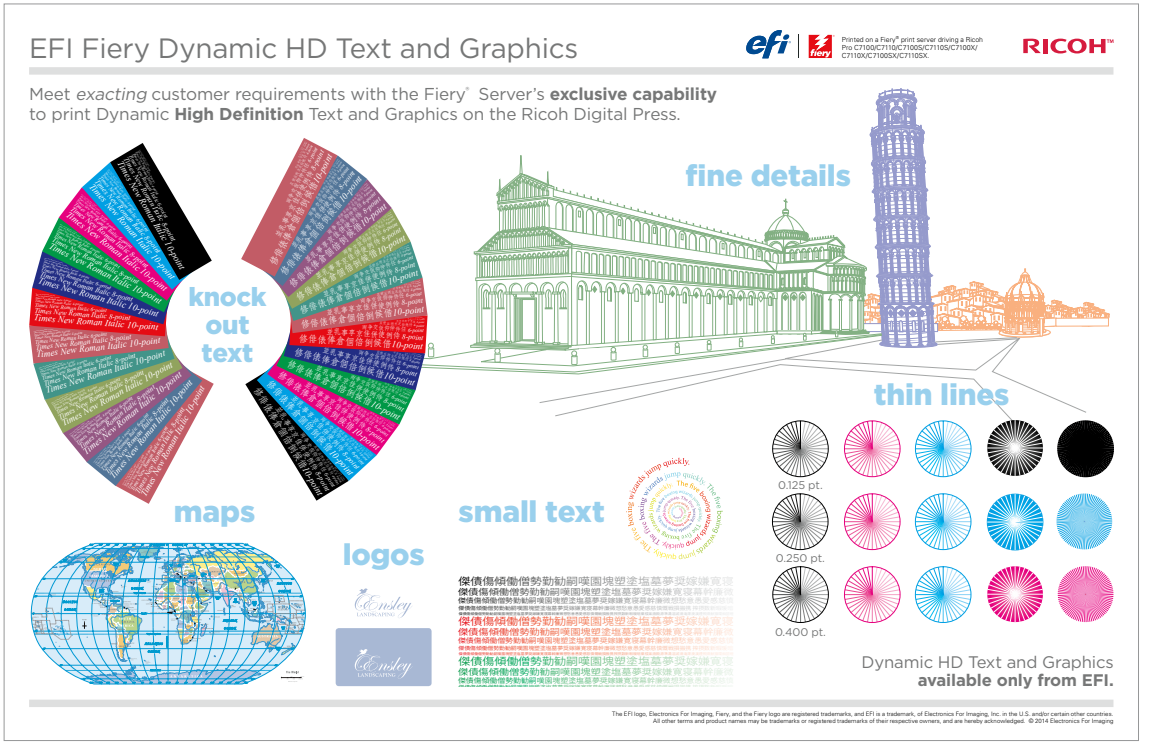

**5.** Choose the job from the list.

*Note: Only the jobs in the Held queue that are enabled for printing with White toner appear in the list. If your job does not appear in the list, right-click anywhere in the Multi Pass White window and select "Reload."*

Choose the **Backlit Film** mode. Click on the Print First Pass button and collect the printed output.

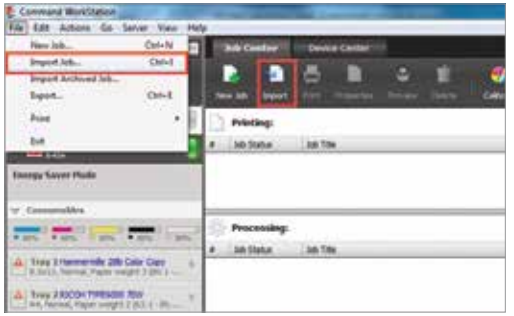
# Printing a PDF file with **Dynamic HD Text & Graphics** from Fiery Command WorkStation

The purpose of this tutorial is to demonstrate how to print a file that contains ultra-thin lines and fine text incorporated in the design to enhance their appearance using the Dynamic HD Text & Graphics feature on Fiery Command WorkStation.



# Printing a PDF file with **Dynamic HD Text & Graphics** from Fiery® Command WorkStation

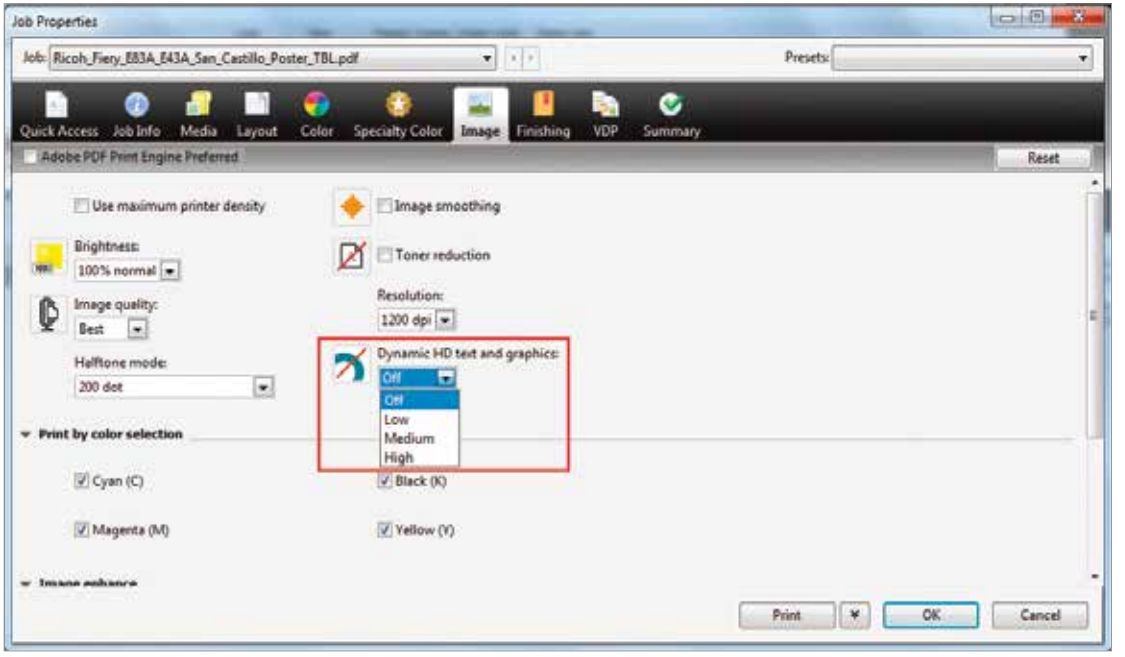
**1.** Open Fiery Command WorkStation and import the desired file by clicking on **File > Import Job** or by clicking on the Import button under the **Job Center tab**.



**2.** To import the file, click on **Add**, browse to the file location, then select **Hold**, which will send the file to the Held queue in Fiery Command WorkStation.

**3.** Select the file in the Held queue and open **Job Properties** by right-clicking and selecting Properties or by clicking on the Properties button under the Job Center tab. Once opened, go to the **Image tab** and select one of the "**Dynamic HD text and graphics**" modes – **Low, Medium or High**.

**4.** Dynamic HD Text & Graphics modes provide different levels of enhancement to prevent the jaggedness of lines and give better definition to text and graphics. **Medium** is the recommended mode; when selected, a moderate enhancement is applied to graphics and text. **High** mode is used where edge definition for non-saturated lines is paramount, such as architectural drawings.



# Tips and Best Practices

RICOH
imagine. change.

# Tips and **Best Practices**

1. To achieve optimal image quality and system reliability, settings in the Media Library may need to be adjusted. If you should need assistance contact your local technical support.

2. Creative usage of White and Clear Toners may require more than one pass through the printer. To do so, the media must be physically moved from the output tray back to the input tray, observing proper direction and side placement.

3. One or two layers of White Toner may be applied, with the second layer providing additional opacity and/or brightness.

4. Clear Toner should be applied in a single layer only. Additional layers will not create a 3D effect, but may cause visible yellowing.

5. Clear Toner may be applied inline with CMYK as a single pass. Applying Clear Toner in two passes, with CMYK first and Clear second, may cause a slightly different gloss effect, but may also affect the CMYK color accuracy.

6. Clear and White Toners are sold by the cartridge. Printing with either White or Clear only, does not result in a click-charge.

7. An appropriate Media Catalog entry should be used for all printing of non-white media when using Clear or White Toner. Parameters in the Media Catalog will optimize settings for black, colored, transparent, silver and other non-standard media. Printing without appropriate parameter setup may result in printing errors, such as double feeds and Media jams.

8. If White and CMYK are to be applied to a sheet with no overlap, a single pass may be used. If the CMYK overlaps the White in any areas, two passes must be used, with White being applied in the first pass and the CMYK applied in the second pass.

9. A single file may not contain both a Clear channel and a White channel. If both Clear and White channels are included, the toner type not currently loaded in the machine will be printed in an alternate visible color and cannot be turned off.

10. Setting Adobe Acrobat Preferences to 'Always' Use Overprint Preview is important when printing the 5th Color. This will display the color channel as defined in the PDF and should be reviewed / validated before the print is run.

RICOH
imagine. change.

www.ricoh-usa.com
www.ricohbusinessbooster.com

Ricoh Americas Corporation, 70 Valley Stream Parkway, Malvern, PA 19355.
Ricoh® and the Ricoh logo are registered trademarks of Ricoh Co, Ltd.
All other trademarks are property of their respective owners. ©2015 Ricoh Americas Corp.