



The Art of Separation: A Masterclass in Photoshop for Screen Printers

Source Serif Pro, Regular weight: "Harnessing the power of Photoshop with proven techniques from industry expert Scott Fresener."



The Goal: Flawless, Photorealistic Prints on Any Garment



For complex, multi-tonal graphics, standard spot colour printing isn't enough. The key to achieving photorealistic detail and depth on fabric is a technique called **Simulated Process Colour Separation**. This masterclass provides a complete workflow to create these separations directly in Adobe Photoshop, without expensive, dedicated software.



Spot Colour



Simulated Process



SreenPrintingNow

by Stefan Mertes

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Learning from an Industry Legend



The methods in this guide come from Scott Fresener, a pivotal figure in the screen printing industry. His expertise is built on:



45+ Years
of direct industry
experience.



**1,500-1,800
jobs**
separated annually.



Creator of the
pioneering T-Seps
software (formerly
FastFilms).



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The Playbook Begins: Preparing Your Canvas

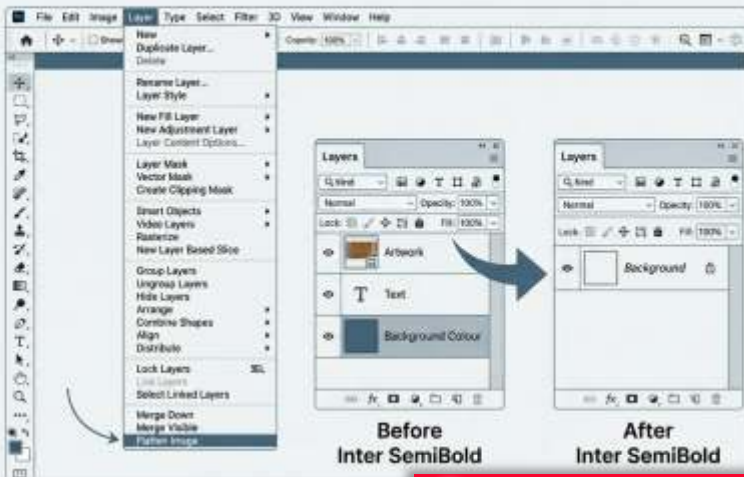
Before any selections are made, ensure your artwork is prepared correctly.

Step 1: OemiBold

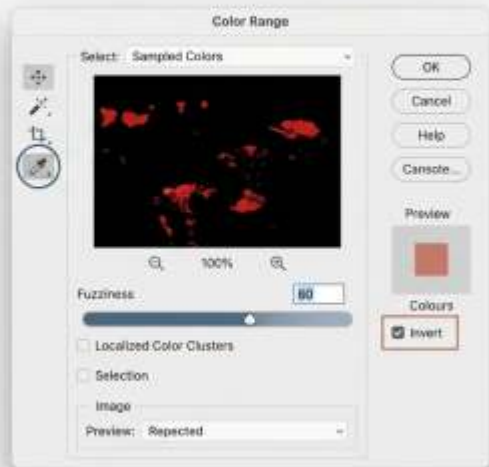
Open your image in Photoshop.

Step 2: SemiBold

Flatten the image to a single layer with a solid white background.



Step 1: Isolate Colours with Precision Using Color Range



The '**Color Range**' tool is your key to pulling specific colours from the flattened image.

1. Go to 'Select > Color Range'.
2. Use the Eyedropper tool to click on the first colour you want to separate (e.g., Red).
3. Adjust the **Fuzziness** slider to fine-tune the selection, capturing more or less of the colour's tonal range.
4. **Crucially**, ensure the **Invert** box is checked.



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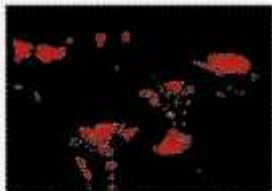
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Step 2: Create a New Channel from Your Selection

Once you have your “marching ants” selection:

1. Navigate to the **Channels** panel.
2. Click the “**Save Selection as Channel**” icon at the bottom. This will create a new spot channel for your selected colour.



Pro Tip

For accurate previewing, double-click the new channel and set its **Opacity** to 5%. This simulates how the inks will interact without overwhelming the view.



Step 3: Build and Organise Your Full Set of Separations

Repeat the process of selecting with `Color Range` and saving as a new channel for every colour in your design.

Once all channels are created, arrange them in the correct print order: **light to dark**. The shirt colour channel should be on top.

You can toggle the visibility of each channel using the "eye" icon to preview your separations and see how the colours will build on each other.



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Advanced Technique: Reducing Your Colour Count

When you have more separations than available screens, you can intelligently combine channels. For example, instead of printing a separate green, you can create it by printing your yellow and blue separations together.



The Method

1. Select the channel you want to combine *into* (e.g., the Blue channel).
2. Go to 'Image > Apply Image'.
3. In the dialogue box, select the channel you want to combine *from* (e.g., the Yellow channel) and adjust the percentage to apply.
4. Delete the original (Yellow) channel once combined.



The Professional's Check: Verifying Separation Quality

Before finalising, perform these quality control checks on each channel:

- **Check Density:** Use the **Info panel** (Window > Info) and the eyedropper to check density levels. Areas that should be 100% solid must read as such.
- **Boost Solids:** If a solid area isn't at 100%, select that channel and use a **Curves adjustment** to boost the values.
- **Recover Detail:** Use Image > Apply Image to bring back any fine detail from the original image that may have been lost during selection.



Boost to 100%



Boosting
highlights to
100% solid



The Blueprint for Production: Printing Your Separations

To print halftones from these channel separations, a software RIP (Raster Image Processor) is required. Provide the following specifications to your screen printing shop for optimal results.



Halftone Frequency
55 LPI



Angle
25 Degrees



Dot Shape
Ellipse



Screen Mesh
230 to 305 (90 to 120cm)

The Result: Adhering to these specs will produce soft, high-quality prints that hold every dot of detail.



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You Now Possess the Complete Professional Playbook

By following these detailed steps from Scott Fresener, you can master the entire workflow for creating simulated process colour separations. You now have the ability to:

- ✓ Isolate and separate complex colours with precision.
- ✓ Intelligently reduce colour counts to meet production constraints.
- ✓ Perform professional-grade quality checks.
- ✓ Prepare final files with the exact specifications for printing.

The Key Takeaway: All of this is achievable entirely within Adobe Photoshop, empowering you to produce expert-level work without needing costly third-party programs.



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Key Questions from the Pros

Q: How do you create an underbase for dark shirts?

A: Mask around the image with a black background, convert to grayscale, invert the image, and then apply an aggressive tone curve to darken the resulting underbase channel.

Q: Are there automated software options?

A: Yes. For those looking to automate this process, Scott Fresener's own **T-Seps** plugin for Photoshop is a professional option. A free trial is available.



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A Masterclass from the Experts

This guide is based on the comprehensive step-by-step process for simulated process separations detailed by by industry expert **Scott Fresener**.

Below is a detailed, step-by-step guide outlining the procedure to achieve the simulated process separation.



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