

## C88 Glossy Paper

### Workflow and Settings

(2-22-07)

Printing with just the Epson driver sliders allows printing from any application. However, with the C88, it does not produce the best prints.

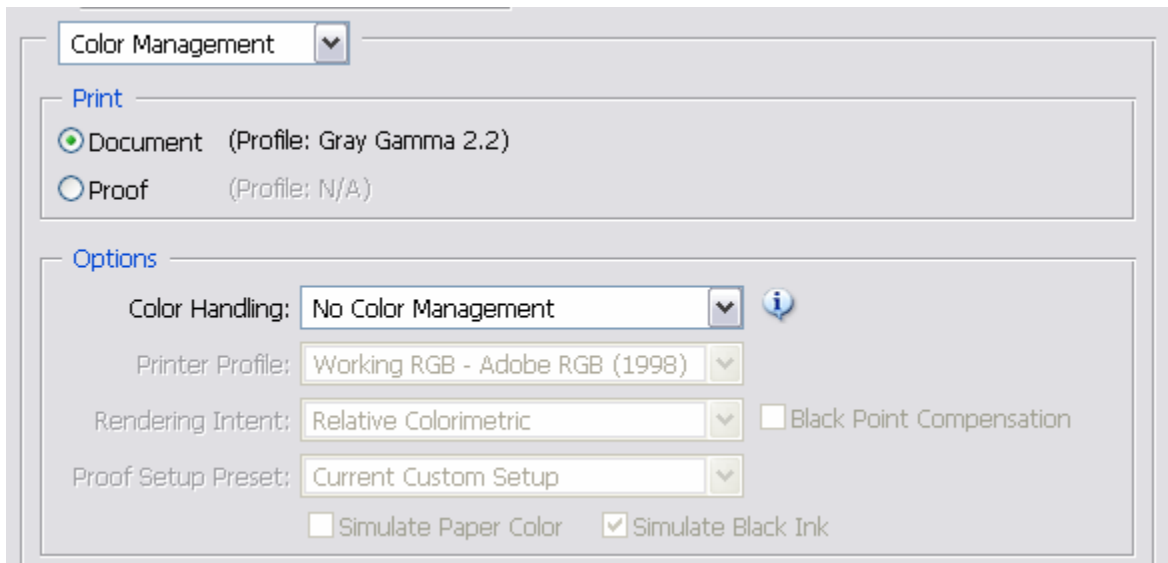
If you have Photoshop or Photoshop Elements, ICCs (or a curve) can be used to maximizing the glossy paper print dmax and achieve a better tonal distribution. With PS or other image editors that support curves, you can also achieve some of these improvements easily. Here I'll deal with PS and Elements, for the most part. The approach here can also be combined with slider settings, more complex curve and custom linearization, but that is not necessary.

#### 1. Print Preview Settings Where No ICC is Used

If printing with Photoshop **CS2**, use **“Print with Preview.”** (PS Elements automatically goes to a preview.) Just below the preview image, there is a box that shows either “Color Management” or “Output.” Select “Color Management” and the following settings should appear if one is printing a grayscale file:

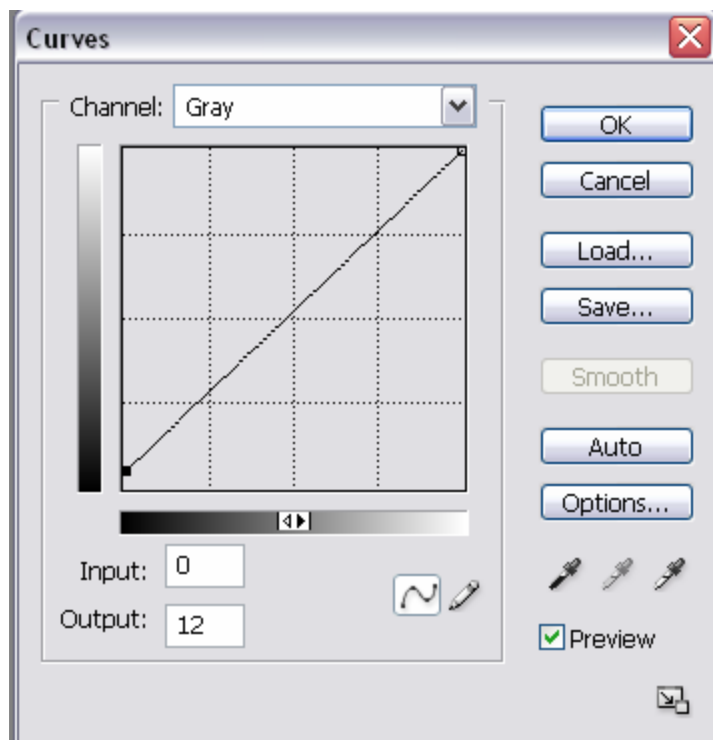
**Print** – Profile: Gray Gamma 2.2.

**Options** – Let Printer Determine Colors or No Color Management.



Although one could print with just the sliders, with no ICC or curve, the paper selections available in the driver do not allow sufficient control of the ink load to get an optimum dmax (maximum black) on glossy papers. The trick to getting outstanding blacks with the C88 is to select a media type that puts too much ink down, and then put an ICC or curve in the workflow that cuts the load back to what is ideal. The procedure often kicks the dmax from less than 2.0 to 2.4 – more than a full f-stop.

The optimum dmax is usually achieved with a media type setting of Matte Heavy Weight and a 100% black that is actually more like 95%. This can be achieved with a curve or curve layer in Photoshop (or Picture Windows) as follows:



If such a curve is put onto the image file just prior to printing (but not while editing the image), the dmax will be increased for most glossy papers.

## 2. Print Preview Settings for Glossy Papers Where an ICC is Used

### a. Advantages of ICCs

A better and simpler way to do this is via an ICC that has such a curve embedded in it. See <http://www.paulroark.com/BW-Info/Fine%20Tuning%20the%20Dmax.pdf> and [http://www.paulroark.com/BW-Info/Embedding\\_Photoshop\\_Curves\\_in\\_ICCs.pdf](http://www.paulroark.com/BW-Info/Embedding_Photoshop_Curves_in_ICCs.pdf)

I have or will post ICCs that have curves like the above embedded in them. I'll note in the name of the ICC what the black point has been set to, for example K=95 for the above curve that sets the 100% black to 95%. These ICCs will also note whether they are for when the driver is set to Color Controls ("CC") or No Color Adjustment ("NCA"). The ICC and Printer Properties must match. When an ICC with "CC" in the name is used, the sliders can further tweak the image as needed. If the ICC has "NCA" in the name, then that must be set in the driver, and the sliders will not be available.

The ICCs that I post have been linearized so that the print will better match the monitor. For this reason, the ICC approach is better than the mere curve approach. However, one can manually adjust a curve and embed it into an ICC with similar results.

One can also put more complex curves into these ICCs. I, for example, use EZ-Warm in the Yellow position. This allows me to put RGB curves into the ICC that not only optimize the dmax and linearize the system, matching the print and monitor, but they also give me a type of variable tone inkset. I can fine tune the tone of the paper with these.

#### **b. Settings for ICCs**

If printing with Photoshop **CS2**, use "**Print with Preview.**" (PS Elements automatically goes to a preview.) Just below the preview image, there is a box that shows either "Color Management" or "Output." Select "Color Management" and the following settings should appear if one is printing a grayscale file:

**Print** – Profile: Gray Gamma 2.2.

**Options** – Let Photoshop Determine Colors.

The ICC is then selected from the list.

In **PS CS**, at the bottom of the **Print Preview** screen, under the "Color Management" option, in the box entitled, "Print Space", have the "Profile" be the appropriate one for the paper.

The PS "**Intent**" should be "**Perceptual**" with "**Black Point Compensation**" checked.

ICCs for the C88 can be **downloaded** from [http://www.paulroark.com/BW-Info/C88\\_ICCs.zip](http://www.paulroark.com/BW-Info/C88_ICCs.zip). I save zip files like this to my Desktop and open them there. Then the ICCs can be put in the appropriate folder for Photoshop to find them.

In Windows XP machines they should be put into folder  
C:\WINDOWS\SYSTEM32\SPOOL\DRIVERS\COLOR

### 3. Driver Properties

When one hits the “Print” button a “Print” box appears. Go to “**Properties**” and “**Advanced**.” In that box, these are the settings I use:

**Print Quality** – Best Photo; High Speed can usually be checked.

**Color Management** – Color Controls; gamma 2.2.

**Media Type** – “Matte Paper – Heavyweight”.

### 4. Matte Papers

For matte papers, no ICC is used to raise the dmax. Matte Heavy Weight paper type is the best we can do. ICCs can still be used to control paper tone, as noted above. Some matte paper ICCs are in [http://www.paulroark.com/BW-Info/C88\\_ICCs.zip](http://www.paulroark.com/BW-Info/C88_ICCs.zip).

See <http://www.paulroark.com/BW-Info/C86-EZ-UT-Readme.htm> for matte paper settings.

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