



Epson vDot Plugin Install and Reference Guide

**For use with Navigator RIPs on
Windows 2000**

Revision log
RIP 5.5r1
Epson vDot 3.04e(ii)

Part Number 101-0009-007

Copyright © 2002 by Xitron, Inc.

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the prior written permission of Xitron, Inc.

The information in this publication is provided for information only, is subject to change without notice, and should not be construed as a commitment by Xitron, Inc. Xitron assumes no responsibility or liability for any errors or inaccuracies that may appear in this publication. The software described in this book is furnished under license and may only be used or copied in accordance with the terms of that license.

Windows and Windows NT are trademarks of Microsoft Corporation.

Harlequin is a registered trademark of Harlequin Limited.

Navigator is a registered trademark of Xitron Inc.

Other brand or product names are trademarks of their respective owners and are used without intention of infringement.

Contents

Foreword	vii
Chapter 1: Supported Printers & Media	1
1.1 Printers	1
Variable Dot 6 color printers.....	1
Variable Dot 7 color printers.....	1
1.2 Media	1
Chapter 2: Installation	3
2.1 Configuration Requirements	3
Navigator NT	3
2.2 Windows 2000 Platform Installation.....	3
2.2.1 Check Your RIP Configuration	3
2.2.2 Epson Windows Driver.....	4
2.2.3 Firewire	4
2.2.4 Configuring and Testing the Windows Printer Driver.....	4
2.2.5 High Speed Parallel Card	6
2.2.6 Install vDot Plugin	6
Chapter 3: Setup RIP for Proofing	9
3.1 Introduction to Setup.....	9
3.2 Memory Settings	9
3.3 Feature Passwords.....	10
3.3.1 RIP Passwords.....	10
3.3.2 Plugin Passwords.....	11
3.4 Device Manager Settings.....	12

- Chapter 4: Creating a Page Setup – Configuration Choices 15**
 - 4.1 What’s Involved 15
 - 4.2 Printer Model 16
 - 4.3 Note on Resolution 17
 - 4.4 Page Setup Controls 17
 - 4.4.1 RIP Resolution..... 17
 - 4.4.2 Image Orientation and Scaling 17
 - 4.4.3 Calibration and Color Management..... 18
 - Separation Style 19
 - Calibration (with color management)..... 19
 - 4.5 Configure The Plugin 20
 - 4.5.1 Output Media (and Plotting Resolution) 21
 - 4.5.2 Plotter 22
 - 4.5.3 Color Controls..... 23
 - 4.5.4 Clipping, Tiling and Repeating 23
 - 4.5.5 Progressive Proofing 24
- Chapter 5: Testing your vDot Installation..... 26**
 - 5.1 Printing a Test File..... 26
 - 5.2 Info and ROAM functions 26
 - 5.3 Printing 28
- Chapter 6: Creating Appletalk Input..... 29**
 - 6.1 Introduction 29
 - 6.2 Create Input Channel 29
 - 6.3 Using the Input Channel 30
- Chapter 7: Calibration..... 31**
 - 7.1 Introduction 31
 - 7.2 Tools and Materials Needed 31
 - 7.3 Printing A Target..... 32
 - 7.4 Measuring the Target 33
 - 7.4.1 Using Genlin 33
 - 7.5 Entering Measurement Data 35
 - 7.5.1 “Profile” 36
 - 7.5.2 Name 36
 - 7.5.3 Resolution 37
 - 7.5.4 Enter Data (Manual) 37
 - 7.5.5 Import Data From Strip Reader 37

7.6 Using the new Calibration Set.....	38
Chapter 8: Using The Halftone Option	39
8.1 Enabling the Halftone Option.....	39
8.2 How to Setup the Halftone Devices	39
8.2.1 Create Page Setup.....	39
8.2.2 Screen Ruling.....	40
8.2.3 Dot Shape	40
8.2.4 HPS Options	40
8.2.5 Pre-separation Options	41
8.2.6 Angles and Plate Settings.....	42
8.2.7 Spot Colors	42
8.3 Rip and Plugin Configuration.....	42
8.4 Using Color Halftoned Devices.....	42
Chapter 9: HIPP Color Management System	45
9.1 Introduction	45
9.2 About HIPP	45
9.2.1 Input and Output Profiles	45
9.2.2 Color Gamut.....	46
9.2.3 “In Job” Color Management.....	46
9.2.4 Custom Profiles and Media.....	46
9.2.5 A Word About Spot Colors.....	46
9.3 Creating an HIPP Color Setup.....	47
9.3.1 CMYK Input Profile.....	49
9.3.2 RGB Input Profile	49
9.3.3 Output Profile	49
9.3.4 ICC Rendering Intents.....	50
9.3.5 Other Controls.....	51
9.4 Using An HIPP Color Setup.....	51
Appendix A: Troubleshooting	53
Printer Not Ready	53
I am using a network connection, but I get a communication error when I try to print to my printer.	53
I can't configure my RIP to print with Firewire.	53
Paper White Looks Yellow	53
Streaks/Lines in Output.....	54
Can I Use TrapWorks with Epson printers?.....	54

I get an error using the a Page Feature with Progressive Proofs
(Epson vDot)..... 54

**Appendix B – Notes on Media, Resolution and Color Management for
the Epson vDot Plugin..... 55**

Media Selection 55

Using Non-Standard Media 55

Resolution and Color Management..... 56

Foreword

Thank you for purchasing a quality Xitron product.

The Epson vDot plugin is provided to add high quality proofing capability to Xitron Navigator Imagesetter and CTP RIPs supporting Epson Variable Dot printer ranges. The supported devices are listed in Chapter 1. These same features can be obtained in the stand-alone XPR series of RIPs for which a separate installation and setup manual, the XPR vDot Quick Start Guide, has been written.

This manual is intended both as a Reference Manual for the XPR vDot RIP, and as an installation and reference manual for the vDot Plugin on its own.

You do not need any special programming or technical skills to install and use the vDot plugin; however it is a good idea to fully read through this documentation in order to understand the procedures involved with successful use of this product. This manual guides you through the installation procedure and explains how to print test output jobs from your RIP on a color printer.

Full support for ICC Profile Color Management is included. ICC profiles have become the industry-preferred method of color control. All color generated by the ProofReady plugins is controlled by our included ICC profile processor (HIPP). Properly used, exceptional ink control including “contract color” can be attained.

An extensive range of profiles is supplied with your vDot plugin, covering a wide range of standard media.

These profiles will work well with your printer provided it is in good condition, has had all recommended nozzle cleaning and alignment procedures carried out, is using the correct media for the profile and uses recommended inks.

You will improve accuracy even further by calibrating your particular printer using the procedure set out in Chapter 7. For ultimate accuracy, and especially if you wish to use other media than those for which profiles and calibration are already supplied, you may wish to generate a custom ICC profile for your printer.

Generally it is not necessary to also create a custom ICC Profile for your plate making and press system, which can even lead to a reduction in the quality of proofs. This is because only if exceptional care is taken with all aspects of process control throughout the plate making and press environment will the press produce consistent results day after day that match its own profile. The use of a standard press (e.g. SWOP) or emulated analogue proof (e.g. Matchprint) Input (target or emulation) profile is generally a more suitable starting point.

This manual does not cover the topics of adding support for custom media and the creation and installation of custom ICC profiles. These areas require additional information, software tools and training. Contact your supplier for information about the availability of these items.

Chapter 1: Supported Printers & Media

1.1 Printers

Variable Dot 6 color printers

- Epson 10000

Pre-calibrated color is available for the Photo Dye Ink Set only. Users of the Pigment Ink (CF) model will need to make color adjustments or obtain their own ICC Profiles for this product.

Variable Dot 7 color printers

- Epson Stylus Photo 2200 (US) and 2100 (Europe)

This model is also available in Japan under the name PX-4000.

- Epson Stylus Pro 7600 and 9600

These models are also available in Japan under the names PX-7000 and PX-9000 respectively.

Pre-calibrated color is available for the High Chrome 7 color ink set only, using Photo Black and Light Black inks. Users of other ink sets will need to make color adjustments or obtain their own ICC profiles for this product.

1.2 Media

There are many hundreds of media being marketed for use with Ink Jet printers, from the printer manufacturers such as Epson and HP, from established Graphic Arts suppliers such as Mitsubishi or Agfa, and from many other third part vendors.

Many of these media have very similar names, and in some cases media even 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, as sold in different regions.

The Xitron XPR series of Proofer RIPs and the vDot plugin include a library of color profiles and calibrations for specific media, and accurate results are only possible if the correct media is used.

The Xitron document “Media for Ink Jet Printers” contains an up-to-date list of the specific media (and ink sets) supported by Xitron’s Proofing Products. Please check this document to make use you are using the correct RIP settings for your media.

The latest version is always available at our web site, www.xitron.com.

Chapter 2: Installation

2.1 Configuration Requirements

In order to use the vDot plugin you must have a Navigator RIP that meets the following requirements. It is assumed that the RIP is fully installed and operational. If you have problems with your RIP you should resolve those before installing the plugin. This manual deals only with the additional information needed to be successful with the vDot plugin, and does not attempt to cover all of the RIP features and requirements.

Navigator NT

- Windows 2000 (SP2)† equipped PC. 1 G Hz recommended.
- Minimum 512 MB RAM. (With Halftone Option, 768 MB for the 2100-2200, 1 GB for larger formats.)
- 2 GB free disk space.
- The correct Epson Windows Printer Driver, using any physical connection method you wish. Best results are obtained with Firewire or USB connections, or Ethernet for long cable runs. Do not attempt to share a single Parallel Printer Port with the Navigator RIP dongle.
- Xitron Navigator RIP revision 5.5r1 or later.

2.2 Windows 2000 Platform Installation

2.2.1 Check Your RIP Configuration

Use the *Navigator > About Navigator* menu selection to check the version of your Navigator RIP. The vDot plugin requires version 5.5r1 or later. If your version is earlier than this please contact your supplier for an upgrade. The upgrade must be installed and configured with your imagesetter before continuing to install the plugin.

2.2.2 Epson Windows Driver

It is an essential part of the installation process that you install the Epson Windows Printer driver. It is recommended to do this and make sure you can output a test print before installing the plugin.

The latest driver can be obtained from Epson's web site, <http://www.epson.com>.

This manual assumes that you have installed this driver, and that its name is "EPSON Stylus Pro 7600, 9600 or 10000" or in the case of the Stylus Photo 2100 and 2200 "Epson Stylus Photo 2100 or 2200". (You can use other names if you wish, provided that you configure the RIP for the correct name, as described later in this manual.)

2.2.3 Firewire

If you plan on using Firewire (IEEE 1394) to connect to your printer then you must also install the firewire drivers in accordance with Epson's instructions, make sure the printer is installed with the correct name, and test the Driver Installation before proceeding.

2.2.4 Configuring and Testing the Windows Printer Driver

To configure and test a Windows printer driver, proceed as follows (this example shows the Stylus Pro 10000):

Click on *Start*, go to *Settings, Printers* and click to open the window. Highlight the item *EPSON Stylus Pro 10000*, right click and click on *Properties*. Select the *Advanced* tab.



Fig. 2.1 Windows Printer Advanced Tab

Make sure the “Spool print documents...” radio button is selected. 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.

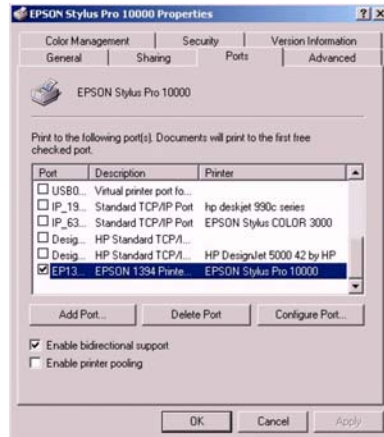


Fig. 2.2 Windows Driver Ports tab

Check that the port shown is your preferred connection method. The Stylus Pro 10000 driver provides great flexibility of interconnection method by using

any method supported by the Windows Printer driver. In this figure a Firewire port is shown, which provides the best performance of all available methods.

Select the *General* port and click on 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 on-line help facilities.

2.2.5 High Speed Parallel Card

If you are adding an Intek High-Speed PCI parallel card for use with the plugin, do so before installing the RIP. Disconnect the power cable on the back of your PC and install the high-speed parallel card in any open 32 bit PCI slot in your PC. Connect the Xitron Navigator dongle to the LPT1 port (built-in parallel port, not the newly installed high-speed parallel port) on your PC and start up your PC. You will find drivers and instructions for the card on your Navigator CD in a folder "Intek Parallel Card Win2k". If you experience any difficulties with the installation or operation of the card please check with Intek's web site at www.intek21.com.

2.2.6 Install vDot Plugin

Insert your Navigator RIP CD (or Plugins CD) that contains the vDot plugin. After the start-up window appears click on the large button "Install Plugins", then click on Next. (If you are installing from Xitron's Plugins CD instead of the Navigator CD, then you will see a Welcome to the Install Shield for Plugins" window. Click on Next.) The Installer extracts files, and the following window appears:

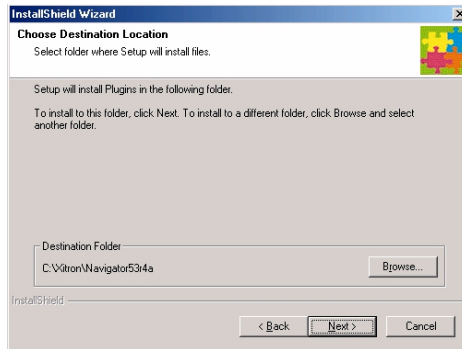


Figure 2.3. PC Installation Screen

Check that the destination folder is the correct location for the RIP you are installing the Plugin on. If it is not correct use the *Browse* button to locate the correct folder, then click on *Next*.

At the next screen scroll through the list of possible plugins, and confirm the installation you wish to make. Confirm your selection by checking the boxes as shown below, then click on *Next*.

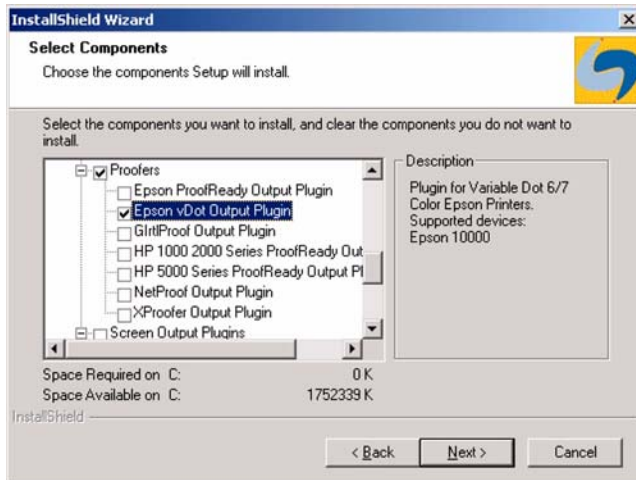


Fig. 2.4 Installer Selection Window

If the Installer gives a “RIP Not Found...” error at this stage then it is not able to locate important components of the RIP. Click on *Back*, and re-confirm that you have correctly specified the RIP destination folder.

The installer will now copy the plugin and support files to the RIP. During this process you will see progress information like this:

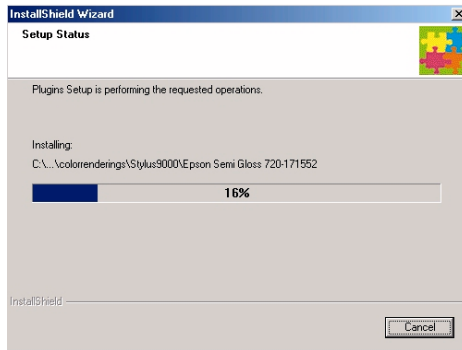


Figure 2.5 Installation progress

After the installation is complete, click on *Finish* to close the Installer.

Chapter 3: Setup RIP for Proofing

3.1 Introduction to Setup

Now that your vDot Plugin is installed, you need to configure certain options in the RIP. These options are divided into two groups – initial setup and configuration choices for media and quality. Chapters 3 and 4 explain how to do this.

3.2 Memory Settings

a) Overall Memory Allocation

Launch the RIP, select *Navigator > Configure RIP > Options* and make sure the “Memory For RIP” and “Allow Use of All Available Memory” boxes are **not** checked, and that the “Memory Reserve For RIP” box shows 0

b) “Memory Reserved for System”

Set to 256 M Bytes (enter 256000).

c) “Band Size”

Set to 1000 KB.

Click OK

d) “Printer Buffer”

In the *Configure RIP* window enter 20000 KB for Printer Buffer. Click *OK*. Exit and re-launch the RIP.

3.3 Feature Passwords

With your vDot Plugin order you will have received a printed sheet with several passwords listed. These are required to enable a number of specific features in your Navigator RIP for use with the ProofReady plugin.

If you have purchased the Halftone Option you will also need to enter a password for that.

There are two different types of password, which are installed in two different ways. RIP passwords comprise a 7 digit numbers, while Plugin passwords comprise 20 alphanumeric characters.

The vDot plugin can be used with either Xitron's XPR low cost proofing RIP, or our Navigator high resolution imagesetter / platesetter RIP, and depending on which you have some passwords may be of either RIP or Plugin type.

3.3.1 RIP Passwords

To enter these passwords, select *Navigator > Configure RIP > Extras*

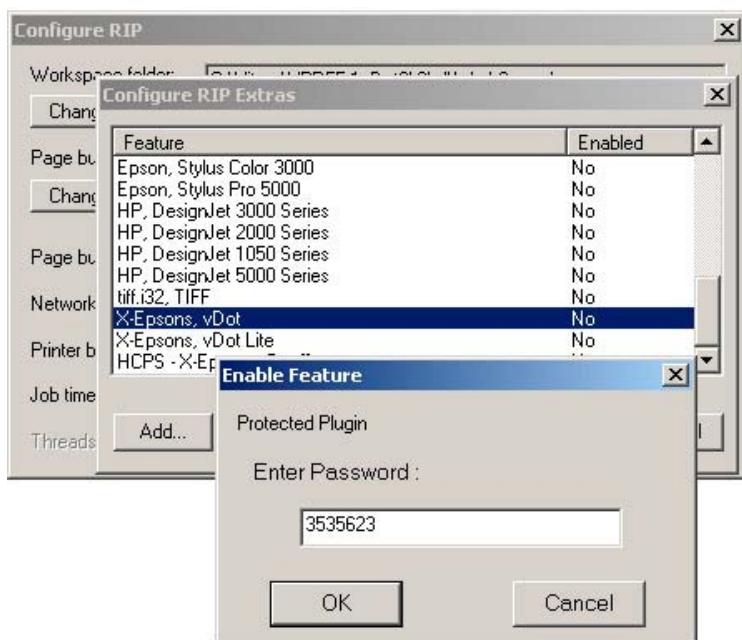


Fig. 3.1 Configure RIP Extras Dialogue

For each item, highlight it in the list, and click *Add*. Enter the password, and click *OK*.

The items to be added are:

a) HIPP (or HCPS-X-Epson, vDot [])

These Color Management options enable the processing of ICC profiles for accurate color matching. The results of using either are the same. HIPP (Harlequin ICC Profile Processor) enables color management for any plugin on the RIP, while HCPS (Harlequin Color Production Solutions) only enables color management for the specified plugin, in this case Epson vDot.

Only if you have an XPR Low Resolution RIP will you also have 7 digit RIP passwords for:

b) X-Epson, vDot Lite
Enables Epson 2100 and 2200 support.

Or

c) X-Epson, vDot
Enables all devices including the 2100 and 2200.

When you have entered all the 7 digit RIP passwords supplied, click on *OK* twice, exit and re-launch the RIP, return to the *Configure Rip >Extras* dialogue and make sure all the entries you added show up as “Yes” in the list. If any do not show “yes”, check and re-enter the passcode.

3.3.2 Plugin Passwords

If you have purchased the Halftone Option this is always supplied in the form of a 20 digit Plugin Password.

If you are using a High Resolution Navigator RIP then you will also have Plugin Passwords for either vDot Lite or vDot devices (see 3.3.1 above for a description of these options).

Plugin Passwords are entered as follows:

The third menu item in the main Navigator user interface (between “Edit” and “Color”) controls special functions for individual plugins. Select this menu item (on a new RIP it will be defaulted to “Preview”) and choose the “Select

Device” option. You will see a list of all the available output devices in the RIP. Choose any one of the “10000”, “76-9600” or “21-2200” devices that are listed, and click on “Select”. The main menu item will now change from “Preview” to the chosen device.

Select the menu again, and this time choose “Enter A Xitron Password”. A dialogue box will appear as shown here:

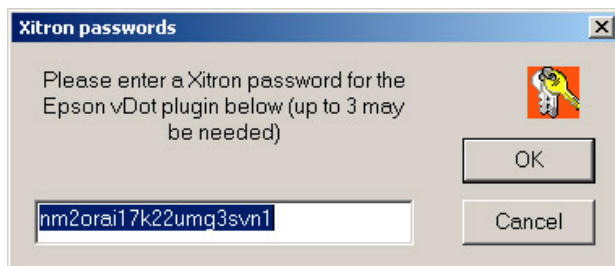


Fig 3.2 Entering a Plugin Password

In place of any number shown, enter the first 20 digit plugin password on your sheet. Make sure you copy the password exactly and with no spaces.

Click on OK to store the password.

If you have more than one 20 digit Plugin Password simply repeat these steps until all have been entered.

3.4 Device Manager Settings

The Device Manager allows you to select and name the output devices you will be using in the RIP. Select *Navigator > Device Manager*. At the top of the window is a list box entitled Plugin. The names of the various plugins are shown on page 1 for each printer. Check that the box shows the correct entry for the vDot plugin, Epson-vDot.i32.

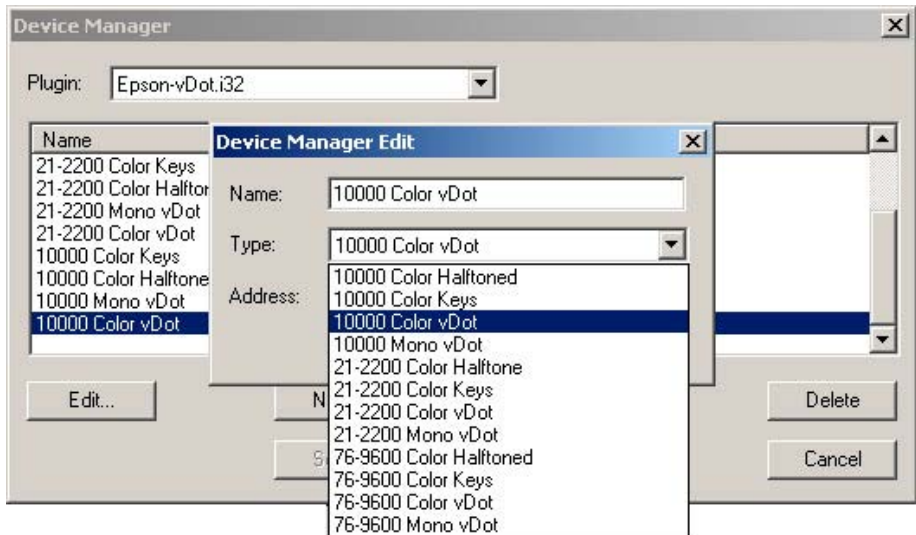


Fig 3.3 Device Manager Dialogue

Some entries may already be filled in. If so you can leave these, or re-name them something you prefer. If you plan on using the pre-configured calibration and color management features of the vDot plugin, you must ensure that the Names you use are identical with the Types chosen, as in the example above. At a minimum you need to have at least one Name entry for each different printer. Each printer model has several Device Types, the differences being as follows:

- Color vDot

This is the standard high quality color device type using variable dot error diffusion screening, and suitable for Sheet or Roll fed media.

- Mono vDot

This device creates monochrome output from monochrome or color jobs. The same variable dot error diffusion screening is used as with the Color vDot device types. A neutral grey-balanced output is achieved using multiple inks. (This device can also be used to create monochrome separations from color jobs.)

- Color Halftone

This device creates composite full color images which have been screened by the RIP's conventional dot based screening system, Harlequin Precision

Screening (HPS). Spot colors are accurately reproduced as screen dots of the appropriate color. Depending on the printer model and media used Screens of up to 150 lpi and above can be used with this device type.

- Color Keys

The Color Keys device creates individual separated prints for each color in the job, including spot colors. These prints can be reproduced on clear film to provide an accurate proof of traps when printing with multiple colors, for example in packaging applications.

Note that the Color Halftone and Color Keys device types require the purchase of the Halftone Option. Installation of the Option is achieved by adding a password, as shows in section 3.3.2 above.

If there are no devices listed when you click on “New” and open the “Type” list box, this is probably because you are using an XPR RIP, and you have not correctly entered the RIP Passwords (see section 3.3.1 above).

The choice of device type completes the initial Setup of the RIP to use the ProofReady plugin.

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

Chapter 4: Creating a Page Setup – Configuration Choices

4.1 What's Involved

In this section you will create one or more Page Setups for your printer. The Page Setup includes settings for printer, resolution, connection method, print quality and media selection (which sets calibration and color management).

These items are reviewed in turn. To start, select *Navigator > Page Setup Manager*, and click *New*. The Page Setup dialogue looks like this:

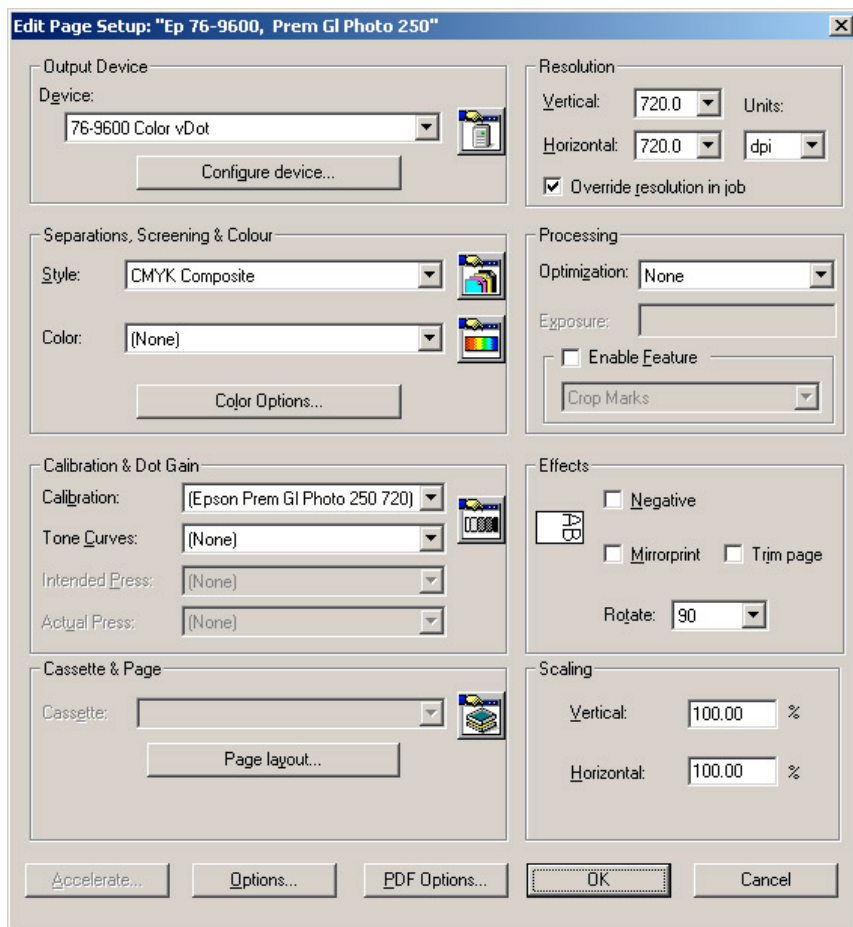


Fig 4.1 Page Setup Dialogue

4.2 Printer Model

To select the printer model and mode for this Page Setup, select it in the Devices list box. In this example we are selecting the printer type “76-9600 Color vDot”

4.3 Note on Resolution

In a RIP product such as the Xitron Navigator driving a plotting device such as an ink jet printer, the term Resolution has two distinct uses. This stems from the fact that 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 these continuous tone data are screened and output on the printer at what may be a different resolution, called the Plotter Resolution. For further details about the significance of these parameters see Appendix B, *Resolution and Color Profile Issues*

4.4 Page Setup Controls

In the main page setup windows you can choose your RIP Resolution (but not Plotter Resolution, which is set when you select your media in Configuration, section 4.5.1 below), image orientation, scaling, calibration and color management.

For further details about the settings in Page Setup see the **Xitron Navigator Users Guide**.

4.4.1 RIP Resolution

Select the Rip Resolution in the top right corner of the Page Setup Dialogue.

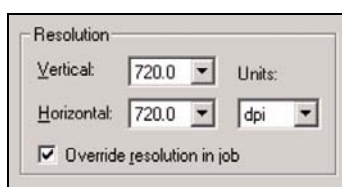


Fig 4.2 Rip Resolution Settings

In this case we have selected the normal resolution for high quality proofs, 720 by 720 dpi.

4.4.2 Image Orientation and Scaling

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

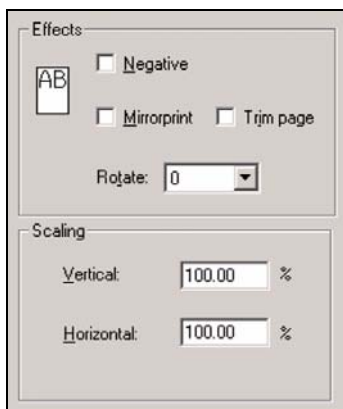


Fig 4.3 Image Orientation and Scaling

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 large amounts of white space from the top and bottom of the image.

4.4.3 Calibration and Color Management

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

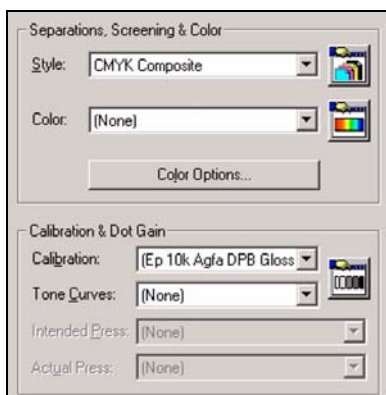


Fig. 4.4 Calibration and Color Management Controls

Separation Style

First set the Style list box to CMYK Composite. This is the only option available for the Color vDot and Color Halftoned devices. The Mono and Color Keys devices have additional options:

Monochrome separation style renders all colors into shades of gray in a single output.

CMYK Separations separation Style renders each color as an individual grayscale print.

If you are using either of the Halftone Dot device types (Halftone and Color Keys) there are additional controls required to set screen rulings, dot shapes and spot color handling. See Chapter 8 **Using the Halftone Option**, for further details.

Calibration (with color management)

The vDot Plugin is supplied pre-configured with calibration and color management for specific media types, and the calibration curve which corresponds to the Output media specified in step 4.4.1 should be selected here. This Calibration is pre-configured to apply ICC Profile based color management targeted at a standard SWOP press. To accept this option choose "None" in the Color list box. If you wish to configure ICC based color management differently then you can create a special Color Setup, details of which are contained in Chapter 9.

If you wish to calibrate your individual printer to match the pre-configured calibration state, see Chapter 8.

You will only get accurate color with exactly the correct media and the correct resolution, though you may find acceptable results for some applications by using substitutes if you have to.

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

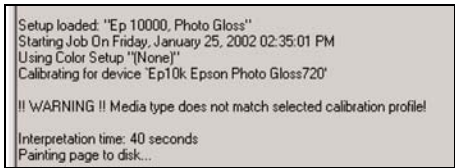


Fig 4.5 Mis-matched Profile Warning

4.5 Configure The Plugin

From within the page Setup dialogue, locate the button near the top left corner of the screen marked "Configure Device". Click this button to open the vDot Device Configuration window.

Note: that many of the variables in this window can be changed **after** the job is RIPped. 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 below, but some functions will no longer be available (such as Progressive Proofs) because they are processed at the time the job is RIPped. However many other functions, such as Repeat to fill media or Horizontal Tiling, can be selected as this stage, either before the job is printed, or before re-printing it, which is done by dragging it back to the Active Queue.

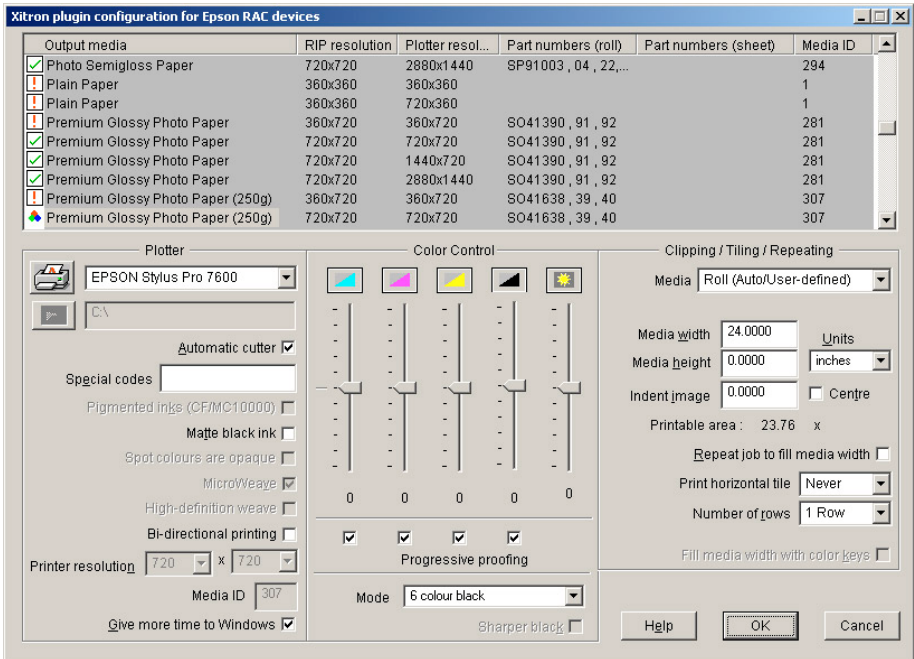


Figure 4.6. vDot Configuration dialog box

4.5.1 Output Media (and Plotting Resolution)

The large window at the top of the screen lists the various media types supported by the Epson vDot Plugin for this printer. Also listed are the various RIP and Plotter Resolution options (see Appendix B 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 exactly correctly specified as there are numerous settings including color management, ink drop size and speed, ink nozzle control etc. that vary from one type to another. On the left of the window are icons against each entry, which present useful information as follows:



The current RIP Resolution is incorrect for this choice.



The current RIP Resolution is correct for this choice.



The current RIP resolution is correct and there is an available calibration 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 dialogue (see 4.4.1 above).

If you need to use a media type not listed, see Appendix B.

4.5.2 Plotter

The section labeled “Plotter” contains entries related to the connection of the printer. The list box next to the icon of a printer should show the previously installed Epson Windows Printer Driver for this model printer. If not 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 filename below.

Check the box *Automatic Cutter* if you are using roll media and wish each job processed to be cut from the roll when printed.

The box *Special Codes* is reserved for use by Xitron technical support staff. Do not put any information in this box unless asked to do so by our support staff or their representative. (With some media types using the Epson 10000 you may notice some automatic entries in this field - this is normal.)

The box *Matte Black Inks* should be checked if you are using the optional Matte Black ink in place of the standard Photo Black ink. (Epson Stylus Pro 76-9600 and Stylus photo 21-2200 only.)

The box *Pigmented Inks* should be checked if you are using an Epson Stylus Pro 1000 fitted with Pigment Inks. (Epson Stylus Pro 10000 only)

The remaining controls in this section are inactive unless you select “User Defined” as your Output Media. See Appendix B for more information about non-standard media.

The box *Give More Time For Windows* should normally be checked. If your RIP output speed seems slow, and you have at least 512 M Bytes RAM in your PC, you can uncheck the box and compare results.

4.5.3 Color Controls

The Xitron Epson vDot Plugin provides two methods of color control; through the use of ICC Profiles and manually. The four sliders in the Configuration dialogue provide the manual method of color control, but they can also be used to make adjustments when ICC Profile based color management is in use.

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

The *Sharper Black* check box controls the imaging of Black objects which contain 100% of Cyan, Magenta and Yellow. If the box is checked these objects are replaced by 100% Black. This option is disabled when color management is in place allowing the color setup top control black object imaging.

4.5.4 Clipping, Tiling and Repeating

The Xitron Epson vDot Plugin has additional special features for tiling or clipping large images and repeating small ones. These features are described here.

First specify the Media Type and Size in the *Media* list box and the *Width* and *Height* entries. If you wish to use cut sheets select Sheets from the *Media* list. Each sheet has to be individually hand loaded into the printer before output. 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 will be clipped to the value shown in *Media Width*. If you simply want to print only part of the job enter the width you wish to clip to in the *Media width* box.

If *Print Horizontal Tile* is set to *All* then as many tiles are created as needed 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 tiles overlap by about 0.5 inches.

The *Repeat job to fill media width* check box controls step-and-repeat printing. This box is only available if *Print Tile Number* is set to *Never*. If the box is checked then 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 the *Media width* box is set to 35.6 inches (when using 36 inch roll media) and an 8.5 inch wide job is processed, then the job will be repeated 4 times across the width of the roll. If more copies are required the *Number of rows* can be set to any value up to 10, which would 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 *Center* check box sets the margins to place the image in the center of the width of the media.

The *Units* list box allows the measurement units for all of these controls to be set to Inches, MM or Points as required (based on the Units setting of your Windows 2000 installation).

4.5.5 Progressive Proofing

This special feature is primarily for printers running 4 color jobs on 2 color presses. A proof can be created that shows 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 very simple and flexible, and enables any combination of 1, 2 or 3 colors to be printed as required.

Note that due to limitations in RIP processing, Progressive Proofs are not color managed as accurately as full color composite proofs.

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

Note that the Progressive Proofs option is incompatible with several standard Page Features such as Crop Marks and Imposition Features. If you are using Progressive Proofs we recommend not using Page Features in addition.

Click on OK to return to the Page Setup Dialogue.

Then click on *Save As* (or *Save* if you are editing an existing Page Setup) and give your new Page Setup a useful name.

Chapter 5: Testing your vDot Installation

5.1 Printing a Test File

Once you have created a Page Setup it is time to output a sample print on your printer.

To do so, begin by clicking on the checkbox marked "Disable Output" on the Output Controller window. Then pull down the Navigator Menu and select Print File.

From the list box choose the Page Setup that you have created for the ProofReady plugin (and on the PC select "pdf" in the "Files of Type.." list box.)

Browse the system for the ProofReady install CD or folder. On the root of the CD is a file "Drupa Sample.PDF". Select this file and click on Print.

5.2 Info and ROAM functions

After the file has been processed by the RIP, which will take up to a minute depending on the performance of your platform, it will appear in the Output Controller as shown here below.

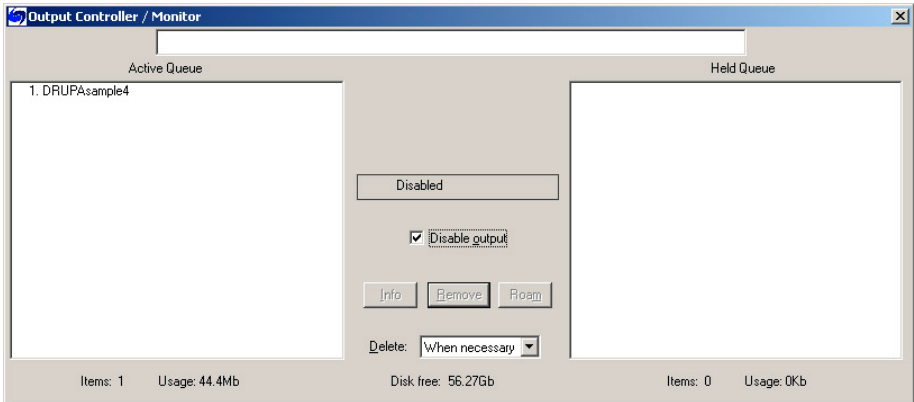


Fig. 5.1 The Output Controller

With the job highlighted you can click the “Info” button and check the size, orientation, printer type etc. for which the job has been processed. 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 dialogue - see section 4.4.2 above.) By clicking the “Roam” button you can obtain an on-screen preview of the job before outputting it.

(To obtain a reduced scale ROAM view, use the menu on the ROAM window and select Reduced ROAM.) The test image distributed with the ProofReady plugin should appear as shown below.

Don’t be surprised if some of the colors in the ROAM view seem wrong. You are looking at data that has been color managed for the printer, ink and paper combination you have specified, and these adjustments typically look “wrong” when viewed on an rgb monitor.

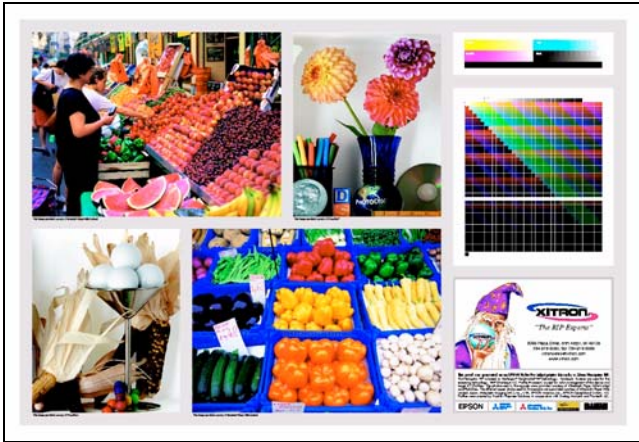


Fig. 5.2 Test Image

5.3 Printing

Once you are satisfied with the job to be printed click the “Disable Output” box to release the job for output.

As the job progresses you will see a gray bar appear in the central windows on the Output Controller. This progress bar indicates the proportion of the job that has correctly output.

Depending on your Windows Printer driver settings (see section 2.2.4 above) it may take up to a minute or more 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 A, Troubleshooting for further ideas.

Chapter 6: Creating Appletalk Input

6.1 Introduction

In order to print from a Macintosh workstation to the RIP using the ProofReady plugin, it is necessary to create one or more Appletalk input connections. This chapter describes the process of creating the input channel, and associating it with the Page Setup you created in Chapter 4.

6.2 Create Input Channel

From the Navigator menu select Input Manager. When the Input Controller is displayed click New.

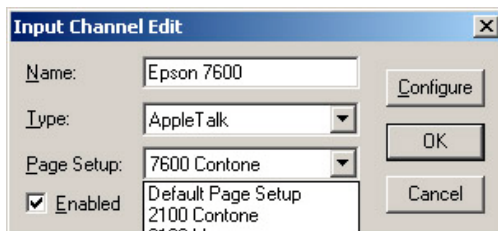


Fig. 6.1 Add Input Channel

Enter the name that you want to see in the workstation's Chooser in the Name field, and select Appletalk as the Type.

From the Page Setups list box select the Page Setup you wish to use for this channel.

Click OK. (You can create as many additional channels as you wish for different page setups.)

6.3 Using the Input Channel

From the Navigator menu select “Start Inputs” if it is not already selected. The RIP will display a message as it starts each input channel. From another Macintosh on the network you can now select your input channel in the usual way through the Chooser using a Laserwriter (or other PostScript) driver:

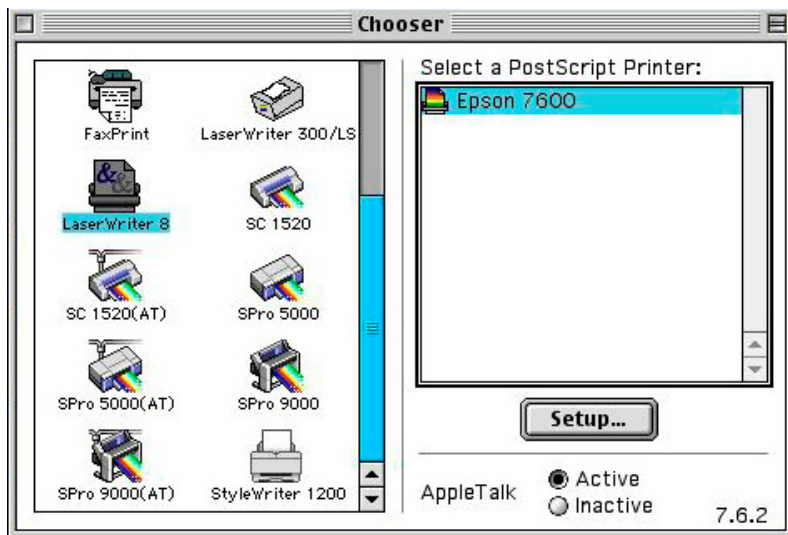


Fig. 6.2 Appletalk Printer in Chooser

Chapter 7: Calibration

7.1 Introduction

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

In many cases printers in the field will have characteristics so similar to the reference printers that no additional steps are needed to get good quality output. However if you want to get the very best out of the system it can be helpful to calibrate your printer to compensate for differences between it and the reference machine.

This chapter describes how to do this.

7.2 Tools and Materials Needed

The RIP includes facilities for interfacing an automatic strip reading measurement instrument, such as the X-Rite DTP-41. This is the most convenient as it saves a great deal of time. However for occasional calibration you can also use any good quality instrument capable of reading color densities in Status T format.

(Note that the DTP-41 is not only able to measure color densities, required for calibration, but is also a spectrophotometer which is a requirement if you plan to work with the creation of ICC profiles.)

In addition you will require a good supply of the exact correct media. Note that the RIP can only be calibrated as described here against one of the media listed in the document “Media For ink Jet Printers” referred to in

Chapter 1 for which internal calibration targets are provided. To create an initial calibration aim curve for other media types requires the use of additional tools not provided with the vDot Plugin.

7.3 Printing A Target

Make sure you have created a Page Setup with the correct settings for the calibration targets. In *Page Setup > Configuration* you should choose *Enhanced Microweave* as the Quality selection. In *Page Setup* itself select a Calibration Curve for the chosen media, and make sure the resolution is also correct for that curve. There should be no entry in the *Color* list box. In this example we will calibrate an Epson 5000 using Epson Photo paper at 720 dpi. We have created a suitable Page Setup, and named it Epson 5k Photo.

Go to the *Output* menu and choose *Print Calibration*. The following window will appear:

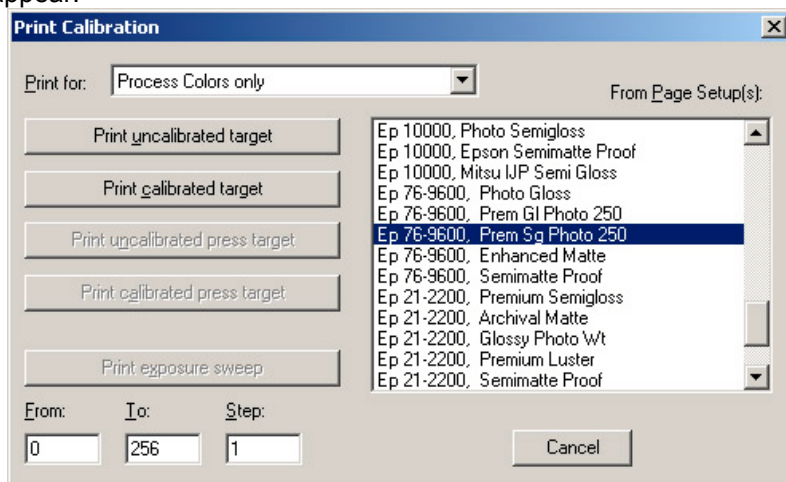


Fig. 7.1 Print Calibration

Highlight the correct Page Setup, and click on “Print Uncalibrated Target”. The RIP will generate a special four color target which you should print on the correct media type.

The target image is show here:



Fig 7.2 Calibration Target

7.4 Measuring the Target

7.4.1 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 7.5, Entering Measurement Data.

If you have the DTP-41 or similar instrument you need to operate it using an application called Genlin which is installed with your Navigator RIP. Locate the Genlin icon inside the RIP folder, launch it, and then select Configure from the menu bar.

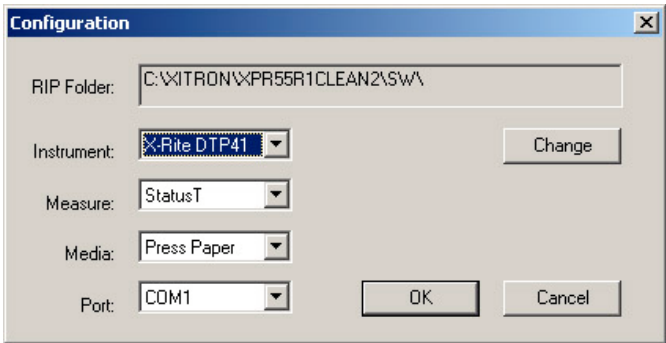


Fig. 7.3 Genlin Configuration

Use the Browse button to locate the RIP that you are calibrating. Highlight the SW folder within the RIP folder before clicking the “OK” button.

In the Instrument list box select the correct model for your measuring instrument.

Set Measure to Status T, Media to Press paper, and set the Port to the correct serial port depending on where your instrument is connected.

Click on OK.

From the Menu bar choose Read Target.

You will see a box with one or more Reference Numbers. Each time the RIP generates a calibration target it records the details in a data base, and gives each target a Reference Number. This number is printed on the target. Check the target printed in 7.3 above, note the Reference Number, and highlight the correct number in the list. Then click on OK. 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 shows a window similar to that shown here:

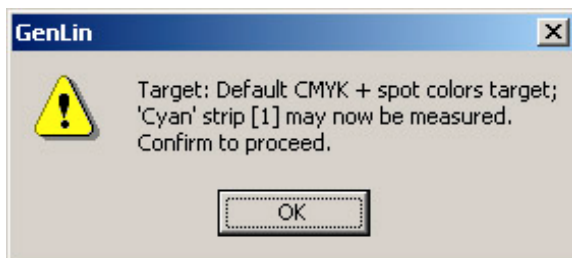


Fig.7.4 Genlin Prompt

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. Then click OK, and feed the target gently through the reader.

Repeat this process for each of the four colors, after which Genlin will display a message box:



Fig 7.5 Genlin Finished Prompt

GenLin has placed a file of measurement data in the RIP folder ready for the RIP to import.

7.5 Entering Measurement Data

From the Navigator Menu Bar select *Output > Calibration Manager*.

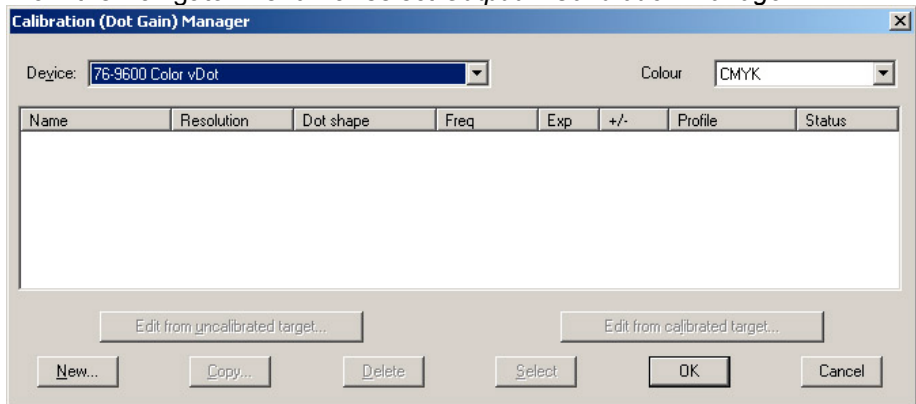


Fig. 7.6 Calibration Manager

In the *Device* list box 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. Click on *New*.

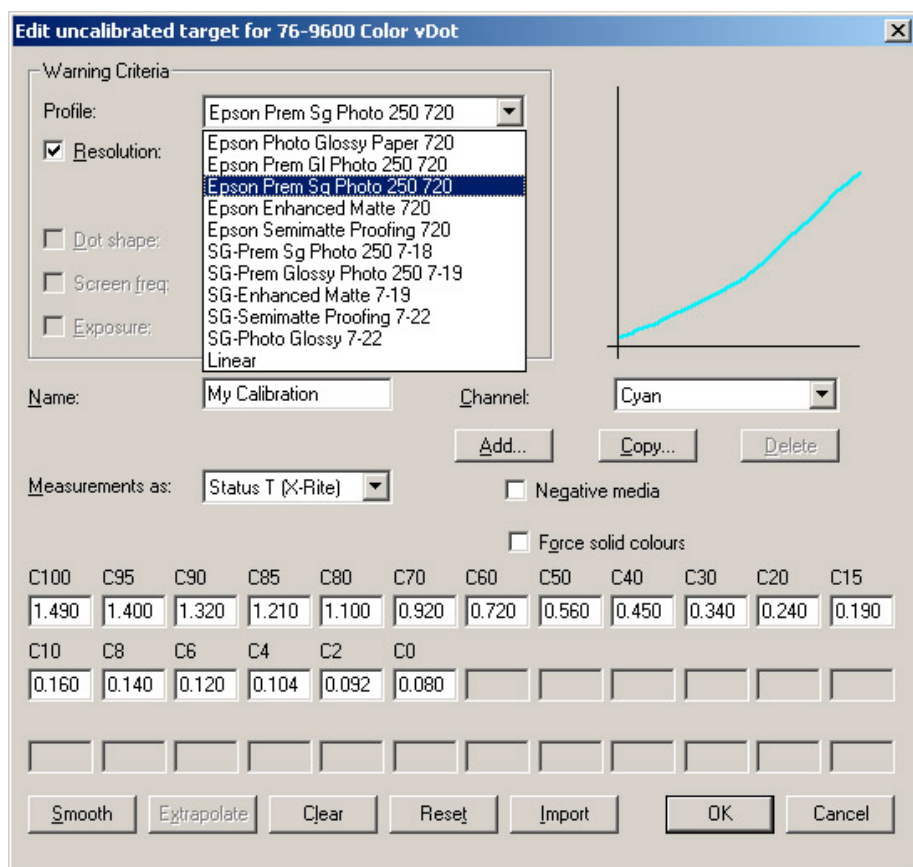


Fig. 7.7 Calibration Editor

7.5.1 “Profile”

Select in this list box 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) that you are going to calibrate the printer against.

7.5.2 Name

Enter a convenient name for this calibration set.

7.5.3 Resolution

Calibration is only accurate at one resolution, so select the resolution that you set in Page Setup here. This prevents the accidental use of this calibration set at the wrong resolution.

7.5.4 Enter 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 the Cyan data, select another color in the *Channel* list box, and repeat until all four sets of values have been entered. Then click *OK*.

7.5.5 Import Data From Strip Reader

If you used Genlin to create an import data file, described in section 7.4 above, simply click on the *Import* button.

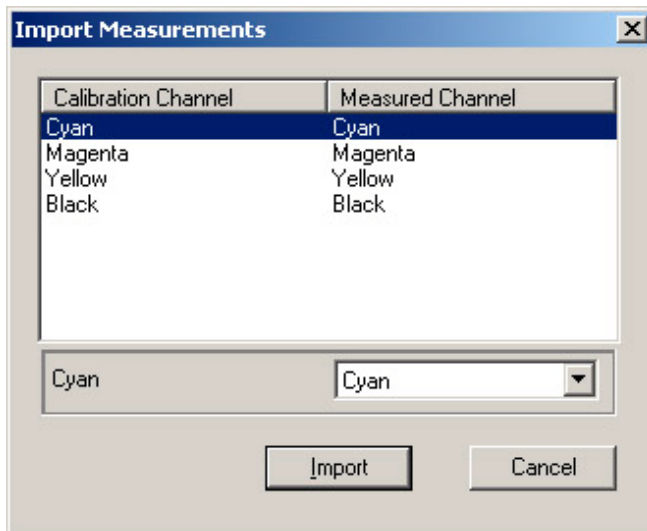


Fig. 7.8 Import Dialogue

The Import Measurements dialogue box shows a list of the four color channels that are contained in the import data file. Click on *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.

7.6 Using the new Calibration Set

Close the Calibration Manager and return to the Page Setup edit window. If you open the Calibration list box you will now see your new calibration set is available for use:

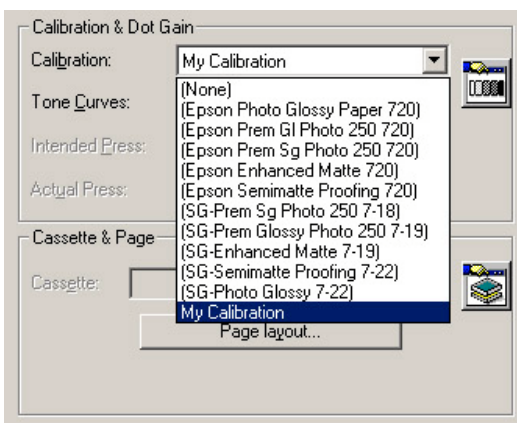


Fig 7.9 Select New Calibration

Since the new calibration set is based on the originally supplied calibration profile the color management settings and performance are not changed. Selecting your new calibration set in Page Setup *without* any selected Color setup (see Chapter 8) will result in default color management as described in that chapter. If you select a specific color setup then that setup will become the active color management setting, just as it does for the original calibrations built into the RIP.

Chapter 8: Using The Halftone Option

8.1 Enabling the Halftone Option

In Chapter 3, sections 3.3.2 and 3.4 we covered the entering of Plugin Passwords and the selection of Devices in the Device Manager. For each printer model, there are two device types, Color Halftoned and Color Keys, that depend on the purchase of the Halftone Option for full operation. You can use these devices without the password, but output will be “watermarked” with vertical lines, showing that the RIP is operating in a demonstration mode. To remove the lines and operate in full mode requires the installation of the Halftone Password using the method described in section 3.3.2.

8.2 How to Setup the Halftone Devices

8.2.1 Create Page Setup

Using the same procedure as described in Chapter 4 create a new Page Setup using one of the Color Halftone devices. The example here will use the 76-9600 Halftone device.

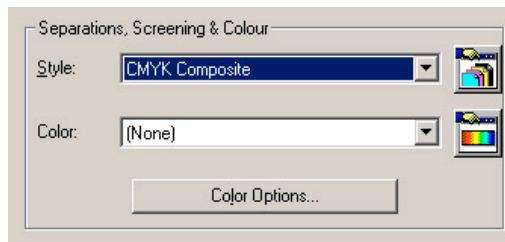


Fig 8.1 Color Halftone Separation Style

When you set the Separation Style click on the icon to the right of the Style Name, and then click on Edit. The screening setup dialogue will then appear:

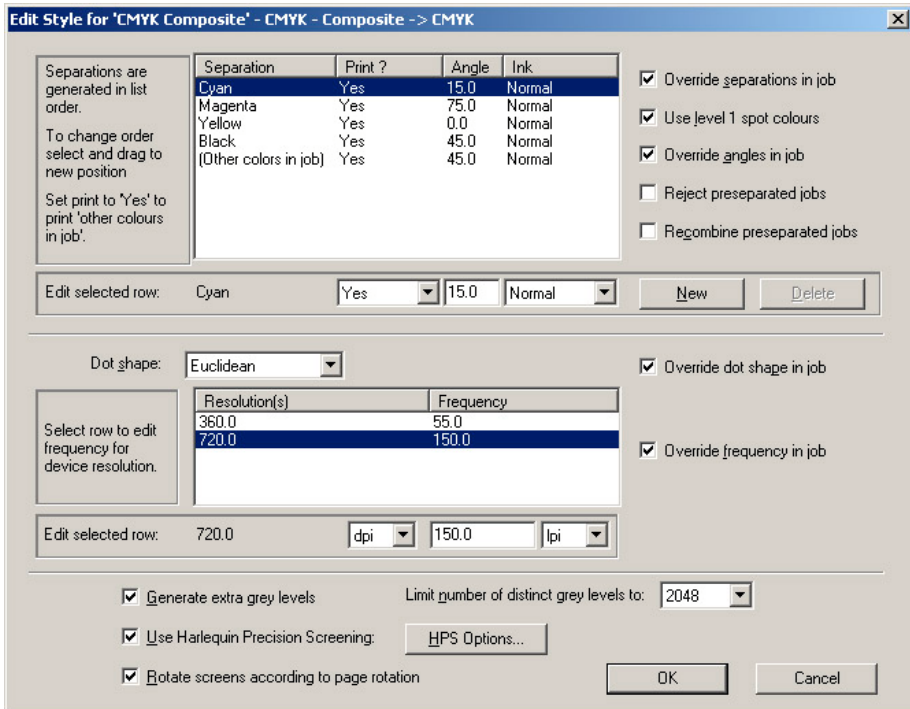


Fig 8.2 Screening Setup

8.2.2 Screen Ruling

Edit the table towards the bottom of the screen to set the Screen Ruling you wish to use for the current RIP resolution. In this example 150 lpi has been chosen.

8.2.3 Dot Shape

Choose one of the library of dot shapes (spot functions) available. Euclidean is the conventional round dot that passes through a checkerboard at 50%.

8.2.4 HPS Options

For full details of how to configure and use Harlequin Precision Screening (HPS) see the full Navigator Rip User Manual. The settings shown here are recommended starting points for use with the vDot Halftone Option. For the

most accurate proof, you should use the same screening settings here as you use when making films or plates at high resolution.

The Halftone Option does not create the exact same dots that you will see on film – no proofing system can unless it images at the same resolution as the imagesetter and has the same imaging characteristics. The Halftone Option simulates press dots such that the result will be a visually closer match, especially at lower rulings as used in newspapers, flyers etc., than the very high quality Error Diffusion screens used in the Color vDot mode. In plain terms Color vDot output is often simply too good compared to the press results, and the Halftone Option closes this gap.

The recommended settings for HPS are:

Generate Extra Gray Levels – Yes, set to 2048
Use HPS - Yes (using default HPS Options)
Rotate screens according to page rotation - Yes

8.2.5 Pre-separation Options

In the top right hand corner are settings related to the format of the jobs you will be processing. These controls have the following meanings:

- **Override separations in job**
If checked the RIP will ignore separation information (which objects belong on which separations) in the job file, and use the settings you specify here. Recommended setting is checked.
- **Use Level 1 Spot Colors**
If checked allows the RIP to recognize spot color information defined in the PostScript Language Level 1 Specification. Recommended setting is checked.
- **Override angles in job**
If checked the RIP will ignore screen angle information in the job and use the settings you specify here. Recommended setting is checked.
- **Reject pre-separated jobs**
If checked the RIP will not process any job that is pre-separated by the sending application. Recommended setting is un-checked.

- Recombine pre-separated jobs

If checked the RIP will accept pre-separated jobs, recombine them into a composite, and re-separate using the settings you specify here. Recommending setting is un-checked.

8.2.6 Angles and Plate Settings

The table at the top center of the dialogue box shows the settings for each plate. The default is to use the conventional angles of 15, 45, 75 and 0 degrees. You can change these settings if you wish, but if so you should make equivalent changes to the Optimize For Angle Set in HPS Options.

For each plate, C,M,Y.,K and Other Colors, you can choose to have the RIP include or exclude the plate by setting the Print? variable to Yes or No (or Not Blank).

8.2.7 Spot Colors

If Other Colors In Job is set to “No” then spot colors will be converted to CMYK equivalents based on either the RIP’s internal data base or the results of a calculation using the various ICC profiles if color management is in use for this page setup. A spot color would appear as rosettes of the 4 process colors. If set to Yes the same calculation is done to generate the required color, but the spot color is output as either dots, or solid tone, in the emulated color.

Recommended setting is Yes.

Click on OK to save the settings and return to the Page Setup dialogue.

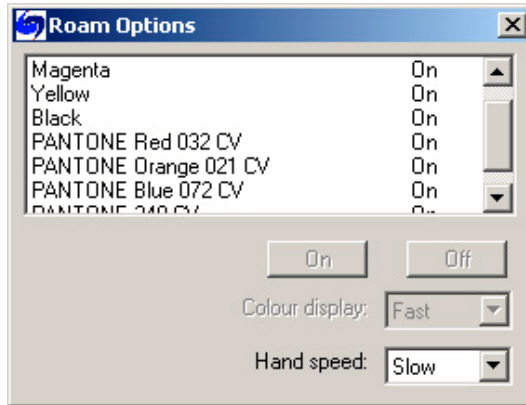
8.3 Rip and Plugin Configuration

The controls in the Page Setup Dialogue for RIP configuration, and in the Device Configuration dialogue for Plugin Configuration have the same functions with the Halftone devices as with the vDot devices,

8.4 Using Color Halftoned Devices

The first time a job is processed with a Page Setup configured to use one of the Color Halftoned devices the RIP may spend one or two minutes generating halftone screens. Once generated these screens are saved and do not have to be made again.

If you click Disable Output and ROAM the job when it appears in the Output Controller, it will appear as a normal color job. However if you select Roam Option you will see a list of the individual colors used in this job, each of which has it's own screen, as shown here:



Clicking Disable Output again will release the job to the printer. At this time the various colors are merged into a print image, and output. If you examine the proof with a glass you will see the rosette structure, and if you have spot colors (and you set "Other Colors In Job" to Yes in 8.2.7 above) you will see the spot color reproduced correctly.

Chapter 9: HIPP Color Management System

9.1 Introduction

The ProofReady plugin system includes a special form of pre-installed color management that is sufficient for most users. When you select a “calibration” profile in Page Setup you are in fact choosing both calibration and color management for the specified media, resolution and printer type.

This chapter explains how the pre-installed system is set up, and how to make certain changes to the color processing.

The color management system in the Navigator RIP is based upon Harlequin’s HIPP (Harlequin ICC Profile Processor), an ICC based system that uses both Input and Output color profiles to achieve accurate and consistent results.

9.2 About HIPP

9.2.1 Input and Output Profiles

When a PostScript file includes a color image the image is defined in either an RGB or a CMYK color space. Such images describe colors in what is called a “device dependent” way. This means that the color in any particular location on the image can only be understood when the image is sent to an output device. A color defined as 50% red 50% green will appear as different shades of yellow depending on what it is viewed or printed on, and to an extent also on local lighting conditions and other variables. Similarly a color described as 100% cyan will appear to an observer of the printed results differently dependent on the characteristics of the ink, the paper, the press and other variables.

In order to achieve accurate color on a proofing product therefore the first step is to identify the “device” – that combination of inks, processes, paper, lighting, etc that the file will be sent to for final output. Once we know what the colors would look like, for example, on a printed piece, we can calculate how to represent those colors on a proof.

These jobs are performed by the Input and Output profiles in HIPP. The Input Profile converts the device dependent colors in the job to absolute color values that would appear on a target device. The Output profile converts these absolute colors to device dependent CMYK values to send to a printer to create a proof.

9.2.2 Color Gamut

The term gamut simply means the total range of colors that a particular device can reproduce. For proofing, gamut becomes a problem if the proofing device cannot reproduce all the colors that the original output device (printing press etc.) can. With typical presses and typical modern printers this is not an issue, except for Spot Colors that are often outside the typical CMYK gamut.

9.2.3 “In Job” Color Management

Some PS and PDF files can contain color rendering dictionaries or other instructions to direct the way the RIP processes color. HIPP provides a switch to either ignore these instructions, using the pre-set HIPP settings instead, or to action them, in which case they are used in place of the HIPP settings. An exception to this is a PDF file with an included Input profile. If you have an HIPP setup and do not set the Ignore In Job Color Management switch, then the RIP will use the in-job profile as an Input profile, but still use the selected Output profile.

9.2.4 Custom Profiles and Media

This manual covers only the use of the ProofReady plugin with the calibration profiles and ICC profiles supplied with the product. It is possible to add additional media types and custom profiles, but to do so requires tools and training not covered by this manual. Contact your dealer for information about custom media and profiles.

9.2.5 A Word About Spot Colors

There is a special class of color space that is neither RGB nor CMYK. These are “spot” colors including Pantone® colors. The RIP has an extensive database of absolute color values for the popular families of spot colors,

including the full Pantone® range. HIPP accesses this database, by-passing the Input Profiles in the case of spot colors. The correct absolute color value is then passed through the Output Profile to obtain the closest rendition possible. Of course many spot colors have been created for the very reason that they cannot be readily reproduced on a CMYK press, so some spot colors may be outside the gamut of the printing device. These colors are handled using the Rendering Intent rules (see 8.3.4 below).

9.3 Creating an HIPP Color Setup

The built-in color management is configured with the following options (which will be explained later in this chapter):

RGB Input Plugin – Trinitron
 CMYK Input Plugin – SWOP
 Rendering Intent – ICC Colormetric
 Preserve 100% Black – Yes
 Set Background Color of input job – No
 Override Color Management In Job – Yes

You may wish to create an HIPP configuration different from the built-in configuration, for example if your target device is not a SWOP press. To do so from the Color menu select Color Setup Manager.

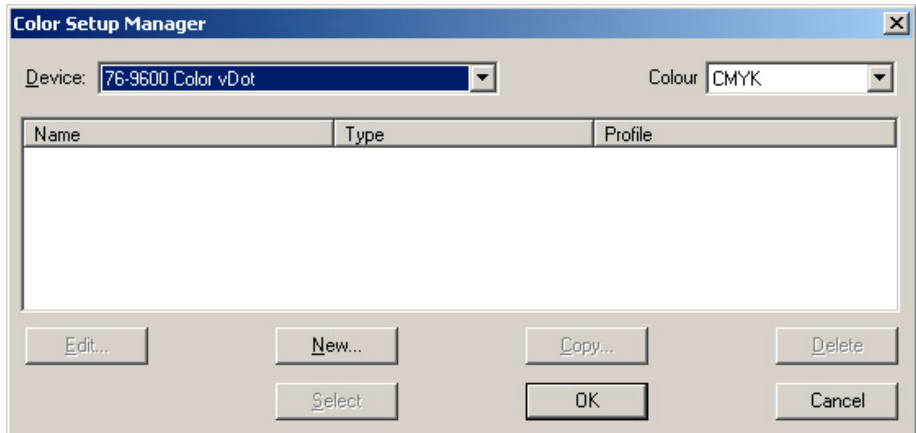


Fig 9.1 Color Setup Manager

In the Device list box, select the device you created in the Device manager. Click *New*.

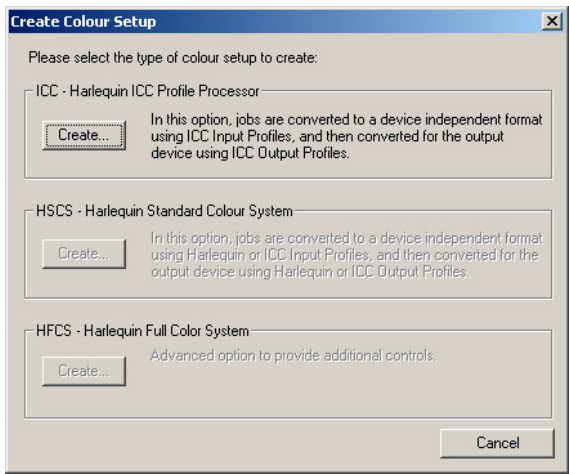


Fig 9.2 Color Setup Style

Although three options are shown in the dialogue, only the first, HIPP, is valid for use with the ProofReady plugin, and you should click on HIPP. This opens the HIPP Setup Editor:

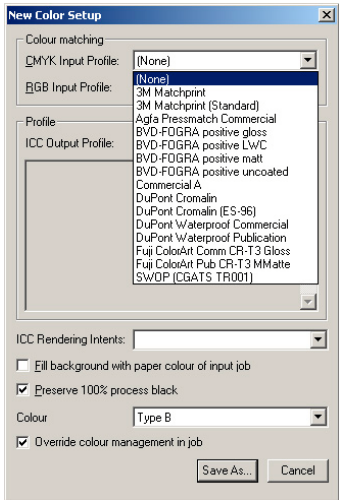


Fig 9.3 HIPP Editor

9.3.1 CMYK Input Profile

This is the profile used to convert incoming CMYK data into absolute color. Generally you should choose the closest available profile to the output system that the same job will be sent to for final output. For example, if you are going to print your jobs on a sheet fed offset press, then the closest choice is Commercial A. The default choice used by the built-in color management system is SWOP (CGATS TR001).

9.3.2 RGB Input Profile

This profile is used to convert incoming RGB data. There are two available profiles, sRGB and Trinitron. sRGB is intended for use when the image has been scanned by an RGB scanner, and Trinitron is intended for use when the image will be displayed on monitor. For printed work it is recommended to convert the images into CMYK data before sending to the RIP.

9.3.3 Output Profile

You must choose an output profile that has been created for the media that you are using for accurate results. As the figure below shows the ProofReady plugin is supplied with a library of standard profiles for popular media. The full list is shown at the front of this manual. This manual does not cover the creation or installation of profiles – for information about the tools and training needed for this contact your supplier. The HIPP Editor will only show you profiles that are intended for the printer model that you are using. The list you will see for one model will typically be different from the list for other models.

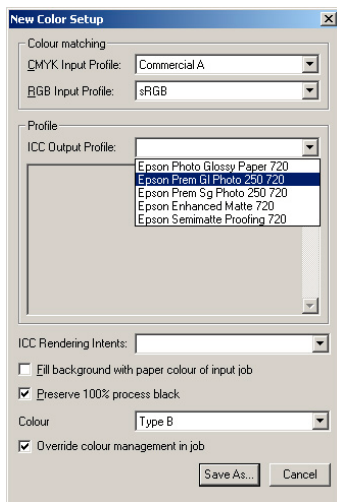


Fig. 9.4 Select Output Profile

9.3.4 ICC Rendering Intents

As noted above in section 8.2 there are cases, such as spot colors, where the output device has a smaller color gamut than the range of colors in the job. The software has a number of sets of rules for this situation, referred to as rendering intents.

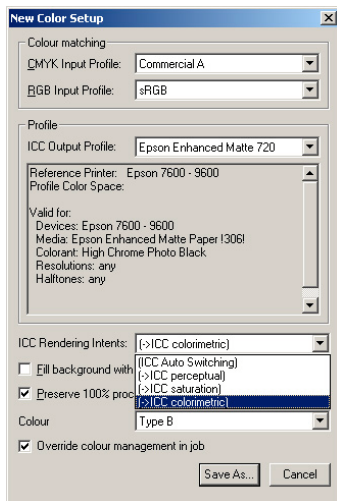


Fig. 9.5 Rendering Intents

The available Rendering intents are:

- Auto Switching in which case the software applies Perceptual for all images, and Colormetric otherwise.
- Perceptual where all colors are adjusted to preserve the realism of an image at the expense of absolute accuracy.
- Saturation where all colors are reproduced in a highly saturated form suitable for charts and graphs, not at all suitable for proofing.
- Colormetric where colors are reproduced as accurately as possible, perhaps at the expense of realism in images due to posterizing effects.

9.3.5 Other Controls

The reminder of the controls in the HIPP Editor are listed here:

- Fill Background with paper color of input job causes the RIP to lay down a tint over the background of the job that is the white (paper) value from the Input CMYK profile. This effect is best used when using a standard analogue proofing CMYK Input Profile, as it will make the background of the final proof look more like the analog proof being emulated.
- Preserve 100% Process Black causes objects defined as pure CMYK black to bypass the color management process and remain pure black. This is useful to protect text, linework etc. from being “managed” and overprinted with small percentages of other colorants.
- Color Adjustment Type provides a choice of two processing algorithms. Typically you can expect the best results with Type B, but you may find faster results with Type A.
- Override Color Management in Job (see section 9.2.3 above). This control tells the RIP either to ignore or action “in job” color management data.

When you have made all the selections you need, click *Save As*, and give your new Color Setup a suitable name.

9.4 Using An HIPP Color Setup

To use your Color Setup, return to the Page Setup editor, open or create a Page Setup for the appropriate device, and select the Color Setup from the Color list box:

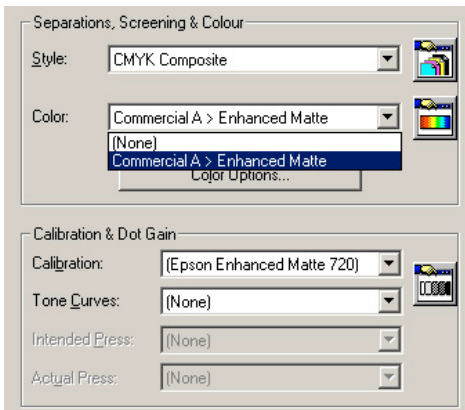


Fig 9.6 Select Color Setup

Save the Page Setup and print with it in the usual way. Note that you must also have the correct Calibration Set selected in Page Setup – the RIP uses both these files in concert to create the correct results.

Appendix A: 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 power off the machine and power it up again.

If this does not solve the problem, check to make sure that your connection method is set up properly. See Chapter 4 for more information about connection methods.

I am using a network connection, but I get a communication error when I try to print to my printer.

Follow Epson’s instructions to make sure your windows driver is installed and working properly. Verify you can print a test print 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 (see Chapter 9, HIPP Color Management System), or try to use a paper stock with a white that is the same color or slightly darker than the paper white of what you are trying to match.

Streaks/Lines in 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 are infamous for clogging Epson print nozzles. Use of third party inks is not recommended by Epson.

Can I Use TrapWorks with Epson printers?

Yes - the problem with previous versions has now been corrected. All supported devices will now work well with TrapWorks, the new Navigator In-Rip trapping product.

I get an error using the a Page Feature with Progressive Proofs (Epson vDot)

This is the result of an incompatibility between the Progressive Proofs system and the RIP's Page Feature mechanism. If you get an error when combining Progressive Proofs with a Page Feature then you must disable the Page Feature. This incompatibility will be corrected at a later release.

Appendix B – Notes on Media, Resolution and Color Management for the Epson vDot Plugin

Media Selection

The Configuration dialogue discussed in Chapter 4 includes a list of media types. For each media there are several entries, with different combinations of RIP and Plotter resolution. The reason for these different entries is that the vDot 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 pleasing 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 media is not only unknown to the vDot plugin, but also unsupported by Epson.

Using Non-Standard Media

If you are forced to use a non-standard media, a good deal of experimentation will be 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 (e.g. Rip at 720 dpi, Plot at 720 by 720 dpi) with a range of different standard media selected. You don't have to try all combinations – if your media is glossy then only try glossy and semi-glossy options, if your media is matte only try matte and semi glossy options, etc. 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% etc. 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 in fact 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, other things being equal, select the settings that give you maximum density without over-inking. If you cannot find a standard media setting that meets these requirements then your media is probably not suitable for use with the Epson 10000.

Resolution and Color Management

ICC Profiles supplied with the XPR Rip have been generated using “normal” conditions, which means RIPping at 720 dpi and Plotting at 720 by 720 dpi. Test show that the profiles are still valid at other RIP resolutions, but that some errors will occur if used at different Plotting resolutions. Errors of 2 or 3 Delta e can be expected if you plot at 720 by 1440 instead of 720 by 720. These errors are reduced but not eliminated by calibrating under the actual output conditions.

The RIP will warn of all uses of the built-in profiles that do not match Media ID, RIP or Plot resolution.