



HARLEQUIN® SERVER RIP

vDot4 plugin for Epson variable dot 8-color printers

Version 4.10

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vDot4 plugin

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vDot4 plugin for Epson printers

Note to OEMs:

This document is presented for inclusion in end-user documentation such as a manual based upon the *Harlequin RIP OEM Manual*, or for use as a supplement to that manual. You may wish to change the introduction to this document to suit the presentation you choose. (Notes like this one are not meant for onward publication to end-users. They give information of interest only to staff at GGSL and its OEMs.)

1 Introduction

This manual describes the Harlequin RIP™ vDot4 plugin for Epson Variable Dot 8-color printers.

The vDot4 plugin provides high quality proofing capability to Global Graphics Harlequin RIPs driving Epson Variable Dot printers.

To use the vDot4 plugin read this documentation to understand the procedures involved with successful use of this product. This manual guides you through the installation procedure and describes how to print test output jobs from your RIP on a color printer.

Pre-calibrated color is available for the Epson “Ultrachrome HDR” Ink Set only. Users of other ink sets must provide their own calibration and color management profiles.

2 Supported printers and media

This sections describes the printers and media supported.

2.1 Printers

The vDot4 plugin supports the following Epson Variable Dot 8-color printers: Epson Stylus Pro 4900, 7890, 7900, 9890, 9900.

2.2 Media

There are many types of media marketed for use with ink jet printers from various printer manufacturers and other third party vendors. Many of these media have similar names which can be confusing. For example Epson’s Photo Quality Glossy Paper, Glossy Photo Paper and Photo Glossy Paper are all different products with different characteristics, while Epson’s SemiGloss Paper-Heavy Weight and Semigloss Photo Paper are in fact the same product, sold under different names in different locations.

The vDot4 plugin includes a library of calibrations for specific media, and accurate results are only possible if the correct medium is used.

3 System requirements

To use the vDot4 plugin you must have a Harlequin RIP that meets the requirements listed below. Assuming the RIP is operational, you must resolve any outstanding RIP issues before installing the

plugin. This manual only describes the additional information required for the vDot4 plugin, and does not attempt to cover all of the RIP features and requirements.

To operate correctly the vDot4 plugin requires the following system resources:

- v8.0 or later Harlequin Server RIP.
- A Windows Server 2003 and 2008, Windows XP Pro, Windows Vista or Windows 7 equipped 32 or 64-bit PC.
- 1 GHz recommended.
- Minimum 2 GB RAM.
- 2 GB free disk space.
- The correct Epson Windows printer driver.
- Connection interface, either:
 - Ethernet supporting TCP/IP
 - USB 2.0 (USB 1.1 compliant)

4 Installation

This section describes how to add the vDot4 plugin to the Harlequin Server RIP.

4.1 PC platform installation

Use this section to correctly install the PC platform.

4.1.1 Check your RIP configuration

Use the Harlequin RIP > About Harlequin RIP menu selection to check the version of your RIP. The vDot4 plugin requires version 8.0 or later. If your version is older, please contact your supplier for an upgrade. The upgrade must be installed and configured with your imagesetter before continuing to install the plugin.

4.1.2 Epson Windows driver

Before continuing, install the Epson Windows printer driver for your printer model and output a test page through the driver.

Epson posts the latest drivers on their web site at:

<http://www.epson.com>.

This manual assumes that you have installed the driver that applies to your printer(s), and that its name is "EPSON Stylus Pro 4900", "EPSON Stylus Pro 7890 or 9890", "EPSON Stylus Pro 7900 or 9900", as appropriate. (You can use other names if you wish, provided that you configure the RIP for the correct name, as described later in this manual.)

4.1.3 Configure and test the Windows printer driver

To configure and test a Windows printer driver, proceed as follows (this example shows the Stylus Pro 7900 and 4900):

1. Click Start and select Devices and Printers or Printers and Faxes.

- Highlight the item EPSON Stylus Pro 7900 (for example), right click and select Printer Properties. This displays the following dialog:

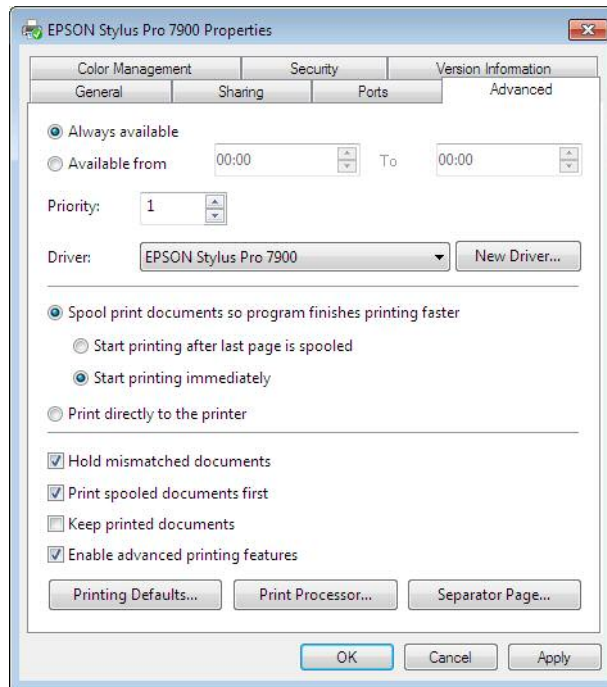


Figure 1 Windows printer Advanced tab

- Select the Advanced tab.
- Select Spool print documents.... For maximum throughput (proofs-per-hour) select Start printing after last page... For the shortest time to process individual proofs, select Start printing immediately.
- Select the Ports tab.

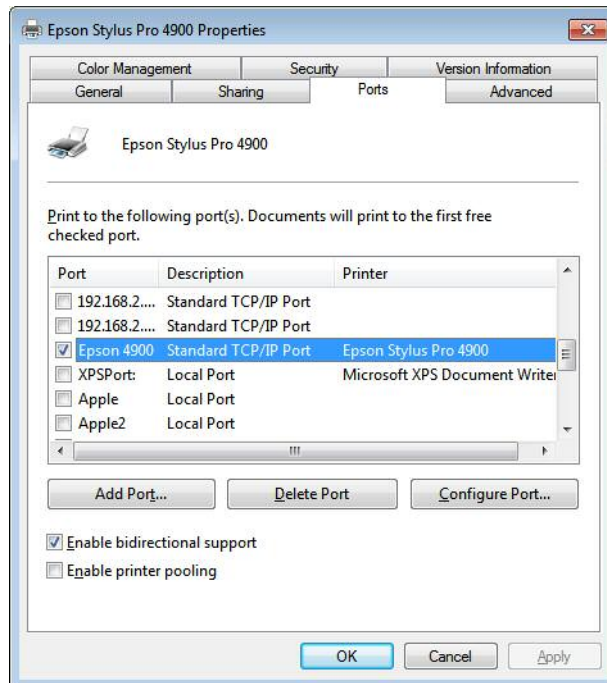


Figure 2 Windows driver Ports tab

6. Ensure the port shown is your preferred connection method. The Epson drivers provide flexibility of interconnection by using any method supported by the Windows printer driver. In this example a TCP/IP port is shown.
7. Select the **General** tab and click **Print test page** to test the Windows driver, printer and connection method. Resolve any problems at this stage before installing the plugin or launching the RIP. If you experience any difficulties at this stage, consult your Epson documentation and Epson on-line help resources.

4.2 Install the vDot4 plugin

To install the plugin:

1. Double-click the file **vDot4.exe**. Select **Next >** to move forward to the next screen. Use **<Back** to return to a previous screen. Click **Next >** to display the Destination folder dialog.
2. Select the folder containing the Harlequin RIP which you want to use this plugin:

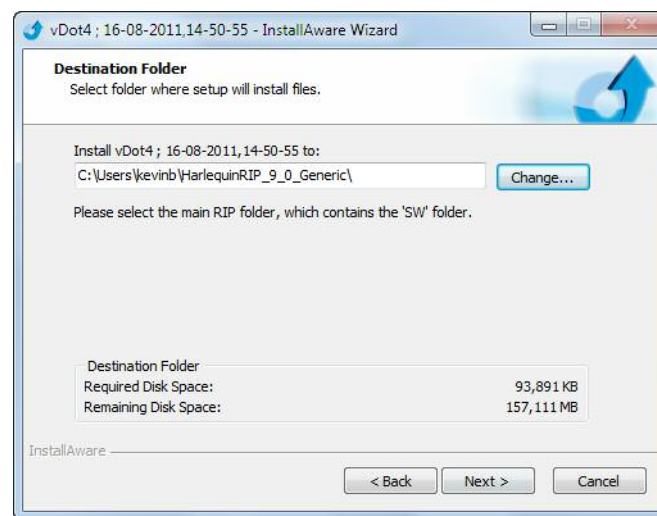


Figure 3 Destination folder screen

3. Ensure the Destination folder screen displays the correct location for the RIP to which you are installing the plugin. If it is not correct, use the **Change...** button to locate the correct folder and click **Next >**.

Note: If the location selected is not a valid Harlequin RIP folder, the installation wizard will not move on to the next dialog.

4. When the Confirmation dialog is displayed select **Next >** to start the install. The installer copies the plugin and support files to the RIP, for Epson Stylus Pro 4900, 7890, 7900, 9890 and 9900 printer models. During this process progress information is displayed.
5. When the installer has finished a completion dialog is displayed. Click **Finish** to exit.

The installer creates a folder called **vDot4** containing **Uninstall vDot4** in **Start > All Programs**, should you wish to uninstall the plugin at a later date.

4.3 Enabling plugins in the Harlequin RIP

After installing the plugin files into your RIP, you must enable them in the Configure RIP Extras dialog before they can be used. To do this you will need your vDot4 plugin password, as supplied to you, as well as passwords for the ColorPro color management options which may be required.

To enable the vDot4 Plug plugin and color management in the RIP, do the following:

1. Select Harlequin RIP > Configure RIP > Extras, to open the Configure RIP Extras dialog (Figure 4).

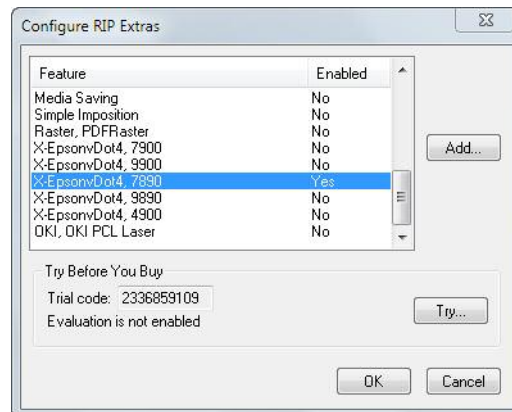


Figure 4 Configure RIP Extras dialog

2. From the list of RIP extras that are available, select X-EpsonvDot4, XXXX and click Add (where XXXX is the model number of the printer).
3. In the Enable Feature dialog (Figure 5), enter your vDot4 plugin password and click OK.

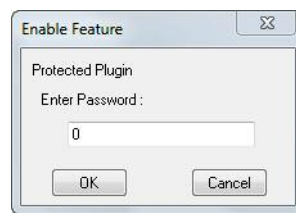


Figure 5 Enable Feature password dialog

The vDot4 plugin is now enabled in your RIP, as indicated by **Enabled Yes** in the Configure RIP Extras list.

4. If it is not already enabled and you want to use the ICC profiles made by the printer, you must enable Harlequin ColorPro in your RIP. Choose the appropriate option from the list, click Add and enter your ColorPro password.
5. When you have finished enabling the new RIP features click OK to close the Configure RIP Extras dialog, and OK again to close the Configure RIP dialog.

You can now create page setups which use the vDot4 devices to process jobs for the various supported Epson printers.

5 Set up the RIP for proofing

Now that your vDot4 plugin is installed and enabled for use, you need to configure certain options in the RIP. These options are divided into: [RIP memory settings](#), [Device Manager settings](#) and [“Creating a Page setup” on page 6](#).

5.1 RIP memory settings

To configure the memory allocations for the RIP:

With the RIP running select Harlequin RIP > Configure RIP > Options and ensure that the Memory for RIP and Allow use of all available memory options are not checked, and that the Memory reserve for RIP option displays 0.

For the Minimum memory left for system (previously called Memory reserved for system) set it to 256 MB (by entering 256000).

In the Configure RIP dialog set the Printer buffer enter 20000 Kb.

Close the dialogs by clicking OK and re-start the RIP.

5.2 Device Manager settings

The Device Manager allows you to select and name the output devices you will be using in the RIP. Select Harlequin RIP > Device Manager. The Plugin drop-down menu lists the names of the installed plugins. Check that the box shows the correct entry for the vDot4 plugin, **EpsonVDot4.i32**.

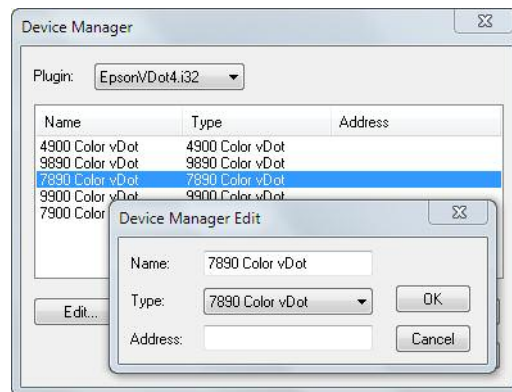


Figure 6 Device Manager dialog

Some entries may already be completed. If so, leave these, or re-name them to something you prefer. If you plan on using the pre-configured calibration and color management features of the vDot4 plugin, you must ensure that the Name you use is identical with the Type chosen, as in the example in Figure 6. You must have at least one Name entry for each different printer.

The Color vDot device is a standard high-quality color device type using variable dot error diffusion screening, suitable for Sheet or Roll fed media.

The next step is to configure specific details necessary to produce output.

6 Creating a Page setup

This section describes the creation of one or more Page setups for your printer. A Page setup includes settings for printer, resolution, connection method, print quality and media selection (which also sets calibration and color management).

The required items are described below:

1. Select Harlequin RIP > Page Setup Manager, to open the Page Setup Manager (Figure 7).

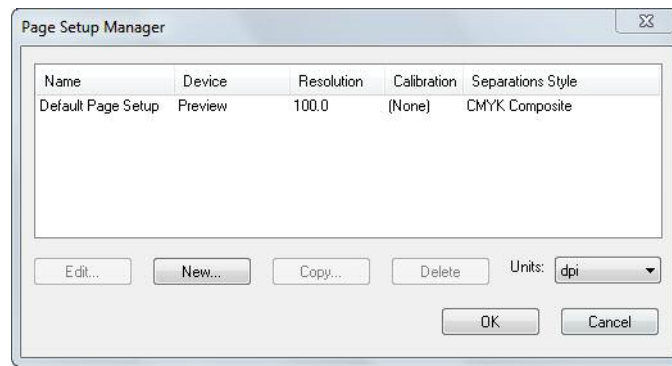


Figure 7 Page Setup Manager

2. In the Page Setup Manger, click New to create a new page setup (or Edit to amend an existing page setup), to open the New/Edit Page Setup dialog (Figure 8).

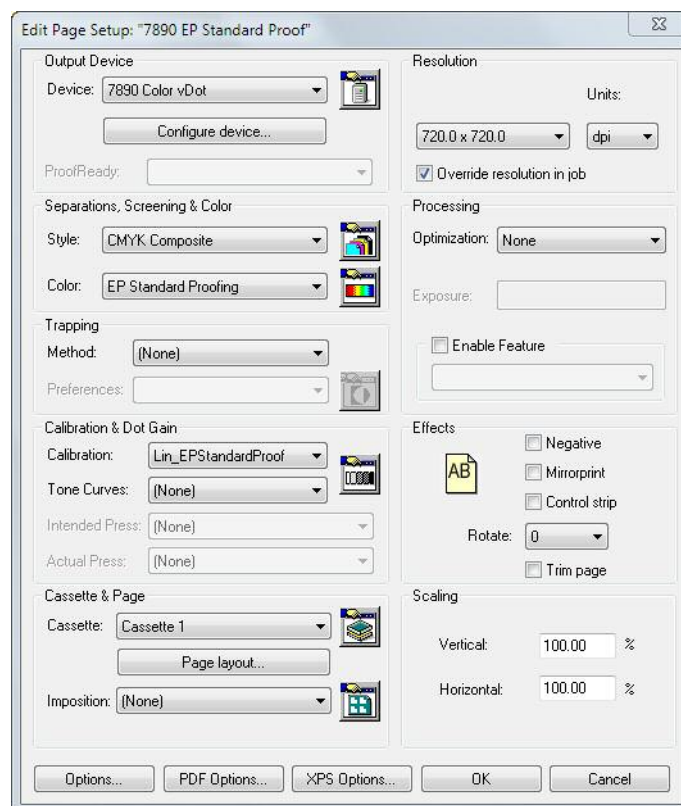


Figure 8 Page Setup dialog

6.1 Printer model

Choose the printer model and mode for this Page setup, by selecting the Devices drop-down menu. In this example the printer type 7890 Color vDot is selected.

6.2 Page setup controls

In the main page setup dialog you can choose the RIP resolution (but not Plotter resolution, which is set when you select your media in configuration, see [“Output media and plotting resolution” on page 10](#)), image orientation, scaling, calibration and color management.

For further details about the settings in the Page setup dialog, see the Harlequin RIP User’s Guide.

6.3 RIP resolution

Select the RIP resolution in the top right corner of the Page Setup dialog. In [Figure 8](#) the normal resolution for high quality proofs, 720 by 720 dpi is selected.

Note: When the Harlequin RIP drives a plotting device such as an ink jet printer, the term resolution has two distinct uses. This is because the RIP first processes the incoming data into a continuous tone raster at a specified resolution, called the “RIP resolution”, and then in a second process at output time the continuous tone data is screened and output on the printer at (maybe) a different resolution, called the “plotter resolution”.

6.4 Image orientation and scaling

The controls for orientation and scaling are in the lower right corner of the Page Setup dialog.

Use the controls to change the orientation of the printed image, and to scale it (up or down) in the X and Y axes. The **Trim page** option removes any white space from the top and bottom of the image. The **Control strip** option adds an information slugline to the output, which provides a range of useful information about the job and printing conditions.

6.5 Calibration and color management

Controls for Calibration and Color Management are located on the left side of the Page Setup dialog.

6.5.1 Separation style

Set the **Style** option box to **CMYK Composite**. This is the only option available for the Color vDot devices.

6.5.2 vDot4 Color Management

The vDot4 plugin is pre-configured with calibration for specific media types. The media choice must also match the setting you make in section [“Output media and plotting resolution” on page 10](#).

If you wish to calibrate your individual printer to match the pre-configured calibration state, see [“Calibration” on page 13](#).

You will only get accurate color when using the specified media and the correct resolution, though you may find acceptable results for some applications by using substitutes.

If the RIP is able to detect that you have made an incorrect combination of settings it will warn you when you attempt to process a job. For example, if you select a calibration profile in Page Setup for a different media than that chosen in the Configuration dialog you will see the following warning:

```
Setup loaded: "7890 Color vDot"
Starting Job On Tuesday, September 22, 2010 08:21:48 PM
Using Color Setup "(No Color Management)"
Calibrating for device 'Epson Semimatte Proof'

!! WARNING !! Media type does not match selected calibration profile!
```

Figure 9 Mis-matched profile warning

6.6 Configure the plugin

Ensuring that the correct vDot4 device is selected in the Device field of the Page setup dialog, click the Configure device button to open the vDot4 Device Configuration dialog.

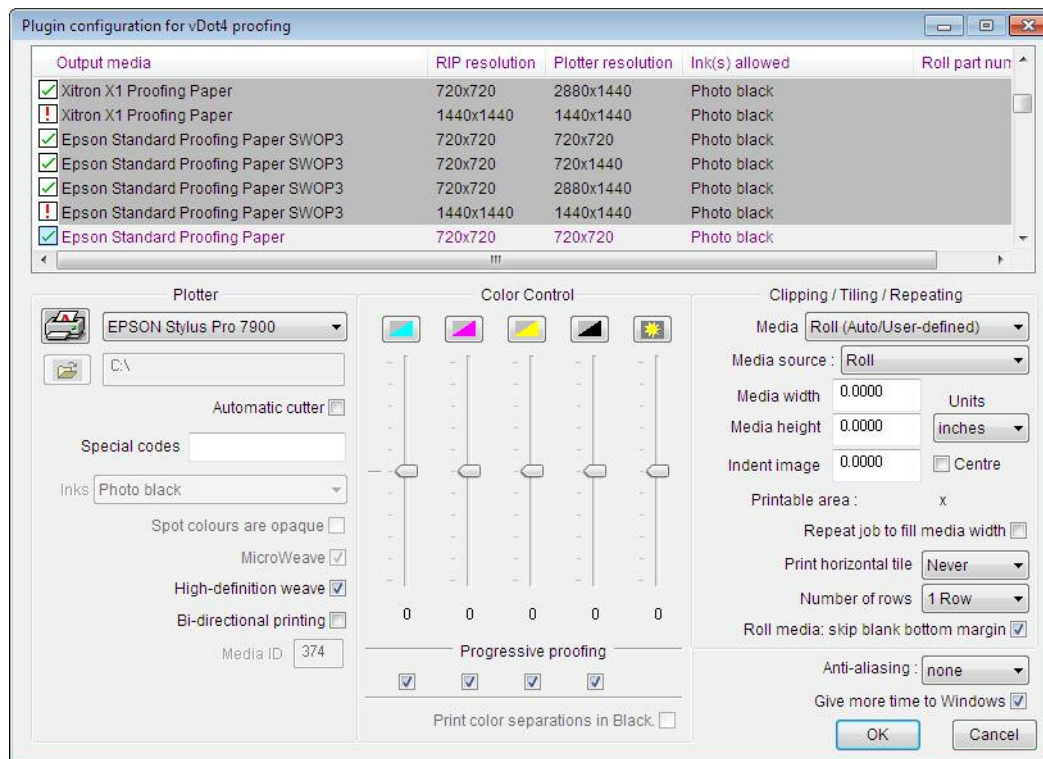




Figure 10 Plugin configuration for vDot4 proofing dialog

Note: Many of the options in this dialog can be changed after the job is processed. To do so, highlight the job in the Active or Held queues in the Output Controller, click Info then Configure device. You will see the same display as Figure 10, but some functions will no longer be available (such as Progressive proofing) because they were processed at the time the job was processed. However, other functions such as Repeat job to fill media width or Print horizontal tile can be selected at this stage, either before the job is printed or before re-printing it, which is done by dragging it back to the Active Queue.

6.7 Output media and plotting resolution

The window at the top of the screen lists the various media types supported by the Epson vDot4 plugin for this printer. Also listed are the various RIP and Plotter resolution options (see [Appendix C, “Notes on media, resolution and color management”](#) for more information), a Media ID value, and typical part numbers for each media type, where known. It is very important that the media is correctly specified as there are numerous settings including color management, ink drop size and speed, ink nozzle control and so on, that vary from one type to another. At the left side of the window are icons for each entry that present useful information as described below:

-  The current RIP Resolution is incorrect for this choice.
-  The current RIP Resolution is correct for this choice.

In most cases, if the RIP resolution is incorrect there will be another choice for the same media with the current RIP resolution. If not, you can still choose the media but you should then change the RIP resolution to the correct value when you exit the Configuration dialog (see [“RIP resolution” on page 8](#)).

Note: Some media types and resolution combinations are not supported when you use Matte Black as an ink choice in certain models (see below). The RIP cannot output if an incorrect combination of media and ink set has been chosen.

Note: If you need to use a media type not listed, see [Appendix C, “Notes on media, resolution and color management”](#).

6.8 Plotter

The section labeled “Plotter” contains entries related to the printer connection. The drop-down menu next to the icon of a printer should display the previously installed Epson Windows printer driver for this printer model. If not, use the drop-down menu to select it now. It is possible to output through another Windows driver but this is not recommended. If you wish to output to a file for printing later, choose File from this list and enter the path and file name in the window below.

Check Automatic cutter if you are using roll media and require a cut after each job.

The Special codes option is reserved for use by Global Graphics technical support staff. Do not enter any information here unless asked to do so by technical support or their representatives. (With some media types you may notice some automatic entries in this field. This is normal.)

The Inks option allows you to select which of two types of black ink are installed on the printer.

The choices available are Photo Black and Matte Black. Changing ink type requires a complex flushing and re-charging process that consumes a substantial amount of ink and time. See your printer documentation for details.

When you select your Output media (see [“Output media and plotting resolution” on page 10](#)) the Ink(s) allowed column identifies which ink set(s) are permitted with the chosen media. If you choose a medium where both Photo and Matte inks are allowed, you can print regardless of ink set, but you may not achieve acceptable quality. If you specify an Ink Set that differs from that actually installed on the printer, the printer may abort the job and report an error.

The remaining controls in this section are inactive unless you select User-defined as your Output Media (see [Appendix C, “Notes on media, resolution and color management”](#) for more information about non-standard media).

The Give more time to Windows option should normally be checked. If your RIP output speed appears slow, and you have at least 512 MB of RAM in your PC, uncheck the box and compare results.

6.9 Color controls

The Epson vDot4 plugin provides two methods of color control; manual and ICC profile. The four sliding controls in the Plugin configuration dialog provide a manual method of color control, but they can also be used to make adjustments when ICC Profile-based color management including vDot4 color management is in use.

The icons at the top of each slider control can be used as a quick way to reset each control to zero. Moving the sliders up or down from zero increases or decreases the particular color channel. The units shown are percentages, so if you set Cyan to +10 all values of Cyan in the image will be increased by 10%. The Brightness control (the right-most slider) changes all ink channels together, to make the overall image lighter or darker.

6.10 Clipping, tiling and repeating

The Epson vDot4 plugin has additional special features for tiling or clipping large images and repeating small ones.

Specify the media type and size by using the **Media** drop-down menu and the **Media width** and **Media height** entries. Also select the correct **Media source** for the chosen media. The options for **Media source** vary from one printer model to another so check the drop-down menu and your printer documentation if you are unsure which source you need to specify.

To use cut sheets, select **Sheets** from the **Media** drop-down menu. Refer to your printer manual for details of permissible sheet sizes and thicknesses.

Print horizontal tile controls the tiling system. When set to **Never**, only one print is made from each job. If the job is too wide for the media it is clipped to the value displayed in **Media width**. To print only part of the job, enter the width to which you wish the job clipped in the **Media width** box.

If **Print horizontal tile** is set to **All**, the system will create as many tiles as necessary to output the job. Each tile will be the full height of the job (assuming roll media), and the width will be equal to the value entered in the **Media width** box. To print one tile at a time, **Print horizontal tile** can be set to the tile number required. Tiles are numbered from left to right, and overlap by approximately 0.5 inches.

The **Repeat job to fill media width** check box controls step-and-repeat printing. This box is only available when **Print horizontal tile** is set to **Never**. If the box is checked, jobs are repeated as many times as they will fit across the available media width, as set in the **Media width** box. For example, if **Media width** is set to 35.6 inches (when using 36 inch roll media) and an 8.5 inch-wide job is processed, the job is repeated 4 times across the width of the roll. If more copies are required the **Number of rows** option can be set to any value up to 10, which will yield a total of 40 copies in this example.

The **Indent image** check box moves all images across the media from the origin point in cases where blank space is needed to the left of the image.

The **Centre** check box sets the margins to place the image in the center of the width of the media.

The **Units** drop-down menu sets the measurement unit for all of controls to Inches, MM or Points as required (based on the Units setting of your Windows 2000 installation).

6.11 Progressive proofing

This special feature is primarily for printers running four-color jobs on two-color presses. The system can create a proof that simulates the job after the first pass through the press, helping to ensure that when the final two colors are added the result is correct. The system is simple and flexible, and enables any combination of one, two or three colors to be printed as required.

Note: Due to limitations in RIP processing, progressive proofs are not color managed as accurately as full color composite proofs.

To use the feature, uncheck the boxes for the colors that you do not wish to print, and check again to turn that color back on. When a color is off, its icon is shown with a cross.

Note: Progressive proofing is incompatible with several standard Page features such as Crop Marks and Imposition. If you are using Progressive proofing do not use Page features.

When your configuration is correct click **OK** to return to the Page Setup dialog.

Click **Save As** and give your new Page setup a useful name (or **OK** if you are editing an existing Page setup).

7 Testing the vDot4 plugin installation

Once you have selected or created a Page setup you can output a sample job.

1. Select **Output > Output Controller**.
2. Check the **Disable output** option on the Output Controller dialog.
3. Select **Harlequin RIP > Print File**.
4. In the Page Setup drop-down menu select the Page setup you created for the vDot4 plugin
5. Browse the system for a suitable PDF test file and click **Print**.

7.1 Info and ROAM functions

When the RIP processes the file it appears in the Output Controller as shown in figure 5.1.

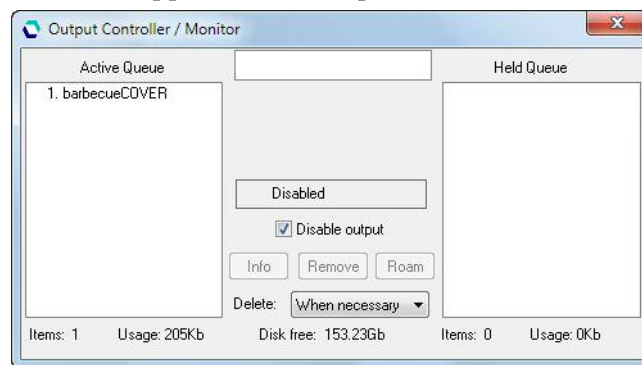


Figure 11 The Output Controller

With the job highlighted, click **Info** and check the size, orientation, printer type and so on. Take particular note of the width and height of the job and make sure it is within the limits of your printer. (You can often save media by setting rotation in the Page Setup dialog, for more information see [“Image orientation and scaling” on page 8.](#)) Click **Roam** to see an on-screen preview of the job before outputting it.

When the ROAM window is displayed select **Roam > Reduced Roam** to view a reduced scale ROAM view.

Note: Some of the colors in the ROAM view can appear incorrect. This is because you are viewing image data which is color managed for the specified printer, ink and paper combination and these adjustments typically look incorrect when viewed on an RGB monitor.

7.2 Printing

After viewing, close the Roam windows and uncheck the **Disable Output** box to release the job for output.

As the job outputs a progress bar is displayed in the Output Controller indicating the proportion of the job output.

Depending on your Windows Printer driver settings (see [“Configure and test the Windows printer driver” on page 2](#)) it may take several seconds before the printer starts to output. If the printer does not start to output after one to two minutes, check the output controller for error messages and see [Appendix B, “Troubleshooting”](#).

8 Calibration

The vDot4 plugin is supplied with a number of calibration curves for specific media and resolution. These curves are created with reference printers of the same type that the plugin is intended to support.

In many cases printers will have characteristics so similar to the reference printers that no additional steps are needed to get good quality output. However, it can be helpful to calibrate your printer to compensate for differences between it and the reference machine.

8.1 Tools and materials

The RIP includes facilities for interfacing an automatic strip reading measurement instrument such as the X-Rite DTP-41. However, for occasional calibration you can also use any quality instrument capable of reading color densities in Status T format.

Note: The DTP-41 is not only able to measure color densities required for calibration, but it is also a spectrophotometer which is a required to create ICC profiles.

You will require a good supply of media. Note that the RIP can only be calibrated for media listed in [Appendix A, “Inks and media”](#)—for which Global Graphics provides internal calibration targets. To create an initial calibration curve for other media types requires the use of additional tools not provided with the vDot4 plugin.

8.2 Printing a target

This step is essential and cannot be omitted.

Start by ensuring that you have created a Page setup with the correct settings for the calibration targets. The Color drop-down menu box will display vDot4 and Calibration should show None. This example describes how to calibrate an Epson 7890 using Epson Standard Proofing Paper at 720 dpi. A suitable Page setup called 7890 Color vDot is created for this purpose.

1. Select Output > Print Calibration. The following dialog is displayed.

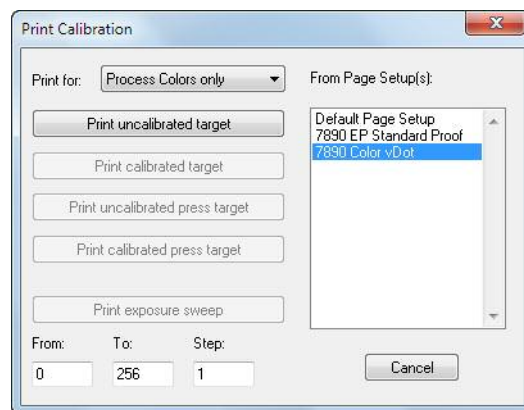


Figure 12 Print Calibration

2. Highlight the correct Page setup, and click **Print uncalibrated target**. The RIP will generate a special four-color target which you should print on the correct media type.

8.3 Measuring the target

Once the target is printed it must be measured.

8.3.1 Using Genlin

If you do not have a strip-reading densitometer such as the DTP-41 supported by Genlin, and you wish to use a manual Status T densitometer, skip this section and go to [“Entering measurement data” on page 15](#).

1. If you have the DTP-41 or similar instrument, use the Genlin application installed with your RIP. Locate the Genlin application (**genlintool.exe**) inside the RIP folder and launch it.
2. Select **File > Configure** from the menu bar. To display the following dialog:

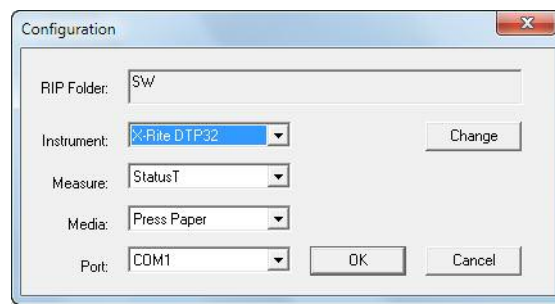


Figure 13 Genlin Configuration dialog

3. Use the **Change** button to locate the RIP you are calibrating. Highlight the **SW** folder within the RIP folder before clicking **OK**.
4. Use the **Instrument** drop-down to select the correct model of your measuring device.
5. Set **Measure** to **Status T**,
6. Set **Media** to **Press Paper**.
7. Set the **Port** to the serial port to which you've connected the measurement device.
8. Click **OK** to close the configuration dialog.
9. Select **File > Read Target**. A box with one or more Reference Numbers is displayed. Each time the RIP generates a calibration target it records the details in a database and gives each target a Reference Number. This number is printed on the target. Check the target printed in [“Printing a target” on page 13](#). Note the Reference Number and highlight the correct number in the list. Then click **OK**.
10. Verify in the next screen that Genlin is expecting to read the correct number of colors for this target, and click **Read**. For each color strip, Genlin displays a confirmation prompt.
11. Arrange the target in the direction of the arrow with the first (Cyan) strip under the measuring head and slide the target under the head until it stops. Click **OK** and feed the target gently through the reader.
12. Repeat this process for each of the four colors, after which Genlin will display a message indicating that the RIP may now import the linearization data. Click **OK**.
13. Genlin has placed a file of measurement data in the RIP folder ready for the RIP to import.

8.3.2 Entering measurement data

1. From the Harlequin RIP select **Output > Calibration Manager**. The following dialog appears:

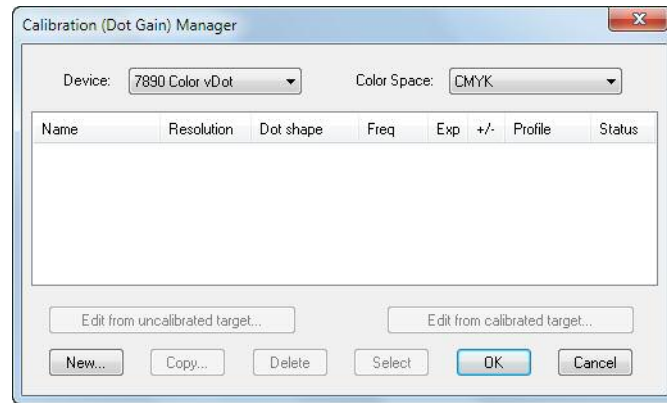


Figure 14 Calibration Manager

2. In the **Device** drop-down menu, select the device that you are calibrating. This must be the same device name as was selected in Page setup when you printed the Calibration Target.
3. Click **New**. The following dialog appears:

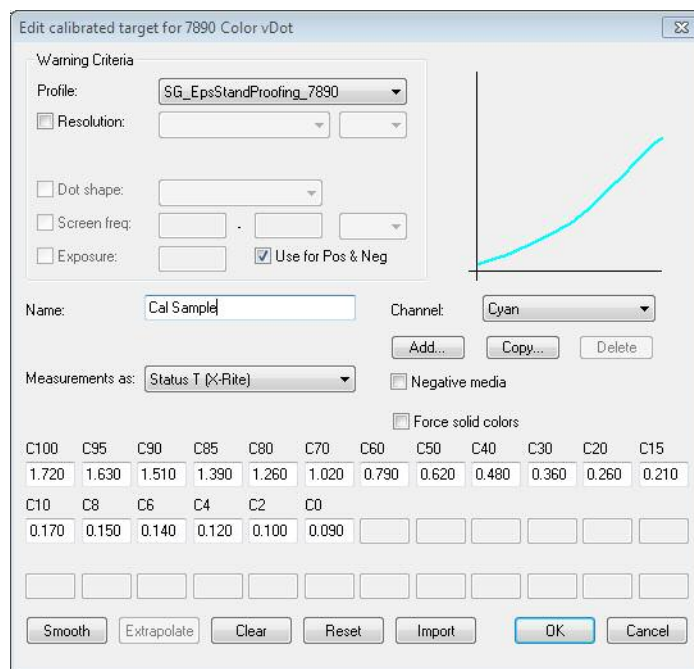


Figure 15 Edit calibrated target dialog

Profile

Use this drop-down to select the same Calibration profile that you chose in Page setup, which must match the media. This underlying Calibration profile provides the target information (aim curve) against which you will calibrate the printer.

Name

Enter a convenient name for this calibration set.

Resolution

Calibration is only accurate at one resolution, so select the same resolution as selected in Page setup. A warning is displayed in the RIP monitor, should you attempt to use it at a different resolution.

8.3.3 Entering measurement data—manual

If you are using a hand-held densitometer make sure it is set to the Status T response curve.

Measure the density values for each Cyan patch on the target and enter these values in the boxes. When you have finished entering the Cyan data, select another color in the Channel drop-down, and repeat until all four sets of values have been entered. When completed click OK.

8.3.4 Import data from strip reader

If you used Genlin to create an import data file as described in [“Using Genlin” on page 14](#), and click the Import button.

The Import Measurements dialog box shows a list of the four color channels contained in the import data file. Click Import.

The RIP will immediately import all the data values and change the numbers in all the boxes for all four colors. Click OK to save the Calibration set.

8.4 Using the new calibration set

Close the Calibration Manager and return to the Edit Page Setup dialog. If you open the Calibration drop-down menu you will now see your new calibration set is available for use.

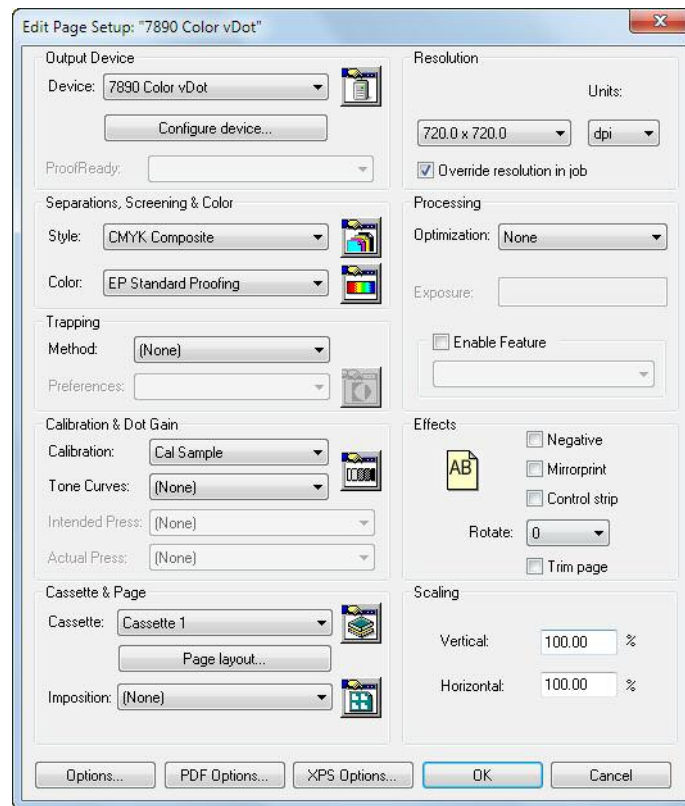


Figure 16 Page Setup dialog displaying new calibration

Since the new calibration set is based on the originally supplied calibration profile, the color management settings and performance do not change.

Appendix A – Inks and media

There are many types of media being marketed for use with ink jet printers, from various manufacturers, graphic arts suppliers and other third-party vendors.

Many of these media have very similar names, and in some cases, several media from one supplier can have almost identical names. For example, Epson's Photo Quality Glossy Paper, Glossy Photo Paper and Photo Glossy Paper are all different products with different characteristics, while Epson's SemiGloss Paper-Heavy Weight and Semigloss Photo Paper are in fact the same product, sold under different names in different locations.

The vDot4 plugins include a library of color profiles and calibrations for specific media. Accurate results are only possible if the correct media is used.

In addition to the correct media, the correct ink set is essential for accurate results.

1.1 Supported ink sets

Stylus Pro 7900, 9900

Epson Ultrachrome HDR Cyan, Magenta, Yellow, Photo Black, Light Cyan, Light Magenta, Light Black, Light Light Black, Orange, Green.

Stylus Pro 4900

Epson Ultrachrome HDR Cyan, Vivid Magenta, Yellow, Photo Black, Light Cyan, Vivid Light Magenta, Light Black, Light Light Black, Orange, Green.

Stylus Pro 7890, 9890

Epson Ultrachrome K3, comprising Photo Black, Light Black, Light Light Black, Cyan, Light Cyan, Yellow, Vivid Magenta, Vivid Light Magenta.

Appendix B – Troubleshooting

Printer Not Ready

Check to make sure that the printer says “Ready” on the display, and that no ‘ink empty’ lights or ‘paper empty’ lights are lit, then re-start the device. If this does not solve the problem, check to make sure that your connection method is set up properly. See [“Creating a Page setup” on page 6](#) for more information about connection methods.

When using network connection, I get a communication error when printing

Follow Epson’s instructions to make sure your Windows driver is installed and working properly. Verify you can print a test page from Windows before trying to use the RIP.

I can’t configure my RIP to print with Firewire

Firewire can be used (with the Epson Firewire option, where it is not supplied as standard). Again, the Windows driver and Epson Firewire software must be installed and working before using the RIP.

Paper White looks yellow

Epson’s paper stocks are very bright compared with most input samples you might be trying to match. Try turning off “Fill background with paper color of input job” in your color setup. For more information see the ColorPro user manual. Alternatively, try to use a paper stock with a white that is the same color or slightly darker than the paper white of that which you are trying to match.

Streaks/lines on output

Usually, streaks or lines in your output are caused by poor print head alignment or clogged nozzles. You should use the Epson Windows driver Utility software to perform a head cleaning or print head alignment. Occasionally more extreme cleaning is required and can be performed by an Epson technician.

Some third-party inks have been found to clog Epson print nozzles. Use of third-party inks is not recommended by Epson, nor are stock color profiles supportable with their use.

Can I use TrapPro with Epson printers?

Yes. All supported devices work well with TrapPro.

I get an error using a Page feature with Progressive proofing (Epson vDot4)

This is the result of an incompatibility between the Progressive proofing system and the RIP’s Page feature mechanism. If you get an error when combining Progressive proofing with a Page feature then you must disable the Page feature.

I get a resolution mismatch error when I print.

The RIP will generate a warning if the built-in profiles do not match Media ID, RIP or Plotter resolution. Some of the pre-installed color setups will cause the RIP to post a “resolution mismatch” error message. The jobs will output without stopping and they will not be affected in any way. This message should be ignored.

Appendix C – Notes on media, resolution and color management

Media selection

The Configuration dialog discussed in “[Creating a Page setup](#)” on page 6 includes a list of media types. For each media there are several entries, with different combinations of RIP and Plotter resolutions. The reason for these different entries is that the vDot4 driver has to make a number of adjustments depending on the combinations of RIP and Plotter resolution. These adjustments include setting ink droplet size, print head speed, maximum ink level and the interweaving of scan lines. Most of these adjustments are encapsulated in a single Media ID variable, for example Epson Photo Glossy Paper is Media ID 44.

The system of ink control is so sophisticated that for many purposes, provided the correct Media ID is selected, accurate and correct proofs can be generated with only minor manual adjustments rather than implementing a full ICC color management configuration. For this reason we strongly recommend using one of the many alternative standard Media Types. Remember that a non-standard medium is not only unknown to the vDot4 plugin, but also unsupported by Epson.

Using non-standard media

If you are forced to use a non-standard medium, significant experimentation is required to establish a suitable Media ID and other settings.

Create a test job containing Cyan, Magenta, Yellow and Black step wedges from 5% to 100%, and a number of patches of Super Black with total ink levels from 100 to 300% containing reversed out (white) type of around 6 pt.

Print this test job under your intended conditions of use (for example, RIP at 720 dpi, plot at 720 by 720 dpi) with a range of different standard media selected. You do not have to try all combinations—if your medium is glossy, only try glossy and semi-glossy options; if your medium is matte, only try matte and semi glossy options, and so on. You will be able to reject many samples on grounds of ink run on the surface, or the reverse type being illegible at total ink coverage of only 150%, (for example). The goal is to find a media option that produces clean prints that dry quickly and have reversed type visible all the way to 300% (because the chosen settings are preventing total ink coverage from exceeding a safe value regardless of the job). Measure the reflection density of the 100% patches of each color and select the settings that provide maximum density without over-inking. If you cannot find a standard media setting that meets these requirements then the medium is probably not suitable for use with the Epson Stylus Pro 4900/7890/7900/9890/9900 series.