DataColor Spyder3Print Spectro

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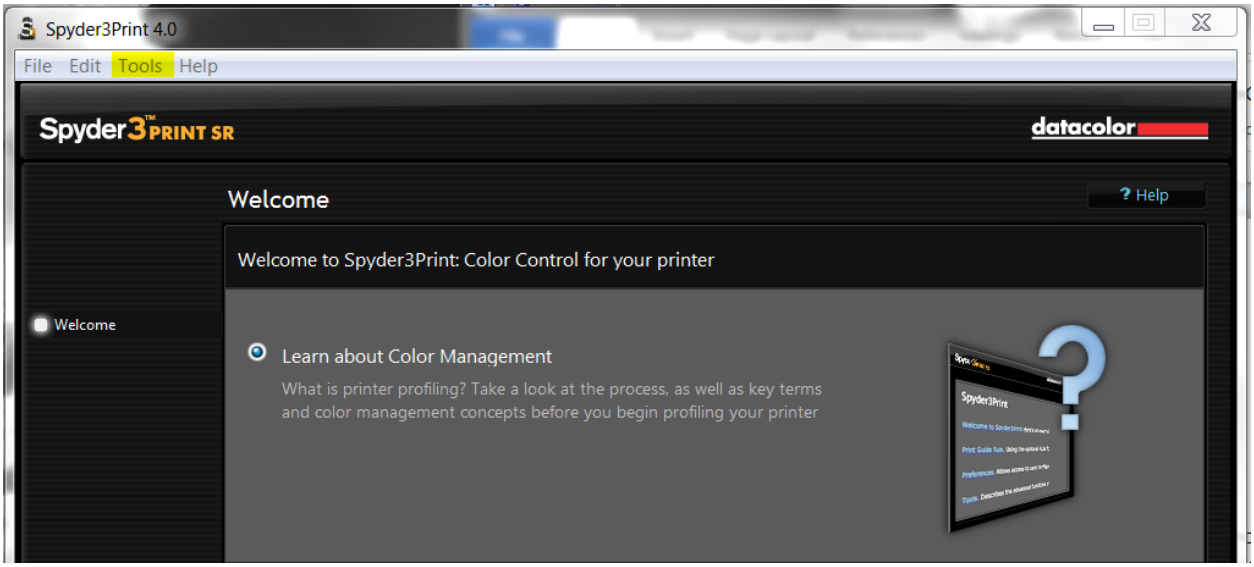
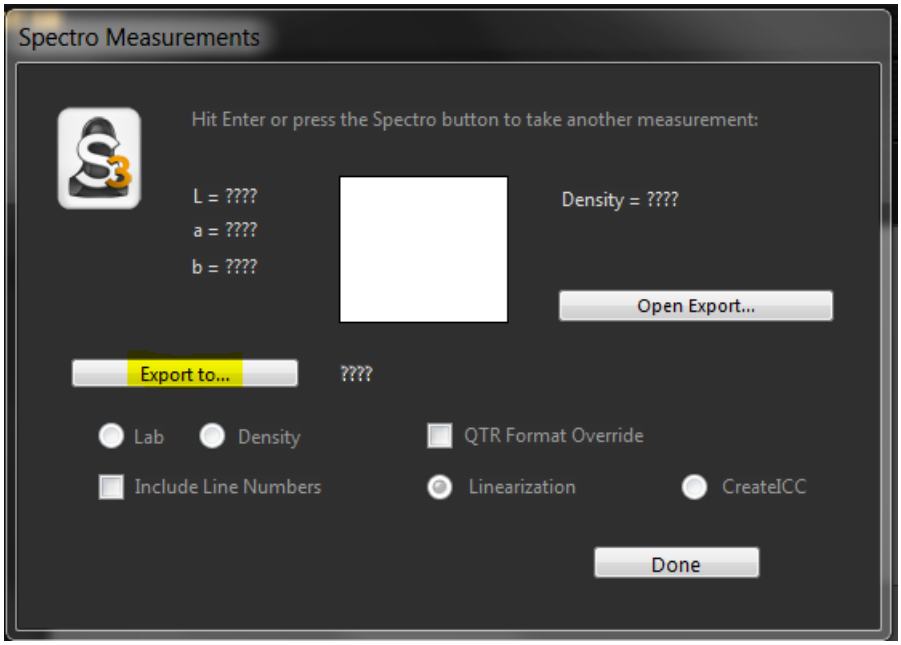
I regularly use the DataColor spectro – now called the Spyder3Print SR – to measure B&W test strips for making QTR profiles and ICCs. This is a brief description of my workflow.

I'm using a PC with Windows 7 (64 bit) and version 4.0 of the Spyder3Print software.



Before you can use the spectro, you'll have to calibrate it. Click in Tools>Calibrate. A base that includes a white calibration tile shipped with the unit. I keep this in a ziplock bag close to my workstation, as it is used frequently.

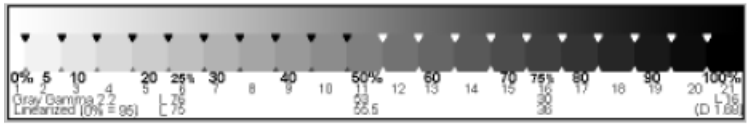
Once calibrated, to use the spectro click on Tools>Measure. This gets you to the spectro controls.



If I'm just looking for the best black, for example, to set the black ink limit, I just start reading the test patches and note which one is best.

Usually I like to see all the data – Lab L, A and B – for the entire 21-step test strip. For this use, I'll export the series of 21 measurements to a file which I can access later. I click on the Export button and name the file appropriately. Usually, I include the printer model, inkset, paper, and profile or printer settings used to make the test strip. I separate these elements of the name with hyphens. Due to name length limitations, abbreviations are usually needed. I do not check any of the boxes below the Export button.

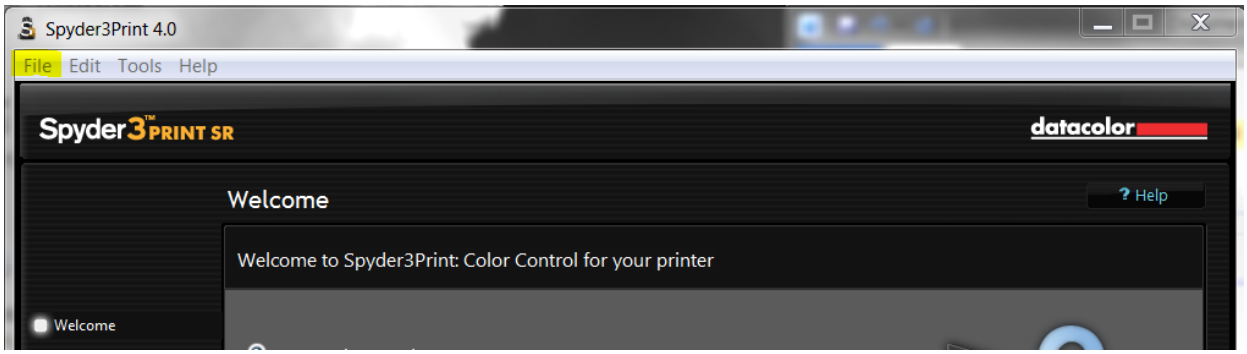
After the file name is specified, I read the 21-step test strip, from left (paper white) to right (100% black). I use this version of 21-step test file:



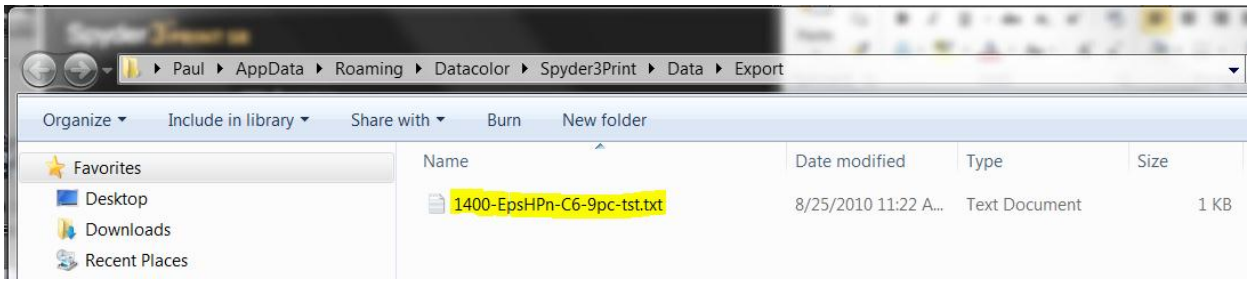
One version of this test file is at http://www.paulroark.com/BW-Info/21-Step.jpg I recommend saving it as a Tiff file.

After I read the 21 steps manually, the "Done" button is pushed. Note that I have not compared strip reading with this unit with manual reading, but in previous comparisons the manual reading was more accurate. On the other hand, 3 averaged strip reads may well be more accurate. As a practical matter, it only takes 1 minute to read the test strip, and I like to see the gradient above the patches. A vertical line in the gradient is a flat spot, and it could be missed by the 21-step read.

Different versions of this spectro and different OS's will store the data in different places. The easiest way to find the data is the open the file with the Spyder software.

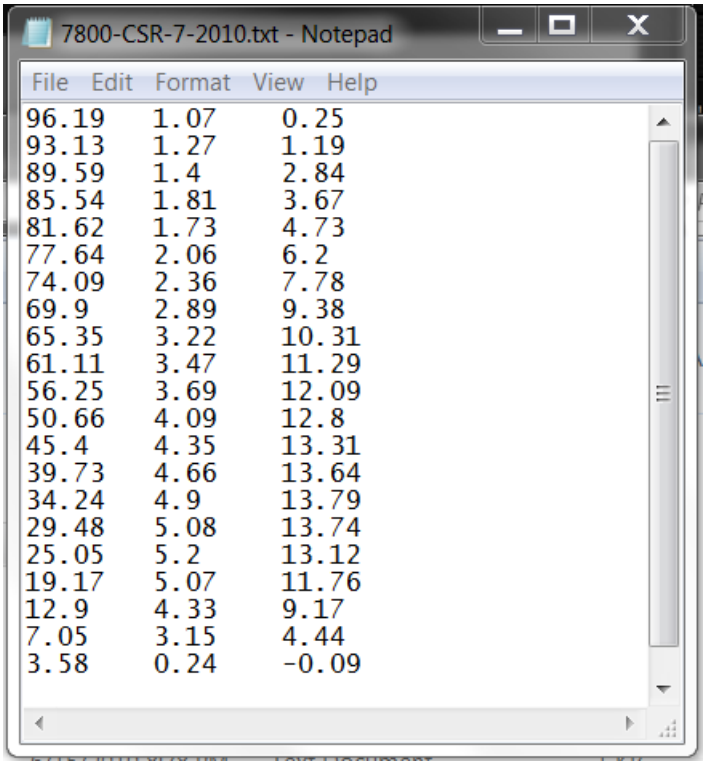


Click on File>Open Export.



The data will be in the most recent text file. (This was the first read with the new spectro in a new Windows 7 PC.) Since I like to access the folder with Excel or other programs, I right click on the file and make a Shortcut to it, which I put on the Desktop. After this is made, I go into the shortcut properties and eliminate the specific file name so that when I use the shortcut it simply gets me to the folder with the spectro export data.

If you simply double click on the text file of interest, the file will be opened in Notepad. A Crane Museo Silver Rag test strip read is shown below.



7800-CSR-7-2010.txt - Notepad

File Edit Format View Help

96.19	1.07	0.25
93.13	1.27	1.19
89.59	1.4	2.84
85.54	1.81	3.67
81.62	1.73	4.73
77.64	2.06	6.2
74.09	2.36	7.78
69.9	2.89	9.38
65.35	3.22	10.31
61.11	3.47	11.29
56.25	3.69	12.09
50.66	4.09	12.8
45.4	4.35	13.31
39.73	4.66	13.64
34.24	4.9	13.79
29.48	5.08	13.74
25.05	5.2	13.12
19.17	5.07	11.76
12.9	4.33	9.17
7.05	3.15	4.44
3.58	0.24	-0.09

The data is arranged in 3 columns, with Lab L at the left, then Lab A and B.

If I wanted to make an ICC with this data, I'd just save the file to the Desktop with an appropriate name, and drag and drop it into the QTR Create ICC-RGB icon.

I usually like to see what the data looks like graphically. To do this, I open the file in Excel. I can get to the files easily using the shortcut on the Desktop (specify "all files"). In the folder I highlight the file of interest and click on "open." I ignore the options and just click on "finish" immediately.

In Excel, I can highlight the Lab L data and graph it (Insert Line chart with markers). A smooth, even if not straight, line with linearize well. If there is a sharp kink in the graph, it will probably not linearize well. The profile needs more work.

To insert the Lab L data in the QTR Curve Creation Linearization Tab, I just highlight the Lab L data, copy and paste it into the boxes.