

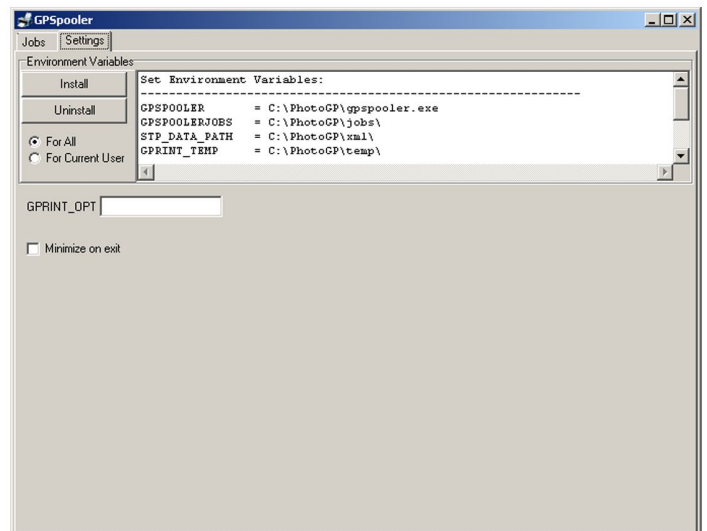
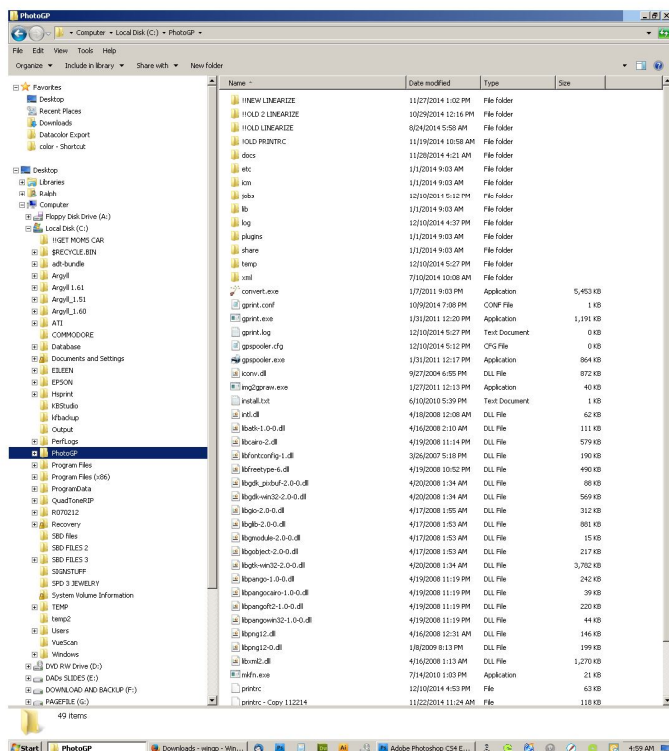
Gutenprint is a universal printer driver developed for the Linux and other Unix like operating systems. It is part of the GNU Open Source software community and available via Sourceforge. Several years ago a gentleman named Dmitry Garkaev compiled a working version for Windows. It is available via Google Code. You will need a copy of each to get it working with the latest printers.

If you internet search “Wingp Google Code” you should find the download location. The latest version is “wingp_5.2.6.2_PrintAll_ICM.zip”.

The latest version of Gutenprint is “gutenprint-5.2.10.tar.bz2” and available on the Gutenprint website. 7zip may be used to open the “tarball”. You will need the 2 pdfs of documentation and the XML folder of printer definitions. A “tarball” is nothing more than a “zipped” set of files, folders and perhaps other zipped items in one package.

INSTALLATION

Wingp does not get “installed” so to speak. You need to make a folder (I called it PhotoGP) on your C drive and extract the contents of “wingp_5.2.6.2_PrintAll_ICM.zip” there.



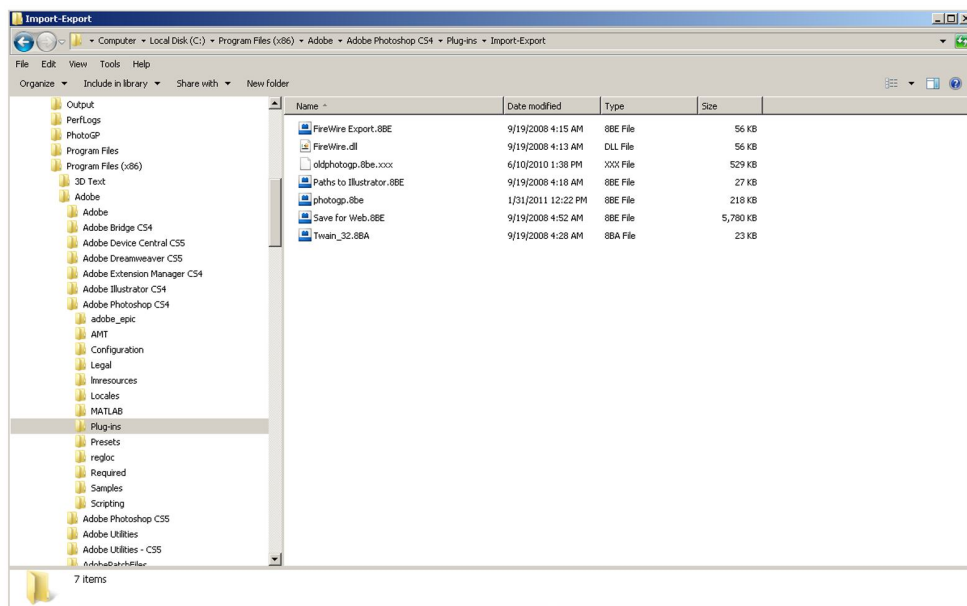
You will next have to set the “Environment Variable” or PATH reference so WinGP can find it’s associated files.

DOUBLE CLICK (launch) “gpspooler.exe”, select “Settings” and then click “Install”. Your environment path should now be set. You can verify this by locating at START/SETTINGS/CONTROL PANEL/SYSTEM/ADVANCED SYSTEM SETTINGS/ENVIRONMENT VARIABLES/ and look for the references in the bottom box.

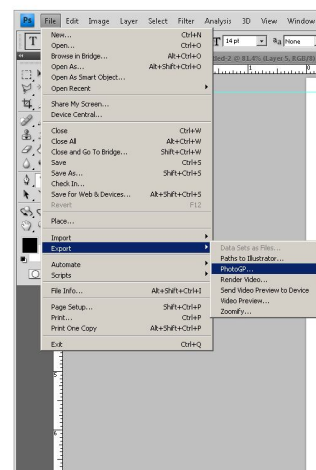
I would recommend copying the “doc” subfolder in the Gutenprint tarball to your new “installation” for future reference. You also need to replace the existing XML sub-folder in your new installation with the one provided in the Gutenprint tarball. All printer definitions are in these XML files and you will need the latest ones for the newer printers. The core driver hasn’t changed.

If you are going to do any editing of the XML files for customizing a printer, you should have an XML editor. This editor will present the XML files in a logical format and prevent the addition of any unwanted (unseen) characters along with maintaining the correct format when modifying and saving. I personally use “XML:WRENCH”. It’s free and very light weight.

Lastly, you will need to copy the plugin for using Wingp with Photoshop (32bit only). It is located in the “plugin” folder on your new installation. It’s name is “photogp.8be” and is copied to your PROGRAM FILES (x86)/ADOBE/PHOTOSHOP/PLUG-INS/IMPORT-EXPORT folder. All my file locations are for my installation on a Windows 7 computer. Your locations should be very similar.

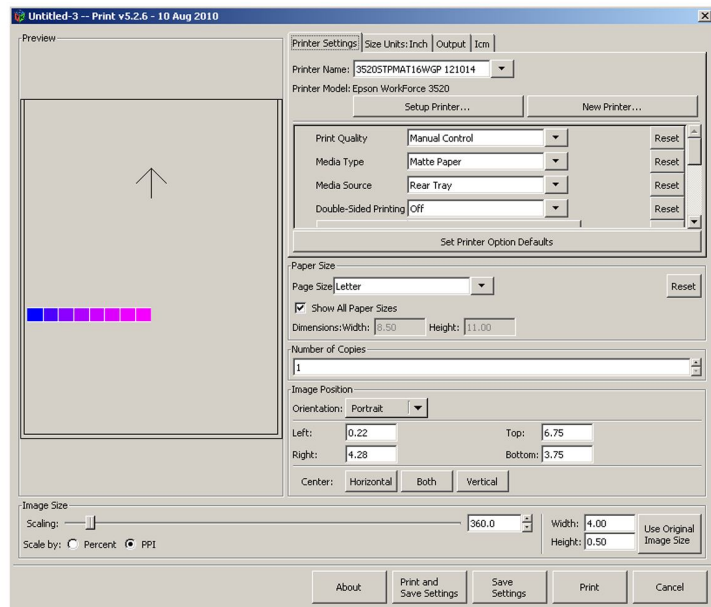


When you want to print a Photoshop image that you have opened, it is done by selecting (in Photoshop) FILE/EXPORT/PHOTOTGP, and that will bring up the “Gutenprint” GUI.



That should complete the “installation process. Next time, we will begin to discuss setting up a printer and some of the parameters.

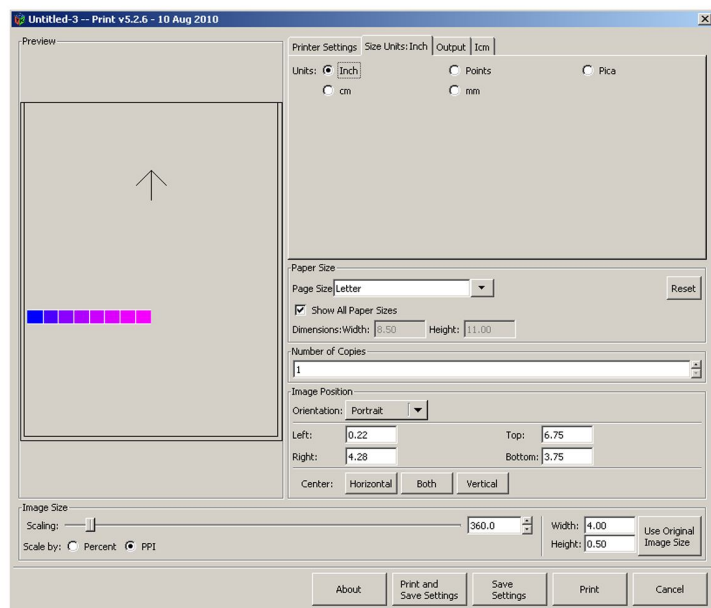
Assuming the installation went according to plan, we are now ready to create a printer specification to print. With an image (any image) to print open in Photoshop, go to FILE/EXPORT/PHOTOGP and select. You should now see this GUI pop up. This is the main menu of Gutenprint that has been slightly modified by the person who compiled it for Windows.



Some items in the upper center scrollable box (just above the Set Printer Option Defaults bar) will be different depending on the features that printer supports.

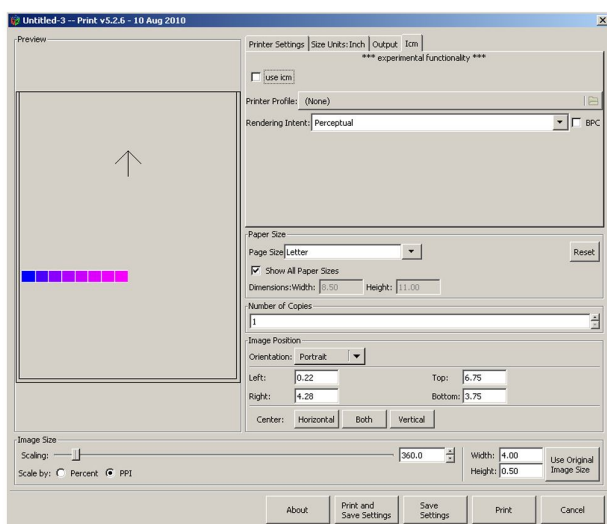
The left side shows a (low quality) image of what you're trying to print and it's physical relation to the paper size picked.

The right bottom half allows you to choose the paper size desired for this job, orientation and centering. You are free to move your image within the box around to your liking with your mouse.

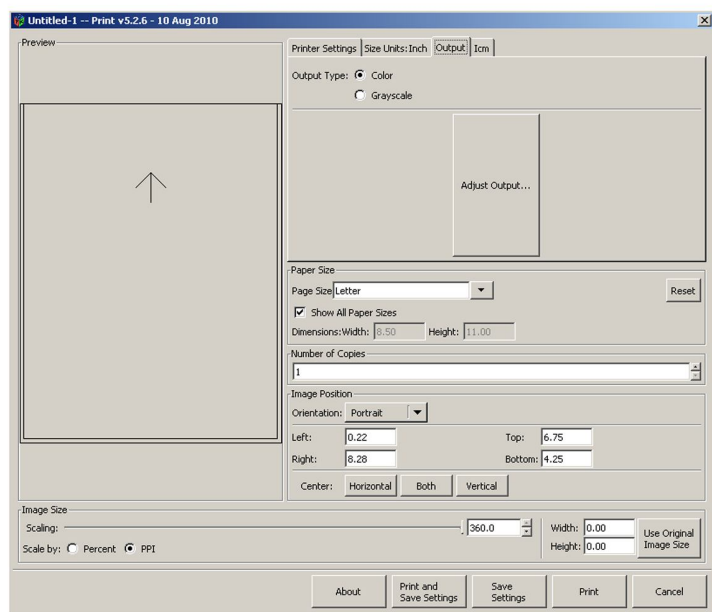


Notice the four tabs at the top of the GUI. These are the different menus of Gutenprint.

On the Size Units:????? tab, you can choose your desired units of measure for the menus.

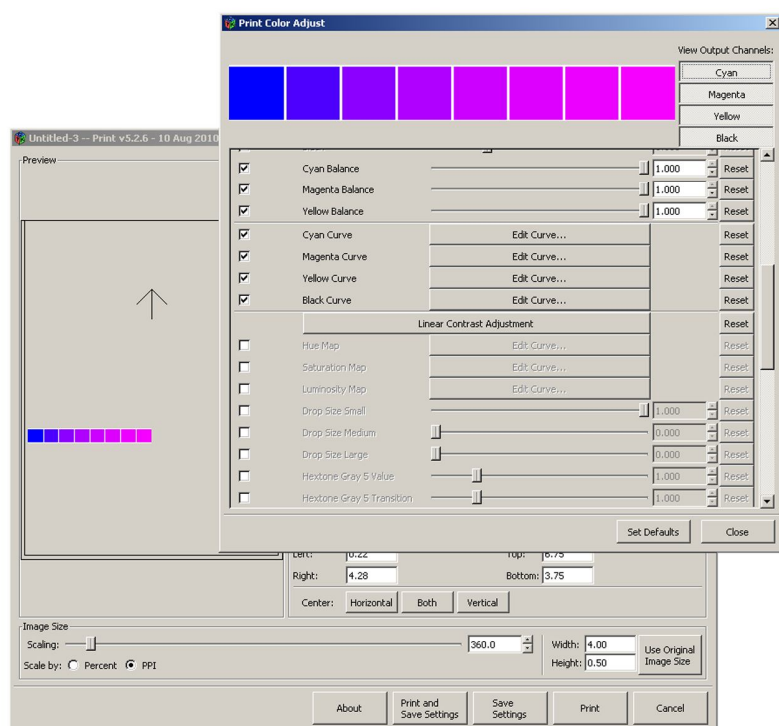


The Icm Tab is an experiment the program compiler started but I never could get it to work (except crash). I would advise to just forget about it (unless you are adventurous.)



When you select the Output tab, you are presented with several choices. First, will this be in color or grayscale. I've never tried grayscale, always color, so experiment if you like.

The large Adjust Output box is kind of a "are you really sure you want to do this" check, for it opens the menu for all the fine tuning adjustments. These are saved as presets for recalling later.

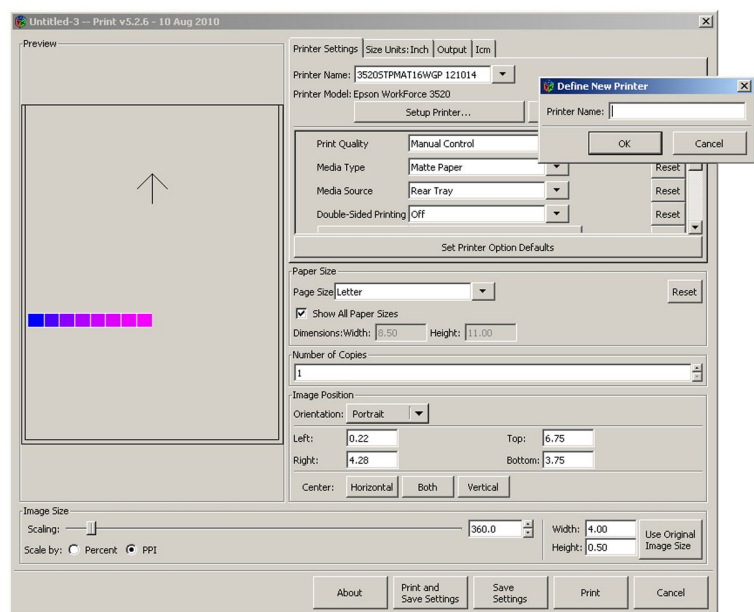


Selection of the Adjust Outbox brings up a new menu overlapping the first.

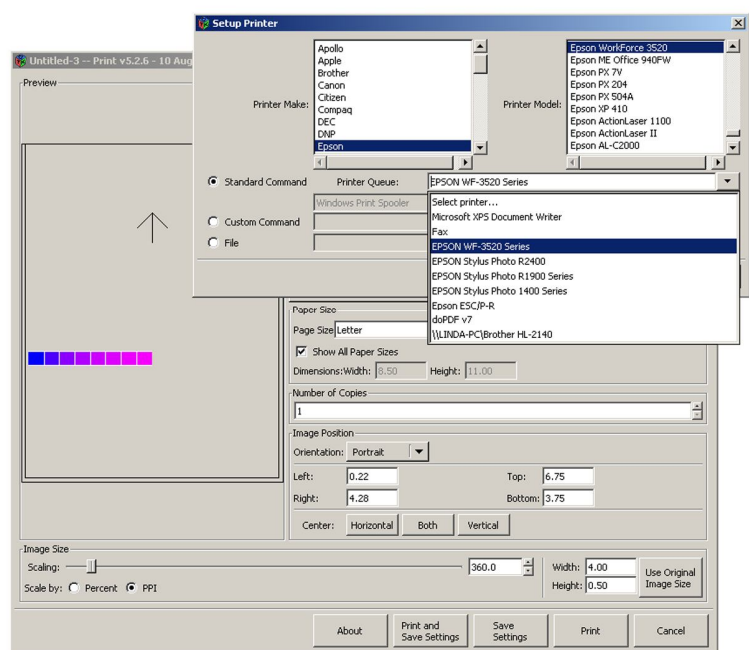
Here we begin to see the fine tuning adjustments we will make for each paper, ink density and resolution combo. There's a lot of them. By studying these you will begin to understand what Epson or Canon has to do to make a driver for each model they produce.

I'll cover the ones I know and use later.

That pretty much covers what the menus look like. Next I'll discuss what the menu items do, setting up a new printer and defining a specific print "job".

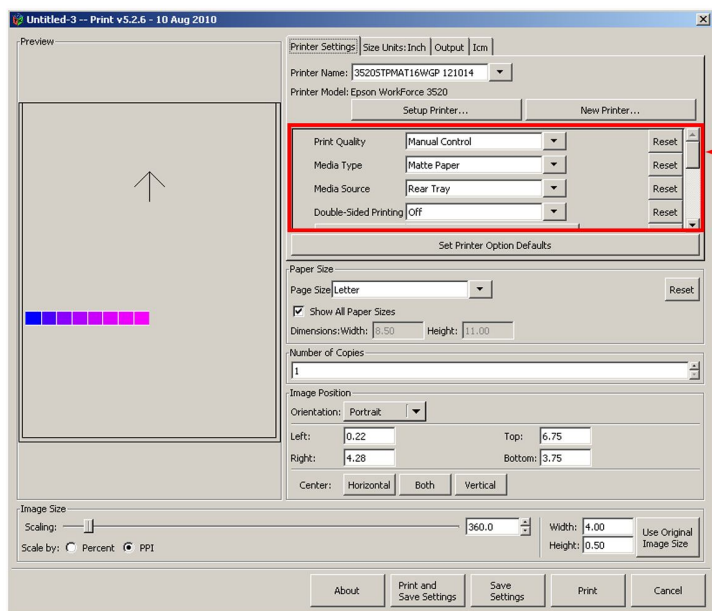


Lets go back to the 1st main menu screen called Printer Setings. If you click on the New Printer button, this dialog box opens. Here we are going to name this particular printer configuration. By that I mean which physical printer we are going to use, ink type, resolution etc. Give it a name that makes sense to you. I try to somehow define the printer, paper, version number and the current date. This name will appear in a drop down list at the top center of the menu called Printer Name. My cuttent selected printer name is 3520STPMAT16WGP.

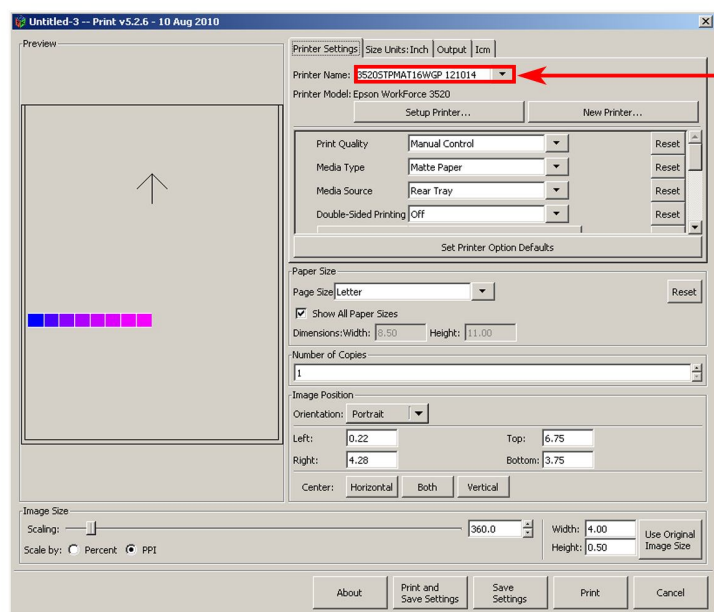


Next we will select the Setup Printer button. A new menu pops up. Here we need to select what brand of printer we have, the model number and in the Printer Queue, which installed printer corresponds to this setup. This part tells Gutenprint who to send it to.

Here I chose Epson, Epson Workforce 3520 and EPSON WF-3520 Series. Do not look for this model on your version, it isn't on the list and I had to create it from scratch for my use.

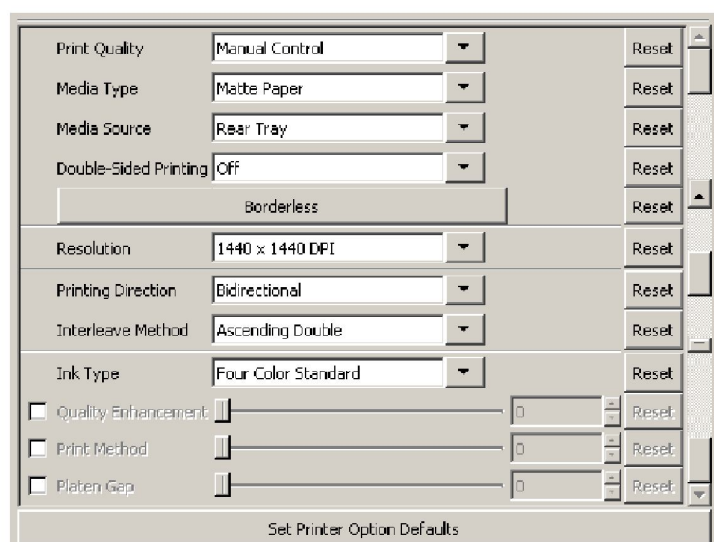


In the next section I will cover the options available in the section outlined in red.



All the printer setups you make are stored in the “printrc” file. This file has no extension. If you rename the file or delete it, the next time you try to export an image to PhotoGP, the software will create a new blank “printrc” file. The “printrc” file can also be manually edited via an XML editor which I’ll cover in later pdfs.

I had forgotten that the author (compiler) of this version had left some printer setups in the printrc. They are pretty useless to you except for illustration.



It would help you to have a copy of the gutenprint users manual (available on the gutenprint website) for it explains most of the menu items in detail.

Again, the menu items will vary depending which printer is chosen.

This is a full printer driver that can be used without any profiling. It does take a lot of work though. We are only interested in the core which is a Raster Image Processor. We will need to turn off all color manipulating sections leaving just the RIP.

PRINT QUALITY = MANUAL CONTROL Do not apply any color correction.

MEDIA TYPE = ?? With manual control (above), this mostly determines initial ink densities.

MEDIA SOURCE = ?? Depending on the model and how many paper paths it has.

DOUBLE-SIDED PRINTING = ?? Depends on the model chosen if this menu item is present.

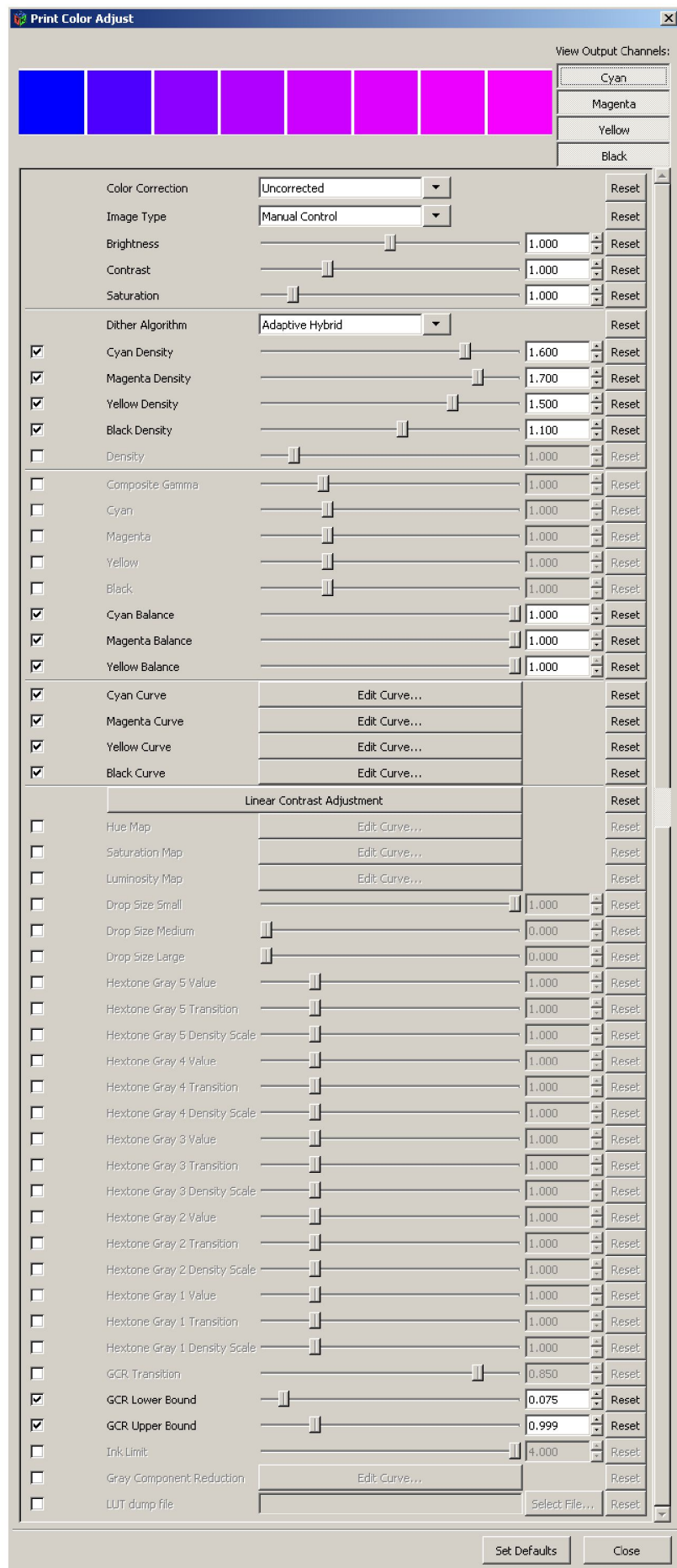
BORDERLESS I’ve never used this features, time to experiment, I guess.

RESOLUTION = ?? I typically use 1440x1440 for good matte prints, 2880x1440 for great matte or fine art paper and 2880x2880 for gloss or luster prints.

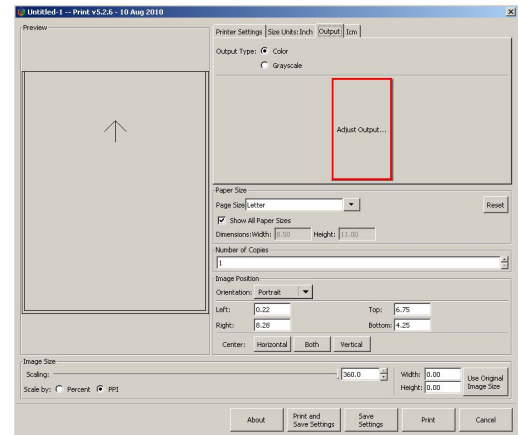
PRINTING DIRECTION = Your call. Epson calls Bi-directional FAST in their drivers.

INTERLEAVE METHOD = ASCENDING DOUBLE always works great for me. This isn’t discussed anywhere much. It concerns overlapping head passes. The Gutenprint user manual touches on it.

INK TYPE = Varies with model and allows you to choose different ink combinations to achieve your desired results.



Let's proceed to the output tab and click on the adjust output box. The left image is all the options for this printer. They may vary slightly depending on the printer model chosen.



Again, we are concerned to NOT manipulate any colors here so:

COLOR CORRECTION =
UNCORRECTED

IMAGE TYPE =
MANUAL CONTROL

Leave brightness, contrast and saturation all set to 1

DITHER ALGORITHM =
ADAPTIVE HYBRID for all my work. You are welcome to experiment. The users manual has good explanations for all the methods.

I would leave all the left hand check boxes UNCHECKED initially. This will apply default ink densities, linearization curves, gray generation and GCR (gray component replacement) depending on the paper chosen on the first menu.

This should be enough to get everyone started and be able to get a printout.