

3-MK, PK, & Gloss Optimizer Workflow

2-16-08

The 1800 3MK Eboni workflow has expanded to include glossy, 100% carbon pigment, neutral tone printing. By using MIS Gloss Optimizer (un-officially called “Glop”) as well as PK (one or two positions), glossy papers can be printed.

The workflow uses 2 passes through the printer. The first pass prints the image, and the second time through printer a even coating of Glop is sprayed over the entire surface. This is done after a quick dry (for example with a hair drier). The rear, manual-roll feed slot avoids a major roller mark.

Ink Positions

One can use any number of ink position options, but you have to be sure the profile is made for the ink placement you’re using.

The QTR “Notes” tab will indicate what ink placement the profile was made for.

One Eboni cart in my setup has been moved to the Cyan position. Thus all my glossy profiles, with Eboni in the Cyan position, start with “C-3MK ...”

If the ink placement is different than in your printer, you can copy and paste the curve points from one ink position to another. Usually the linearization remains good.

2 Glop Positions

The system uses a lot of Glop. Because of that and because the 1800 often bands with only one ink, I recommend using two Glop positions. Just in case Epson put the Glop where it did due to the order of spraying, I wanted one of the Glop carts to be in the GL position of the printer. Thus, I’ve moved that Eboni cart to the Cyan position.

I currently have the second Glop cart is in the Y position.

Photo Blacks

I currently have 3 PK carts in the 1800, but that will drop to 2, which I expect to be sufficient for smooth dark shadows. Whether a single PK will do is also being explored.

Initially I used MIS K4-PK is in the Red position, and MIS R2 PK is in the Blue position. I will probably change this, as the MP-PK seems to achieve a higher dmax at a lower ink limit than the 4k-PK. The R2-PK was optimized for the R200 printer and has 10% blue

pigments in it. Since it is physically in the same cart type, it's easy to use with a simple chip change. Whether the slight coolness is useful and worth compromising the 100% carbon position may remain to be seen.

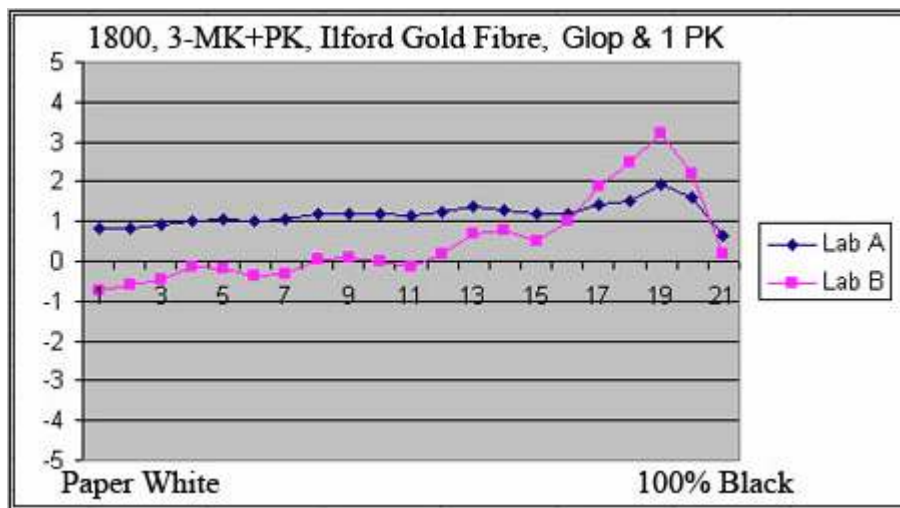
The black ink position and usage are, thus, in flux.

As I start to use MP-PK and otherwise change this, it's important to check the Notes tab.

Papers

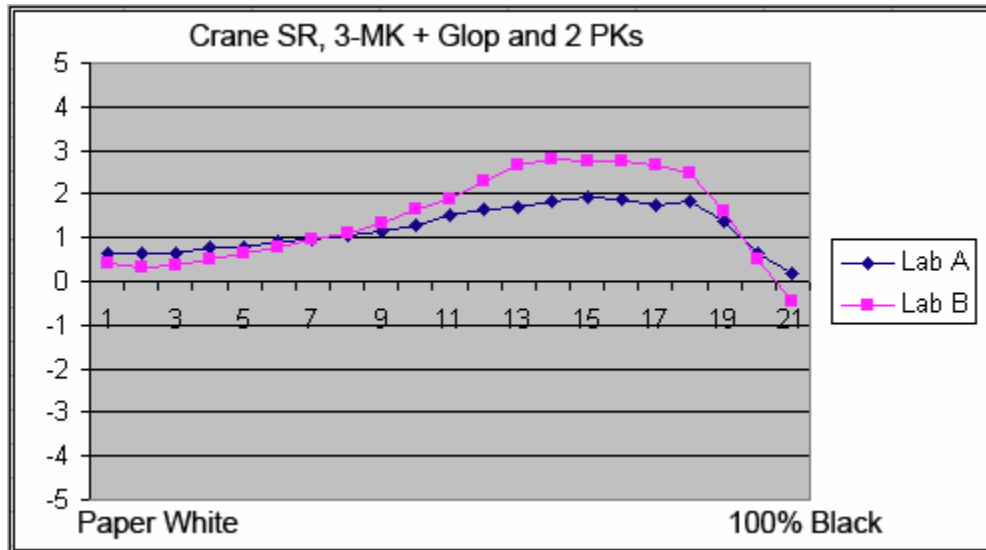
The papers used so far include Crane Silver Rag and Ilford Gold Fibre. The Crane SR has a very high d_{max} , but the "Ilford Galerie Gold Fibre Silk" is a bargain for this type of paper and has a baryta coating that gives it a surface look that traditional B&W printers of air dried fiber prints may appreciate.

The affordable Ilford prints with the following tones:



Note that with the above Ilford profile I used also used K4-PK to warm the light midtones a bit. The Eboni printed cooler than the paper white, and I preferred a straighter line to the dark tones. The Ilford paper with one MIS K4-PK has a d_{max} of 2.7+.

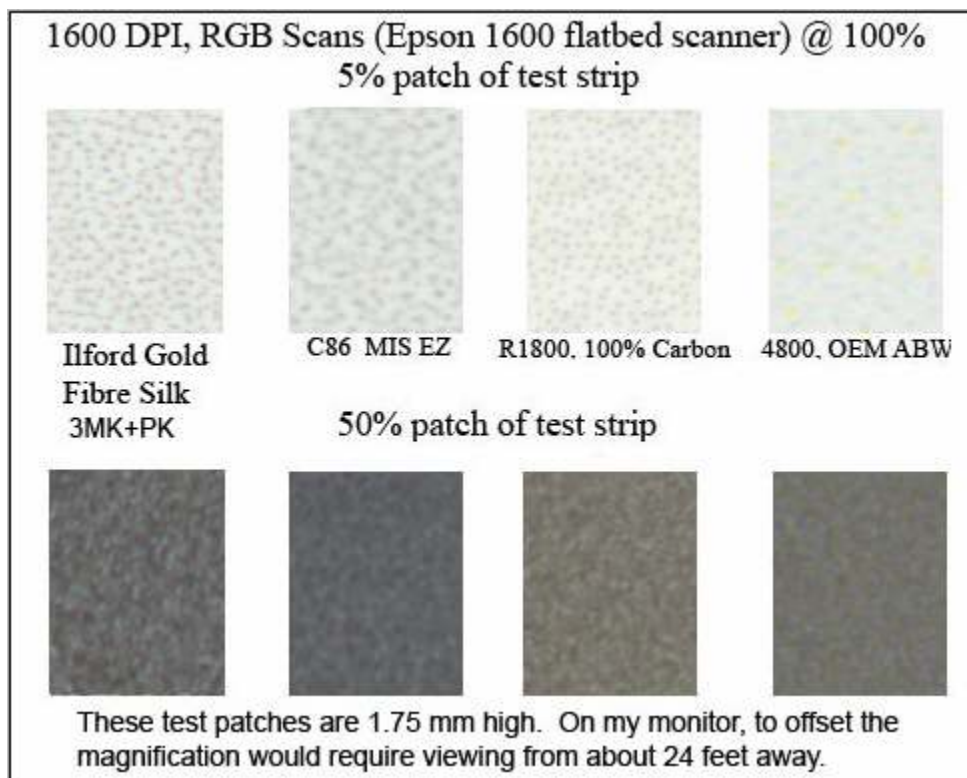
Crane Silver Rag, with 2 PKs and a d_{max} of just over 3.0 (Lab L = 0.91) prints as follows:



Print Smoothness

With the 1800 3MK Eboni + Glop + PK workflow for glossy paper, the resulting prints are slightly more grainy than the 3-MK workflow with matte paper. Inksets with dilute inks will be smoother, but I do not recommend the Eboni-6 (soon to be available in bulk) inkset I'm working with on large format.

The relative smoothness can be judged somewhat by the highly magnified images below.



As noted, to offset the magnification of the high resolution scan, one would have to view these test patches from more than 20 feet away. Also, only the Ilford Gold test patch was on glossy paper. The others are on matte paper. Those would look a bit rougher also if they were glossy.

As a practical matter, the 3-MK workflow has a fine grained structure that can be seen in the midtone test patches, but will probably not be noticed in most actual prints.

QTR Profiles

Some sample glossy paper profiles can be downloaded from
<http://www.paulroark.com/BW-Info/1800-Profiles.zip>

Note that for profiles that assume Eboni is in the MK, PK and C spots the name will start with “C-3MK ...” Check the Notes tab of the profile in the Curve Creator to be sure the profile is made for the ink position used in your printer.

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