

The Great Color Mystery

Most prepress books advise working closely with your printer, asking questions, considering options. That is not how CS works. I have spent months testing just what CS does. I have consulted experts for guidance. I have posted my observations. I have said my conclusions could be wrong, but the evidence is available to see, and I have included quite a bit with my posts. Much of what I have said has been opposed by Lighthouse, but without evidence:

I only post objections when an all-encompassing statement is made that doesn't apply that broadly . . . I don't think it's in our community's best interest to imply that CS has some kind of bizarro-world press workflow, and that the processes a knowledgeable professional would normally use to prepare print-ready PDF files for book projects will result in substandard quality if submitted to CS. That's just not the case . . . Seriously, if I'd managed to pull together all this inside information about CS's operations that nobody else is privvy to . . . If you're saying that won't work because CS is using some non-CMYK press configuration from the Twilight Zone, then I'm still hoping for more specifics about that. —Lighthouse

I don't know what kind of work Lighthouse24 does, I presume it is very competent and professional. And judging from his posts and posts about his help, he knows a lot, more than me about most of this, and he gives a lot to the community. I have, in fact recommended him to other members, despite the following pages.

However, if we want to assess what is said about certain things we need to be able to judge intelligently, but on how to prepare work for printing with CS, we have little to go on—CS does not have published profiles or technical submission guidelines—we must look at what we do ourselves and in the appropriate context. Lighthouse published *Color Sample Reference: for CreateSpace Community Self-Publishers (CSR)*, “for the CreateSpace Community” is part of the title, not an assumption on my part, about which he says:

ABOUT THIS GUIDE

This booklet allows CreateSpace Community self-publishers to see precisely how a set of calibrated colors are rendered in print-on-demand books produced by this provider. By comparing the colors in this booklet to (a) the same colors as rendered on your computer, and (b) the same colors in a commercial printer's 4-color Process Guide for uncoated paper, you can see the degree to which any color shifts occur. The publisher will periodically measure the degree of color variance (if any) among books printed at different times, and post the findings in an appropriate CreateSpace Community forum thread.

When I first saw *CSR* in June, I questioned the procedure but I was only looking at the process colors: a procedure that seemed to lead to the wrong process colors. I had ordered a microscope for *CS Digital*. When I got it last month, I also wanted to check the process colors in *CSR*. What I saw astounded me. I thought I had seen yellow in the process cyan with my loupe, but I wasn't 100% sure. Now I saw it (see page 3). My first thought was that CreateSpace had done something 'funny' printing the book, and I spent several days examining the halftone dots in cyan and magenta and trying to figure it out. I posted an apology to Lighthouse, <https://wwwcreatespace.com/en/community/message/137494#137494>, in which I blamed CS for the false process colors. I apologized for assuming that he had done anything wrong in *CSR*. That apology was sincere, clear, and concise; it was also documented because I hoped he would take this up with CS: altering process colors can have a profound effect on color printing, and altering our work is wrong.

He asked me to check the cover “base colors,” not only were they not pure, but I found that they were in a different color mode from the interior. He blamed that on CS or Amazon and continued to attack my conclusions which were based on observations of things that he, CS, or Amazon had gotten wrong. The more he avoided answering my questions, which focused on figuring out what CS had done wrong and why, and attacked my observations and conclusions, the deeper I looked. Bizarro? Twilight Zone? Hearing voices?

The content and procedures in *CRS* are wrong. As the reference book described above, it won't work. Of the 417 color swatches in it, if page 5 is typical, most are wrong. The process colors are wrong. *CSR* may serve a personal goal as described later, but if it were an exemplar of what he knows, it is all show and no go.

I believe *CSR* was ill-conceived, and that had its author discovered its flaws he would have changed it or recast its purpose. And dumb statements are defensive. But he is critical of my opinions so I look at *CSR* as some measure of what he knows and says. The pudding is in the proof.

If he were right, that CS or Amazon produced something quite different from his original print-ready PDF, altering it at the most fundamental level, that would be something that needs to be addressed and the community made aware of. It would be unacceptable from a printer. The blasé “I just don’t have any interest in spending time on that,” is his to say but it is inappropriate—all the more inappropriate with the bizarre . . . Twilight Zone . . . comments.

Ill-conceived or not, a book like *CSR* is difficult to put together. I applaud the intent and the effort. But to paraphrase the author’s words, “I only object because an all-encompassing statement about color reference is made that doesn’t apply broadly because it is mostly wrong.” I do so, however, without name calling.

CS Digital, my ongoing test of CS printing, is available free as a PDF, <http://www.12on14.com/pages/createspace.htm>. You can see what I tested and read my conclusions. If you buy the book, which will periodically be unavailable when new tests present themselves, you can compare how CS prints with the actual reference images used for printing, also available as a free downloads. It, like *CSR*, may be flawed. and I hope that if it is, someone will show me my mistakes.

I have plodded my way, with tests and tests, into knowing something. My conclusions could very well be wrong, although the basis of them came from Indigo, some things I have said have turned out to be wrong or incomplete, and my advice could be incorrect. I could be lost in the ozone, but you can see how I got there and you can assess the evidence and draw your own conclusions. And if you find anything wrong, let me know.

My goal is to figure out how best to work with CS, to get the best images from them possible, and not to win arguments or just be right.

Walton Mendelson

Some of the close-ups were made from 1200 dpi scans, but most of the halftone examples were made with an inexpensive USB microscope, which suffers from glare and falloff, and the color cannot be calibrated.

Page 3, Halftones, public domain images < <http://en.wikipedia.org/wiki/File:Halftoningcolor.svg>> 04.22.11 Derivative work Pbroks13.

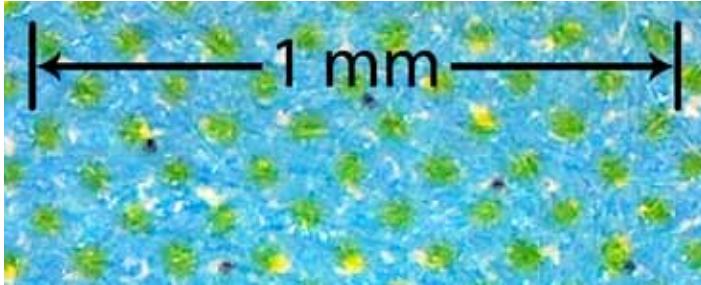
Page 5, *Grand Tetons Barns, the John Moulton Barn*, by Jon Sullivan, from Wikipedia. < http://en.wikipedia.org/wiki/File:Barns_grand_tetons.jpg> 04.22.11

Heatherly, Doug. *Color Sample Reference: for CreateSpace Community Self-Publishers*. San Benito, Tx: Lighthouse24, 2010. Referred to as *CSR*.

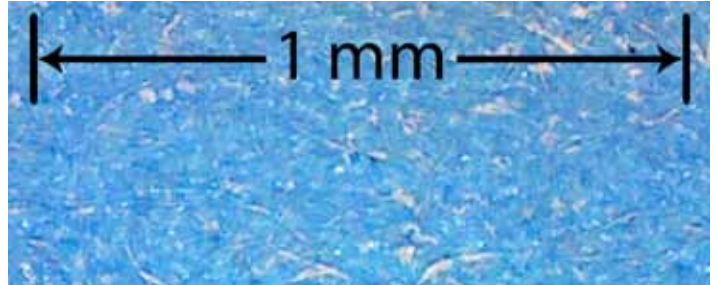
Mendelson, Walton. *CS Digital: A Practical Guide to CS Digital Possibilities*. Prescott, AZ: One-Off Press, 2011. Referred to as *CS Digital*. A free PDF is available at <http://www.12on14.com/pages/createspace.htm>.

The Great Color Mystery

This is “C100 M0 Y0 K0” (process cyan); it is a “base color,” and it is “pure”: close-up made from *Color Sample Reference*, pg 5. It is not.

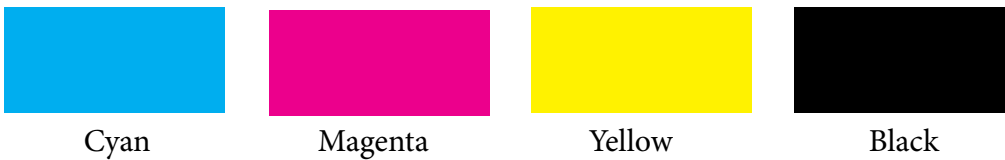


This is process cyan, C100 M0 Y0 K0; it is a close-up made from *CS Digital*, page 27. I

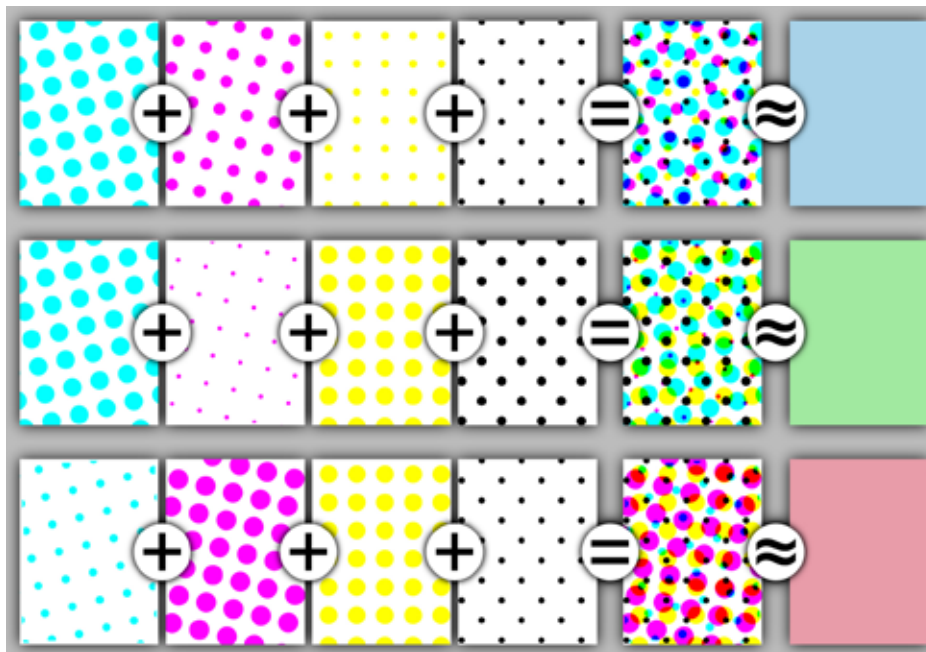


Background Part I

This is CMYK Cyan. It is one of the four process colors used in commercial halftone printing using CMYK:



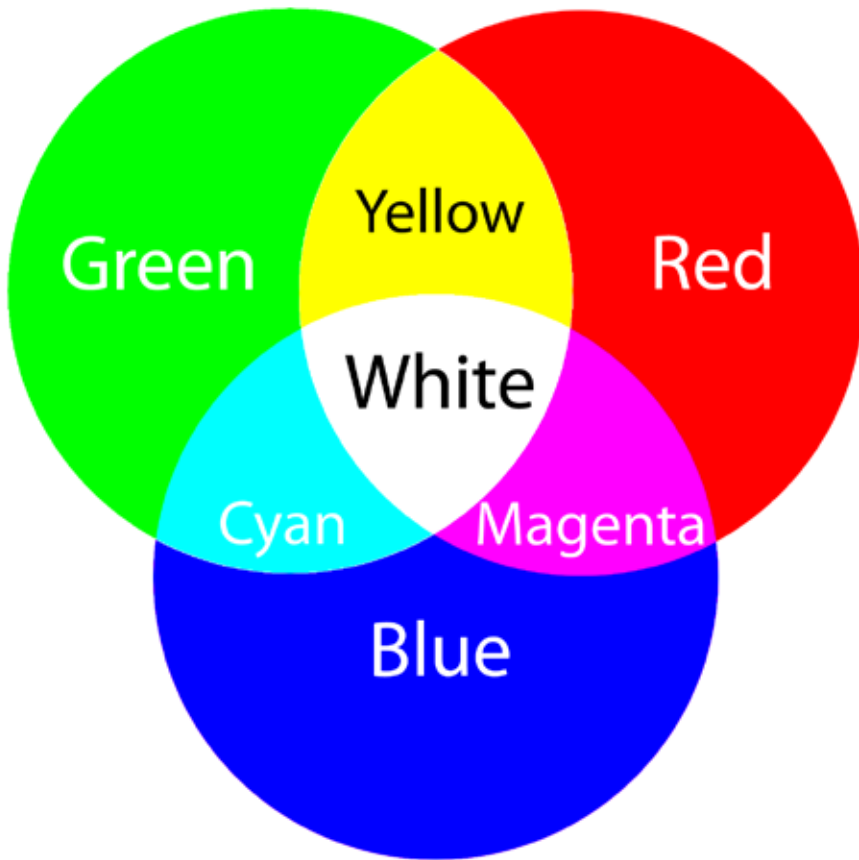
Some printers use additional colors either as process (halftone screened) or spot colors. This is how the halftone screens create different colors.



Black adds detail and shadow, letting C, M, and Y work more efficiently, although in theory the presence of 100% of each, CMY, would create black, in practice it doesn't. However, with these four colors, printers aim at reproducing all the colors we see. The four swatches above are the standard, traditional CMYK values, of which Pantone's Process Colors would be the exemplar.

Background Part II

There are two color models that concern us: RGB and CMYK:



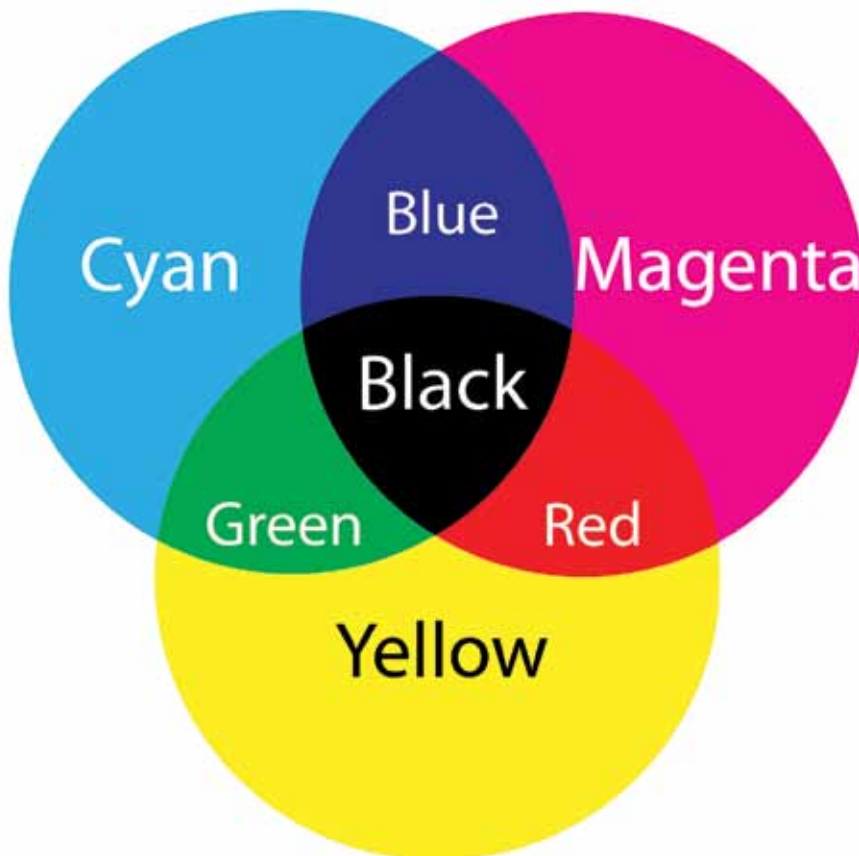
RGB

This is RGB, red, green and blue, in RGB. It is an additive system: all color is White. This is how we see color, in RGB.

Combine any two colors and we get their secondary colors, cyan, magenta, and yellow.

These are the color our eyes see. It is the color space for monitors, cameras, and scanners.

Note: even if these colors were converted to CMYK for printing, they would not match the CMYK color below: they are different.



CMYK

This is CMY, cyan, magenta, and yellow, in CMYK. It is a subtractive system: the presences of all color is Black.

This is how we print color.

Combine any two colors and we get their secondary colors: red, green, and blue.

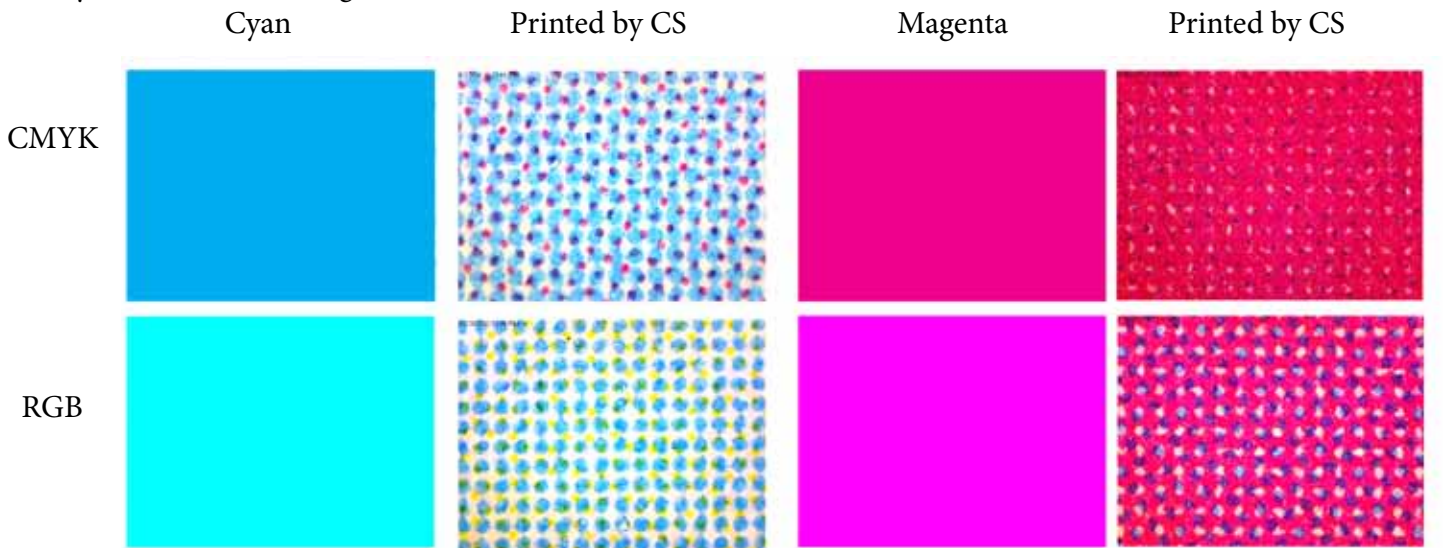
Note: even if these colors were converted to RGB, as they are on your monitor, they would not match the RGB colors above.: they are different.

Background Part III

This puts it all together: on the right are the four color plates for this image. What should be obvious is that the exact process color, an exact process for creating four separate color printing components (separations), and consistent printing conditions is required. Variations in the separations and in the inks, could cause color shifts: neutral colors, especially grays and fleshtones are particularly sensitive.



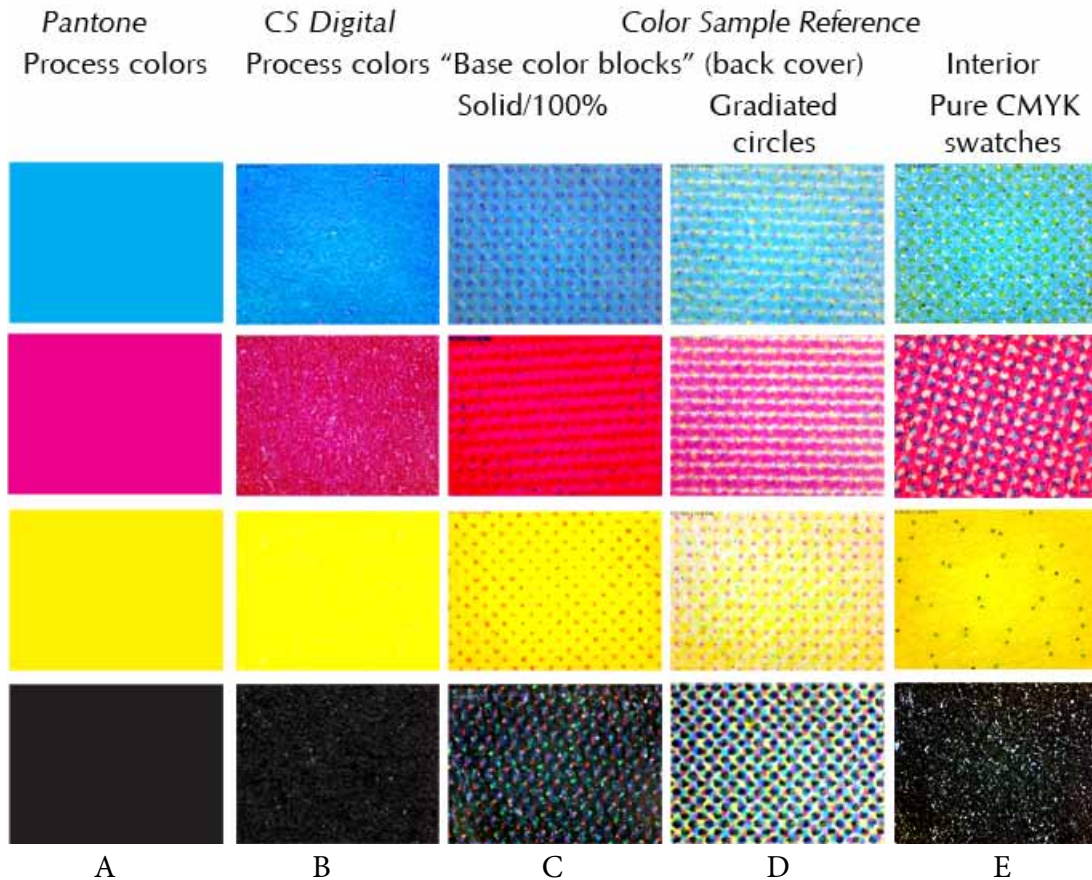
As we saw on the preceding page, each color mode (color space) has the equivalent of the other's colors, called secondaries; however these are just that, equivalents, they are not identical. The biggest differences are between the two cyans and the two magentas:



These are different colors, so it should be no surprise that they print differently, which we see clearly in the close-ups of the halftone screens. CS can print pure process color (cyan, C100 M0 Y0 K0, magenta, C0 M100 Y0 K0), which you will see on the following page.

The Great Color Mystery, Part 1

CSR says that it shows pure, process colors as printed by CS. That is wrong. Of 12 examples of process colors, 11 are wrong.



Close-ups in columns B, C, D, and E were all made at the same magnification.

Column A: These are the Pantone process colors. They are the traditional process CMYK colors.

Column B: These are close-ups of CS's process colors. They are all different from the traditional process colors shown in A. Note, too, that there is no obvious halftone dot pattern or extra colors. (See close-up page 3)

Column C: These are represented as "base color" blocks, that is pure process cyan, magenta, yellow, and black. **They are not.** They appear to be C, M, Y, and K equivalents in CMYK. See the cyan and magenta examples on the previous page (pg. 5).

Column D: These are represented as "base color" from circular vignettes ranging from 100% to 0% of pure process cyan, magenta, yellow, and black. **They are not.** As with the examples in C, they are to be CMYK equivalents in CMYK. See the cyan and magenta examples on the previous page (pg. 5).

Column E: These purport to be C100 M0 Y0 K0, pure process cyan (see example on page 3), pure process magenta (C0 M100 Y0 K0), pure process yellow (C00 M0 Y100 K0), and pure process black (C0 M0 Y0 K100). **C, M, and Y are not.** They appear to be RGB equivalents printed in CMYK, see cyan and magenta examples on previous page (pg 5). Note that process black is correct: there are no other halftone dots in the sample, therefore I would call it pure.

Clearly the author of examples either did not understand or was careless attempting to show CS's process colors. When I told the author in June, 2011 that magenta C0 M100 Y0 K0 was wrong, he replied,

I've ordered copies periodically (through the various sales channels for shipment to different places) to examine the degree of variance from book to book and from printing location to location (e.g., CS, Amazon fulfillment centers, EDC print partners). . . . In those copies, the printed CMYK 0%,100%,0%,0% and RGB 255,0,255 swatches

have consistently been magenta, and the printed 1% to 100% magenta gradient has consistently contained nothing but magenta ink/toner. In fact, all 139 SVG Named Colors print with greater consistency and accuracy than I really expected going in (not an “eyeball” assessment -- we used a GretagMacbeth spectrophotometer). < <https://www.createspace.com/en/community/message/123759#123759> June 3>

The use of a spectrophotometer would not just pick up these mistakes. It measures light reflected off a target, and unless the target were just the yellow halftone dot—if this were the case, he would have seen the halftone pattern—it would measure the over all reflected color. The right tool: a \$10 linen tester (not a \$4000 to \$7000 X-rite spectrophotometer—I couldn’t find one manufactured by GretagMacbeth, maybe they’re inexpensive or work differently, seeing dots.)

The spectrophotometer precisely defines the color of a sample, and is useful in meeting specifications, for example, corporate colors or advertising specifications for a product color. *This tells us that the color of the sample* [objectively measuring what our eyes would see at a normal viewing distance] *is correct but provides little information on controlling it.* The consistency of color throughout a press run still requires the densitometer to maintain the stability of the printing process. < http://www.densitometers.net/pdf/densitometry_and_spectrophotometry%2004.pdf September 30. Emphasis added.>

Occum’s Razor: we should tend towards simpler theories until we find something with increased explanatory power. I know nothing of those original copies, and so I cannot address them directly. It is possible that CS changed the original process magenta swatch from C0 M100 Y0 K0 (1 color) to one with 3 colors in the interior using CMYK magenta, and concurrently changed the cover magenta from 1 color process Cyan to RGB magenta. And, it did the same thing to the other process colors except black in the interior. (Since I’ve been suggesting that CS does some things that we don’t understand, this would be stunning example.) The better explanation is that CSR is flat out wrong.

Despite using the Amazon fulfillment center as a support for claim of purity in June, in September, the author suggested that because I reported that my copy of his book was printed in Lexington, “Those files should not have been printed from an Amazon fulfillment center, however.” <<https://www.createspace.com/en/community/message/137494#137494> September 29> Obviously, then by letting Amazon print it, Amazon changed it.

What I show and document is impure magenta (C0 M100 Y0 K0) and, in fact 11, pure swatches are not pure; and because black in column E is correct, either CS is whimsical in its alterations that must occur in fractions of a second as the art is being separated and printed, or the author did not know what he was doing: the simplest theory.

Of course, I might have gotten a defective book, or using a microscope to see the halftone dots might be a misguided adventure on my part.

Since the cover and interior files were prepared the same way, the fact that interior and cover colors which should match don’t match would rule out some of the things I could have messed up -- so it’s one of those situations where I say, “Golly, isn’t that fascinating?” and add it to the pile of mysteries I may never solve. . . . No offense, but I just don’t have any interest in spending time on that. < <https://www.createspace.com/en/community/message/137494#137494> emphasis added.>

So not only did Amazon change the interior art, adding halftone dots of extra color where they didn’t exist, but Amazon changed the actual color swatches from CMYK colors to RGB colors before printing my copy. Yeap.

Who Cares

Figuring out what CS does requires practical knowledge and experience with printing in general, because CS doesn’t tell us much. Very slight changes in any of the process colors will have an effect on the printed piece. If someone doesn’t know that colors he represents as CS’s process colors aren’t correct or doesn’t care, and when shown, says it’s one of the “mysteries I may never solve . . . I just don’t have any interest . . .” well, I would surmise that is what is behind his other conclusions. regarding how CS prints and how he responds to my observations.

The Great Color Mystery, Part 2

CSR purports to show colors specific RGB and SVG colors with specific formulas. It does not. Here are scans of three color swatches and a schematic from CSR (see pages 12-16):

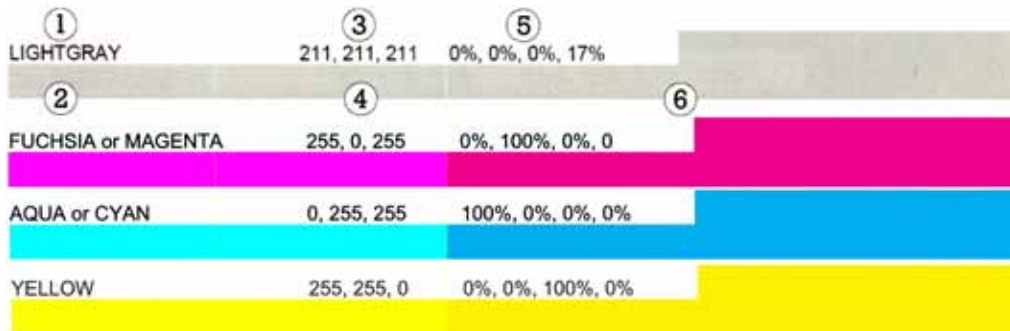


As noted on page 1, the intent of CSR is to permit CS users to compare printed color values with what they have on their own monitor or get from their printers.

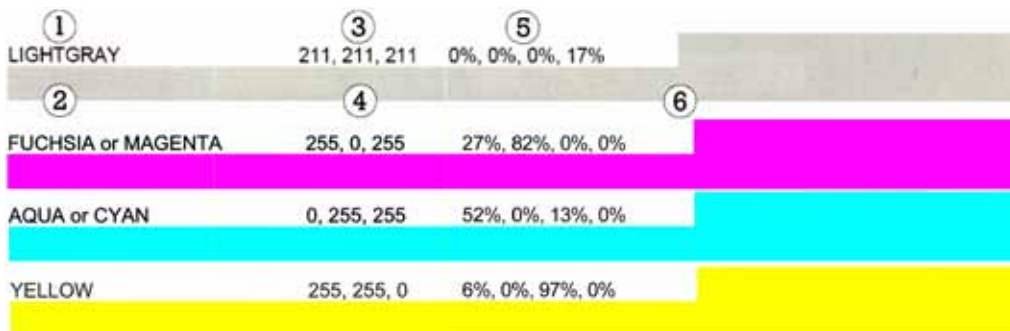
My scan of Light Gray and the three process colors (above) is accurate enough to show that any way this chart is assessed, it is wrong.

What the Chart Should Look Like

This is what the chart should look like with the true SVG colors (see page 9), but without Peter Forret's conversion of RGB to CMYK value:



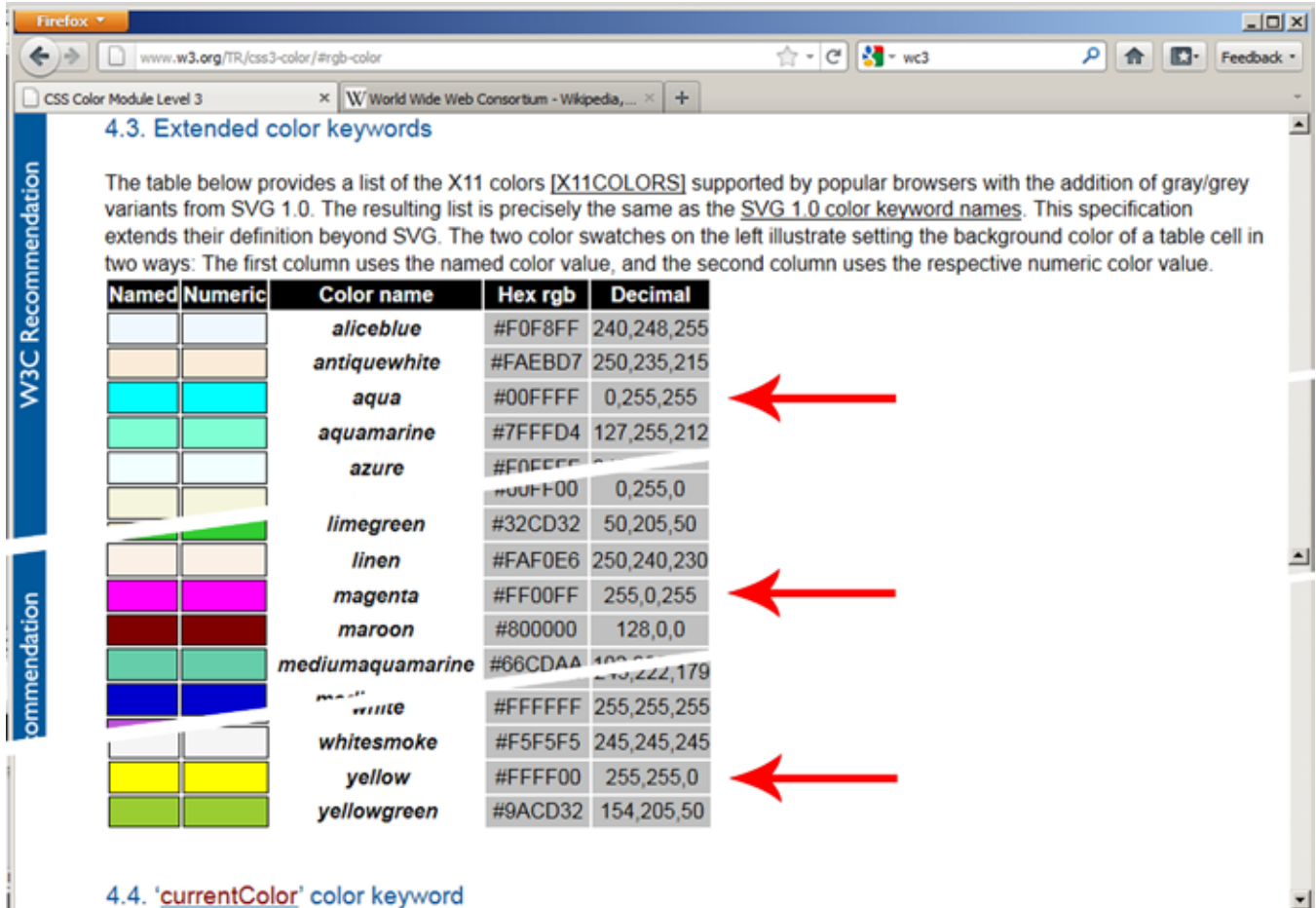
If Peter Forret's conversion were applied to the RGB colors ("Those RGB [in position 3 and 4] colors were then converted to CMYK" [in position 5 and 6]) and if Forret's conversion tool had the effect of converting RGB to CMYK values, the chart would look like this with the correct CMYK percentages:



He says this, I say that . . . How do I know CSR is Wrong?

First, I must admit that it is possible that when the colors of the original print-ready PDF were changed for the copy of CSR I have, CS or the Amazon fulfillment center could have changed the text and the Forret conversions. If they did not, here is how I know the SVG Named Colors and the RGB colors are wrong:

The SVG Named Colors (here Fuchsia or Magenta, Aqua or Cyan, and Yellow) is a standard developed by the W3C, World Wide Web Consortium, for web safe colors. Here are those colors from the W3C web site < <http://www.w3.org/TR/css3-color/#rgb-color>, October, 2011>:



My scans, top of page 8, are accurate enough to show that each entire color bar is showing CMYK values for each respective CMYK color formula, and not the SVG or RGB colors (see pages 3, 4, and 5).

Who Cares

By incorrectly identifying and reproducing both process colors and common web-safe colors the reference value of CSR is negligible, its practical use as defined in the introduction (see page 1) diminished, and the confusion about color space, color modes, etc. that it perpetuates significant.

Conclusion

The author of CSR's personal goal was to "(1) the same as a commercial Process Guide sample, and (2) the same from book-to-book." And that can be done: the color bars are perceptual matches to process colors (albeit printed in 4 colors not 1), and multiple copies of of the book could be ordered to check for consistency.

This goal could have been met a myriad ways. The one chosen gives the lie to the reasoning behind the system: inasmuch as the book is wrong, and it suggests an incompetence that I do not believe is true, but which is disturbing.

Because 1) the information is simply wrong, 2) despite being tested, compared, and known, at least in part, by the author, who has no apparent intention of either correcting his book or solving the confusion (see quote towards the bottom of page 7) because he doesn't seem to think this is relevant to understanding how CS prints . . .

The purpose of the book was to demonstrate what they actually print. If magenta isn't magenta, then there you go -- there's variance, and I expected there'd be variance given the book would be produced in a high-speed digital press print-on-demand environment . . . but I just don't have any interest in spending time on that. < <https://www.createspace.com/en/community/message/137494#137494>>

. . . it is hard to see how the author of these mistakes could understand the basics of printing, let alone intelligently criticize and oppose my observations, especially without evidence. I am exaggerating, of course, and I believe he does understand, but this is somehow personal; why else call theories that Indigo suggested, and I tested, "Twilight Zone . . . bizarre . . . inside information about CS's operations that nobody else is privvy [sic] to . . ."?

Printing with CS is a little like dealing with a black box, something goes in and something comes out, what happens inside is a little bit of a mystery. The author of *CSR* recommends providing work following traditional prepress guidelines, using Acrobat's PDF/X-1a preset (recommend in Laura's article < <https://www.createspace.com/en/community/docs/DOC-1331>>, but not by all, see Help>PDF>Creating PDFs), and therefore submitting CMYK image files, and he cites Lightning Sources submission guidelines, which my tests show are in part irrelevant and unnecessary for getting great color printing from CS.

My tests show that CS prints best from RGB files (or CMYK files that have been carefully prepared to perceptually match their RGB progenitors). Why? Because CS uses non-traditional process colors and proprietary profiles that perceptually approach RGB. RGB is the color space for cameras, scanners and monitors: it is what most image files start as: therefore, they represent the least work to prepare for CS. (These tests are available in *CS Digital* and as free downloads.) From this I would say that PDF/A or High Quality are the best Acrobat presets for submitting color work to CS because they preserve RGB.

There are situations where PDF/X-1a is the only or best solution, and I have used it happily. I have post that, and my apparent disdain for it has been mischaracterized. PDF/X-1a converts art work to CMYK, and that has certain disadvantages when printing with CS unless extra care and preparation is done. But if any member, such as a

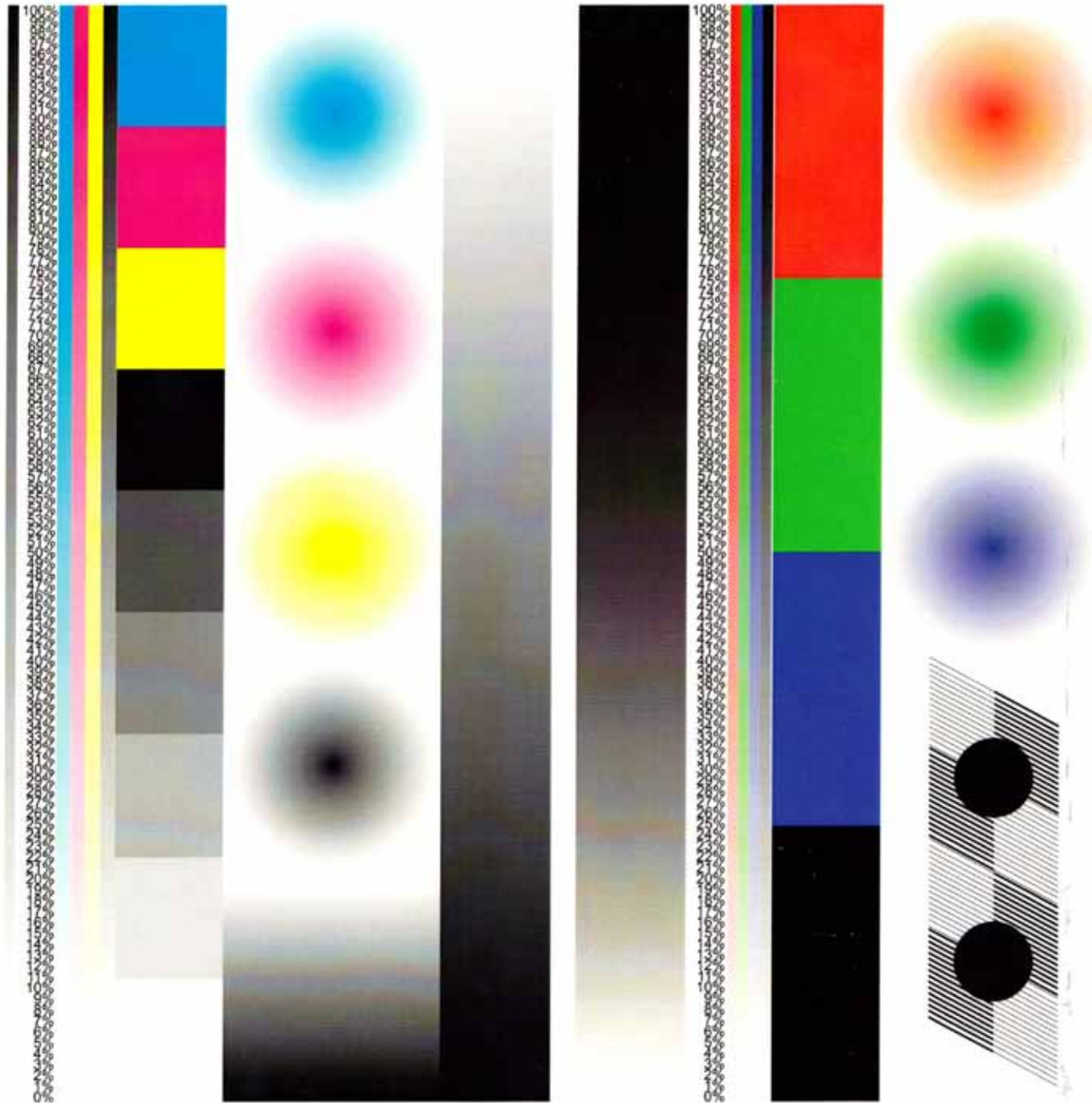
small press member concluding that CS can't produce quality books from the 400+ PDF/X-1a files they already have, causing them to take their backlist titles elsewhere for printing.

has been hurt, I apologize, although with 400+ books, the publisher would probably have CMYK art in PDF/X-1a format, would have his own experience to draw on, wouldn't listen to me, and would be just fine using them with CS.

People with lots of commercial art and printing experience will have trouble with CS, because things are different with CS, and because just how they are different is difficult to quantify. "In my world, authors and illustrators are ultra-picky about color." I work with artists too, but before that I am a visual artist and I am very picky <http://tiny.cc/lg2np>. I am also realistic.

Finally, as I said at the beginning, and in the introduction to *CS Digital*, I need and ask for help. If my conclusions are wrong or if I've overlooked or misinterpreted a test, please let me know. My goal is to establish what CS can and cannot do in a non-technical manner (you don't need spectrophotometers or densitometers).

“What about those same two base color blocks [cyan and magenta] on the back cover color chart? Are you seeing the same effect there, or just on those interior swatches?” <<https://www.createpace.com/en/community/message/137494#137494>> These are not pure cyan, magenta, yellow, or black colors, pg 6.. The RGB colors, right side, will be composites because CS does not have red, green or blue process colors (that I know).



Color Sample Reference
for CreateSpace Community Self-Publishers

Doug Heatherly / Lighthouse24
Art / Reference - Self-Publishing

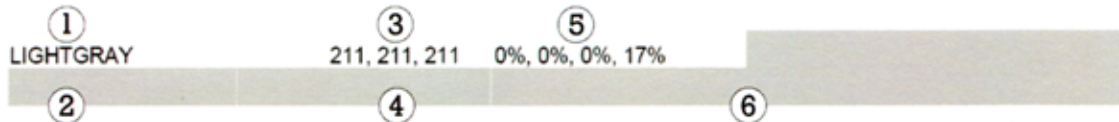


ABOUT THIS GUIDE

This booklet allows CreateSpace Community self-publishers to see precisely how a set of calibrated colors are rendered in print-on-demand books produced by this provider. By comparing the colors in this booklet to (a) the same colors as rendered on your computer, and (b) the same colors in a commercial printer's 4-color Process Guide for uncoated paper, you can see the degree to which any color shifts occur. The publisher will periodically measure the degree of color variance (if any) among books printed at different times, and post the findings in an appropriate CreateSpace Community forum thread.

COLOR SAMPLES

Color samples shown on the following pages consist of six parts: (1) an SVG Named Color, (2) a corresponding rectangular-shaped "color swatch" below it, (3) an RGB decimal color code, (4) a corresponding color swatch below it, (5) a CMYK color mix percentage value, and (6) a corresponding color swatch below it and to the right (bleeding to the edge of the page).



The 139 unique SVG (or X11) Named Colors were selected because they are supported by all popular desktop applications, and have standardized RGB decimal color codes. (Note: only the U..S. colors/spellings are used, e.g., "gray" is shown, but not "grey" – which has the same RGB value.) All color samples were created using the CorelDRAW Graphics Suite. The Named Color samples were created from the standard WC3® scalable vector graphics (SVG) palette. The RGB samples were created by defining the corresponding custom RGB colors within the software. Those RGB colors were then converted to CMYK percentage values using a conversion tool provided by Peter Forret, cross-checked with a similar tool from December Communications, Inc. All three samples should look identical (i.e., appear as a single solid-colored line). The back (verso) of each page is intentionally blank to prevent show-through.

IMAGE SAMPLES

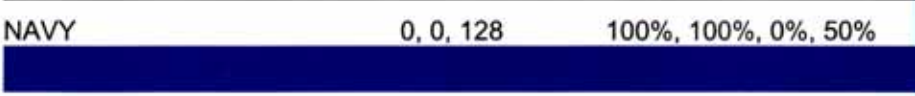
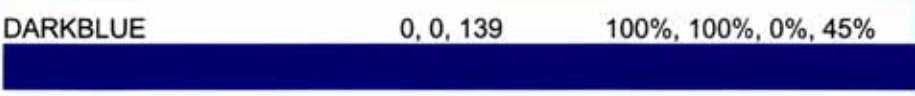
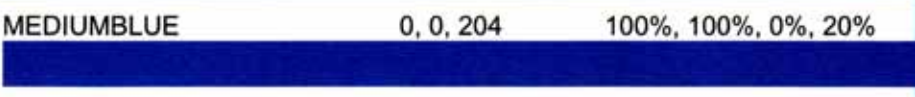
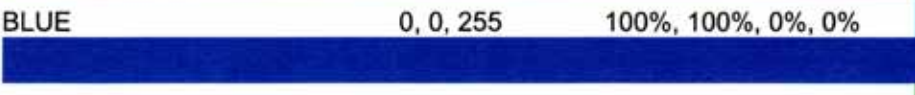
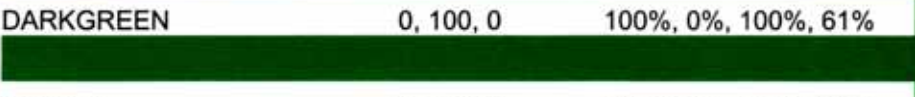
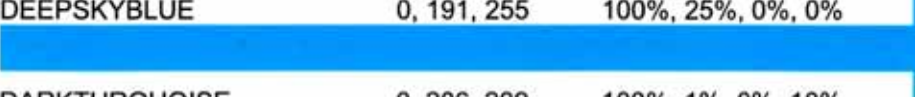


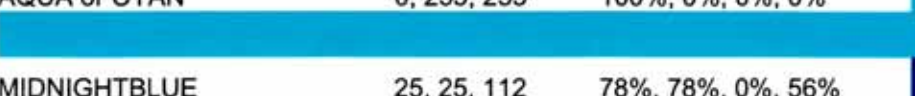
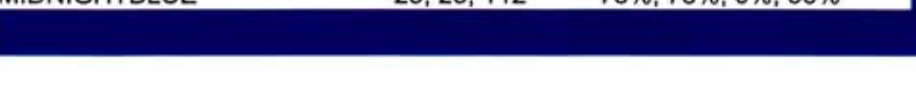
The final page of the book contains four image samples:

- A 300dpi JPG wedding photograph (to illustrate light/dark color photo extremes);
- A computer generated vector graphic color rainbow with black-and-white circles (to illustrate the quality to be expected in graphic novels and similar applications);
- A 300dpi JPG carnival photograph (to illustrate a relatively broad gamut of colors in a typical outdoor photo);
- A test print image originated in Adobe InDesign and exported to EPS (to illustrate CMYK and RGB colors, and gradients for each color in 1 percent steps).

The test print image also appears on the front and back covers.

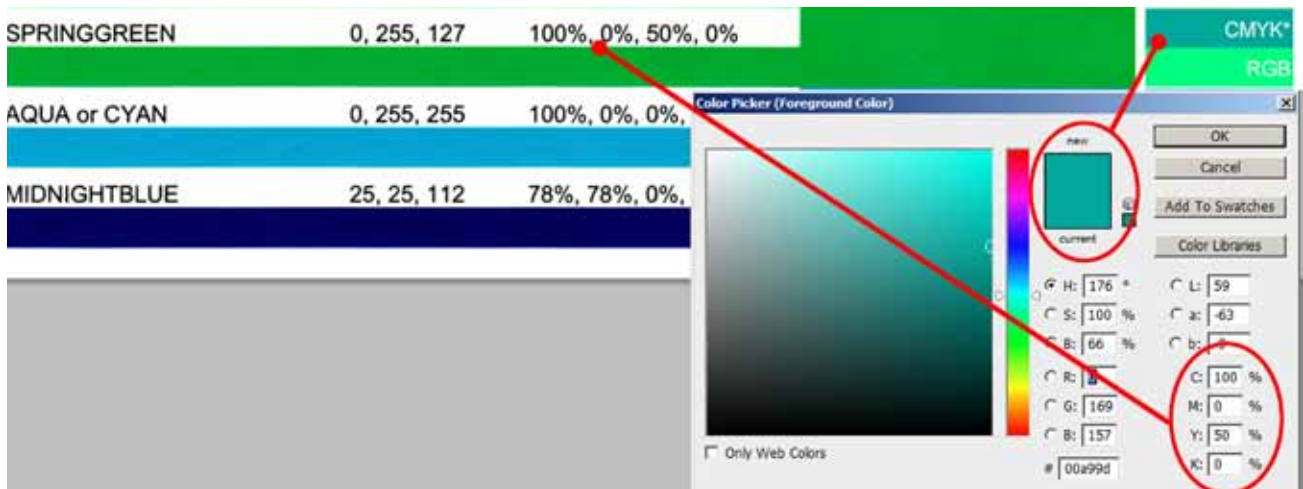
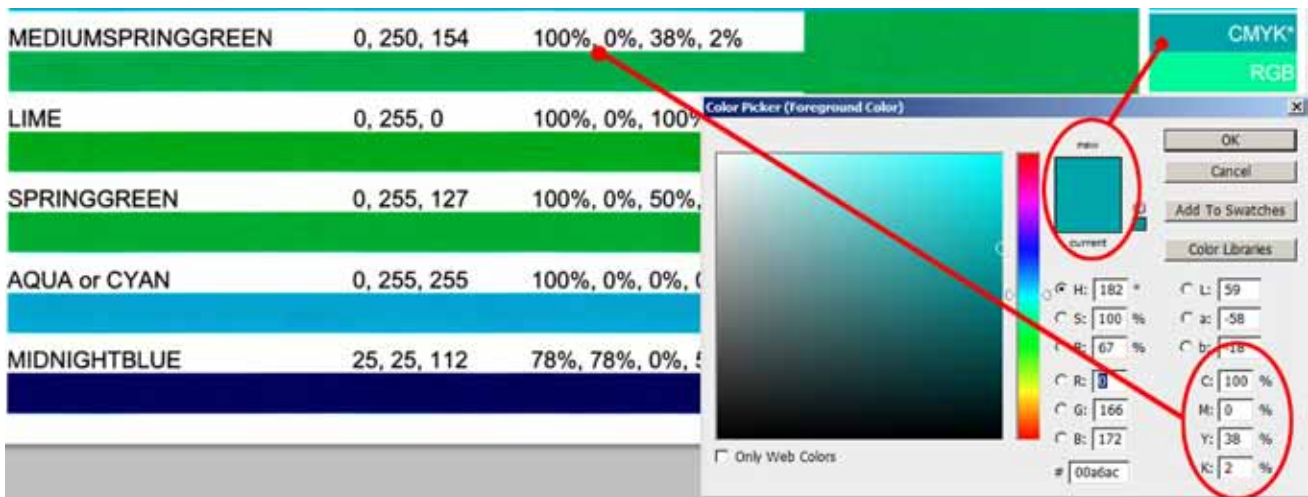
Color samples from *Color Sample Reference*, Page 5. I have added color swatches based on the printed formulas. As with the process colors, these are mostly incorrect: the RGB values conform to the SVG colors formulas and names, (see pg 9) with one exception, Medium Blue is 0, 0, 205 (this is a typo or measurement of no consequence).

SVG Named Color Samples (U.S. Spellings) with RGB Codes and CMYK Values 5

SVG Color Name	RGB Code	CMYK Values	Color Sample	Actual Values From Formulas
BLACK	0, 0, 0	0%, 0%, 0%, 100%		CMYK RGB
NAVY	0, 0, 128	100%, 100%, 0%, 50%		CMYK RGB
DARKBLUE	0, 0, 139	100%, 100%, 0%, 45%		CMYK RGB
MEDIUMBLUE	0, 0, 204	100%, 100%, 0%, 20%		CMYK RGB
BLUE	0, 0, 255	100%, 100%, 0%, 0%		CMYK RGB
DARKGREEN	0, 100, 0	100%, 0%, 100%, 61%		CMYK RGB
GREEN	0, 128, 0	100%, 0%, 100%, 50%		CMYK RGB
TEAL	0, 128, 128	100%, 0%, 0%, 50%		CMYK RGB
DARKCYAN	0, 139, 139	100%, 0%, 0%, 45%		CMYK RGB
DEEPSKYBLUE	0, 191, 255	100%, 25%, 0%, 0%		CMYK RGB
DARKTURQUOISE	0, 206, 209	100%, 1%, 0%, 18%		CMYK RGB
MEDIUMSPRINGGREEN	0, 250, 154	100%, 0%, 38%, 2%		CMYK* RGB
LIME	0, 255, 0	100%, 0%, 100%, 0%		CMYK RGB
SPRINGGREEN	0, 255, 127	100%, 0%, 50%, 0%		CMYK* RGB
AQUA or CYAN	0, 255, 255	100%, 0%, 0%, 0%		CMYK RGB
MIDNIGHTBLUE	25, 25, 112	78%, 78%, 0%, 56%		CMYK RGB

* see next page

On the preceding page, I added the actual color values based on the RGB and CMYK formulas. As with Cyan, Magenta, and Yellow, the CMYK formulas when converted into color swatches appeared to match the actual printed colors. Visually, there were two exceptions, SPRINGGREEN and MEDIUMSPRINGGREEN. Based solely on the printed formulas, here are screen prints to show that the proper values were used in the column of swatches:



Whether these are the correct CMYK versions or not, I do not know. I only wanted to show that although the CMYK colors appear wrong, I was using the printed formulas.

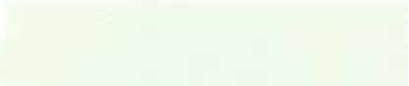










Other colors stand out as being incorrect, I have double checked my swatches and I've converted correctly. Green, for examples, appears to "correctly" show the SVG and RGB values, contrary to how the other colors are presented.

I only showed the colors on the page 5 examples. Looking at these color swatches plus another dozen or so examples, which, like Cyan, Magenta, and Yellow, use the CMYK color/formula to wrongly represent the SVG Named Colors and RGB swatch, CSR appears to be a pattern throughout the book. Green suggests that when the SVG colors are correctly displayed, the CMYK equivalent, if there is one, is wrong.












The color values have been saved as JPGs, and there are little shifts in color when saving as jpgs. These are, for the most part insignificant.

Color samples from *Color Sample Reference*, page 17, with the actual color values based on the given formulas:

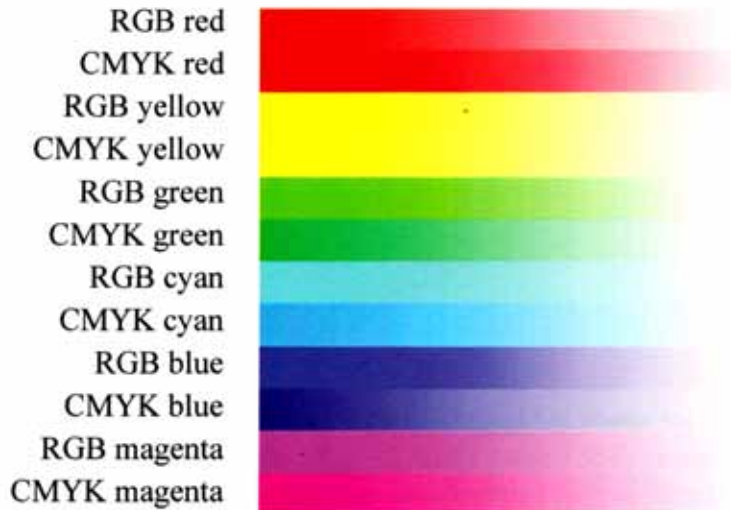
SVG Named Color Samples (U.S. Spellings) with RGB Codes and CMYK Values 17

SVG Color Name	RGB Code	CMYK Values	Color Sample	Actual Values From Formulas
HONEYDEW	240, 255, 240	6%, 0%, 6%, 0%		CMYK RGB
AZURE	240, 255, 255	6%, 0%, 0%, 0%		CMYK RGB
SANDYBROWN	244, 164, 96	0%, 33%, 61%, 4%		CMYK RGB
WHEAT	245, 222, 179	0%, 9%, 27%, 4%		CMYK RGB
BEIGE	245, 245, 220	0%, 0%, 10%, 4%		CMYK RGB
WHITESMOKE	245, 245, 245	0%, 0%, 0%, 4%		CMYK RGB
MINTCREAM	245, 255, 250	4%, 0%, 2%, 0%		CMYK RGB
GHOSTWHITE	248, 248, 255	3%, 3%, 0%, 0%		CMYK RGB
SALMON	250, 128, 114	0%, 49%, 54%, 2%		CMYK RGB
ANTIQUEWHITE	250, 235, 215	0%, 6%, 14%, 2%		CMYK RGB
LINEN	250, 240, 230	0%, 4%, 8%, 2%		CMYK* RGB
LIGHTGOLDENRODYELLOW	250, 250, 210	0%, 0%, 16%, 2%		CMYK RGB
OLDLACE	253, 245, 230	0%, 3%, 9%, 1%		CMYK* RGB
RED	255, 0, 0	0%, 100%, 100%, 0%		CMYK RGB
FUCHSIA or MAGENTA	255, 0, 255	0%, 100%, 0%, 0		CMYK RGB
DEEPPINK	255, 20, 147	0%, 92%, 42%, 0%		CMYK RGB

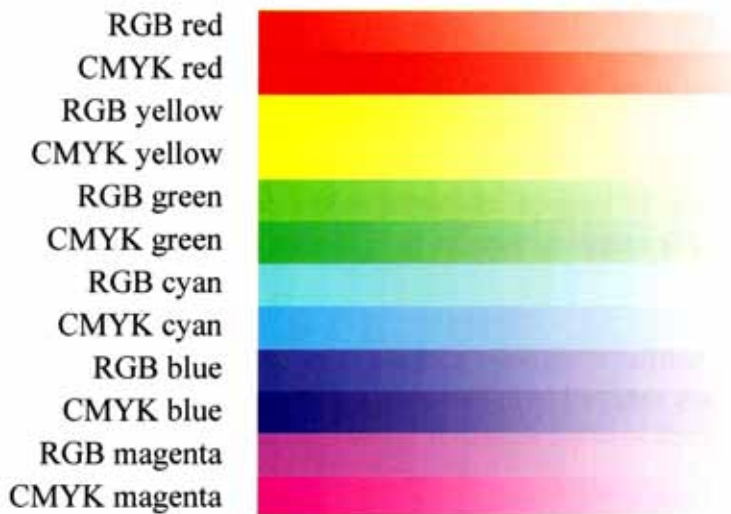
SVG Named Color Samples (U.S. Spellings) with RGB Codes and CMYK Values 21

SVG Color Name	RGB Code	CMYK Values	Color Sample
PAPAYAWHIP	255, 239, 213	0%, 6%, 16%, 0%	
LAVENDERBLUSH	255, 240, 245	0%, 6%, 4%, 0%	
SEASHELL	255, 245, 238	0%, 4%, 7%, 0%	
CORNSILK	255, 248, 220	0%, 3%, 14%, 0%	
LEMONCHIFFON	255, 250, 205	0%, 2%, 20%, 0%	
FLORALWHITE	255, 250, 240	0%, 2%, 6%, 0%	
SNOW	255, 250, 250	0%, 2%, 2%, 0%	
YELLOW	255, 255, 0	0%, 0%, 100%, 0%	
LIGHTYELLOW	255, 255, 224	0%, 0%, 12%, 0%	
IVORY	255, 255, 240	0%, 0%, 6%, 0%	
WHITE	255, 255, 255	0%, 0%, 0%, 0%	

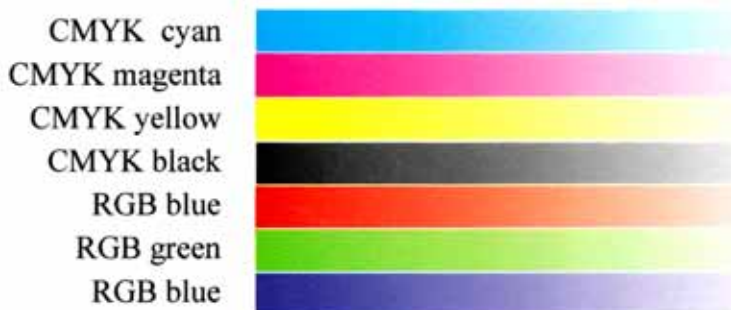
RGB & CMYK



RGB & CMYK colors in
RGB
Photoshop



RGB & CMYK colors
converted to CMYK
Photoshop



CMYK & RGB in CMYK
Illustrator

Close-ups of color samples to be added to *CS Digital: A practical Guide to CS Digital Possibilities:*

