



# **PowerRIP 2000 User's Guide**

***Professional Proofing software for InkJet printers***

© 2000 iProof Systems, Inc. All Rights Reserved.

Information contained in this document is subject to change without notice and does not represent a commitment on the part of iProof Systems, Inc. The software described in this document is furnished under the dealer agreement or nondisclosure agreement. The software may be used or copied only in accordance with the terms of the agreement. It is against the law to copy the software on any medium except as specifically allowed in the license or nondisclosure agreement. No part of this manual may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying and recording for any purpose without the express written permission of iProof Systems, Inc.

PowerRIP2000 is a registered trademark of iProof Systems, Inc.

Windows, Windows 95, Windows 98, and Windows NT are registered trademarks of Microsoft Corporation.

Part number: PRHPPC-2000US

Rev 8/00

# Contents

Chapter 1: Introduction	3
Features	3
Where to Get Help	4
Before You Begin	5
Chapter 2: PowerRIP 2000 Installation	6
Installing the PowerRIP 2000 Software	6
Validating PowerRIP 2000	10
Remove Validation	11
Printing to PowerRIP 2000 – The Basics	12
Device Options	14
Chapter 3: Printing from Workstations on a Network	17
Setting Up Your PowerRIP Printer for Network Sharing	17
Networking Macintosh Workstations	19
Remote Printer Queues	20
Chapter 4: Testing PowerRIP	23
Chapter 5: PowerRIP 2000 User Interface	24
PowerRIP 2000 Control Panel Dialog	25
Chapter 6: PowerRIP 2000 Menus and Control Dialogs	27
Chapter 7: PowerRIP 2000 Calibration	31
What is Color and Why Calibrate	31
PowerRIP Calibration	34
Using PowerRIP Calibration	39
Chapter 8: Troubleshooting	41
Glossary	46
Index	48

# Introduction

PowerRIP 2000 turns your Hewlett-Packard® HP® ink jet printer into a PostScript® Level 3 compatible printer. PowerRIP 2000, a software raster image processor (RIP), reads and interprets PostScript Level 3 and allows your printer to print color raster images. PostScript is the standard for high quality graphic output. All elements of a document, including text, graphics, and images are described by the PostScript code. When you print from an application, such as PageMaker®, PowerRIP processes the PostScript code and sends the processed image to the printer.

## Features

PowerRIP 2000 includes the following features:

- PostScript Level 3 compatible—the professional world printing standard
- ICC profiles for HP’s inks and papers as well as iProof Systems’ PressProof stock, at all available resolutions
- User definable spot colors and color calibration controls
- Makes composites from separations
- DCS1 and DCS2 support
- Accepts user defined output profiles
- Network ready, Server/Client and cross-platform configurable
- SWOP, Japan S, Euro simulation for more accurate offset press proof color matching

## Where to Get Help

For helpful hints and troubleshooting guidelines, see Chapter 8. If you need further assistance, technical support is available from iProof Systems. When calling for technical assistance, be ready to identify your system and its configuration, the serial number of PowerRIP 2000, and a description of the problems you are encountering. It is highly recommended that you enable the Log Messages option when creating a PowerRIP printer. The entries in the log will help the support staff identify PostScript error messages.

### **iProof Systems Technical Support**

iProof Systems Technical Support is available through phone, fax, mail, e-mail and the Internet. Hours of operation are 7:00 am to 7:00 pm EST (Monday through Friday). Your free phone support is limited to 30 days from your first support call. After the 30 days have expired a service charge of \$2.50 (U.S. Dollars) per minute will be applied (billed to your credit card). Visa, MasterCard, and American Express are accepted. We suggest using iProof's free e-mail support to get a prompt answer to any questions you may have.

iProof Systems

2401 West Eau Gallie Blvd, Suite 4

Melbourne, FL 32935 USA

Telephone Support: (321) 751-2445

Fax Support:(321) 751-2449

### **Electronic Support Services**

- World Wide Web

iProof Systems' World Wide Web site is <http://www.iproofsystems.com>.

iProof Systems' home page includes FAQs (Frequently Asked Questions), new product announcements, Error Messages, Read Me files, and other helpful information.

- iProof Systems E-Mail Support

You can also send e-mail to iProof Systems at [Support@iProof Systems.com](mailto:Support@iProofSystems.com). Please include your name, PowerRIP 2000 serial number, platform, and printer model so that iProof Systems technical support representatives can e-mail a response to your question.

## Before You Begin

### Before installing PowerRIP 2000:

1. Make sure your system meets the following requirements:
  - Pentium, Pentium II or Pentium III processor (single or multiprocessor)
  - Windows 95/98/NT/2000
  - 48 MB RAM (64 MB recommended)
  - VGA or SVGA color monitor
  - Mouse
  - CD-ROM drive
  - Internet access or fax for validation
  - Your startup drive should have a minimum of 200 MB of free space for letter size pages, 280 MB free for legal size. Complex documents and large images may require significantly more.
2. Set up your printer as shown in the HP printer documentation that came with your printer. It is a good idea to make sure the printer works properly with the HP printer driver before continuing.
3. Read the remainder of this User's Guide. The information contained within will help you install and test PowerRIP 2000 smoothly. Installation and basic printing instructions are included for Windows. Also included are instructions for printing from Apple Macintoshes.

Installation of the PowerRIP 2000 software package consists of two steps:

1. Installation of the PowerRIP 2000 software.
2. Validate PowerRIP 2000.

## Installing the PowerRIP 2000 software

1. Turn on your computer. If it is already on, check the TaskBar to make sure that you have no applications running. If you do, exit them.
2. Insert the PowerRIP 2000 CD-ROM into your CD-ROM drive. If *auto-play* is enabled, the PowerRIP 2000 Install splash screen will appear. If the splash screen does not appear, open My Computer on your Windows Desktop, then open the CD-ROM. Double-click on the file named "Setup.exe."
3. Click on **Install PowerRIP 2000**. The **Choose Setup Language** dialog will display.  
Click **OK**



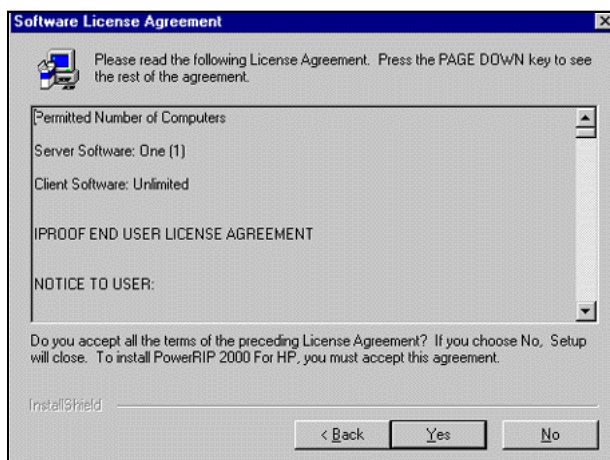
4. The **Setup** dialog will display momentarily. The **Select Location** dialog will then display.  
Click **Continue**.



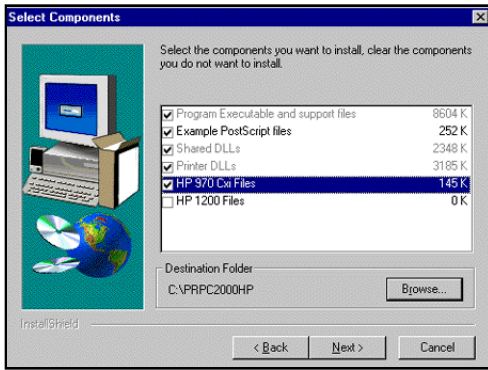
5. The **Welcome** dialog will display.  
Click **Next**.



6. The **Software License Agreement** dialog will display.  
If you agree click **Yes**.



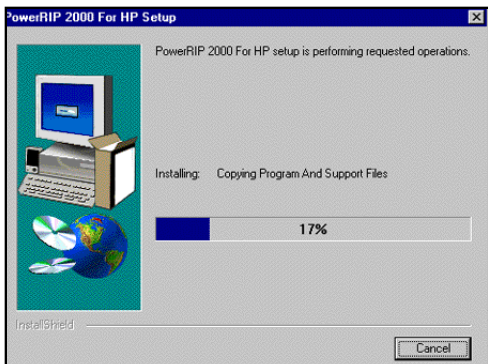
7. The **Select Components** dialog will display.  
Select your printer.  
Click **Next**.



8. The **Select Program Folder** dialog will display.  
Click **Next**.



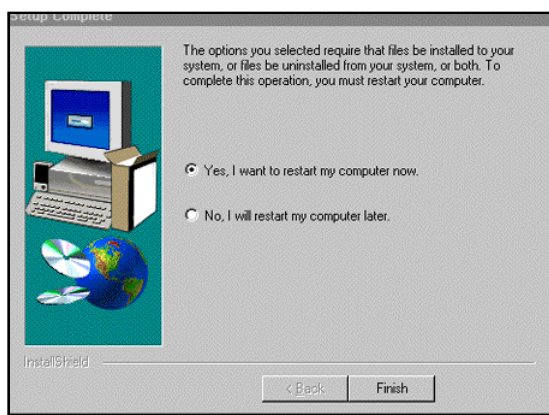
9. The **PowerRIP 2000 Setup** dialog will display.  
The PowerRIP 2000 application will start to install. When 100% is defined as copied a slight pause will occur while copying finishes.



10. The **PowerRIP 2000 Print Manager Setup** dialog will display.  
The printer you selected in the Select Component dialog should be highlighted.  
Click **Continue**.



11. The **Setup Complete** dialog will display.  
Click **Finish**.  
Your computer will restart.



You must validate PowerRIP 2000. Please see page 11, Validating PowerRIP 2000. Without validation the word PowerRIP will print across the page.

## Validating PowerRIP 2000

Before using PowerRIP 2000 you must validate your software. If you do not validate the word “PowerRIP” will print across the page. When you validate your PowerRIP 2000 on the internet, you create a bank account of 5 validations. The first time you validate you will use 1 of your 5 validations. You will then have 4 validations left in your bank account. When you use one of your validations the number of validations left in your bank account will display on the screen.

### To Install Validation follow the steps below:

1. Click the **Start** button on the taskbar. Select **Programs>PowerRIP 2000 for HP>PowerRIP2000 for HP** to launch PowerRIP 2000.
2. Click PowerRIP 2000 on the taskbar to maximize the PowerRIP 2000 Control Panel.
3. Pull down the **File** menu and select **Install Validation**.
4. The PowerRIP Validation dialog will display.



5. Write down your unique User Code.
6. You will also need your Product Code which can be found on the CD envelope and the QuickStart Guide.
7. To obtain your “Activation Code,” launch your web browser and enter:  
**<http://www.iProofSystems.com/validation>**
8. Follow the instructions on the iProof website to obtain your Activation Code. Enter that number on the Activation Code window. Click OK. PowerRIP 2000 is now Validated. If you pull down the PowerRIP 2000 File menu you will note that Install Validation is now grayed out and Remove Validation is active.

## Remove Validation

You should Remove Validation before reformatting your hard drive, upgrading your operating system, or upgrading to a newer computer. When you Remove Validation and put it back into your bank account on the internet, the counter is reset back to five.

### To Remove Validation follow the steps below:

1. Launch PowerRIP 2000.
2. Pull down the **File** menu and select **Remove Validation**.
3. You will get a warning that removing validation will result in PowerRIP being printed on all further output. Click **OK**.
4. You will get a message which will include your invalidation (Remove) Code. Write down your Invalidation code.
5. Launch your web browser and enter:

**<http://www.iProofSystems.com/validation>**

Click **Remove a Validation**. Enter your Product Code and your Invalidation (Remove) Code. Click **Submit**. A dialog will display that confirms that you have reset your counter back to 5. It should be noted that the counter will be incremented by 1. Thus if you had used 1 validation it will be incremented to 5. If you have used 3 validations it would be incremented to 4 and so on.

## Printing to PowerRIP 2000– The Basics

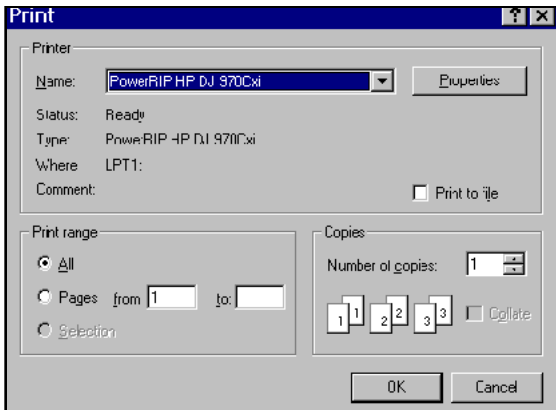
Printing to PowerRIP 2000 from most Windows applications is simple. Select the PowerRIP 2000 printer in the print dialog of your application, select settings for resolution, paper type, etc., and click **Print**. The application builds the PostScript file in the directory that the PowerRIP 2000 printer specifies. PowerRIP 2000 processes that file and then sends the raster image data to the queue printer “BGXXx”, which in turn sends it through the corresponding LPT, network or similar port.

This section will show you the *basics* of printing to PowerRIP 2000, using screen shots from an application that is generally found on Windows – WordPad. For more high-powered applications, such as QuarkXPress, PageMaker, etc., please refer to the Application Read Me files that are on the iProof Systems WEB site and/or on your PowerRIP 2000 CD. These files are all in Acrobat Reader PDF format. You must have Acrobat Reader installed on your computer to view these files.

It is *highly* recommended that you thoroughly read Chapter 5, which orients you with PowerRIP 2000’s user interface before attempting to print to PowerRIP 2000.

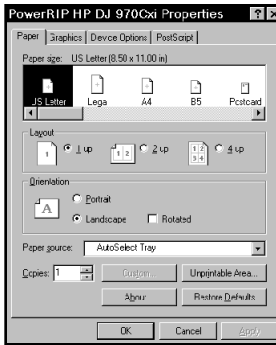
### Printing from stand-alone PCs running Windows 95/98

1. It is assumed that a WordPad file is on the screen and ready to be printed. Go to **File>Print..** The Print dialog will appear.  
In the **Printer Name:** field select your printer.




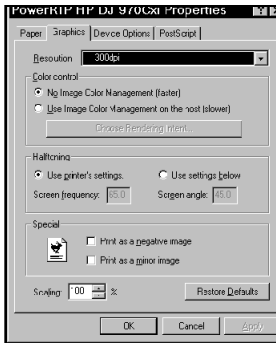
Click on the **Properties**.

2. **Paper** tab  
Make sure you select the correct paper size, as well as the orientation.



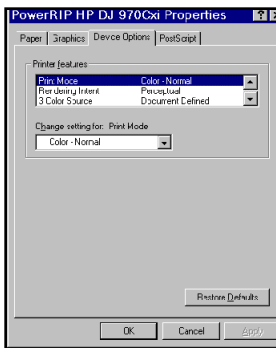
### 3. Graphics tab


Select the Resolution desired. If a resolution has this symbol next to it , then that resolution is not available for the current features selected in Device Options. See the next step for more information.



### 4. Device Options tab.

The Device Options panel allows you to select a variety of options for printing. A brief description of these options can be found on the next page. To change an option, highlight it in the scroll window and select an option in the pull-down menu.



**Note:** Many of these Device Options interact with each others, and if you attempt to use an option that has this symbol:  , a Conflict Window will appear.

**Print Mode** can be set to Color-Normal, Color-Draft, Color-Best, Color-PhotoREt, Color-2400x1200, Monochrome-Normal, Monochrome-Draft, and Monochrome-Best.

**Rendering Intent** should be set to Perceptual. Absolute, Relative Saturation, and Colorimetric are not presently available.

**RGB Source** should be set to reflect the monitor used to create the image. Use RIP default if none of the other options apply.

**CMYK Source** should be set to RIP default.

**Make Composite From Separations** should be No if you are printing a composite.

**Make Separations** should be No unless you are printing a separation.

**Mirror Image** should be No unless you wish to print a mirror image.

**Negative Image** should be No unless you wish to print a negative image.

**Color Gamut** should be set to Max Gamut.

**Paper Type** should be set to match the paper you have in the printer.

**Generate Pure Black** should be selected if you do not want the black to be created using C, M, and Y.

**Duplexing** should be No unless you wish to print two sided output.

**Screening** should be set to Stochastic.

Click **OK** when finished to exit Properties.

5. Click **OK**.  
The application will build the PostScript file and send it to PowerRIP 2000. PowerRIP 2000 will automatically launch and start processing the file if PowerRIP 2000 is installed on the c:\ drive. If installed on any other drive you will have to manually launch PowerRIP 2000.

You can watch PowerRIP 2000's progress in the PowerRIP 2000 Control Window.

## Canceling a print job

Should it become necessary for you to cancel a job before it prints or after it has begun, there are two options:

- You can cancel a job in either PowerRIP 2000's user interface by clicking **Cancel**, or you can cancel a job by opening the Print Manager for the **BGXXx** printer, right-clicking on the job, and selecting **Cancel Job** or **Purge Jobs**. The BGXXx printer queue can be opened by going to **Start>Settings>Printers**.

## Installing the Printer Drivers on a Macintosh

*Note: For the purpose of this discussion it is assumed:*

1. That PowerRIP 2000 is installed on the PC.
2. The PC will henceforth be considered the Server for this discussion.
3. That the Macintosh's and PC are on a network and that the Macintosh's can see the PC in the Chooser.
4. The Macintosh's will henceforth be considered the client for this discussion.

If you are going to print to a PC server from a Macintosh client you must copy the appropriate Windows PPD to the Macintosh. If you are using an NT server Services for Mac must be installed. When PowerRIP 2000 is installed on your hard drive a folder called PPD is also installed in that folder.

To copy the Windows PPD to your Macintosh Operating System do the following:

1. Go to your **Chooser**.
2. Highlight **AppleShare**. The name of your PC server should display on the right side of the chooser dialog under **Select a file server:**  
*Note: If you cannot see the server then you can go no further. Check your network to discover why you cannot see the server. Check to make sure you have rights to access the server. If the server is an NT system make sure that Services for Mac have been installed.*
3. Highlight the server name.  
Click **OK**.
4. The **Connect to File Server** dialog will display.  
Select **Registered User**. Type the appropriate **Name** and **Password** if applicable.  
Click **Connect**.

5. A dialog will display allowing you to select the driver that PowerRIP 2000 is installed on. Highlight the drive and click **OK**. Close the Chooser. The drive you selected will be mounted on the Macintosh desktop.
6. Open the PC hard drive mounted on your Macintosh. Navigate to the PowerRIP 2000 folder and open it. Open the PPD folder. A French, German, Italian, Spanish, UK, and US folder can be found in the PPD folder. Open the appropriate country folder. For this demonstration the US folder will be used. Highlight the appropriate PPD for your printer. The PPDs are IPHP970\_.ppd and IPHP1220.ppd.

Note: Select the PPD. Do not select the SPD.

7. Go to **Edit** and select **Copy**.
8. Go to your Macintosh **System Folder>Extensions>Printer Descriptions**. Open the Printer Descriptions folder. Do an **Edit>Paste**. The PC PPD will copy to your Printer Description folder.

You are now ready to print from the Macintosh client to the PC server. You can use either LaserWriter or AdobePS to Print to the server.

# Printing from Workstations on a Network

PowerRIP 2000 can be configured to run as a print server or as standalone system. The following network configurations are supported:

- Windows NT 4.0 client to Windows NT 4.0 server
- Windows 98 client to Windows 98 server
- Macintosh client to Windows NT 4.0 server (Services for Mac must be installed on the NT 4.0 server.)

*Note: It is not wise to have a screen saver on the server PC. Certain screen savers, when in the sleep mode, can affect the ability of the client PC to access the server PC.*

## Networking Windows 98 Client to Windows 98 Server and NT 4.0 Client to NT 4.0 Server.

### 1. Install PowerRIP 2000 on the Server:

Insert the PowerRIP 2000 CD into the CD drive. When the splash screen displays **Install PowerRIP 2000** on the server using directions on pages 7 through 10 of this manual.

2. Validate PowerRIP 2000 on the server using the directions on page 11 of this manual.

3. After installation and validation go to **Start>Settings>Printers**. Highlight the printer. Go to **File>Properties**. Go to the **Sharing** tab. Select **Shared As**.

### 4. Connect to Remote PowerRIP 2000 on client:

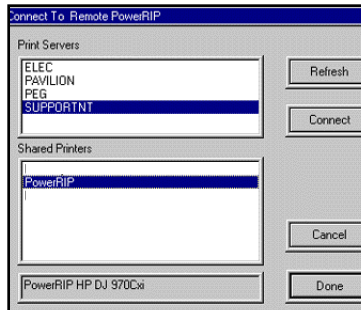
Insert the PowerRIP 2000 CD into the CD drive. When the splash screen displays **Install Remote Printer Queue** on the client.

5. The **Connect to Remote PowerRIP** dialog will display.

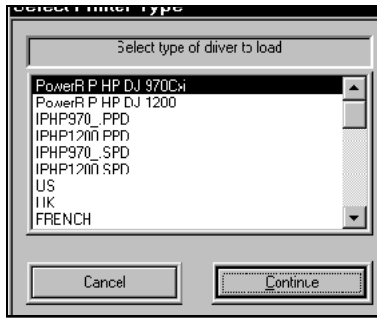
Highlight the Server in the **Print Server** portion of the dialog. Highlight the PowerRIP in the **Shared Printers** portion of the dialog.

*Note: The name you choose should be the same name as the Shared Name in Step 3.*

Click **Connect**.



6. Select your printer in the **Select Printer Type** dialog box.  
Click **Continue**.



7. You will get the message that installation was successful.  
*Note: If you try to install the same driver twice on the same client machine you could get the error "Adding Printer\xxxx\PowerRIP error 1802 (xxxx - being the server name)*  
Click **Done**.  
Click **Exit**.  
Remove the PowerRIP 2000 CD.

8. **Printing from Client to Server:**  
The application you wish to print from should be launched and the file you wish to print should be on the screen of the client PC.  
*Note: For this demonstration the server is called PowerRIP*  
When you go to print make sure that you select your server in the Printer Setup dialog.

## Networking Macintosh computers to Windows NT Server 4.0

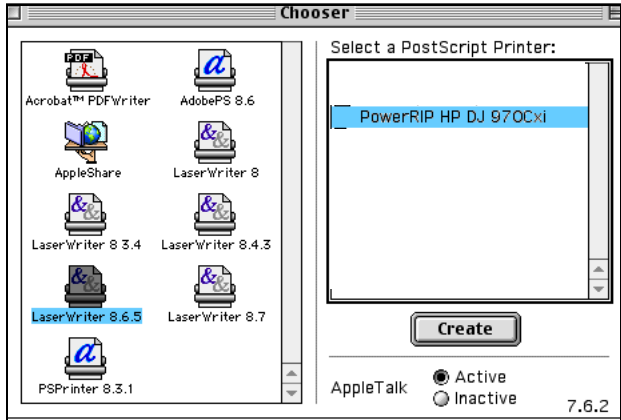
Complete directions for installing the printer driver and copying the appropriate Windows PPD to the Macintosh can be found on pages 16 through 17 of this manual.

*Note: To print from a Macintosh client to a Windows PowerRIP 2000 server you must be running under Windows NT Server 4.0 with Services for Mac installed or Windows 2000 Professional.*

1. Go to the **Chooser** and highlight your driver.

*Note: For this discussion the LaserWriter driver will be used.*

Click **Setup** or **Create**. Create will display the first time you go to the Chooser. Setup will display thereafter.



2. A LaserWriter dialog will display. Click **Select PPD**.
3. In the **Choose a File** dialog make sure that you are in the Printer Description folder. Select the PPD that you copied from the PowerRIP 2000 HP PPD folder. Click **Choose**.

Click **OK**

Close the Chooser.

You are now ready to print from your Macintosh applications.

For directions for printing from specific applications go to Start>Settings>Program>PowerRIP 2000 for HP>Documentation.

## Remote Printer Queues

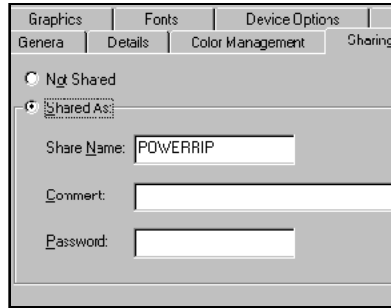
If you are on a large network you can create a Remote Printer Queue on a remote PC to expedite your work flow and for faster throughput speeds. Remote Printer Queues are also very useful if you have more than one server and one printer on a large network. You can create Remote Printer Queues on your remote PC and direct your files to a specific printer, on a specific server, on the network.

### Creating a Remote Printer Queue

On the PowerRIP 2000 server you must make sure that you share the printer so that a Remote Printer Queue can be created.

#### To Share the Printer on the Server:

1. Go to **Start>Settings>Printers**.  
Highlight your printer.
2. Go to **File>Properties**.
3. Sharing tab  
Select **Shared As**.  
Click **OK**.

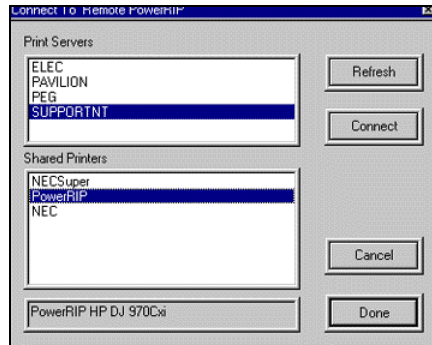


#### Create Remote Queue on remote PC.

1. Insert the PowerRIP 2000 CD into the CD drive.
2. The PowerRIP 2000 splash screen will display.
3. Click on **Install Remote Printer Queue**.

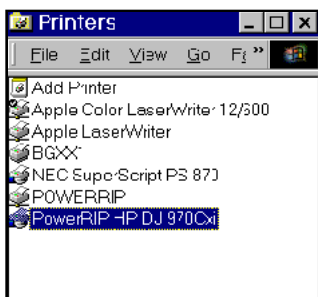
#### 4. The **Connect to Remote PowerRIP** dialog will display.

5. Highlight the name of the Server PC in the Print Server portion of the dialog.  
The name of the printer should display in the Shared Printer portion of the dialog.  
Click **Connect**.

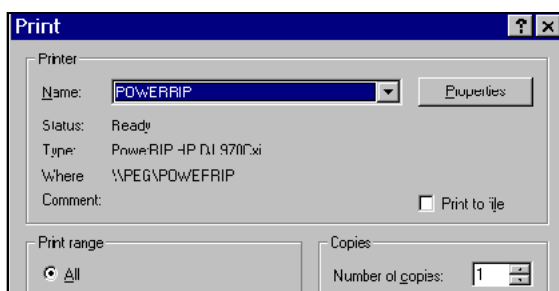


6. You will get a message that the printer connection was added.  
Click **OK**.  
Click **Done**.

If you go to **Start>Settings>Printers** on your remote PC you will see the Remote Printer Queue that you just created.



On the remote terminal you will create your files selecting the Remote Queue name in Page Setup. When you print the file will process, spool to the server and print. If PowerRIP 2000 is installed on the c:\ drive of the server and has not been launched, the first file sent to the server will launch PowerRIP 2000. If PowerRIP 2000 is not installed on the c:\ drive you will have to manually launch PowerRIP 2000.



*Note: If you have more than one printer on the network and want to make a Remote Queue for each printer, one printer can use PowerRIP PowerRIP port. The second printer should use LPT 1. You should select Use Print manager in the Configure Port Managers Scanners dialog. You then can scan the queues within PowerRIP 2000.*

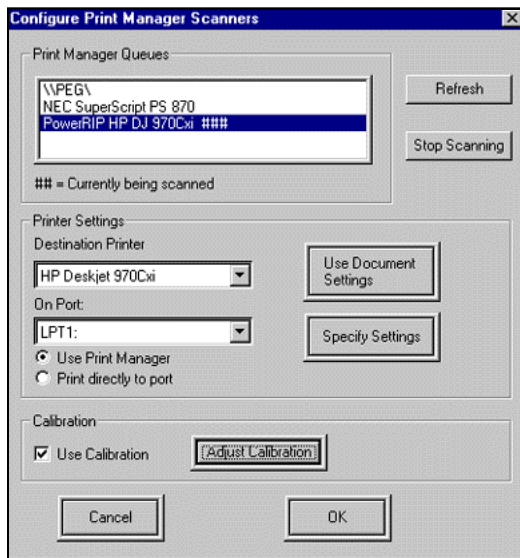
## Configure Print Manager Scanners

Certain applications, such as FreeHand, send header information along with the PostScript file when the print command is executed. This creates various PostScript errors. Print to File circumvents this header information and allows you to print FreeHand files to your printer. Configure Print Manager Scanners gives you the ability to print the PostScript file. For in-depth directions for printing from FreeHand please see the Read Me which can be found by going to Start>Settings>Programs>PowerRIP 2000 for HP>Documentation.

Configure Print Manager Scanners also gives you the ability to customize calibration routines for a specific printer. See Calibration section in this manual.

### To access the Configure Print Manager Scanners:

1. Launch PowerRIP 2000
2. Go to **Inputs>Print Manager Queues Scanners.**



Now that PowerRIP 2000 and drivers have been installed, and validated, you can print a sample pre-made PostScript file to test the system. This test will only verify that PowerRIP 2000 will process and send processed jobs to the printer. It does not test printing from applications to PowerRIP 2000 queues.

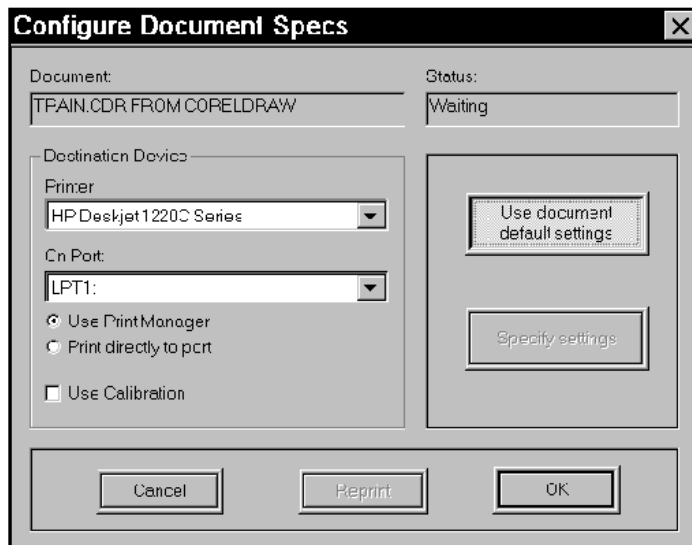
Follow the steps below.

1. Launch PowerRIP 2000 and click on the TaskBar PowerRIP button to open the Main Control Window. Select **Print PostScript File...** from the **File** menu.

A dialog box opens with a selection of files and folders. Select **TRAIN.PS** and click **Open**.

*Note: TRAIN.ps can be found in the PRPC2000HP folder on your hard drive.*

2. The **Configure Document Specs** dialog appears. Make sure the proper printer is selected in the pull-down menu under **Destination Device**, and the proper port is also selected. Click on the **Use Document Default Settings** button, then click **OK**. PowerRIP 2000 will start processing the job and send it to the printer queue BGXXx and then to the printer.



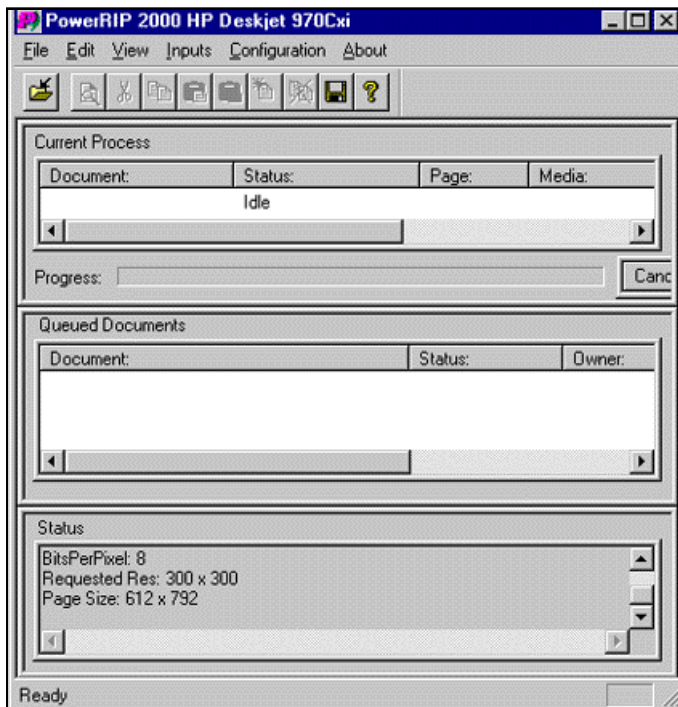
# PowerRIP 2000

## User Interface

This chapter will familiarize you with the PowerRIP 2000 interface.

### PowerRIP Control Panel Dialog

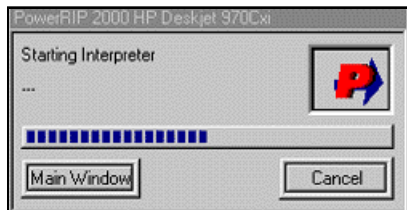
From this panel you can configure all the default settings of PowerRIP 2000. It is also used to insert files manually, pause, cancel, reprint and log activities.



## PowerRIP 2000 Control Panel Dialog

This section will explore the various PowerRIP 2000 Main Control Panel dialogs and the Auxiliary Control Window.

When PowerRIP 2000 is first launched, the **Auxiliary Control** dialog is displayed on screen for a short time, while the PostScript interpreter is initialized.



The **Auxiliary Control** dialog disappears and PowerRIP 2000 is automatically minimized to the Windows TaskBar. Clicking on **PowerRIP2000 HP**. TaskBar button will display the Main Control Window.



- When PowerRIP 2000 detects a PostScript file in its queue folder(s), the Auxiliary Control dialog will reappear and give you an indication of the current activity of PowerRIP 2000.
- Clicking on **Cancel** (bottom right corner of the Auxiliary Control dialog) will force PowerRIP 2000 to abort its current process and flush the PostScript file back to the queue folder.
- Clicking on the **Main Window** button (bottom left corner of the Auxiliary Control dialog) will close the Auxiliary Control dialog and open the PowerRIP Control Panel dialog.

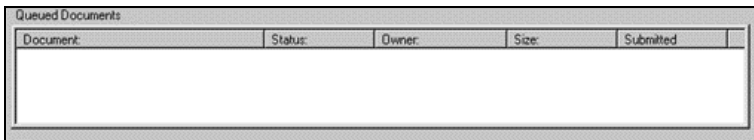
The **Toolbar** can be turned on or off in the **View** menu. Positioning the mouse pointer over a Toolbar button will offer pointer-based ToolTips on the button's function. An expanded description can be seen in the **Status Bar** at the bottom of the PowerRIP window.



The **Current Process** panel indicates the job is currently being processed. Jobs in this panel can be canceled. Once a job is shown in this panel, changing its printing attributes is not recommended.



The **Queued Documents** panel displays other PostScript files that have been sent to PowerRIP 2000. The top file is the one currently being processed. The other files may be moved in the list, can be deleted, and can have their printing attributes changed before they are processed. The options in the **Configuration** menu allow these changes to be made. Jobs in this list that have already been printed may be reprinted.



The **Status** panel displays messages from the PostScript Interpreter. Messages in this panel are diagnostic in nature, and can help tech support personnel identify and correct problems you may encounter when printing PostScript files.



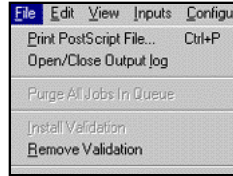
The **Status Bar** displays various messages depending on what the mouse pointer is pointed at. The Status Bar can be turned off in the **View** menu.



This section will explore the menu choices available in PowerRIP 2000. This is ultimately the most important section of this entire manual – it is your guide to the intricate functioning of a powerful piece of software.

### File Menu:

- **Print PostScript File** allows you to select for printing a PostScript file not sent directly to PowerRIP 2000, such as a PostScript file created in AutoCAD or FreeHand.
- **Open/Close Output Log** controls the log file of all messages PowerRIP 2000 produces and displays in the **Status Panel** of the Main Control Window. This message log can be viewed with any text editor, such as NotePad. This option should be invoked every time you use PowerRIP 2000; it will not reopen automatically.
- **Purge All Jobs In Queue** deletes all jobs sent directly to PowerRIP 2000.
- **Exit** shuts down PowerRIP.



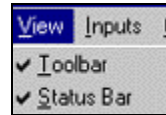
### Edit Menu:

- **Cut, Copy, Paste Before, Paste After, and Delete.** All these commands are for manipulating individual files visible in the **Queued Documents** panel.



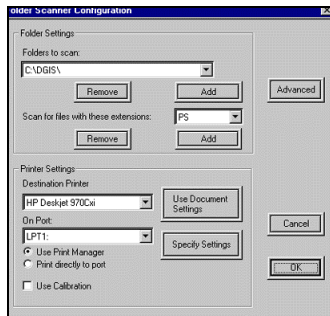
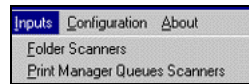
### View Menu:

- **Toolbar and Status Bar.** Selecting either of these items will either hide or show the corresponding section of PowerRIP 2000's Main Control Window.



### Inputs Menu:

- **Folder Scanners.** Selecting this item opens the **Folder Scanner Configuration** dialog.
- **Folder Settings:** This portion controls which queue folder PowerRIP 2000 scans for new files, and the type of files it scans for.
  - The top **Add** and **Remove** buttons can add or remove folders to the “**Folders to Scan**” pull-down menu. A folder for the PowerRIP 2000 printer you selected when installing PowerRIP 2000 is automatically created. If you add another PowerRIP printer to your system, you will need to add the directory that is created to this menu.



- The lower **Add** and **Remove** buttons can add or remove file types to the “**Scan for files with these extensions**” pull-down menu.
- Clicking the **Advanced** button displays the **Advanced Settings** dialog
- **Printer Settings:** This section allows you to select printers for PowerRIP 2000 to print to, select the port, and choose to print with or without Print Manager.
- The **Use Document Settings** button, when depressed, tells PowerRIP 2000 to use all the printing options that were selected in the application(s) from which the PostScript files were printed.
- The **Specify Settings** button displays the printer **Setup** dialog.

*Note: Most Windows applications allow you to select a printer and a PPD, and thus all the options included. Use the **Use Document Settings** option when printing from these applications. Some applications do **not** allow the selection of a PPD, and thus all the options are not available. **Specify Settings** will allow you to set the options as desired.*

- **Advanced Settings Dialog:** This dialog allows you to change how often PowerRIP 2000 scans the selected queue folder, and how many times PowerRIP 2000 will scan a new PostScript file before beginning to process it.

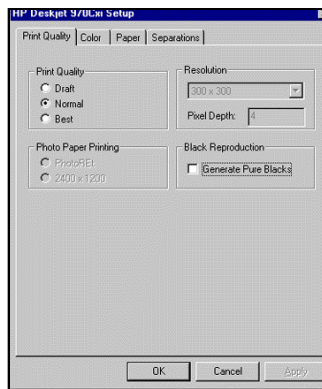


*Note: This last feature can come in very handy when printing over a slow or busy network. If a PostScript file is incomplete when PowerRIP 2000 starts to process it, it could result in various problems. Increasing the value for this feature can prevent problems from occurring.*

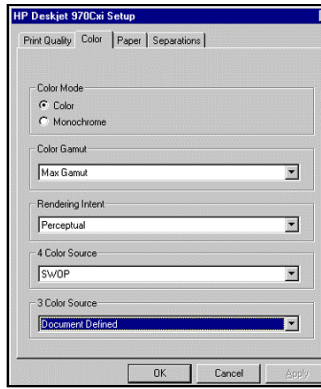
- **Specify Settings:** This dialog allows you to change settings for your PostScript files “on the fly.”

- **Print Quality tab:** This dialog allows you to define Photo Paper Printing, Print Quality, Resolution, and Black Reproduction. Photo Paper Printing, when selected, prints at optimum quality and speed. Black Reproduction allows you to select Generate Pure Black which prints black from the black ink cartridge instead of creating black from C, M, and Y.

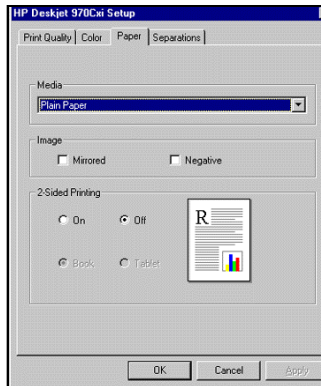
*Please see page 15 of this manual for a description of these options.*



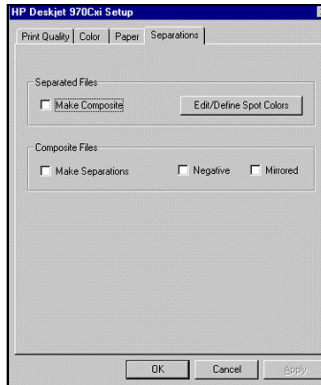
- **Color tab:** This dialog allows you to define the Color Mode, Color Gamut, Rendering Intent, CMYK Source, and RGB Source.  
*Please see page 15 of this manual for a description of these options.*



- **Paper tab:** This dialog allows you to define Media and Image.  
*Please see page 15 of this manual for a description of these options.*



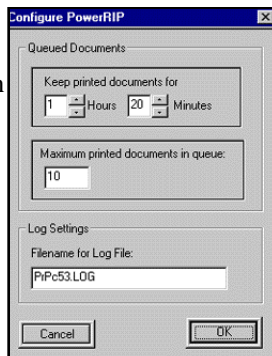
- **Separations tab:** This dialog allows you to define Separated Files and Composite Files.  
*Please see page 15 of this manual for a description of these options.*



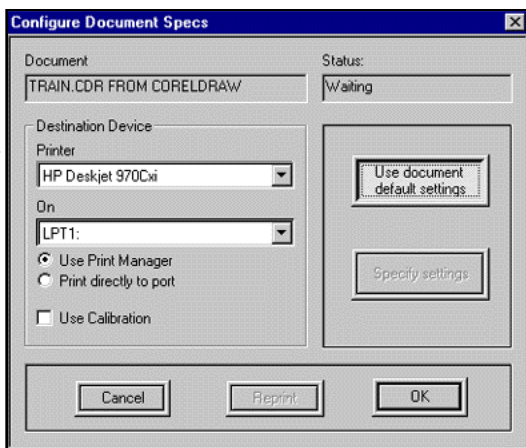
## Configuration Menu:





- **Configure PowerRIP 2000:** Selecting this command opens the **Configure PowerRIP** dialog, which allows you to control how long printed PostScript files remain available for reprinting, and how many files are retained. It also allows you to name your log file (*you can use any name you wish, but if you add the standard .txt extension to the file name, the file can be opened automatically in NotePad or another text editor*).



- **Configure Document Specs:** Selecting this command opens the **Configure Document Specs** dialog, which allows you to modify individual document specifications. Document settings cannot be changed while PowerRIP 2000 is processing the file. They can be changed before, or after, if you are reprinting a job. This dialog will also appear when the **Print PostScript File** command is selected in the **File** menu.



**Note:** Many of these options affect the others, and if you attempt to use an option that has either of these symbols:  , a Conflict Window will appear, telling you exactly what the conflict is and how to resolve it. If you are printing from a Macintosh workstation, unavailable options will be “grayed out.”

## What is Color and why do I have to calibrate?

The science of color can be very complicated if described using mathematics to describe human vision. It is much easier to understand color if we use broad concepts instead of those difficult, complicated mathematical formulas.

The human eye has only three color receptors. These three color receptors perceive and react to red, green, and blue (additive primary colors). The human eye is very much like your scanner, in that it generates signals for the red, green, and blue parts of the picture. By the way, for those math wizards these three receptors are mathematically described as XYZ.

But we don't usually define color using XYZ. We use **hue**, **saturation**, and **brightness**. **Hue** is the color name. So if we ask for the color red we are asking for the hue. **Saturation** describes the strength of the color. **Brightness** describes how light or dark the color is. There are many other things that affect our perception of color such as what color background the color will be appearing on. As an example, if you put red on a blue background it would not look as intense as it would on a white background.

Another influence on how we perceive color is the way our eye registers the color values depending on the relative position of other colors in an image. As an example dark colors are less noticeable to the eye than light colors.

The type of paper used to output the image can also influence the look of the color. Different degrees of whiteness and glossiness will affect how we perceive (see) color.

And finally, the type of light used to perceive the color very much affects how we see the color. The **contrast** and **saturation** of the image is very much affected by the light we use. So if you look at an image in daylight and then look at it under florescent lights the colors will look different.

We can go on and on about the science of color, but the short and simple of the matter is that the observer, the light source, the paper, and how the colors are arranged on the page all affect the final output. Add to that mix the fact that no two human eyes perceive color the same way and you have a host of variables that take many books to explain. So, let's look at how we can produce good color that is pleasing to the eye and true to the colors in the image, as we perceive them. Again, keep in mind that no two people agree on what is good color. So the following information is a guide for you to follow to calibrate your PowerRIP for your particular needs.

But before we begin, let us explore some of the properties of color that you will be exposed to when considering calibration. When printing in color, different color inks are placed on the paper to create an image. So the ink and paper are very important factors in printing good color images. But you also need to know which output color process is best suited for your color images. There is one basic method used to lay ink on paper. That is **CMYK**. But **RGB** and **Spot** colors will also need to be addressed in this discussion. So before we begin to calibrate, let us understand the difference between **RGB**, **CMYK** and **Spot** colors.

You are going to be looking at the image two ways. On the screen and on the printed page. The goal is to be able to predict from the monitor display what the output will look like. But this is not easy to do. The monitor uses RGB to display the image. But generally images are output in CMYK. So we want to take an RGB screen image and output as a CMYK and maintain its color integrity.

There is no universal printing standard for Macintosh RGB, CMYK, monitor white, paper white, etc. This is particularly apparent when you import an image in one application, print it for proofing purposes and then save it as an EPS. If you import this EPS into a second application, very often you will see a color shift because the second application's color model is slightly different and affected the image's color during output. So it is important that you take all these factors into account when calibrating PowerRIP 2000. You want to create a calibration test file using the application and paper you will be outputting your images from. You might want to make a number of calibration files for the different paper types and applications that you will be using.

**RGB** color describes the mixing of red, green, and blue which are called the three **additive primary colors**. These three colors are mixed on the monitor screen when red, green, and blue phosphors are stimulated at different intensities. When an image is scanned, the scanner creates three electrical signals. One for red, green, and blue. These signals each have a digital value. (It should be noted that there are some high end scanners that have the ability to transform the RGB into CMYK information.)

Red, green, and blue vary from scanner to scanner and/or from monitor to monitor. What that means is you can not define the true color from the RGB colors.

Different monitors have different phosphors or different illumination. Some screens have a blue tint while others have a green tint and so on. The printer will give you another result because the printer uses a combination of color that is different than the phosphors of the screen. Also, if you take the same image and scan it on different scanners you will again get different results because different scanners use different light sources, filters, sensors, signals, etc. It should be noted that the scanner also needs to be calibrated to narrow these variables.

**CMYK** describes the ink colors cyan, magenta, yellow and black used in four-color printing and are called **process colors**. These values are usually related to the dot percentage in the color separation. There are as many CMYK systems as there are printing conditions. Also, there are various combinations of CMYK values since a color can be defined using various combinations of CMYK. CMYK values are transformed to RGB values on the monitor. That means you do not get really accurate color simulation on your monitor.

**Spot Colors** are used when a certain color match must occur. Generally the Pantone spot colors are used. It should be noted that color printers require Pantone colors that are calibrated for them. Pantone colors that come standard with most applications are calibrated for imagesetters and printer inks which generally do not match the color printers inks. Also a very common mistake when printing using spot colors is to print process separations. The spot colors will be converted to percentages of cyan, magenta, yellow and black and will no longer be an accurate color match for the Pantone color.

**Gamut** or Color gamut are all the color that a device can produce. It is the range of colors that a color system can output. Many more colors can be displayed on the screen than can be printed. When colors on the screen can not be printed they are out of gamut. If they are out of gamut then can not be printed. The RGB gamut is much larger then the CMYK gamut. The RGB gamut consists of any combination of red, green and blue. The CMYK gamut consists of only the colors that can be produced with cyan, magenta, yellow and black. So gamut is the range of colors that can print using a particular set of inks and paper.

**White Point** defines the whiteness and brightness of the image color at the lightest/whitest point in the image.

The ink, paper, and quality of the scanned image all affect the quality of the printed color image. The smoothness of the paper affects the resolution. The contrast is affected by the gloss of the paper. The light source used to view the image all affect the final color output.

### **PowerRIP 2000 Calibration**

PowerRIP 2000 has the ability to color adjust using it's Q-Curve Calibration feature. This gives the user the ability to increase or decrease the color intensity. The user can adjust all colors or each color individually. It should be understood on the outset, that any adjustment will affect the entire page - including any tints and images on the page. It will also affect any Pantone color you have defined in that page. The user can create different calibration curves either on the fly or saved as printer queue files, for each individual need as it arises. Saving your calibration printer queue files will allow you to use these files at any time, whereas changing calibration on the fly is a temporary measure.

PowerRIP 2000 is calibrated to the manufacturer's inks and papers. If you adjust the calibration it will affect that built in calibration. Since calibration is adjusted in the Folder Scanner Configuration Setup menu it is wise to create a folder on your hard drive called Calibration.

Before you create your customized calibration files you should save the default settings so you can go back to them when creating additional customized calibration

files. Make sure you select **All Save** and name the file Basic. The calibration file Basic will consist of the standard setup for the manufacturers' inks and papers. The customized calibration files will reflect your color adjustment. This will give you the versatility of using the PowerRIP 2000 preset color adjustment or your personalized color adjustments simply by printing using the appropriate calibration file.

Since you can create different calibration files that can be attached to specific queues as well as customized calibration files for each paper type, resolution and printer, it is easier to always work from the same basic calibration file.

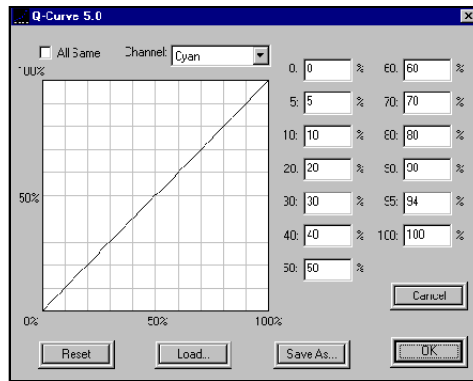
It should be noted that deselecting Use Calibration in the Folder Scanner Configuration dialog will disable the customized calibration file. Your files will then be printed with the PowerRIP 2000 default settings.

### Output Calibration

*NOTE: It is highly recommended that a densitometer be used when calibrating the PowerRIP 2000. Though you can calibrate without a densitometer you will be relying on the human eye, light source, etc., which as we discussed earlier can have many variables.*

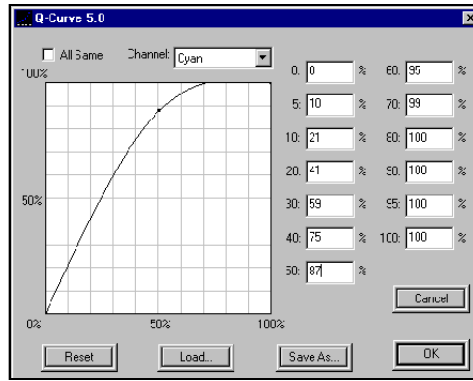
Calibration increases or decrease the color **intensity** of your output. The intensity of the color can be defined as the color saturation. When a color becomes less saturated it becomes dull. More saturated it becomes brighter. So Calibration should be used to increase the intensity or brightness of the image.

When you select calibration in the Folder Scanners Configuration dialog the Q-Curve 5.0 dialog will display. The Cyan channel will be active. To adjust a specific colors, pull down the arrow in the Channel Box and choose either cyan, magenta, yellow, or black. Or you can select **All Same**. All Same will cause all four colors to be adjusted to the curve that appears on the screen.



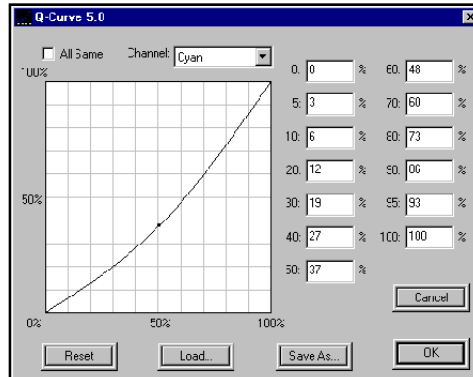
You must remember when working with Calibration **the higher the number the lighter your output will print.**

As an example, the 50% box represents the 50% dot area. If you type 80 in the 50% box your image will print lighter, less saturated.



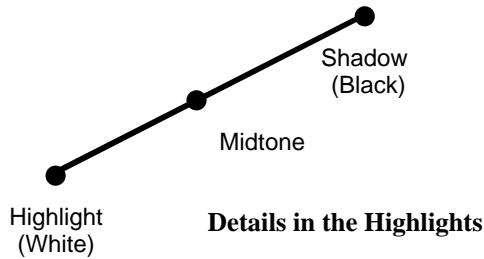
If you type 30 in that box your image will print darker, more saturated.

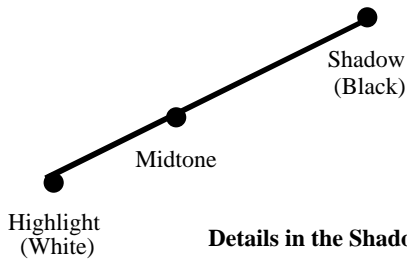
Or you can grab the curve with your cursor and move the curve. Notice when moving the curve that surrounding percentages are also adjusted to blend properly.



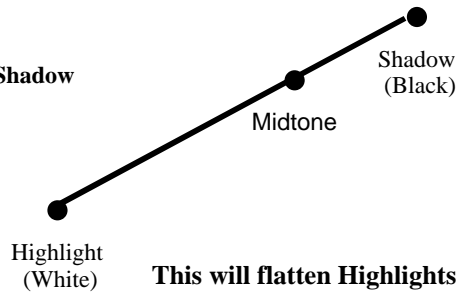
When ink is placed on paper the dot spreads, hence dot gain. The characteristics of the paper, the percentage of ink used and even the order colors are placed on the page can affect dot gain. The critical area where your dot gain decisions should be made are in the midtones of your image. Adjusting the midtones should create an overall pleasing color image. If you adjust the highlights and shadows the midtones will change and will create an unacceptable image when output.

**Highlights** are the lightest detail in the image. **Midtone** is the tonal range between highlights and shadows. **Shadow** is the darkest/blackest area of the image.

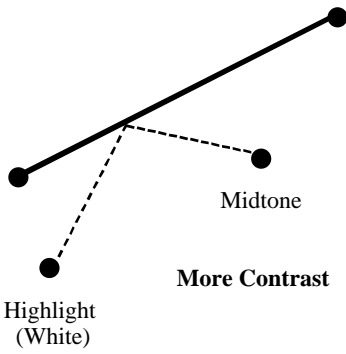




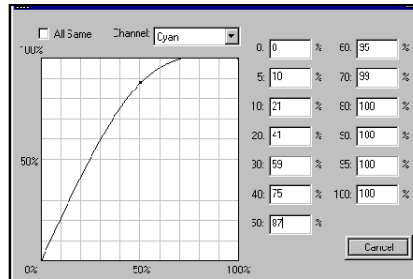
**Details in the Shadow**



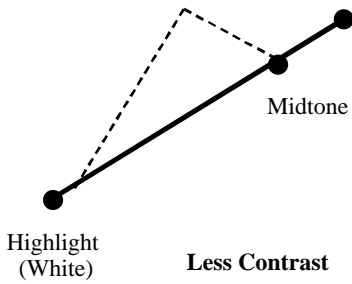
**This will flatten Highlights**



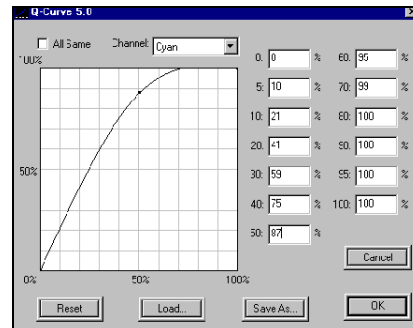
**More Contrast**



**This will flatten the shadows.**



**Less Contrast**



**This will flatten the highlights.**

Dot gain is the change in size of the printed dot. Dot gain is defined as an additive percentage so the increase of the dot size from 50% to 60% is called 10% gain. It should also be noted, at this point, that the ink jet printer uses a dithered (stochastic) dot.

You must remember when working with the calibration curves **the higher the number the darker your output will print.**

As an example the 50% box represents the 50% dot area. If you type 60 in that box your image will print 10% darker. Notice, when moving the curve, that surrounding percentages are also adjusted to blend properly.

**Before working with calibration the following should be considered:**

1. The monitor should have been on for at least 1/2 hour so that the monitor stabilizes.
2. Make sure that the room light you are using during calibration is the same light you will be using to view the printed images.
3. Turn off Desktop Patterns. A light gray background is the best color to use when calibrating.
4. Create a test CMYK file to be used when doing calibration testing. This file should contain a good representation of the CMYK colors in a number of different percentages of color. When printing this test file, make sure that you do your calibration with the paper and the resolution that you are going to be printing your images with.

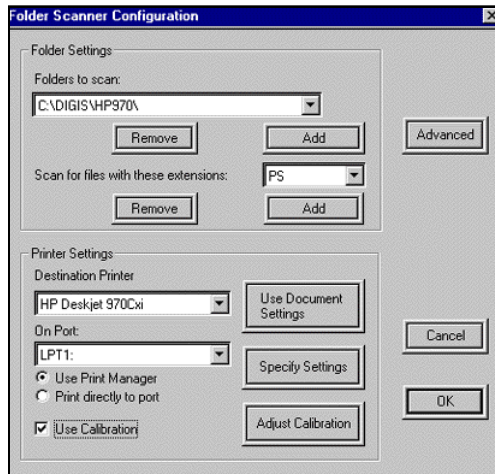
## Using PowerRIP Calibration

It is assumed that PowerRIP 2000 is launched and that the PowerRIP 2000 Main Control Panel dialog has been maximized.

1. Go to **Inputs>Folder Scanners**.

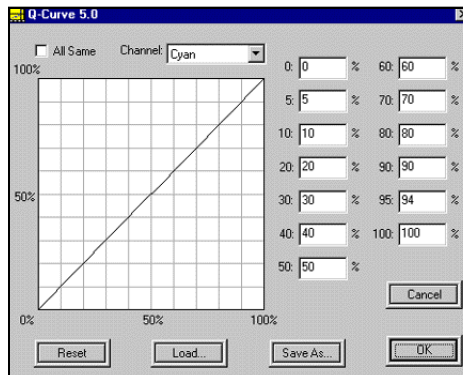
The **Folder Scanner Configuration** dialog will display.

2. Select **Use Calibration** in the bottom left corner of the Folder Scanners Configuration dialog. **Adjust Calibration** will appear on the bottom right of the dialog.



3. Click **Adjust Calibration**. The **Q-Curve 5.0** dialog will display.

- **Reset:** Click Reset when you want to return to the default curve.
- **Cancel:** Click Cancel to exit the Q-Curve 5.0 dialog.
- **Save As:** After you have created a customized calibration file click Save As to save the file for future use. The **Save As** dialog will display. Give your calibration file a name and click **Save**.



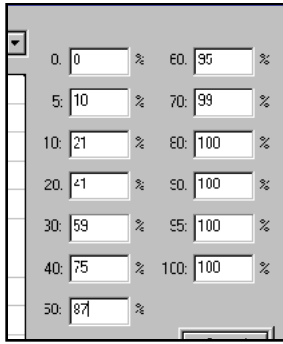
future use.

*Note: You should have created a folder on your hard drive to store your customized calibration files. It is not wise to save your calibration files in the PRPC2000 folder. If you upgrade or uninstall and reinstall you could lose your customized calibration files.*

- **Load:** When you want to use one of your customized files you need to tell PowerRIP 2000. When you click on Load the Open dialog will display.

Navigate to your calibration folder, highlight the calibration file you want to use and click **Open**.

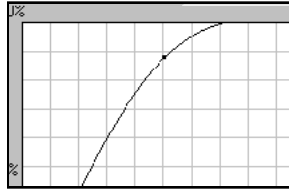
- **All Same:** If you select All Same all 4 channels, Cyan, Magenta, Yellow, and Black will have the same curve.
- **Channel:** Using the Channel pull down you can select one channel, Cyan, Magenta, Yellow, or Black, and create a calibration file for that channel only.



0:	0	%	60:	95	%
5:	10	%	70:	99	%
10:	21	%	80:	100	%
20:	41	%	90:	100	%
30:	59	%	95:	100	%
40:	75	%	100:	100	%
50:	87	%			

The Percentages available are 0 through 100%. You can not define a negative percentage (less the 0) or more then 100%. You can either type the percentage you want in a specific box on the right of the Q-Curve dialog or you can drag the curve.

If you drag the curve the percentages will change in the percentage boxes to match the new curve.



After you have created your customized calibration file click the Load button so that PowerRIP 2000 knows that is the calibration file you wish to use. Then click OK to exit the Q-Curve dialog. As long as Use Calibration is selected in the Folder Scanners Configuration dialog the calibration file you loaded will be used. Click OK to exit the Folder Scanners Configuration dialog. Minimize your PowerRIP 2000. You are now ready to print using your customized calibration file.

This chapter will explore various troubleshooting options to help you solve problems you may encounter while installing, setting up, and using PowerRIP 2000—without the need to call on Technical Support. This chapter is divided into separate sections for troubleshooting PowerRIP 2000 Installation, Testing PowerRIP 2000, Printing to PowerRIP 2000, and Printing Quality.

## Troubleshooting PowerRIP 2000 Installation

This section will help you troubleshoot problems installing the PowerRIP 2000 software.

**Problem:** The PowerRIP 2000 splash screen does not appear when the CD-ROM is loaded.

**Solution:** *Auto-play* is not enabled. This is an option on later revisions of Windows 95 and NT 4.0. You can usually activate the splash screen by opening My Computer and double-clicking on the CD-ROM. If it still does not appear, double-click the file *Splash.exe* on the CD-ROM.

**Problem:** Windows reports any kind of **non-disk system error** while PowerRIP 2000 is installing (i.e., a problem not related to the CD itself).

**Solution:** Restart the computer. When it is finished restarting, disable any anti-virus software, disk compression utilities (e.g., Stacker, DriveSpace), and Norton Utilities.

- If the error persists, write it down and refer to your Windows documentation, or visit the Microsoft website's Support page. There is a search function that allows you to enter keywords from the error message and receive a list of possible matches and solutions.

**Problem:** Windows reports a **disk error** while PowerRIP 2000 is installing.

**Solution:** Your CD may be damaged or dirty. Remove the CD and inspect the underside of the CD for dust or scratches. If necessary, clean the CD with a specially-designed cleaning cloth (available at most computer and music stores). Your computer's hard disk may also be corrupted.

## Troubleshooting Testing and Printing to PowerRIP

**Important:** It is highly recommended that you invoke the Message Logging option available in PowerRIP 2000 (select **Open/Close Log** in the **File** menu). This log will help Technical Support personnel identify any PostScript-related problems you may encounter.

**Problem:** PowerRIP prints on all pages.

**Solution:** PowerRIP 2000 was not validated. See page 11 of this manual.

**Problem:** When *testing* PowerRIP, it processes the pre-made PostScript files, but the printer only prints strange characters.

**Solution:** This problem usually occurs only in Windows 95/98, when the **BGXXx** queue printer cannot be created.

**Problem:** Windows displays a message that the printer is unavailable or not responding, or the device is not ready.

**Solution:** This usually indicates a problem with the physical connection between the computer and the printer.

- Check all cables for damage, and make sure the connections are tight.
- If you are using a manual switchbox, make sure the switch is set to the port the printer is on, or the port your computer is on.
- If you are using an automatic switchbox, see if there is a manual override to lock in a specific port. If there is, lock in the port to which your computer is connected.
- If you are using an Ethernet-to-parallel “bridge,” see if you can lock in a specific port, or connect the printer directly to the computer on which PowerRIP 2000 is installed.

**Problem:** PowerRIP 2000 cancels jobs without user interaction or visible alerts.

**Solution:** You are probably encountering a PostScript error. Check the **Status Panel** of PowerRIP 2000’s Main Control Window for error messages, or view the log file in a text editor (the log file is located in the **PRPC2000** directory on the hard drive).

- You will probably need to call upon iProof Tech Support to identify the error and the cause. iProof Support has a comprehensive understanding of the PostScript language and the possible errors you can receive.

- Note that many PostScript errors are caused by EPS (Encapsulated PostScript) files that are corrupt or incomplete.

**Problem:** When printing from my application(s), the printer starts almost immediately, but it only prints strange characters.

**Solution:** PowerRIP 2000 is not processing the file. Make sure that you selected the **PowerRIP2000 Printer** in the application(s), and the correct PPD is selected if applicable.

**Problem:** When printing from a Macintosh or a Windows workstation to a Windows NT 4.0 PowerRIP 2000 Server, a message alert appears saying that a file could not be opened for processing or could not be deleted.

**Solution:** This is either a Sharing problem or a *Timeout* error. There are several options you can adjust on both the server and the workstations:

- On the PowerRIP 2000 Server:
- Increase the PostScript Timeout values in the **PowerRIP 2000 Printer Properties** dialog, accessed through the Printers Control Panel.
- Change the PostScript Output Format to “optimize for portability” in the **Document Properties** dialog, accessed as above.
- Increase the Timing values in the **Advanced Folder Scanner Settings** dialog in PowerRIP.
- Make sure that the **Permissions** settings for Sharing the directory and the PowerRIP2000 Printer are set to **FullAccess** for everyone.
- On the Windows 95 workstation, change Data Format in **Advanced PostScript Options** dialog to “Pure Binary.”
- On the Macintosh workstation, check the compatibility of your version of LaserWriter for Windows NT 4.0.

**Problem:** An on screen message about insufficient memory appears.

**Solution:** Your computer is running out of RAM, or disk cache memory resources (i.e., virtual memory). Review the System Requirements in Chapter 1.

**Problem:** A message about insufficient memory is printed in place of or after a job.

**Solution:** You are running out of free disk space on the boot drive (usually C:\). Free up memory by deleting unused files and applications, and defragmenting your hard drive(s). This message sometimes occurs when printing from FreeHand. Convert any Spot colors to Process.

**Problem:** Jobs stop printing after a certain time and the paper is ejected before printing is complete.

**Solution:** This is usually an indication of a lack of free disk space on the boot drive, or a data transmission error. If you have enough disk space, check to ensure that another background program (anti-virus software, disk utility) was not running.

**Problem:** Prints are clipped close to the edges of the paper.

**Solution:** Know what the *unprintable area* of your printer is and adjust your documents' margins accordingly. You can check the unprintable area values in the **PowerRIP 2000 Printer Properties** dialog.

**Problem:** Fonts appear fine on screen, but are substituted with another font.

**Solutions:** This usually indicates a missing or damaged PostScript printer font, or a damaged TrueType font.

- Check the font downloading options in your application.
- Make sure that ATM can see the PostScript font in question.
- If using QuarkXPress 4.1 turn off ATM, restart your computer, turn on ATM, and then launch QuarkXPress. This needs only be done once to update the .INI files for QuarkXPress.

**Problem:** PowerRIP 2000 processes files slowly or printing takes a long time.

**Solution:** PostScript interpretation is a processor- and disk-intensive operation. If your computer has a slow processor, not enough RAM, or is running out of free disk space, processing times may be longer than what you are used to printing directly to the printer. Also, large or complex documents with many images and other graphics will require more of these resources.

## Troubleshooting Print Quality Issues

### Obtaining the Best Printing Quality

PowerRIP 2000's PostScript Level 3 compatible interpreter has the ability to use color rendering dictionaries when the RIP is driving a color printer. These color rendering dictionaries are automatically accessed by image-manipulation applications like Adobe Photoshop when printing directly to the printer. Images created in Photoshop can be placed in other applications and still access the color rendering dictionaries, if they are saved as CMYK EPS files or calibrated RGB EPS files. RGB TIFFs and CMYK TIFFs do not access the color rendering dictionaries automatically if placed in other applications and then printed.

CMYK files are usually created in a device-dependent color space, where you can adjust items to the particular printing condition of an individual printer rather than accepting the automatic options in a color rendering dictionary.

To obtain high-quality color images, keep the following points in mind:

- Use the supported or manufacturer's inks and recommended paper for your printer.
- Use the proper papers. Papers designed for ink jet printers have special coatings to evenly distribute the ink, and are different than uncoated bond papers used in laser printers and copiers.
- PowerRIP 2000 has balanced the halftone screening and color technology to work with the manufacturer's inks and recommended papers.

## **Maximum Density for Color**

PowerRIP 2000 has been designed to allow users to print up to 300% maximum color from CMYK files. Exceeding this number will cause problems with excess ink. Some desktop drawing applications set black to 400% by default. A black of 400% wastes ink and is too dense to print well on printers and large commercial offset presses. Most magazines' printing standards, depending on the publication and stock, only allow maximum black within a range of 260% to 285%.

Several terms having special meaning within the context of this manual are listed below.

- application** Applications are the programs that run on a computer. Some common desktop publishing and graphics applications are PageMaker and Photoshop.
- bitmap** Bitmaps are images preprocessed at a fixed resolution for a certain monitor or printer.
- CMYK** Acronym for Cyan, Magenta, Yellow, and Black (K), the four standard process colors for printing.
- CPU** Central Processing Unit. The processor inside the computer. A Pentium is faster than a 486.
- dialog** A graphic user interface that cannot be resized or minimized or maximized, but can be moved.
- EPS** Encapsulated PostScript. This is a file type that may contain complex graphics. It is designed as a universal format to include complex graphics in other applications.
- imaging device** A device capable of printing an image on a physical medium, for example, a printer, imagesetter, or ink jet printer.
- interpreter** A set of software functions to convert PostScript language operators and operands into a raster image.
- network** Cabling, cards, and required software to link computers to each other. Ethernet is the most common.
- PostScript** An interpretive programming language, developed by Adobe, used to describe the text, graphics, and image content of a document.

raster image	A sequential bitmap composing an image. For each image pixel, there is a corresponding device pixel.
render	The process by which PostScript language operators and operands are interpreted and a raster image is produced.
RAM	Random Access Memory. Almost all PCs come with 32 MB as a minimum. You can add more RAM to most computers. See your computer dealer for more information.
RIP	Raster Image Processor. An application or device that renders images in raster format for an imaging device.
SWOP	Specifications for Web Offset Printing. All offset press service bureaus use SWOP to match colors. PowerRIP 2000 can adjust colors to simulate SWOP output.
TIFF	Tagged Image File Format. This is a standard image file format consisting of labeled fields.
window	A graphic user interface that can be resized, minimized, maximized, and moved. It usually incorporates scroll bars.

Advanced Settings Dialog	32	iProof Systems	
Calibration	35,36	Contacting	4
Use Calibration	43	Internet Access	4
CMYK	36,51	Tech Support	4
Color		Jobs	
Density	49	Canceling	16
Rendering Dictionaries	48	Deleting	29
Color Mode	15,33	Purging from BGXXx	16
Color Tab	33	Macintosh	
Configuration		Installing Drivers	16
Document Specs Dialog	34	Client	21
Menu	34	Printing from	21
PowerRIP	31,32,33,34	Main Control Window	27,29
Control Dialogs		Message Log	34
File Menu	31	Network	
Edit Menu	31	Printing from	19
Inputs Menu	31	Output Calibration	39
Advanced Settings	32	Paper Type	13,14,15,33
Specify Settings	32	PostScript	
Print Quality	32	General Information	3
Edit Menu	31	Printer Descriptions	
EPS	51	(PPDs)	17
HP Printer Options		PowerRIP 2000	
Dialog	32,33	Installing	5,7,8,9,10
Errors		Printing to	
CD	45	Basics	13,14,15,16
PostScript	46,47,48	From workstations	19,20
File Menu	31	Testing	25
Folder Scanner		User Interface	
Configuration	31	Control Windows	27,28,29
Folder Settings	31,32	Menus	31,32,33,34
Fonts		Printing to	
Troubleshooting	48	Basics	13,24,25,16
Help, Where to Get	4	From workstations	19,20
PowerRIP 2000	5,7,8,9,10	Testing	25
Macintosh PPD	16,17,18	User Interface	
Interpreter	51	Control Windows	27,28,29
		Menus and Dialogs	31,32,33,34

Status Panel	29
Status Bar	29
System Requirements	5
SWOP	52
Technical Support	
iProof Systems	4
Testing PowerRIP 2000	25
Troubleshooting	45,46,47,48
TIFF	52
Toolbar	28
Validation	
Install validation	11
Remove Validation	12
User Interface	
Control Panel	27