

So, what's the problem with

INKJET PRINTERS?



Calibrator Swatches Black and Tri-color (CMY) Grayscale Swatches SWOP Calibration Color Target

What you're looking at above is a commercial printer's SWOP Target Document. Commercial printers, Designers and Art Directors use these to calibrate the color fidelity of our printers, displays and scanners, and their presses.

This is not a small issue as all of these devices represent color in different ways. This isn't even the proper test, but a Photoshop file OF the test document. But I'll call your attention to the **Calibration Swatches** on the lower right and down the left sides. These are standardized CMYK colors and provide a standard that we can compare against our machine's color fidelity.

Design & Digital Illustrations by Kurt Griffith
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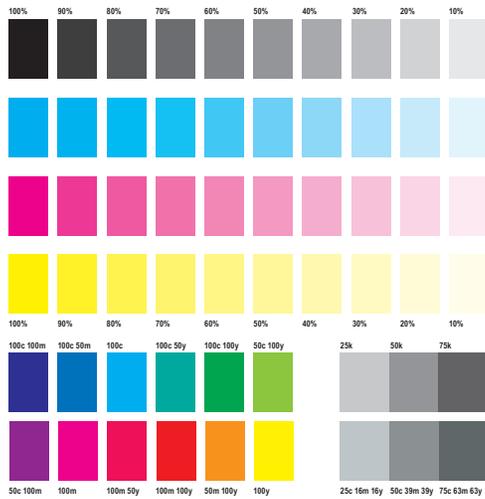
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INDESIGN COLOR DOCUMENT Ver 4.0.1 (CS2)



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This is a PDF Test document I created in a page layout program and exported as a color-accurate press ready PDF file. This is similar to the calibration test, the color information encoded in the actual data, not the screen appearance. But I wanted swatches nice and big on a letter size sheet to test on my decent but still mid-range canon printer in my Studio. Note the **CMYK color specs** with the swatches.

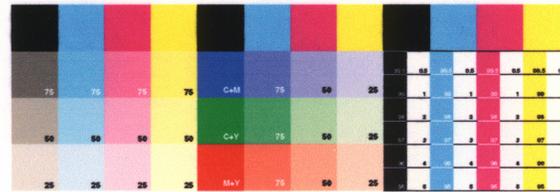
The critical thing to understand, is that color on screen is displayed in **RGB**, for Red, Blue and Green **LIGHT**, the way TV's make color. Printers render color in **CMYK**, or variations of Cyan, Magenta, Yellow and Black **INK**. These are different technologies, even using *different physics*. The reason they don't look the same is that *they can't*.

For more on this very complex subject, please see my other **FRS Pro Guide – Understanding Computer Color**. But the point is that the colors are specified as CMYK colors, the language of *ink*, vs the RGB color of your display.



SWOP® Calibration Kit Digital Test Form

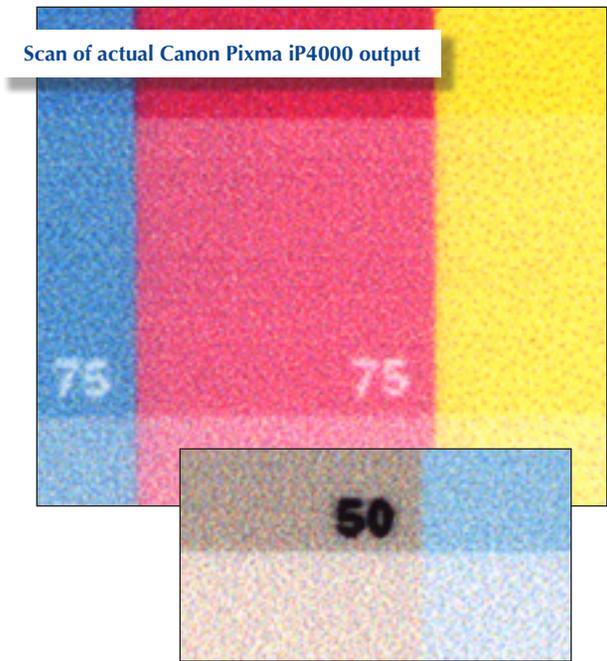
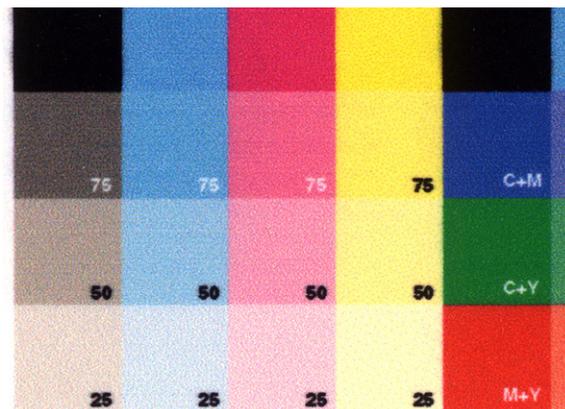
This is the **Color Calibration Target** from the Digital Test Document, I cropped out from the large document. Crispy, right? Let's see what happens when I print it.



SWOP® Calibration Kit Digital Test Form

What Happened? It's first off, fuzzy and grainy. The Inkjet, even a good one does not have the flat resolution of a commercial printer, especially on plain paper. And no, I didn't cheat, the scan above is 1200 dpi, because I want to zoom in. But the speckled appearance and the serious color shift does not bode well.

There's definitely something uncool going on here. ▼



So what the heck is **GOING HERE?**

The Majority of Inkjet Printers sold are intended to print vivid, saturated colors that make sales presentations and your vacations snapshots look spiffy. But for proofing a print job, they are terrible. They are just not color accurate.

Inkjet printers use **CMYK ink**, but translate Composite RGB **screen data** to print. Notice that there are magenta specks in the yellow and cyan, cyan in the magenta, and the greys, which *should* be pure black ink, are multi-color. When dealing with CMYK color intended for commercial print, they are *just not accurate*, and most allow only crude calibration.

They are also intended to *sell you ink*. Two ink reloads of many HP devices will cost you more than the printer did in the first place. If you just need a handful of pieces, fine. But if you try to print a large quantity, you'll spend a *fortune* in ink, especially if it's cheap a two cartridge type with a black and a tri-color tank. They're *Ink Delivery Systems*.

When it's appropriate, use a **Commercial Printer**, and a Design Pro that understands how ink actually hits paper.

**Hire the Professional,
We know what we're doing.**