Epson vDot 5 –Proofer Plug-in for Harlequin RIPs

Introduction

The Epson vDot 5 plug-in supports certain Epson SureColor P (SC-P) printers.
Epson vDot requires ColorPro and a 64-bit Harlequin RIP version 11 (or later).

The supported Epson SureColor printers are:
SC-P6000
SC-P8000
SC-P7000 Standard Edition (SE)
SC-P7000 Commercial Edition (CE)
SC-P9000 Standard Edition (SE)
SC-P9000 Commercial Edition (CE)

The product ships with ICC profiles suitable for environments which print to the GRACoL, SWOP, or FOGRA specifications on the following papers:
Epson Standard Proofing (240) S045112 Semimatte
Epson Proofing Paper Commercial S042146
Epson Proofing Paper White Semimatte S042004
X1 Proofing Media SUP-1000-024

Each printer has paper profiles at 2 resolutions. (720dpi and 1440dpi)

You may create and import your own ICC profiles for your preferred papers, provided you have the proper equipment.

Licensing

The version 11 RIP has changed licensing methods to the LDK system. (See other documentation on LDK licensing or ask your sales or support representative for more information)

If you purchase the Epson vDot 5 plugin as part of an overall new RIP purchase, licensing will be taken care of simultaneously with the RIP license and will require no further action. If you purchase Epson vDot 5 as an upgrade to an existing RIP then you (or your service technician) will need to follow the LDK instructions for adding a licensed option to the RIP.

If you get license errors at the time you attempt to print you have a licensing problem. Perhaps the license was never entered after the installation of the plugin.
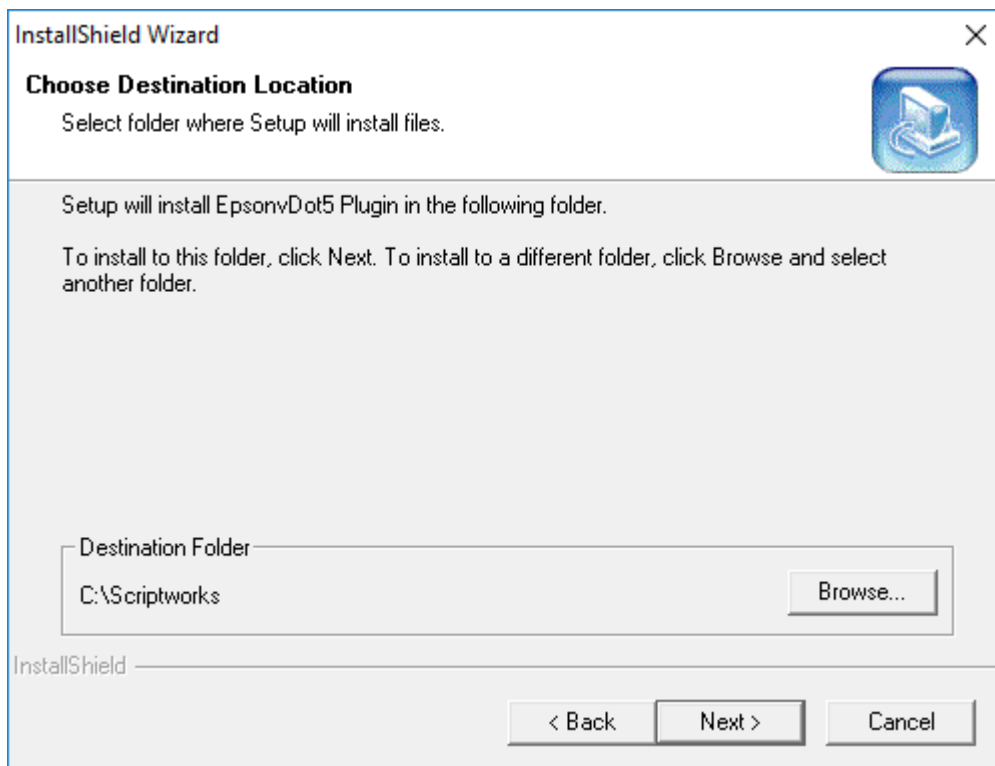
Installation

First you must have your RIP installed, licensed, and operational.

Then you may install vDot5.

Run the application "vDot5PluginInstaller.exe" or choose the vDot5 option from your installation application.

The installation wizard will ask you to locate the path to your RIP. Click the "Browse" button to navigate to the correct folder. You need to navigate to the root folder of the RIP. This the folder containing the "SW" folder. For example it may be at C:\Navigator. In the example below it is at C:\Scriptworks.

Once you have chosen your RIP, click "Next".

InstallShield Wizard   ✕

Choose Destination Location

Select folder where Setup will install files.

Setup will install EpsonvDot5 Plugin in the following folder.

To install to this folder, click Next. To install to a different folder, click Browse and select another folder.

Destination Folder

C:\Scriptworks   Browse...

InstallShield

< Back   Next >   Cancel

vDot 5 requires a 64-bit RIP. If you see this pop-up window you should check two things.

Warning   ✕

⚠ This plugin requires a 64-bit RIP!

OK
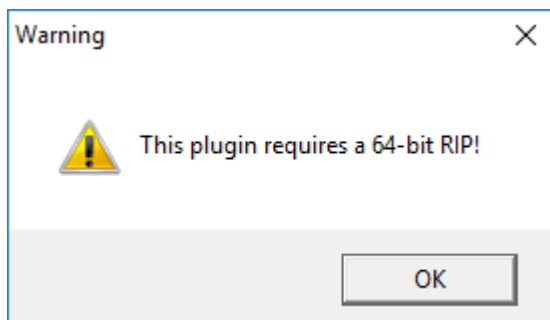
1. Is the path correct?
2. Am I running a 64-bit RIP?

If the path is correct and you are running a 64-bit RIP, it will be safe to proceed. Click "OK".
(Note: the version 11 RIP is a 64-bit RIP. If you are running a version 11 RIP and you are confident you have the path correct, proceed. Click "OK".)
It may be that you are installing this to a RIP version that we did not foresee at the time we wrote the installer. The warning does not necessarily indicate trouble.   If your RIP is 64bit and version 11 or later, click "OK".

When you see the dialog box below you will know you have successfully installed vDot5. Click "Finish".
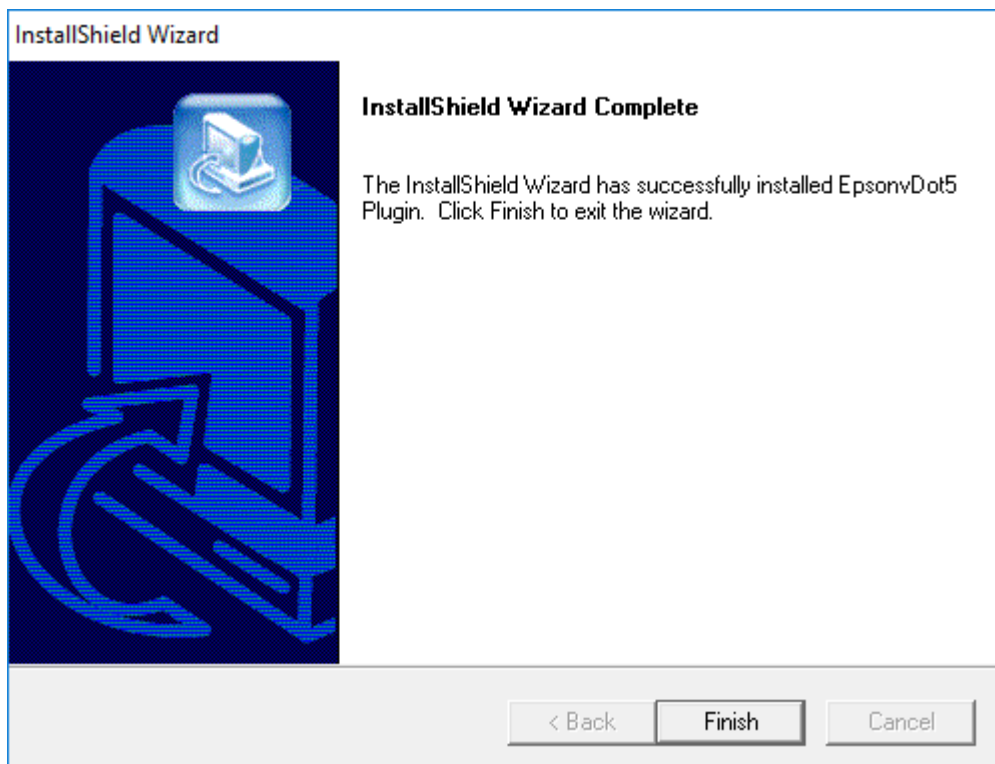
You may now start up the RIP and configure vDot5.

Device names and functions

For the purposes of output and color representation there are really only three different printers in the supported Epson SureColor P family. The 6000 and 8000 differ only by width. The 7000 and 9000 CE differ only by width. Likewise the 7000 and 9000 SE differ only by width.
In the Device Manager you will find 6 devices to choose from.

There are two output options for each of the 3 printers.
"*Color vDot*" is the primary printing mode of vDot5. Choose this for output screened with optimized Epson screens and color management with the included color profiles.

"*Color Halftoned*" is a device that simulates plate output by printing standard Harlequin screens (such as Euclidean). If you choose to use this mode, you must provide your own color profiles. The reason that we provide no color management support is that, due to the many different line screens people may choose to simulate, it would be too difficult. Some line screens will not simulate very well. You should do testing if you think you wish to use this mode.

"*6k8k Color vDot*" is the SC-P 6000 or SC-P8000.
"*7k9k Color vDot*" is the SC-P7000 Standard Edition and SC-P9000 Standard Edition (SE).
"*7k9k Color vDot CE*" is the SC-P7000 Commercial Edition and SC-P9000 Commercial Edition (CE).
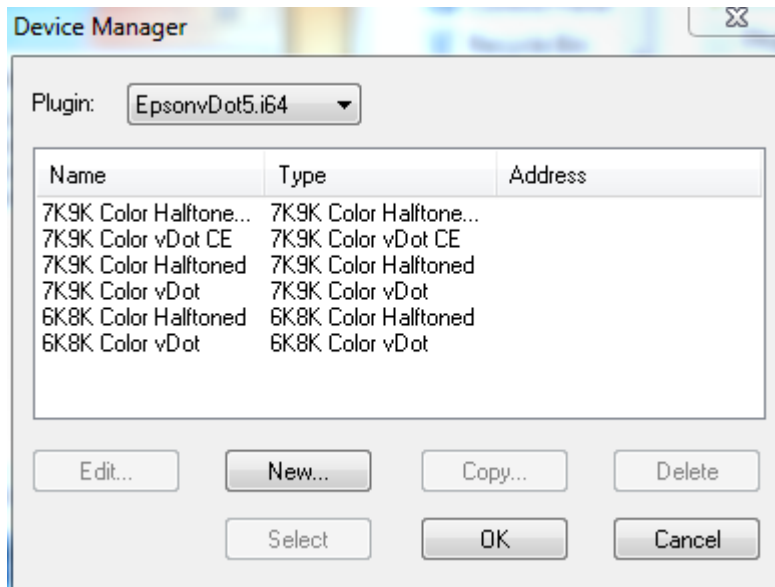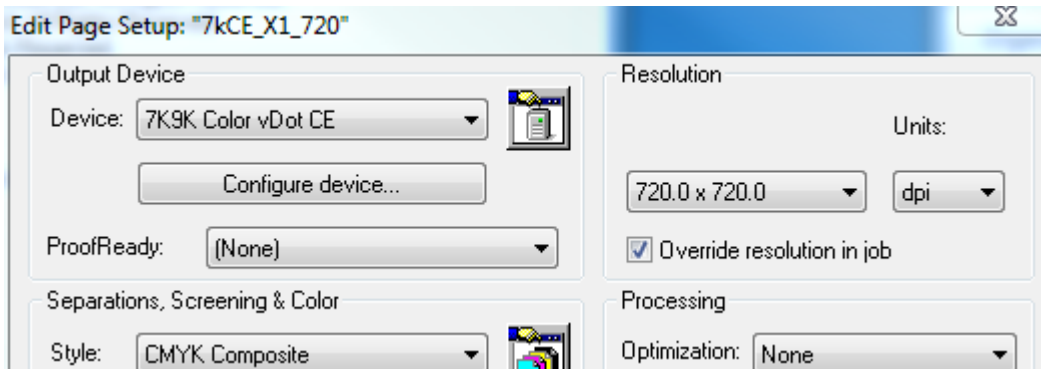

Configuration

Step 1. **Install the Epson driver** that comes with your printer. If you have done this already, it's ok. Otherwise, do it before proceeding. You will need to be able to locate the Epson on the network and this step makes that simple. You do not have to worry about the configuration of the Epson driver. The RIP with vDot5 bypasses those configurations.

Step 2. Create a Page Setup in the RIP.

To begin with you will only need to choose the correct device, choose the correct Separation style, and then click "Configure device…"

Step 3. Configure the device.
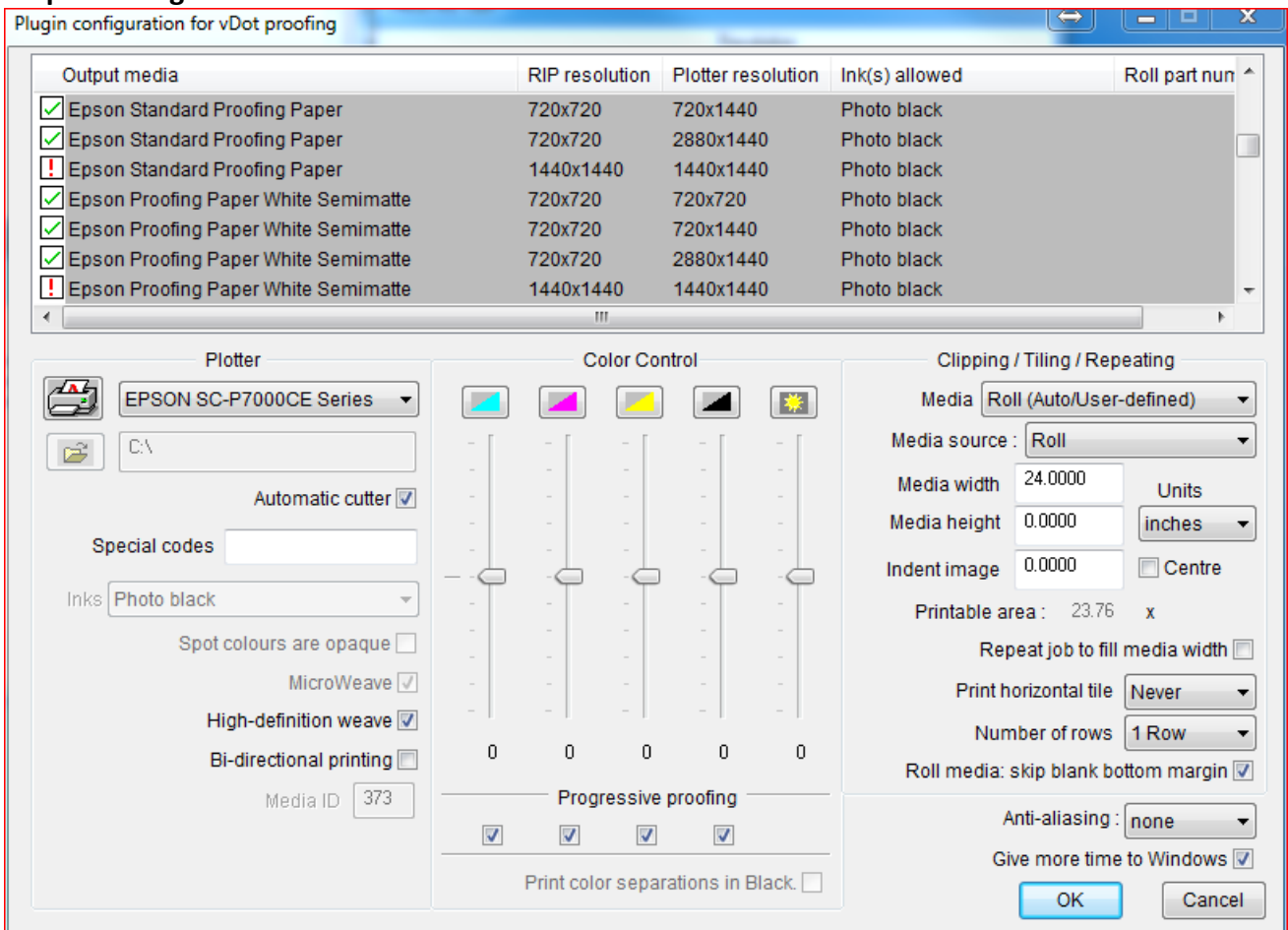
You may wish to create your own profiles. You may opt to use the included profiles. In either case, choose your paper from the list.

Output media	RIP resolution	Plotter resolution	Ink(s) allowed	Roll part num
⚠ Doubleweight Matte Paper	360x360	720x360	Matte black	
✓ Doubleweight Matte Paper	720x720	720x720	Matte black	
✓ Doubleweight Matte Paper	720x720	720x1440	Matte black	
✓ Enhanced Matte Paper	720x720	720x720	Photo or Matte black	
✓ Enhanced Matte Paper	720x720	720x1440	Photo or Matte black	
✓ Enhanced Matte Paper	720x720	2880x1440	Photo or Matte black	
✓ Xitron X1 Proofing Paper	720x720	720x720	Photo black	

Epson printers all use a starting curve. These listed papers represent those curves. The built-in profiles were made with the appropriate paper selection here.

If your paper is available in the list, we recommend you use that. If your paper is not available you may choose the custom media choice at the bottom of the list. Each paper choice has multiple entries for resolution and, in some cases, optional ink choices (e.g. photo black vs. matte black).

Choose your printer from the *Plotter* list. This will show you a list of installed printers.

If you have an automatic cutter and you want to use it after each job, check the *Automatic Cutter* box. If you wish to manually cut, uncheck this box, and use the cut button on your printer whenever you wish to cut media.

If a printer has a choice between Photo Black and Matte Black, it may be configurable. If it is configurable on your printer, then the drop down menu will be enabled. If the correct setting has been automatically detected, then it will display greyed out. On some printer models this is dictated by the curve you select in the upper paper list. Notice how some of the papers explicitly call out "Photo Black". If a paper curve is allowable for either Matte or Photo black, you may have to select which ink is actually installed.

Microweave and *High definition weave* are methods that an Epson printer will use to integrate the multiple passes of the print head into a smooth, continuous print with as few visible lines as possible. These are the correct default choices, but may be useful for experimentation and troubleshooting. If you are printing something relatively simple and wish to emphasize speed over quality (e.g. black text), you could consider turning these off inside a particular Page Setup.

Bidirectional printing is twice as fast but, with some media, is more prone to banding. You might wish to try a print with it off if you have quality concerns.

Media ID is set by your selection in the topmost list of papers. It is displayed for support reasons and is not generally configured by the user.
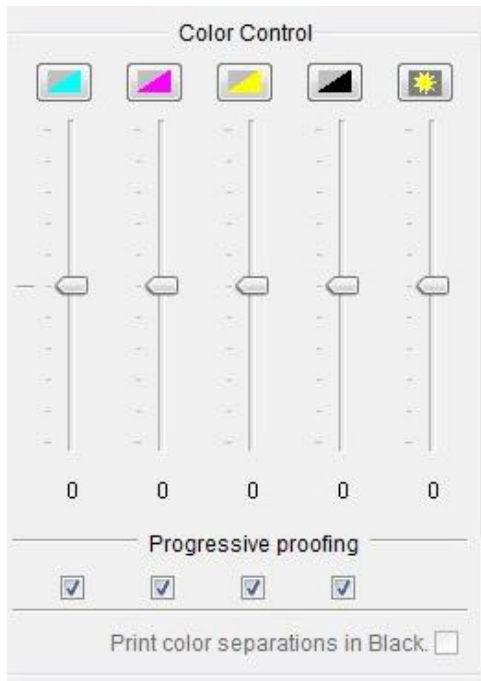
The center controls are for separation color control.

The sliders add or subtract intensity of color. This method of control is good for quick adjustments but could take you outside of your desired color gamut in an ICC color management workflow.

Progressive proofs print some of the colors rather than all of them together. One use case is: 4 color printing on a 2 color press. The proofs may need to be done like the printing is done. (e.g. 2 colors first, then a 4 color proof.)
You may also choose to print each separation in color (default) or in *Print color separations in black* (check box)
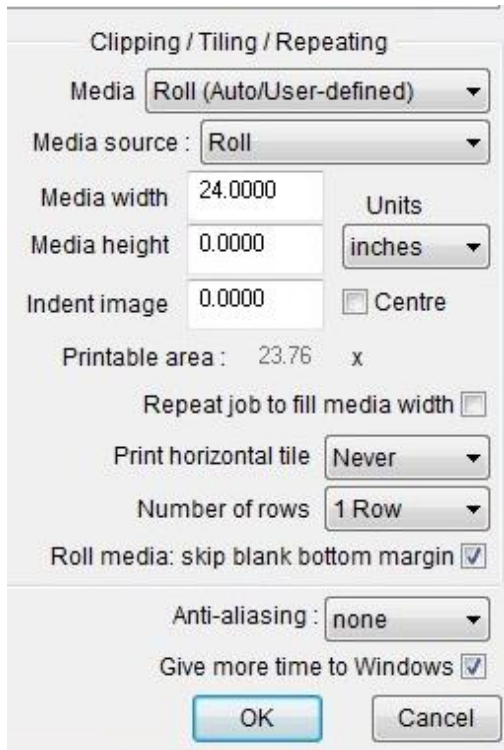
Under the heading *Clipping/Tiling/Repeating* you will enter details about your media size and usage.

If you wish to repeat a job to fill media width, or repeat it horizontally, you may configure that here.

Anti aliasing will help with fine line reproductions at the expense of processing speed. It should be left on.

Give more time to Windows is a default setting which allows the operating system to take precedence over vDot5 RIP processing. It should be turned off only for troubleshooting problems involving processing very complex or very large jobs. Usually your support provider will advise you if this is necessary.

Step 4. Create a ColorPro setup.
For in depth information please consult the separate "ColorPro" manual (available on the installer disk and on the web site).

The screen capture below shows one possible ColorPro configuration.   This configuration uses four main component parts.

1. The *device profile* or *Output Profile (*our Epson profile of a particular paper stock at a particular resolution).
2. A CMYK input profile (a printing standard to which we have chosen to adhere)
3. A rendering intent which governs our conversion from the Input color space to the Output Profile.
4. An RGB input profile (to regulate the transformation from the RGB colorspace into CMYK.
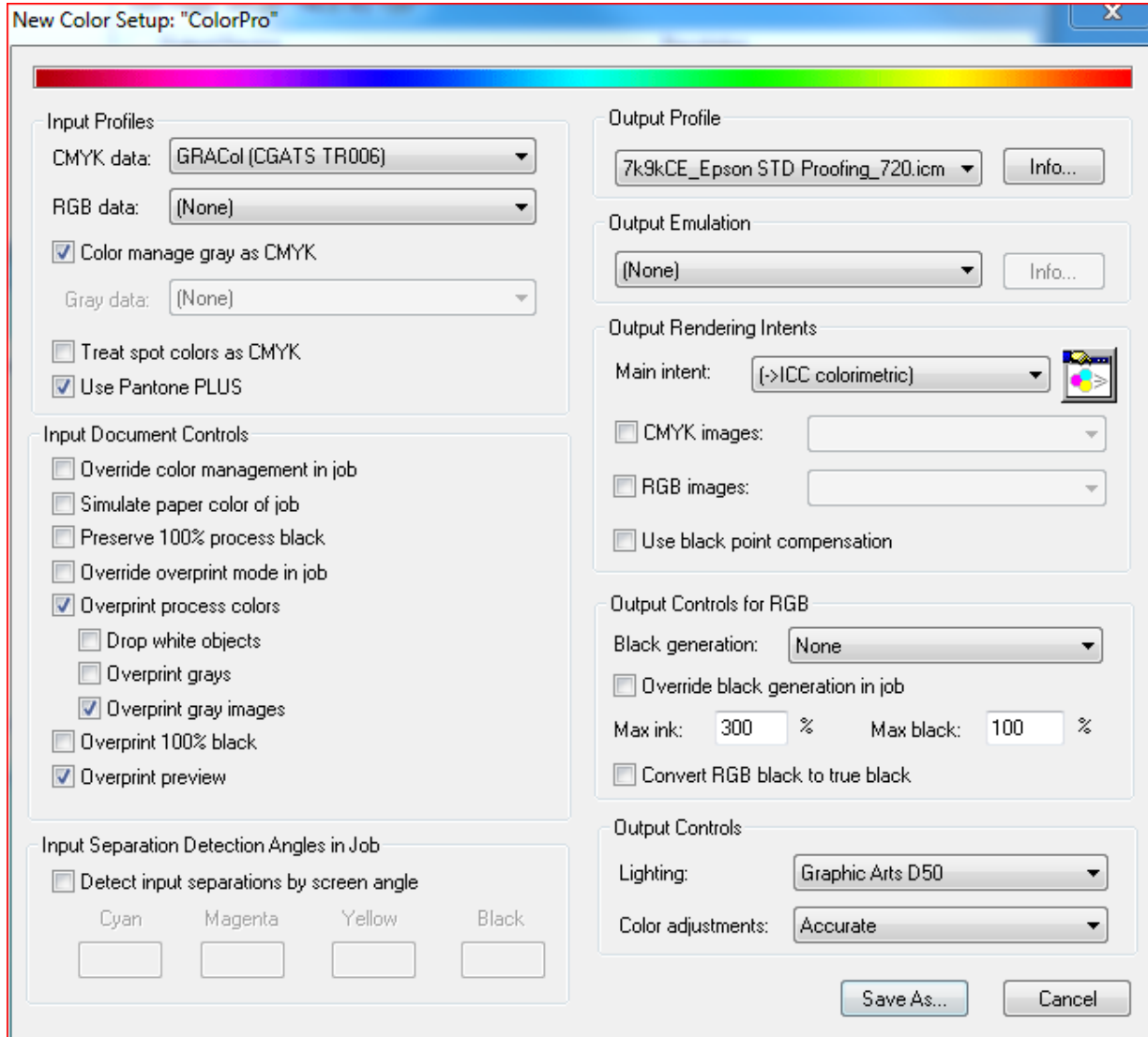
Please consult the ColorPro document for details on this step. Once you have a ColorPro setup, edit your Page Setup to use it.

Step 5. Add ColorPro setup to the Page Setup

Under *Separations, Screening, & Color*, add your ColorPro configuration in the *Color* drop down menu.
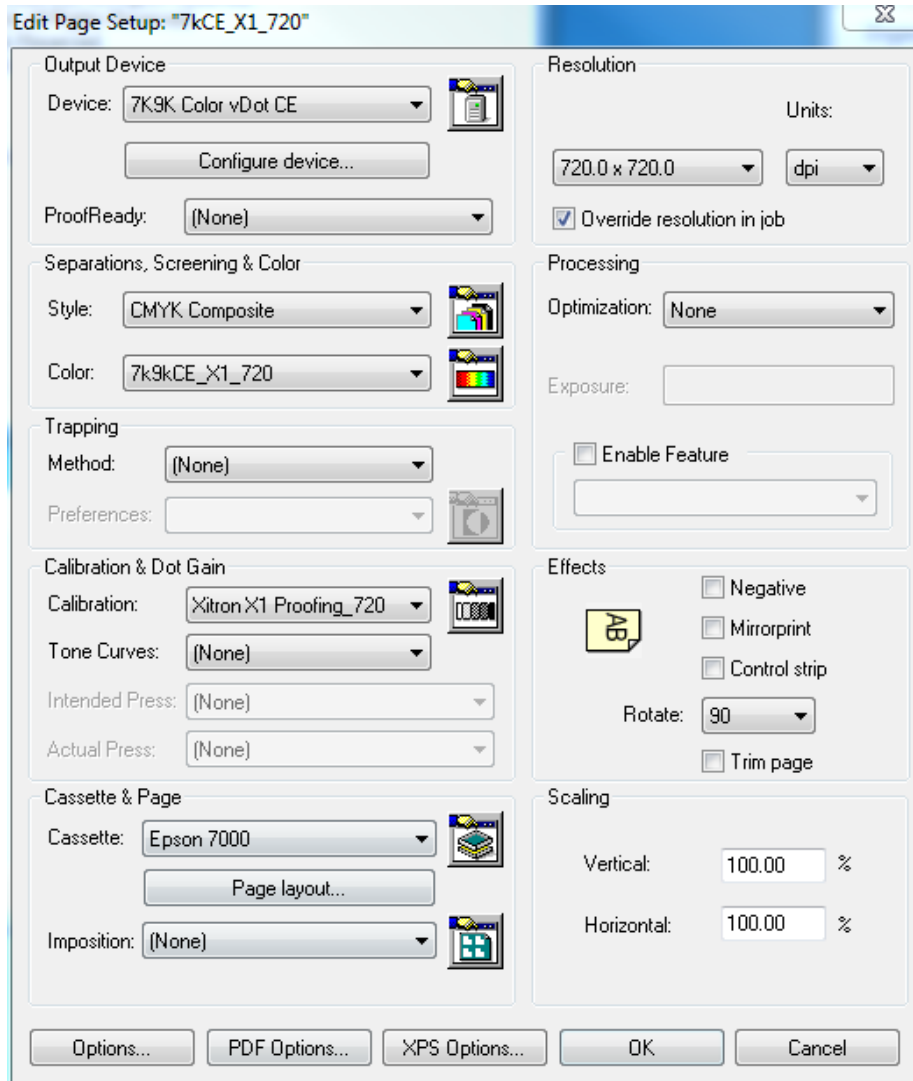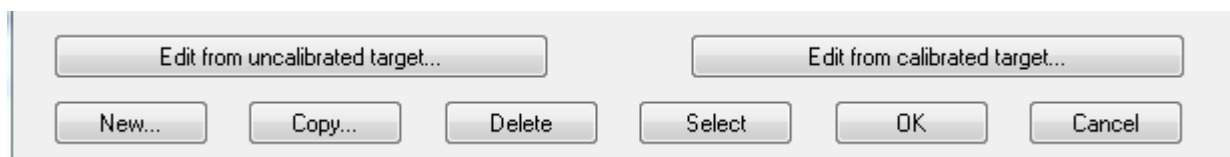

If you wish, you could just print now.
Whether you add a *calibration* under *Calibration & Dot Gain* depends upon whether you intend to relinearize the proofer so that it matches the state of our reference printer when the profile was made.

This extra step will bring you in line with the reference printer and get you the best possible color result.
To begin, click the button directly to the right of the *Calibration* drop-down menu. This will bring you into the *Calibration Manager.*

Click "New" to create a new calibration.

This will bring you to the Calibration dialog box.


Choose the calibration profile that matches your paper stock. It will have a curve something like that shown. Give it a name. Click "OK". For more details see the RIP User Guide chapter 12, on Calibration.

If you are unsure which Profile to choose, please see the Appendix at the end of this document, which provides a cross reference for SetGold calibration files and ICC profiles.

Make sure to choose that calibration in your Page Setup. You may print a calibrated target to the printer and read it with your densitometer or spectrophotometer.

When you are ready to add that data to the system, again enter the calibration manager.
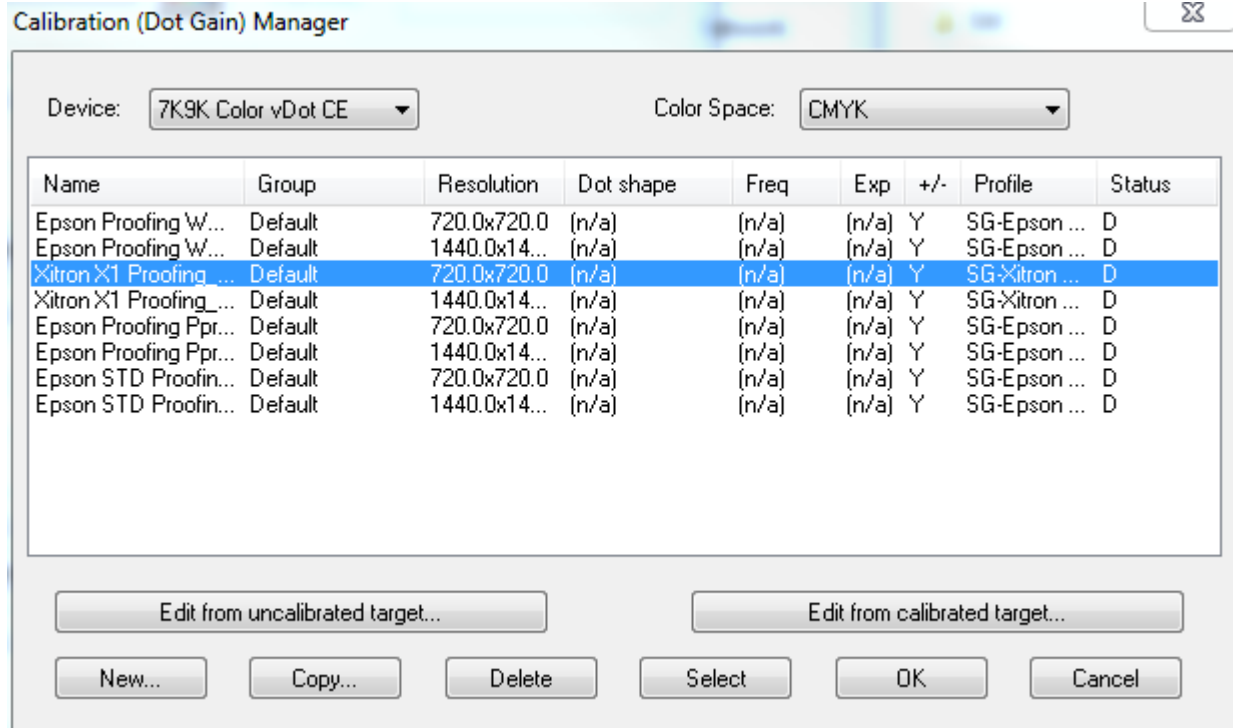
This time, click "edit from calibrated target" and update the values with those you read.
This brings your printer in line with the reference printer and gives you the same results achieved in our color laboratory.

For more information on how to do this manually as well as automatically, read the RIP User Guide, Chapter 12 and the RIP User Guide Appendix C. These will give you information about the Calibration Manager and about the GenLin utility.

Appendix – SetGold Linear Calibration and ICC profile cross reference

When you correctly install an ICC profile into a Harlequin RIP, you can either install it against a default "Linear" state or you can choose a linear calibration made specifically of the reference printer.
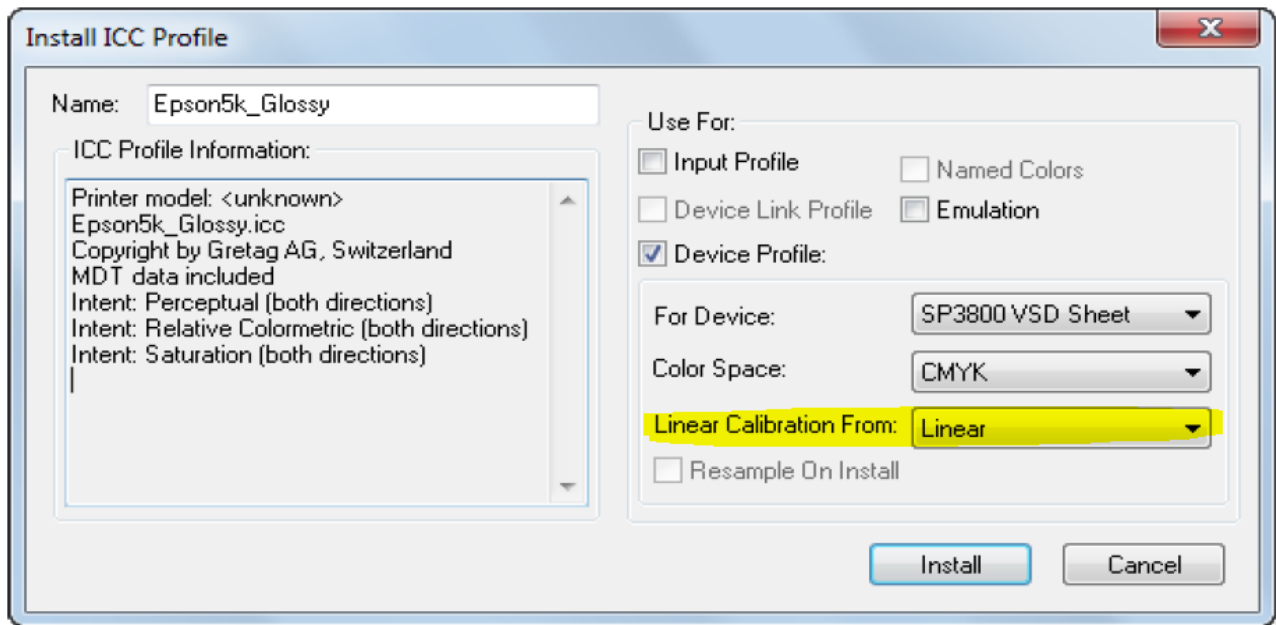
See the ColorPro guide for details.
The profiles that ship with vDot5 were installed against the SetGold profiles you see cross referenced below. Should you wish to recalibrate a printer to account for some drift this information may be useful.

SC-P6000 and SC-P8000

SetGold profile name	ICC Profile Name
SG-6K8K 720 Epson STD Proofing	6k8k_Epson STD Proofing_720.icm
SG-6K8K 1440 Epson STD Proofing	6k8k_Epson STD Proofing_1440.icm
SG-6K8K 720 Proofing Commercial	6k8k_Epson Proofing Ppr Comm_720.icm
SG-6K8K 1440 Proofing Commercial	6k8k_Epson Proofing Ppr Comm_1440.icm
SG-6k8k 720 Epson Proofing Paper Wh SM	6k8k_Epson Proofing WhSM_720.icm
SG-6k8k 1440 Epson Proofing Paper Wh SM	6k8k_Epson Proofing WhSM_1440.icm
SG-6K8K 720 X1 Proofing Media	6k8k_Xitron X1 Proofing_720.icm
SG-6K8K 1440 X1 Proofing Media	6k8k_Xitron X1 Proofing_1440.icm

SC-P 7000 and 9000 Commercial Edition (CE)

SetGold profile name	ICC Profile Name
SG-Epson Proof Ppr Comm_720	7k9kCE_Epson Proofing Ppr Comm_720.icm
SG-Epson Proof Ppr Comm_1440	7k9kCE_Epson Proofing Ppr Comm_1440.icm
SG-Epson Proofing WhSM_720	7k9kCE_Epson Proofing WhSM_720.icm
SG-Epson Proofing WhSM_1440	7k9kCE_Epson Proofing WhSM_1440.icm
SG-Epson STD Proofing_720	7k9kCE_Epson STD Proofing_720.icm
SG-Epson STD Proofing_1440	7k9kCE_Epson STD Proofing_1440.icm
SG-Xitron X1 Proofing_720	7k9kCE_Xitron X1 Proofing_720.icm
SG-Xitron X1 Proofing_1440	7k9kCE_Xitron X1 Proofing_1440.icm

SC-P 7000 and 9000 Standard Edition (SE)

SetGold profile name	ICC Profile Name
SG-Epson Proof Ppr Comm_720	7k9kSE_Epson Proofing Ppr Comm_720.icm
SG-Epson Proof Ppr Comm_1440	7k9kSE_Epson Proofing Ppr Comm_1440.icm
SG-Epson Proofing WhSM_720	7k9kSE_Epson Proofing WhSM_720.icm
SG-Epson Proofing WhSM_1440	7k9kSE_Epson Proofing WhSM_1440.icm
SG-Epson STD Proofing_720	7k9kSE_Epson STD Proofing_720.icm
SG-Epson STD Proofing_1440	7k9kSE_Epson STD Proofing_1440.icm
SG-Xitron X1 Proofing_720	7k9kSE_Xitron X1 Proofing_720.icm
SG-Xitron X1 Proofing_1440	7k9kSE_Xitron X1 Proofing_1440.icm