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# ***Epson vDot-II Plug-in Install and Reference Guide***

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**For use with Navigator RIPs on  
Windows 2000, 2003 and XP**

Revision log  
RIP 7.x  
Epson vDot-II v3.03

Part Number 101-0009-020

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## *Foreword*

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Thank you for purchasing a quality Xitron product.

The Epson vDot-II plug-in provides high quality proofing capability to Xitron Navigator Imagesetter and CTP RIPs driving Epson Variable Dot printers. Chapter 1 of this guide lists the supported printer models. These same features are obtainable in the stand-alone XPR series of RIPs for which a separate installation and setup manual, the XPR vDot-II Quick Start Guide, is available.

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

You do not need any special programming or technical skills to install and use the vDot-II plug-in; 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 vDot plug-in is controlled by our included ICC profile processor (ColorPro). Properly used, exceptional ink control including “contract color” is attainable.

Xitron supplies a range of profiles with your vDot-II plug-in, 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

## Foreword

procedures, 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 described 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. In fact, doing so can actually lead to a reduction in the quality of proofs. This is because exceptional process control is required throughout the plate making and press environment to maintain press consistency close enough to match a custom press profile. Instead, the use of a standard press (e.g. SWOP) or emulated analog proof (e.g. Matchprint) Input (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.



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# Chapter 1: Supported Printers & Media

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## 1.1 Printers

Xitron's vDot-II plug-in supports the following Epson Variable Dot 8 color printers:

- Epson 2400
- Epson 4800
- Epson 7800
- Epson 9800

Pre-calibrated color is available for the Epson Ultrachrome K3 Ink Set only. Users of other ink sets will have to provide their own calibration and color management profiles.

## 1.2 Media

There are many hundreds of media marketed for use with ink jet printers; from printer manufacturers such as Epson and HP, from established Graphic Arts suppliers such as Mitsubishi or Agfa, and from many other third party vendors.

Many of these media have very similar names, and it can become quite 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 in different regions.

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

A full list of supported media for this product is attached as Appendix B to this manual.



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## Chapter 2: Installation

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### 2.1 Configuration Requirements

To use the vDot-II plug-in you must have a Navigator RIP that meets the requirements listed below. Assuming the RIP is operational; resolve any outstanding RIP issues before installing the plug-in. This manual deals only with the additional information needed to be successful with the vDot-II plug-in, and does not attempt to cover all of the RIP features and requirements.

#### Navigator RIP Platform Requirements

- Windows 2000/3 or Windows XP Pro 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 to use. 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 parallel dongle.
- Xitron Navigator RIP revision 6.4 or later.

### 2.2 PC 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-II plug-in requires version 6.4r0 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 plug-in.

### **2.2.2 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 this driver, and that its name is “EPSON Stylus Pro 4800, 7800 or 9800” or in the case of the Stylus Photo 2400 “Epson Stylus Photo R2400” 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.)

### **2.2.3 Firewire**

If you plan on using Firewire (IEEE 1394) to connect to your printer, you must also install the firewire drivers in accordance with Epson’s instructions. Make sure the printer has 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 Photo 2400):

Click on *Start*, go to *Settings, Printers* and click to open the window. Highlight the item *EPSON Stylus Photo R2400*, right click and click on *Properties*. Select the *Advanced* tab.

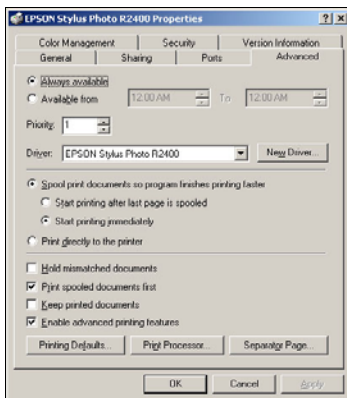


Fig. 2.1 Windows Printer Advanced Tab

Select the “Spool print documents...” button. 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.

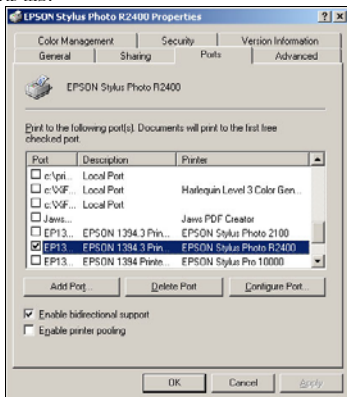


Fig. 2.2 Windows Driver Ports tab

Ensure the port shown is your preferred connection method. The Epson drivers provide great flexibility of interconnection methods by using any method supported by the Windows printer driver. In this example a Firewire port is shown, which provides the best performance of all available methods.

Select the *General* tab and click on Print Test Page to test the Windows driver, printer and connection method. Resolve any problems at this stage before installing the plug-in or launching the RIP. If you experience any difficulties at this stage, consult your Epson documentation and Epson on-line help resources.

### 2.2.5 Install vDot-II Plug-in

The vDot-II plug-in is available from a Navigator RIP CD or by downloading from Xitron's web site at [www.xitron.com](http://www.xitron.com).

To install after downloading, follow the instructions found on the web site or readme file.

To install from the CD, insert the Navigator GPS CD Disk 2 in your CD drive. The following window appears:

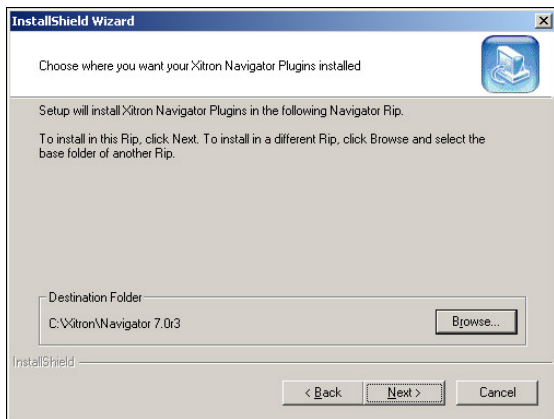


Figure 2.3. PC Installation Screen

Ensure the destination folder is the correct location for the **RIP** to which you are installing the **Plug-in**. If it is not correct, use the *Browse* button to locate the correct folder and click *Next*. At the next screen click *Next* (there are no support utilities installed with the vDot-II plugin.)

At the next screen, scroll through the list of possible plug-ins and confirm the installation you wish to complete. Confirm your selection by checking the boxes as shown in figure 2.4, and click *Next*.

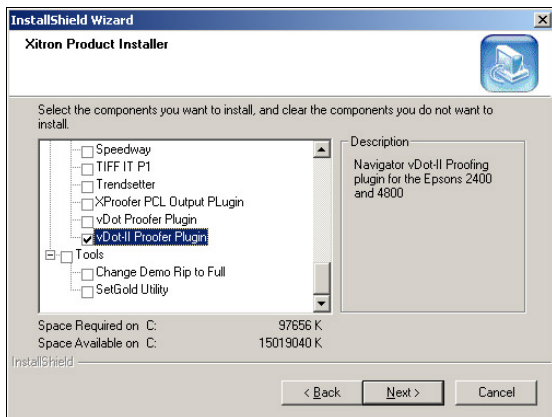


Fig. 2.4 Installer Selection Window

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

The installer will now copy the plug-in and support files to the RIP. During this process you will see progress information similar to the example in figure 2.5.



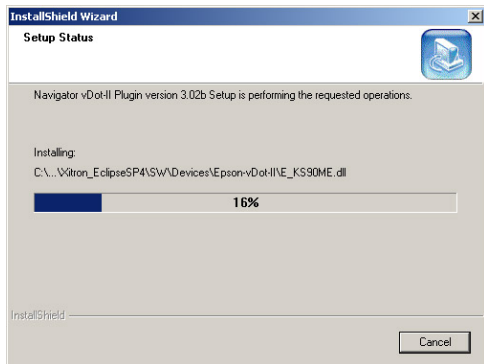


Figure 2.5 Installation progress

## 2.2.6 Feature Passwords

After copying a number of files to your system, the Installer will prompt for feature passwords as shown below:

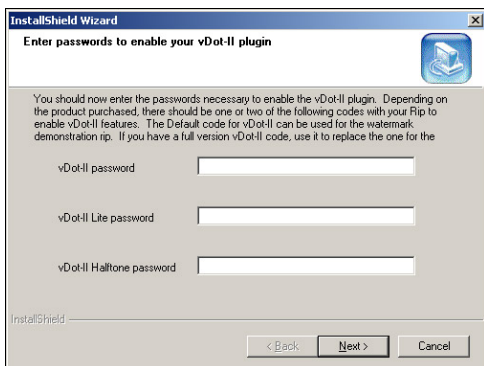


Fig. 2.6 Entering Passwords

With your vDot-II Plug-in 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 vDot-II plug-in.

If you have purchased the Halftone Option you will also need to enter a password to enable it.

There are two different types of passwords. RIP passwords which have 7 numerals, and Plug-in passwords which have 20 alphanumeric characters. Normally the passwords are entered during installation of the plug-in. However they may also be entered after the RIP is running as described in Chapter 3.

You can enter either 7 or 20-character passwords into the Installer screen shown in figure 2.6. The entries are as follows:

a) vDot-II Lite

Enables Epson 2400 and 4800 support.

And / or

b) vDot-II

Enables all other supported printer models.

c) Halftone Option

Always a 20 digit Plug-in Password.

The next screen is similar. Enter any RIP Option passwords that enable special features of the plug-in. These are also found on the printed password sheet.

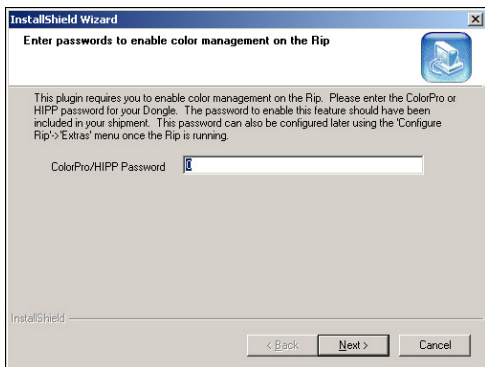


Fig. 2.7 Entering Passwords (2)

ColorPro enables color management. (In previous RIP versions this was called HIPP and you can enter a HIPP password in this location if you have one.)

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



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## *Chapter 3: Setup RIP for Proofing*

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### **3.1 Introduction to Setup**

Now that your vDot-II Plug-in 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 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 256 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-II Plug-in you 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 vDot-II plug-in.

Normally these passwords are all entered during installation of the plug-in (see section 2.2.7 above). If you already entered this information, go directly to section 3.4. To enter passwords into an existing RIP, follow these steps:

### 3.3.1 RIP Passwords

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

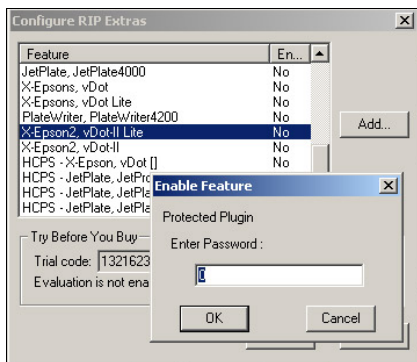


Fig. 3.1 Configure RIP Extras Dialog

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

Comment [PA]

Possible items to be added are:

#### a) ColorPro (or HIPP)

These Color Management options enable the processing of ICC profiles for accurate color matching. The results of using either are the same.

ColorPro is the advanced color management system provided with a 6.0 RIP, while HIPP is the simpler version available for RIPs up to 5.5.

If you have an XPR Low Resolution RIP will you also have RIP passwords for:

b) X-Epson, vDot-II Lite  
Enables Epson 2400 and 4800 support.

And/or

c) X-Epson, vDot-II  
Enables all other supported printer models.

When you have entered all the 7 (or 8) digit RIP passwords supplied, click *OK* twice, exit and re-launch the RIP. Return to the *Configure Rip >Extras* dialog 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 password.

### 3.3.2 Plug-in Passwords

If you purchased the Halftone Option, the password will be a 20-character string.

If you are using a High Resolution Navigator RIP, you will also have Plug-in Passwords for either vDot-II Lite or vDot-II devices (see 3.3.1). The vDot-II 20-character password enables the 2400 & 4800 printer models.

The third menu item in the main Navigator user interface (between “Edit” and “Color”) controls special functions for individual plug-ins. Select this menu item (on a new RIP it will default 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 “78-9800”, “4800” or “2400” devices listed, and click “Select.” The main menu item will now change from “Preview” to the chosen device.

Select the menu again, and choose “Enter A Xitron Password.” A dialog box will appear as shown in figure 3.2:

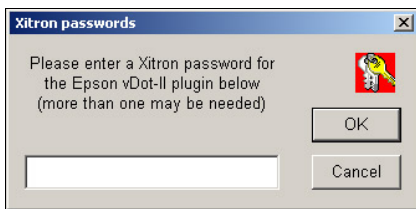


Fig 3.2 Entering a Plug-in Password

Enter the first 20-character plug-in password on your sheet. Make sure you copy the password exactly and with no spaces.

Click OK to store the password.

If you have more than one 20-character Plug-in 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 labeled, “Plug-in.” The names of the various plug-ins are shown on page 1 for each printer. Check that the box shows the correct entry for the vDot-II plug-in, *Epson-vDot-II.i32*.



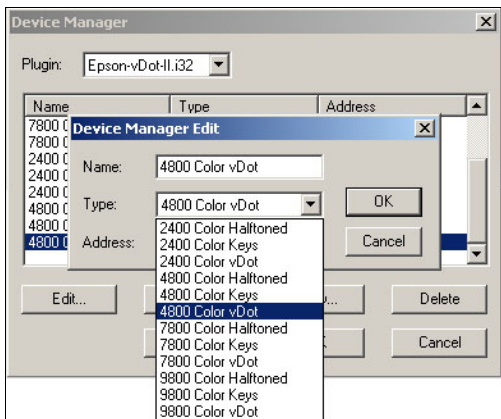


Fig 3.3 Device Manager Dialog

Some entries may already be filled in. If so, 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-II plug-in, you must ensure that the Names you use are identical with the Types chosen, as in the example in figure 3.3. 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, suitable for Sheet or Roll fed media.

- **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 simulated.

- 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.

In addition, the Color Keys devices can output screened separations in black ink onto clear film, suitable for the creation of silk screens and even offset plates for some 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 shown in section 3.3.2.

If there are no devices listed when you click “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).

The choice of device type completes the initial Setup of the RIP to use the vDot-II plug-in.

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

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## Chapter 4: Creating a Page Setup - Configuration Choices

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### 4.1 What's Involved

In this section you will create one or more Page Setups for your printer. A 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 order. To start, select *Navigator > Page Setup Manager*, and click *New*. The Page Setup dialog is shown in figure 4.1.

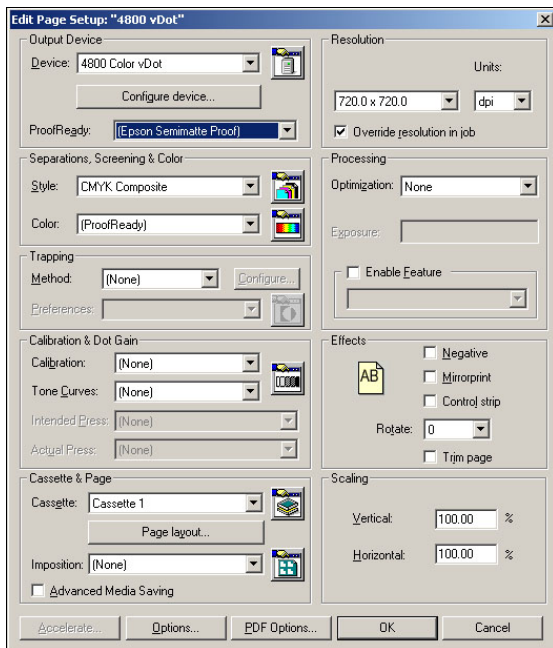


Fig 4.1 Page Setup Dialog (7.x RIP)

## 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 “4800 Color vDot.”

### 4.3 Note on Resolution

When a RIP product such as Xitron's Navigator 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 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 window 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 Dialog.

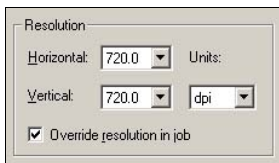


Fig 4.2 Rip Resolution Settings

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 Dialog.

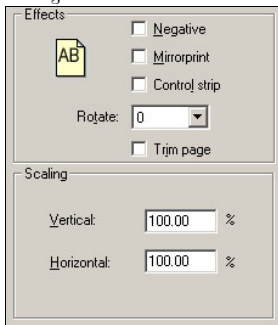


Fig 4.3 Image Orientation and Scaling

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. The Control Strip option adds an information slugline to the output, which provides a range of useful information about the job and printing conditions.

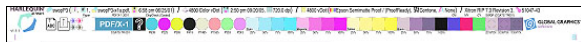


Fig. 4.4 Control Strip

#### 4.4.3 Calibration and Color Management on a 7.0 RIP

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

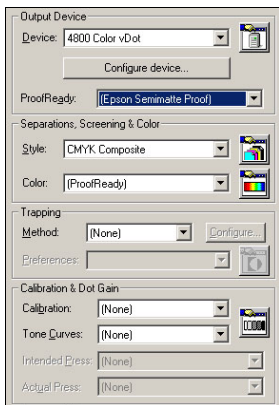


Fig. 4.5 Calibration and Color Management Controls

### Separation Style

Set the Style list box to **CMYK Composite**. This is the only option available for the **Color vDot-II** and **Color Halftoned** devices. The **Color Keys** device has additional options:

“**Monochrome**” separation Style renders all colors into shades of gray in a single image.

“**CMYK Separations**” separation Style renders each color as an individual grayscale image.

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.

### vDot-II Color Management

The **vDot-II** Plug-in is pre-configured with calibration and color management for specific media types, and the **vDot-II** data set that corresponds exactly to your **Output Media** should be selected in the

ProofReady list box. (The media choice must also match the setting you make in section 4.5.1 below.)

This setting is pre-configured to apply ICC Profile-based color management targeted at a standard SWOP press. Choosing a ProofReady color management configuration accepts this option for Color Management, and the entry “vDot” appears in the “Color” List Box.

If you wish to configure color management differently, you can create a special ColorPro Setup. Details of the use of ColorPro are contained in a separate ColorPro User’s Guide.

If you wish to calibrate your individual printer to match the pre-configured calibration state, see Chapter 7.

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 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:

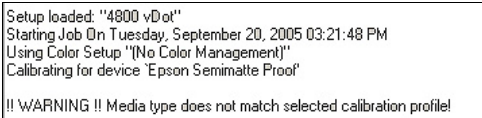


Fig 4.6 Mis-matched Profile Warning

## 4.5 Configure The Plug-in

From within the Page Setup dialog, locate the button near the top left corner of the screen marked “Configure Device.” Click this button to



open the vDot-II Device Configuration window.

**Note:** 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 figure 4.7, but some functions will no longer be available (such as Progressive Proofs) because they were processed at the time the job was RIPped. However, many other functions such as Repeat to fill media or Horizontal Tiling, 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.

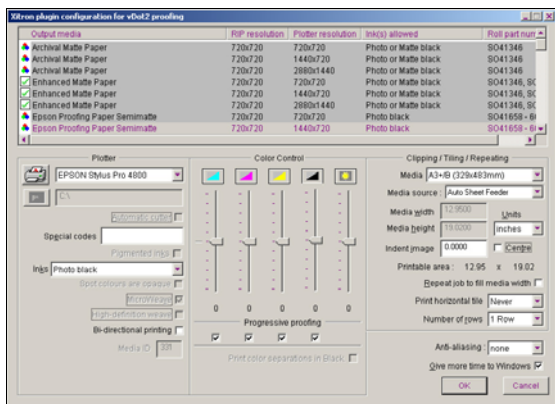


Figure 4.7. vDot-II Configuration dialog box

#### 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-II Plug-in 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 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. Left 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.



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 dialog (see 4.4.1 above).

Note that 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 will not be able to output if an incorrect combination of media and ink set has been chosen.

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 printer connection. The list box next to the icon of a printer should show the previously installed Epson Windows printer driver for this printer model. If not, select it now. It is possible to output through another Windows driver but Xitron does not recommend this action. 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 labeled “*Automatic Cutter*” if you are using roll media and require a cut after each job.

The box labeled “*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 representatives. (With some media types you may notice some automatic entries in this field - this is normal.)

The “Inks” list box 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**. Only the Stylus Photo R2400 can be easily changed from one type to the other by exchanging the Black ink cartridge. With all other models supported by the vDot-plugin, 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 4.5.1 above) you may notice the “Inks Allowed” column, which identifies which ink set(s) are permitted with the chosen media. If you choose a media where both Photo and Matte inks are allowed then you can print regardless of ink set, but you may not achieve acceptable quality. If you select a media that only allows one ink set, and you set the Ink Set control to another set, the RIP will abort the print job and report the error. If you specify an Ink Set that differs from that actually installed on the printer, the printer may abort the job and report the error.

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

The box labeled, “*Give more time to Windows*” should normally be checked. If your RIP output speed seems slow, and you have at least 512 M Bytes RAM in your PC, uncheck the box and compare results.

### 4.5.3 Color Controls

Xitron's Epson vDot-II Plug-in provides two methods of color control; manual and ICC profile. The four sliding controls in the Configuration dialog provide the manual method of color control, but they can also be used to make adjustments when ICC Profile-based color management including vDot-II 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.

### 4.5.4 Clipping, Tiling and Repeating

Xitron's Epson vDot-II Plug-in has additional special features for tiling or clipping large images and repeating small ones.

Specify the Media Type and Size in the *Media* list box and the *Width* and *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 list box and your printer documentation if you are unsure which source you need to specify.

If you wish to use cut sheets, select Sheets from the *Media* list. 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*. 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*, 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, 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, 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 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 *Center* check box sets the margins to place the image in the center of the width of the media.

The *Units* list box 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).

#### 4.5.5 Progressive Proofing

This special feature is primarily for printers running 4 color jobs on 2 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 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, 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 the Crop Marks and Imposition Features. If you are using Progressive Proofs we recommend not using Page Features.

Click **OK** to return to the Page Setup Dialog.

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

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## Chapter 5: Testing Your vDot-II Installation

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### 5.1 Printing a Test File

Once you have created a Page Setup it is time to output a sample job.

Begin by clicking the checkbox labeled “Disable Output” on the Output Controller window. Pull down the Navigator Menu and select Print File.

From the list box, choose the Page Setup created for the vDot-II plug-in (on the PC select “pdf” in the “Files of Type...” list box).

Browse the system for your RIP, usually C:\Xitron\Navigator 7.0. There you’ll find a folder labeled Sample Files containing a file labeled “Drupa Sample.PDF.” Select this file and click Print.

### 5.2 Info and ROAM functions

After the RIP processes the file it will appear in the Output Controller as shown in figure 5.1.

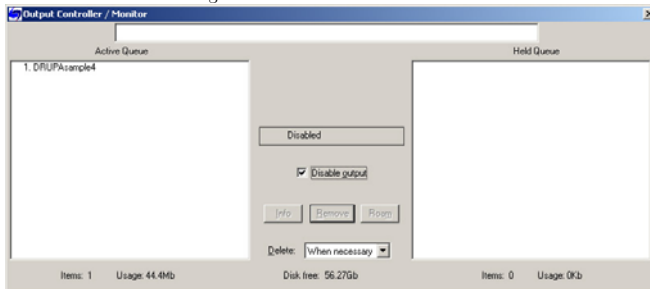


Fig. 5.1 The Output Controller

With the job highlighted, click the “Info” button and check the size, orientation, printer type etc. 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 - see section 4.4.2 above.) By clicking the “Roam” button you can see 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 should appear as shown in figure 5.2.

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.

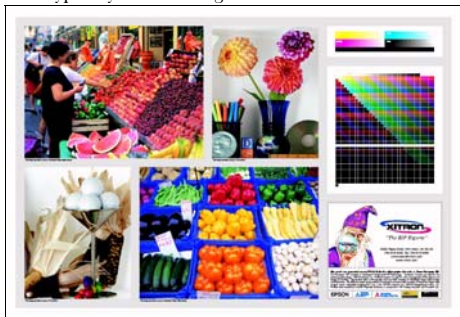


Fig. 5.2 Test Image

### 5.3 Printing

After viewing, close the Roam windows and click the “Disable Output” box to release the job for output.



As the job progresses, you will see a dark gray bar in the central window of the Output Controller. This progress bar indicates the proportion of the job output.

Depending on your Windows Printer driver settings (see section 2.2.4 above) 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 A, Troubleshooting.

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## Chapter 6: Creating Appletalk Input

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### 6.1 Introduction

To print to the RIP from a Macintosh workstation running OS 9 or older, 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 displays, click New.

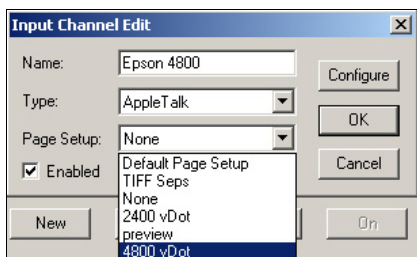


Fig. 6.1 Add Input Channel

In the Name field, enter the name you wish to see in the Macintosh Chooser, 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 a 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 (Classic OS) or using the Printer List dialog (OS-X) as shown in figure 6.2.

If Navigator is running on a Windows XP platform, the AppleTalk stack must be loaded and a Miramar code properly entered to communicate with the RIP over AppleTalk. Xitron does not recommend the use of AppleTalk with OS X platforms as it is the slowest protocol available.

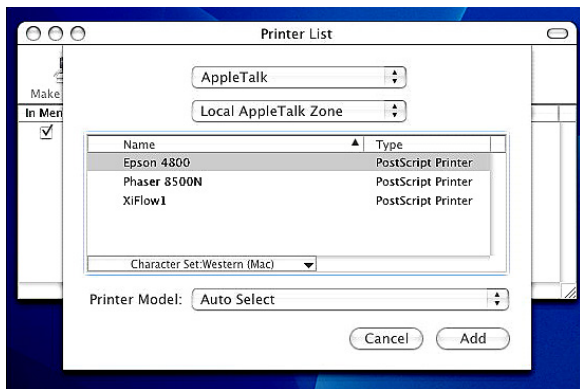


Fig. 6.2 AppleTalk Printer in Printer List

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## Chapter 7: Calibration

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### 7.1 Introduction

Xitron supplies the vDot-II plug-in with a number of calibration curves for specific media and resolution. These curves were created with reference printers of the same type that the plug-in 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 may be helpful to calibrate your printer to compensate for differences between it and the reference machine.

### 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. However, for occasional calibration you can also use any 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 create ICC profiles.)

In addition, you will require a good supply of media. Note that the RIP can only be calibrated for media listed in the document “Media For ink Jet Printers” - referred to in Chapter 1 and attached at Appendix A - for which Xitron provides internal calibration targets. To create an initial calibration curve for other media types requires the use of additional tools not provided with the vDot-II Plug-in.

### 7.3 Printing a Target

This step is essential and may not be skipped. It is possible to go through the entire process without this step but the results will be incorrect. Begin by making sure you have created a Page Setup with the correct settings for the calibration targets. The *Color* list box will show “vDot-II” and Calibration should show “None.” In this example we will calibrate an Epson 2400 using Epson Semimatte Proofing Paper at 720 dpi. We have created a suitable Page Setup, and named it 2400 vDot.

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

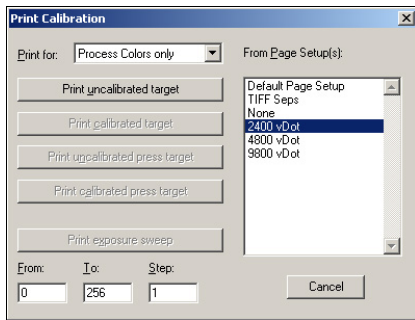


Fig. 7.1 Print Calibration

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:

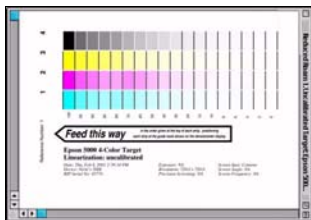


Fig 7.2 Calibration Target

## 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, use the Genlin application installed with your RIP. Locate the Genlin icon inside the RIP folder, launch it, and then select Configure from the menu bar.

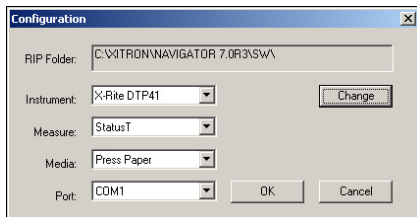


Fig. 7.3 Genlin Configuration

Use the **Browse** button to locate the **RIP** 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 of your measuring device.

Set **Measure** to **Status T**, **Media** to **Press paper**, and set the **Port** to the serial port to which you’ve connected the measurement device.

Click **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 database 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 **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 in figure 7.4.

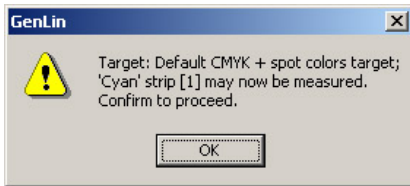


Fig.7.4 GenLin Prompt

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. Click **OK** and feed the target gently through the reader.

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

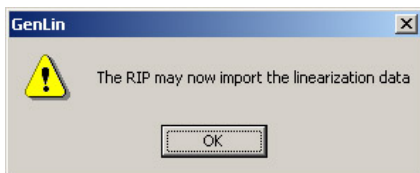


Fig 7.5 Genlin Finished Prompt

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*.

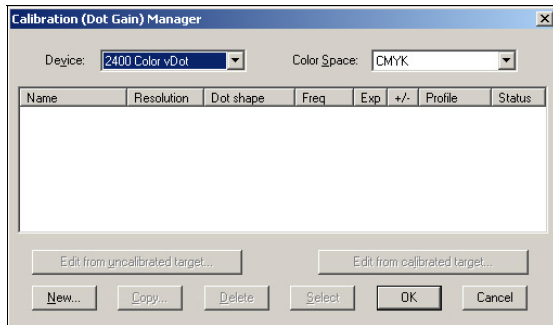


Fig. 7.6 Calibration Manager

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 *New*.



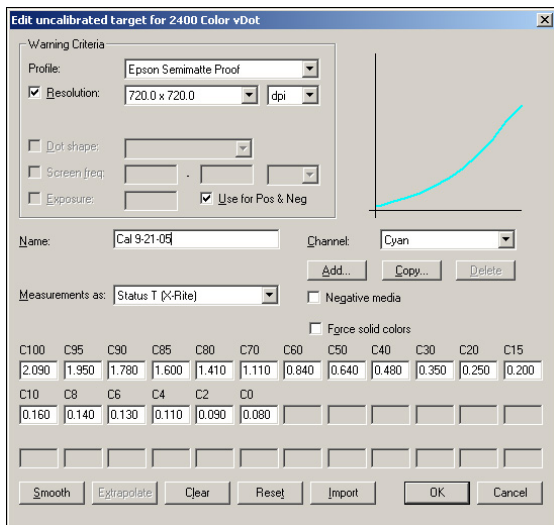


Fig. 7.7 Calibration Editor

### 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 set in Page Setup here. This provides a warning in the RIP monitor, should you attempt to use it at a different 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. Click *OK*.

### 7.5.5 Import Data From Strip Reader

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

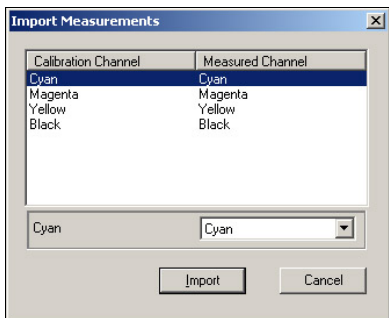


Fig. 7.8 Import Dialog

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.

## 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:

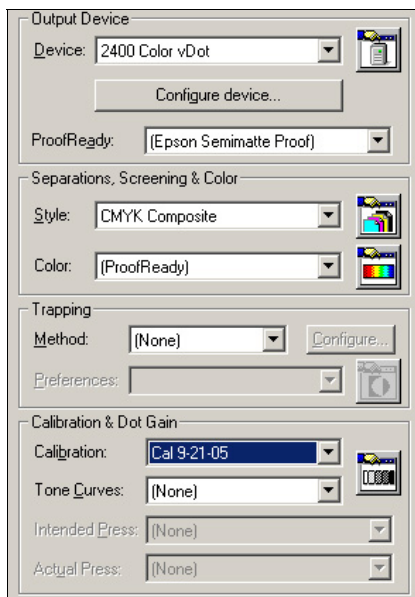


Fig 7.9 Select New Calibration

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

If you do not intend to use the default ProofReady color management and wish to create your own using ColorPro, the calibration process does not change. However, in this case there would be no entry in the ProofReady list box and the name of your chosen Color Setup would appear in the Color list box.

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## Chapter 8: Using the Halftone Option

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### 8.1 Enabling the Halftone Option

In Chapter 3, sections 3.3.2 and 3.4, we covered entering Plug-in Passwords and the selection of Devices in the Device Manager. For each printer model there are two Halftone device types; Color Halftoned and Color Keys, which depend on the purchase of the Halftone Option for full operation. You can use these devices without the password, but output will include 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 Set up 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.

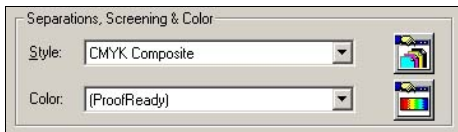


Fig 8.1 Color Halftone Separation Style

After setting the Separation Style, click the icon to the right of the Style Name and click Edit. The screening setup dialog will appear as shown in figure 8.2.

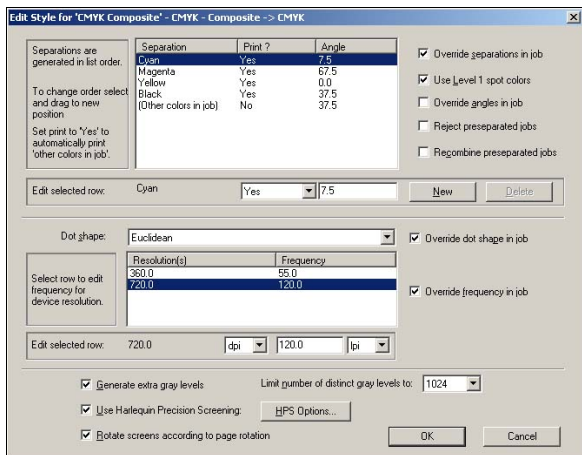


Fig 8.2 Screening Setup

### 8.2.2 Screen Angles

For best results, Xitron recommends using off-axis screen angles. To do so, check the “Use Harlequin Precision Screening” check box and click the button “HPS Options.” In the following dialog select the angle set “7.5, 76.5, 22.5, 37.5” in the top list box, and click OK:

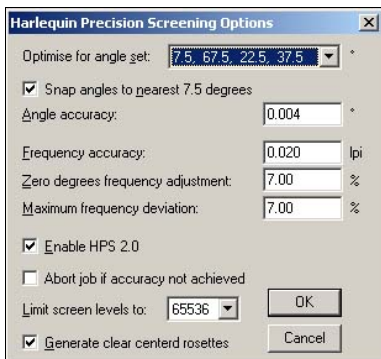


Fig. 8.3 HPS Options

Then set the individual screen angles to the values as shown in figure 8.4.

Separation	Print ?	Angle
Cyan	Yes	7.5
Magenta	Yes	67.5
Yellow	Yes	0.0
Black	Yes	37.5
(Other colors in job)	No	37.5

Cyan	Yes	7.5
------	-----	-----

Fig. 8.4 Screen Angle Settings

### 8.2.3 Screen Ruling

Edit the table near 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 and turn on "Override angles" in the main Page Set-up dialog.

### 8.2.4 Dot Shape

Choose one of the library of dot shapes (spot functions) available. Euclidean is the conventional round dot that appears as a checkerboard at 50%. You'll also want to turn on "Override dot shape" in the main Page Setup dialog.

### 8.2.5 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 above are recommended starting points for use with the vDot-II 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 algorithms. 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-II mode. In plain terms, Color vDot-II 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 1024

Use HPS - Yes (using default HPS Options)

Rotate screens according to page rotation - Yes

### 8.2.6 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. Xitron always recommends using this feature to eliminate possible errors contained in the page layout file.

- **Use Level 1 Spot Colors**

If checked, this 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.

Xitron always recommends using this feature to eliminate possible errors contained in the page layout file.

- **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.

### 8.2.7 Spot Colors

If Other Colors In Job is set to “No” then spot colors will be converted to CMYK equivalents based on the contents of the PostScript file unless Override separations is checked on. With Override separations on, the system makes calculations using the various ICC profiles and other color management settings in use for this page setup. A spot color will 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.

The recommended setting is Yes.

Click **OK** to save the settings and return to the Page Setup dialog.

### 8.3 Rip and Plug-in Configuration

The controls in the Page Setup dialog for RIP configuration and the controls in the Device Configuration dialog for Plug-in configuration have the same functions with the Halftone devices as with the vDot-II devices.

### 8.4 Using Color Halftone Devices

The first time a job is processed with a Page Setup configured to use one of the Color Halftone devices, the RIP may spend several minutes generating halftone screens. Once generated the RIP saves this information and they 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 its own screen, as shown in figure 8.5.

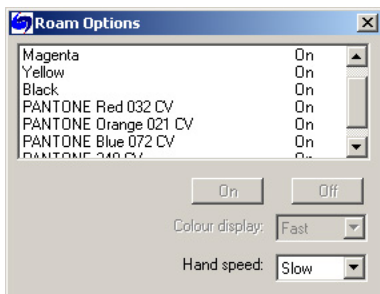


Fig. 8.5 Roam Options with Spot Colors

Clicking Disable Output again will release the job to the printer. At this time the various colors merge into a print image and output. If you examine the proof with a loupe 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.

## 8.5 Making Film Negatives and Separations

The vDot-II plug-in, in combination with the Navigator RIP and Epson Stylus Pro printer can be used to make film negatives or positives suitable for screen printing and other processes. This section provides some insight to get you started.

### 8.5.1 Media

Xitron tested one brand of transparent film and found it to work well with the Stylus Pro 7800 and 9800 models. Other films may also work well, but you should make a number of tests before committing to any quantity of media.

The film Xitron tested is Pictorico Premium OHP Transparency Film. It is available as roll and sheet media. Pictorico can be contacted at 1-888-879-8592, [www.pictorico.com](http://www.pictorico.com).

### 8.5.2 Using Error Diffusion Screens

Select the 78-9800 Mono device, but in the Page Setup dialog select “CMYK Separations” as the separation style.

Color jobs will be separated into the four process colors and appear in the RIP Output Controller as four separate Page Buffers as shown in figure 8.6.

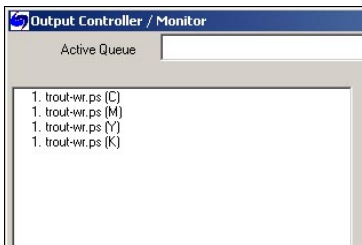


Fig. 8.6 A Separated Job

You can select all four of these Page Buffers and click on the ROAM button to see a color preview, but on output the images will appear in black only. You can make the separations print negative by

highlighting any one of the Page Buffers, checking the Negative box and clicking OK as shown in figure 8.7. The system will change all related Page Buffers together.

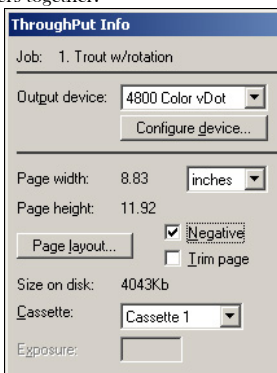


Fig. 8.7 Selecting Negative Output

If your job contains Spot colors they will be converted to Process separations unless you configure the Separation Style to include Spot colors as individual films. To do this, edit the Page Setup dialog, click the icon to the right of the Separation Style list box, click Edit and you will see the following dialog:

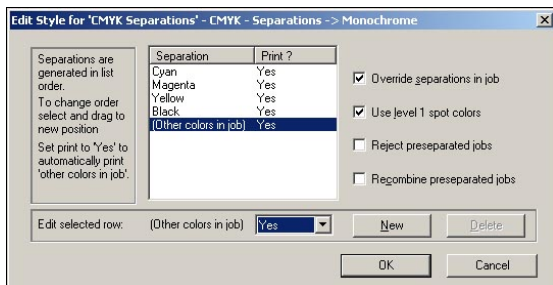


Fig. 8.8 Edit Separation Style

In this example “Other Colors in job” has been set to Yes, forcing the RIP to create individual separations for each color, including spot colors.

In the following example the job has 4 Process and 4 Spot colors and each one creates its own Page Buffer in the Output Controller:

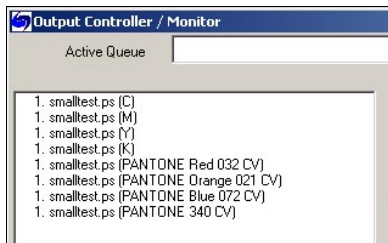


Fig. 8.9 Separations Including Spot Colors

If you do not wish to output all of these separations you can delete unwanted Page Buffers before releasing jobs for output to the printer.

### 8.5.3 Using Conventional Screens

You can also output film negatives or positives using conventional halfone dots (provided you have purchased the Halfone option for your vDot-II plug-in).

This is done using a Color Keys device. Create a Page Setup using - for example - the 4800 Color Keys device and follow the directions earlier in this Chapter for screen angles, ruling etc.

Since the Color Keys devices normally output separations in color, there is an additional step required to enable output of the separations in black only. To do this, edit the Page Setup dialog, click the Configure Device button, and check the “Print color separations in Black” box as shown in figure 8.10.

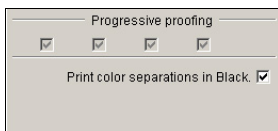


Fig. 8.10 Setting a Color Keys Device to print Black Separations

The remarks in section 8.5.2 concerning Spot colors, multiple Page Buffers and negative output all apply to conventional dot separations in just the same way as they do to error diffusion screened separations.

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## Appendix A: Media Guide - vDot-II

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### Media for Ink Jet Printer

#### *Introduction*

There are many hundreds of media being marketed for use with ink jet printers, from manufacturers such as Epson and HP, from established graphic arts suppliers such as Mitsubishi and Agfa, and from many 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, as sold in different regions.

The Xitron XPR series of Proofer RIPs and the ProofReady and vDot-II plug-ins include a library of color profiles and calibrations for specific media. Accurate results are only possible if the correct media is used. The purpose of this document is to identify exactly which media are supported on which printer, and to provide part numbers for these media to enable the user to accurately match the media and RIP settings.

#### *Inks*

In addition to the correct media, the correct ink set is essential for accurate results. All Xitron's color calibration and profiling for vDot-II is done using Epson's Ultrachrome K3 8 color ink set.

***Layout***

The following pages contain charts for each family of printers for which Xitron supply color profiles and calibrations. (This is not by any means the full list of devices which Xitron are able to drive from our RIP products.)

Each chart identifies the printer followed by a list of the supported media for that model.

**Epson 2400*****With Photo Black Ink***

<b>Media Type</b>	<b>Part Numbers</b>	<b>Profile Names</b>
Epson Premium Semigloss Photo Paper	S041331 S041327 C13S041328 C13S041336 C13S041338 C13S041334	Epson Premium Semigloss
Epson Proofing Paper Semimatte (also Epson Proofing Paper Commercial Semimatte)	S041744 C13S041668	Epson Semimatte Proof

***With Matte Black Ink***

<b>Media Type</b>	<b>Part Numbers</b>	<b>Profile Names</b>
Epson Enhanced Matte Paper (also Epson Archival Matte Paper)	S041341 S041343 S041339 C13S041344 C13S041340	Epson Enhanced Matte



## Epson 4800, 7800 and 9800

***With Photo Black Ink***

<b>Media Type</b>	<b>Part Numbers</b>	<b>Profile Names</b>
Epson Premium Semigloss Photo Paper (250)	C13S041641 C13S041642	Premium Semigloss Photo 250
Epson Proofing Paper Semimatte (also Epson Proofing Paper Commercial Semimatte)	S041724 S041668 S041744 C13S041668 C13S041724 C13S041658 C13S041659	Epson Semimatte Proof

***With Matte Black Ink***

<b>Media Type</b>	<b>Part Numbers</b>	<b>Profile Names</b>
Epson Enhanced Matte Paper	S041341 S041343 S041339 S041908 S041595 S041596 S041597 S041725 C13S041595 C13S041596 C13S041597	Epson Enhanced Matte
Epson Archival Matte Paper	C13S041344 C13S041340	Epson Archival Matte



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## Appendix B: Troubleshooting

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### **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 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 6.0 RIP users see the ColorPro user manual. For 5.5 Rip users see Appendix A, HIPP Color Management System.) 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 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, nor are stock color profiles supportable with their use.

### **Can I Use TrapWorks with Epson printers?**

Yes. All supported devices work well with TrapWorks (on a 5.5 Rip) and TrapPro (on a 7.0 RIP).

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

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.

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## Appendix C - Notes on Media, Resolution and Color Management for the Epson vDot-II Plug-in

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### Media Selection

The Configuration dialog discussed in Chapter 4 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 vDot-II 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-II plug-in, but also unsupported by Epson.

### Using Non-Standard Media

If you are forced to use a non-standard media, significant 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 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 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 X800 series.

### **Resolution and Color Management**

ICC Profiles supplied with the XPR RIP have been generated using "normal" conditions, meaning RIPing at 720 dpi and plotting at 720 by 720 dpi. Tests show that the profiles are still valid at other RIP resolutions, but 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.