# HP DesignJet 6 color ProofReady Plugin

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*HP DesignJet 6color ProofReady Plugin*

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# HP DesignJet 6 color ProofReady Plugin

## 1 Introduction

This manual describes the HP DesignJet 6 color ProofReady™ plugin for the Harlequin RIP™. The plugin delivers Harlequin RIP optimized output to the printer and provides 'out-of-the-box' proofing quality color management profiles, hence the name *ProofReady*.

### 1.1 Summary of plugin features

- Support for common paper types at various print resolutions.
- Provides ProofReady color profiles for instant, expert color management.
- Provides calibration profiles for common paper types at various print resolutions.
- Supports a variety of halftone screens (depending on the device selected), including support for optional preview.
- Supports a range of print quality settings.
- Supports output to printer, file and network.

## 2 System requirements

To operate correctly, the HP DesignJet 6 color plugin requires the following system resources:

- Connection interface, either:

  IEEE 1284-compliant bidirectional parallel port. Check your BIOS is set to use bidirectional mode.

  HP JetDirect J6057A 10/100Base-TX print server supporting TCP/IP, Appletalk, DSL/LLC and IPX/SPX protocols.

  USB 1.1 (USB 2.0 compliant).

### 2.1 Windows

These are the platform requirements for a Windows operating system.

- Intel® Pentium® 4 1 GHz (or equivalent).
- Microsoft® Windows 2000 (SP 2), Windows XP Professional or Home Edition and Windows Vista.
- 256 megabytes (MB) of RAM (512 MB recommended for variable sized dot devices).

### 2.2 Apple Mac

These are the platform requirements for a Mac OS X operating system.

- Intel Mac and PowerPC G4.
- Mac OS X v.10.4 or later.

- 64 MB of RAM with virtual memory turned on (128 MB recommended).

## 2.3 Linux

These are the platform requirements for a Linux operating system.

- Intel Pentium 4 1 GHz (or equivalent).
- Red Hat Enterprise Linux ES v4.0.

**Note:** For each of these platforms, configure the Harlequin RIP with at least 4 MB RAM for the printer buffer and 24 MB RAM for the system.

# 3 Installing the plugin

Follow the instructions in this section to install the HP 6 color printer plugin in your Harlequin RIP.

## 3.1 Installing plugins with the RIP

Insert the Harlequin RIP CD-ROM and open it. Double-click the **Install_xx** file to load the InstallAnywhere product installer, which allows you to easily install the Harlequin RIP products contained on the CD. Instructions for installation can also be found in the **install.htm** file in the directory above the **Install_xx** file.

1. You may need to log on as *System Administrator* to ensure you have the necessary privileges for installing the Harlequin RIP.
2. Follow the InstallAnywhere screen instructions. Select the Next button to move onto the next screen and the Previous button to return to a previous screen. Note that each screen of the install procedure is labelled at the left side of the window.

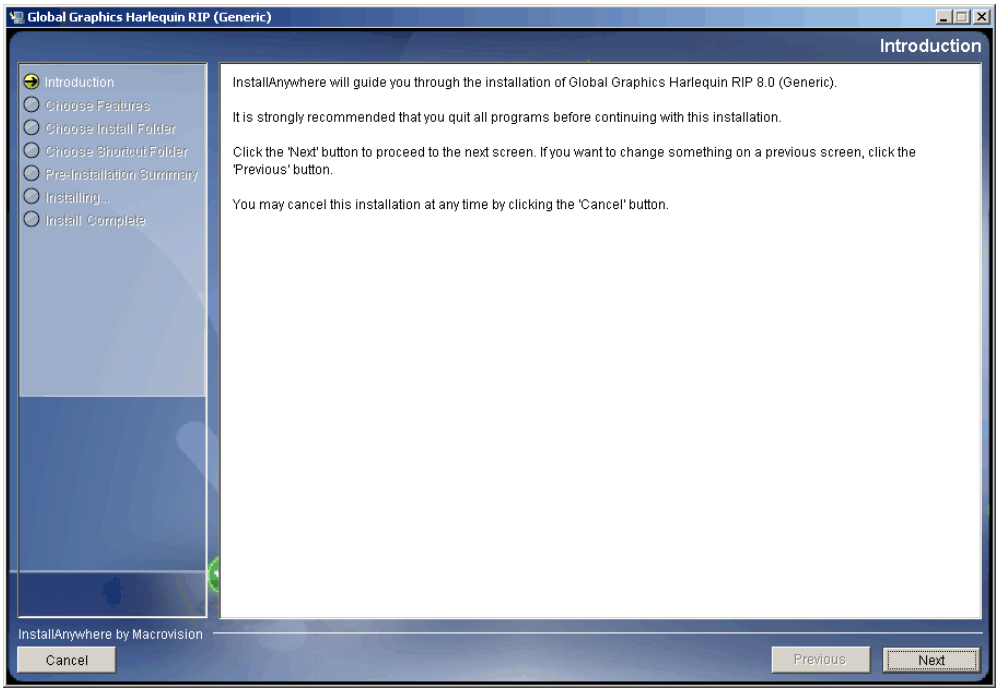


Figure 1 InstallAnywhere dialog

3. The “Choose Features” window shows all the products available in the package. When you select a product, a short description of its function appears. Those products not checked in the list will not be installed.

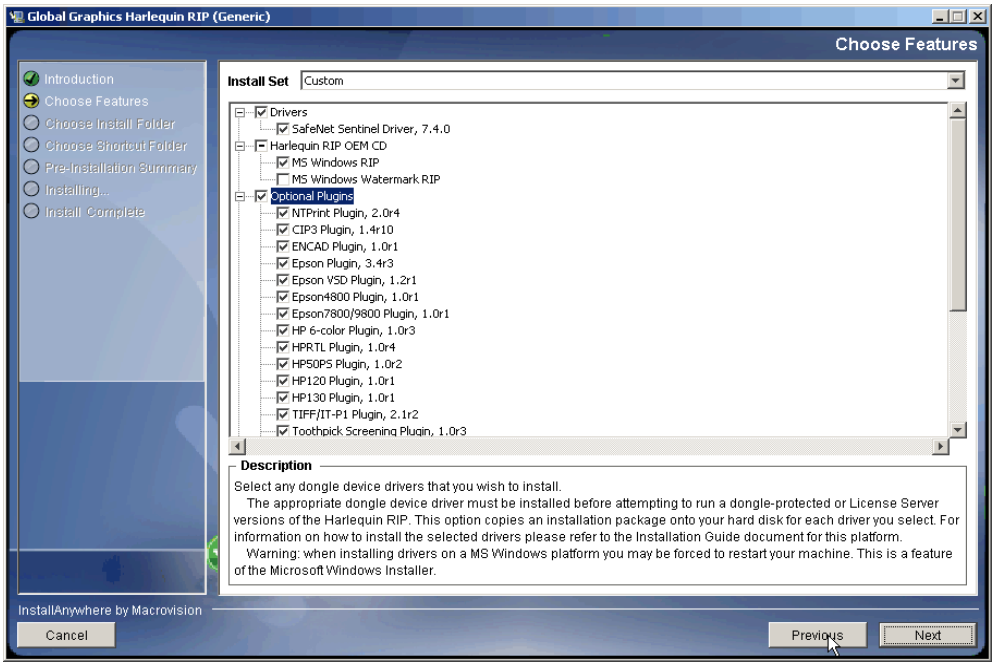


Figure 2 InstallAnywhere Choose Features dialog

**Note:** Use the scroll bar at the right side of the display to view more selection options.

4. Use the “Choose Install Folder” window to select an installation folder. If you wish you can choose a different install folder to the default. Click Choose... and navigate to the required folder. If at any time you wish to restore the default location click Restore Default Folder. Click Next to move onto the next stage and install in the default location.

5. In a Windows installation, use the “Choose Shortcut Folder” screen to create any icons or Start menu options. When this is done click Next.

6. The “Pre-installation Summary” window allows you to examine your installation choices. If required, use the Previous button to return to earlier screens and modify your selections, otherwise click Install to proceed with the installation.

7. A warning dialog may be displayed at his point. Any products on your system that use the Harlequin License Server should be stopped before continuing with the installation. Click Continue to move ahead with the installation. Previous versions of the HLS will now be removed. On Mac installations you will be asked to enter your administrator password at this point in the installation.

8. The installation will now continue. This may take some minutes.

9. The “Install Complete” window indicates that the installer has finished. If any errors have occurred a message will be displayed. Click Done to exit from the installer. You can view the details of the errors by opening the **xx_InstallLog.xml** file which is located in the installation folder.

## 3.2 Installing plugins separately

1. Follow the InstallAnywhere screen instructions as before. Select the Next button to move onto the next screen and the Previous button to return to a previous screen.

2. The “Choose Features” screen shows all the products available in the package. When you select a product, a short description of its function appears. Select *only* the plugins that you wish to install. Those products not checked in the list will not be installed.

3. On Windows systems in the “Choose Install Folder” screen select the same installation folder as the previously installed RIP. Click Next to move onto the next stage.
4. At the “Pre-installation Summary” screen click Install to proceed with the installation.
5. The installation will now continue. This may take some minutes.
6. The “Install Complete” screen indicates that the installer has finished. If any errors have occurred a message will be displayed. Click Done to exit from the installer. You can view the details of the errors by opening the **xx_InstallLog.xml** file which is located in the installation folder.

## 3.3 Screening plugin compatibility

The HP DesignJet 6 color is compatible with the following plugins:

- HEDS1 version 2.1(for 7.x RIPs)
- HEDS: v3 (for v8.0 and later RIPs)

## 3.4 Installing screening plugins

HEDS screenin plugins must be installed and enabled in the Harlequin RIP before they can be used.

Depending on which device you choose to use the plugin uses a default screening method, as follows:

- 1-bit single dot size devices (SD)—HDS Super Fine screening
- 2-bit variable dot size devices (VSD)—HEDS2 screening

Other screening methods are possible when using SD devices, for example, HDS Fine/Medium/Coarse/Super Coarse, HEDS1 or EDS. To use a different screen requires you to configure the separation style sheet.

To use any of these screening methods the relevant screening plugin(s) must be installed and enabled in the Harlequin RIP. Failure to do this will cause the RIP to use Euclidean screening instead in the case of 1-bit devices, or, in the case of 2-bit devices, may cause the RIP to freeze or unexpectedly quit. The following versions of the screening plugins are compatible with the ProofReady plugin:

- HEDS1: version 2.1.1 or later.
- HEDS v3.

HDS screening plugins are automatically installed with the RIP and just need to be enabled, however HEDS1 must be installed and enabled separately, as described in the next section.

In addition to the screening plugins, the <name> plugin requires a color management option, such as HIPP (Harlequin ICC Profile Processor) or Harlequin ColorPro™ (Eclipse Release™ or later of the Harlequin RIP), to be enabled.

## 3.5 Location of plugin folders

Table 1 shows the correct Harlequin RIP installation folders for the HP DesignJet 6 color and supplied screening plugins. This information is provided for reference only. Unless instructed by Technical Support, you should not move these folders or delete information contained in them or the plugins may cease to function correctly.

| Source folder | Description | Destination folder |
|---|---|---|
| \hp6col\ | HP DesignJet 6 color plugin | …\<*RIP-folder*>\SW\Devices\ |
| \HEDS1\ | HEDS1 screening | …\<*RIP-folder*>\SW\Screenin |
| \HEDS1\ExtraStart\HEDS1Init\ | | …\<*RIP-folder*>\SW\Sys\ExtraStart |

Table 1 Default installation folders for supplied plugins

## 3.6 Enabling plugins in the Harlequin RIP

After installing the plugin files into your RIP, you must enable them in the Configure RIP Extras dialog before they can be used. To do this you will need your hp6 color plugin password, as supplied to you, as well as passwords for color management and screening plugins which may be required.

To enable the HP DesignJet 6 color plugin, color management and screening plugins in the RIP, do the following:

1. Select Harlequin RIP > Configure RIP > Extras, to open the Configure RIP Extras dialog (Figure 3).

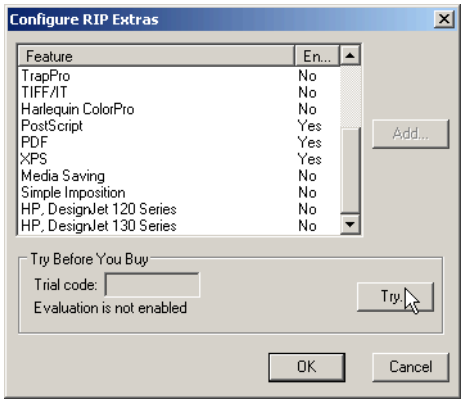


Figure 3 Configure RIP Extras dialog

2. From the list of RIP extras that are available to you, select `HP, DesignJet 5000 Series` and click Add.
3. In the Enable Feature dialog (Figure 4), enter your hp6col plugin password and click OK.

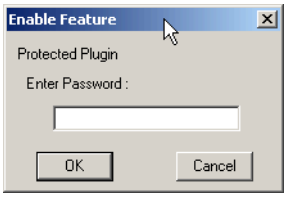


Figure 4 Enable Feature password dialog

   The HP DesignJet 6 color plugin has now been enabled in your RIP, as indicated by Enabled `Yes` in your extras list.

4. If it is not already enabled and you want to use the ProofReady profiles supplied with the plugin, you must enable `Harlequin ColorPro` in your RIP. Choose the appropriate color management plugin from the list, click Add and enter your color management password.
5. Finally, if not already enabled in your RIP, enter passwords for the screening plugins used by the printer's output devices. Refer to Table 2 for a list of the printer's devices and the screens each supports.
6. When you have finished enabling the new RIP features click OK to close the Configure RIP Extras dialog, and OK again to close the Configure RIP dialog.

You can now create page setups which use the HP DesignJet devices to process jobs for the HP DesignJet printer, as described in the next section.

# 4 Creating a page setup

This section describes how to create a page setup in your RIP that processes jobs for the HP printer.

1. Select Harlequin RIP > Page Setup Manager, to open the Page Setup Manager (Figure 5).

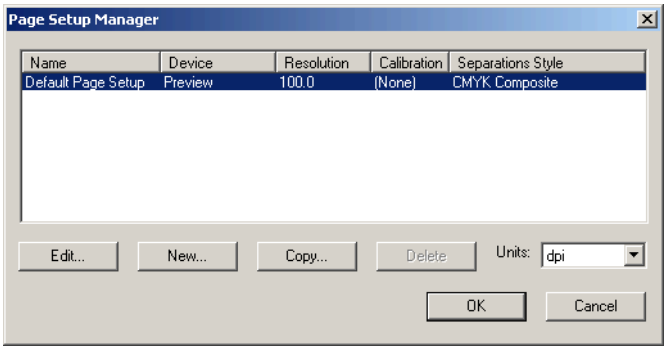


Figure 5 Page Setup Manager

2. In the Page Setup Manger, click New to create a new page setup (or Edit to amend an existing page setup), to open the New/Edit Page Setup dialog (Figure 6).

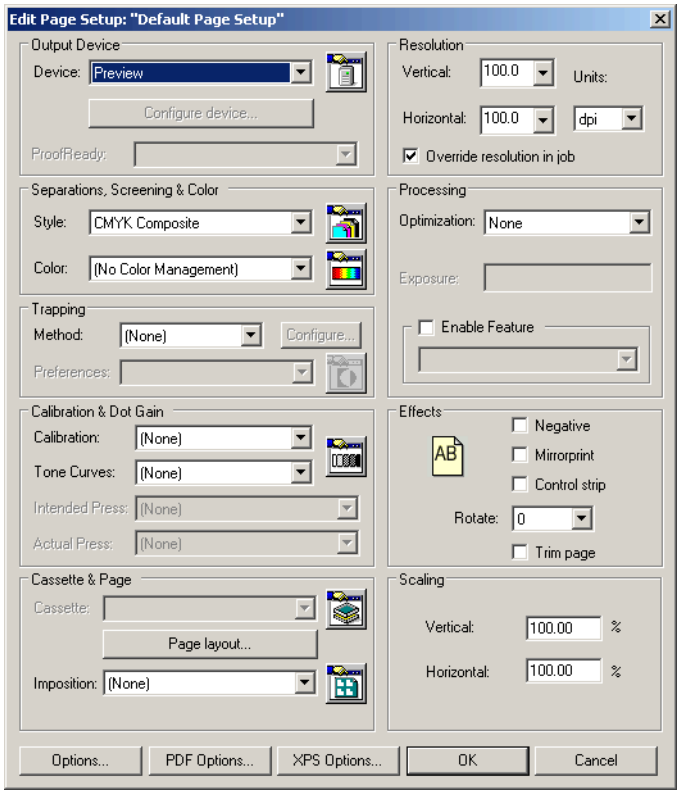


Figure 6 Page Setup dialog

3. Enter information in the fields as follows:
   - Device: Select a device from the list. The device you select will largely depend on the dot type, screening method and resolution you prefer to use. See Table 2 for details about which dot types are supported and the screening modes that are available.
   - ProofReady: Select a ProofReady profile to use for color managed output. Your choice of profile will mainly depend on the paper type installed in your printer, but it may also be influenced by the output resolution you want to use. See Table 3 for details of ProofReady profiles that are available and the HP paper type and resolutions each has been optimized for.
   - Resolution: This setting is automatically chosen by the ProofReady profile for this device. Unless you have good reason to do so, do not change the resolution settings.
   - Style: This setting is automatically chosen to suit the selected device. Do not change this setting.
   - Color: This setting is automatically chosen to suit the selected profile. However, if you wish to use your own color profile, choose it instead from the list. See, "Creating color setups" on page 27 for a description of how to create your own color setups.
   - Calibration: Set this to `(None)`. Calibration is pre-defined by the ProofReady profile. However, to achieve even better results, you may wish to create your own calibration profile for the machine you are outputting using the correct paper. To do this, see "Calibrating the printer" on page 24.
4. Click Configure Device to open the Configure Device dialog, which allows you to specify output options for the selected device. For example, it allows you to specify the output method (file, network (including a print server) or LPT1), media type, and output quality.
5. Click Page Layout and choose the paper size installed in the printer. If the job is an EPS file, or the job does not contain page size information (most jobs do), set the page size too.
6. If it is necessary to do so, you can adjust the positioning of the output on the media by adjusting the page margin values. See, "Page Layout options" on page 8 for details.
7. Click Save As and choose an appropriate name for your new page setup.
8. Click OK to close the Page Setup Manager.

The page setup has now been created and may be used to process jobs. Remember to create page setups for each type of paper that you use in your printer, choosing the device type and ProofReady profile to match.

## 4.1 Page Layout options

The options in Page Layout are used to specify your media size and page size when not defined in the job itself. Page size refers to the 'frame' into which the job is printed; media size refers to the size of the paper installed in the printer. To prevent clipping of your print, the page size must not exceed the media size.

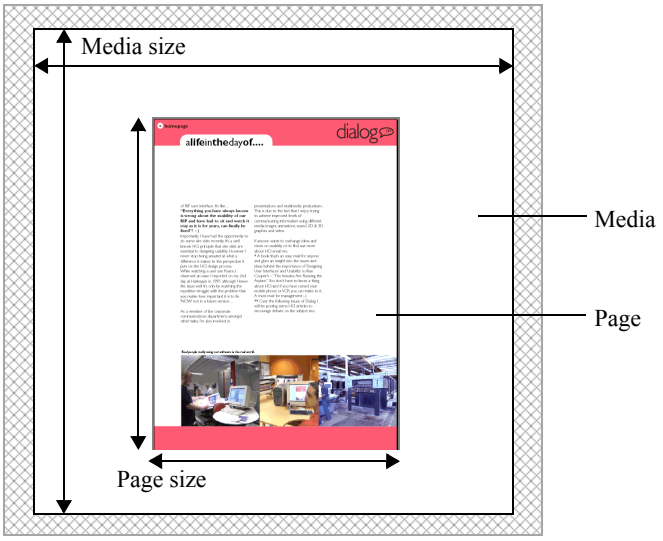


Figure 7 Media and page sizes

In most jobs the page size has been defined in the page design and embedded in the PostScript language file. The page size in Page Layout has no effect on these types of jobs. In EPS files, or other jobs where page size is not defined, you must select the correct page size from those listed in Page Layout.

When changing the margins be careful not to increase the margins beyond the limit of the media. Setting a value for the bottom margin beyond the media size on sheet fed devices will result in a loss of printable space on the media.

# 5 Configuring Harlequin RIP devices

The devices installed by the plugin can be configured to suit your output preferences using the options in the Configure Device window. It is not usually necessary to reconfigure a device unless you are outputting directly to the printer, or need to change the output quality or add post processing commands.

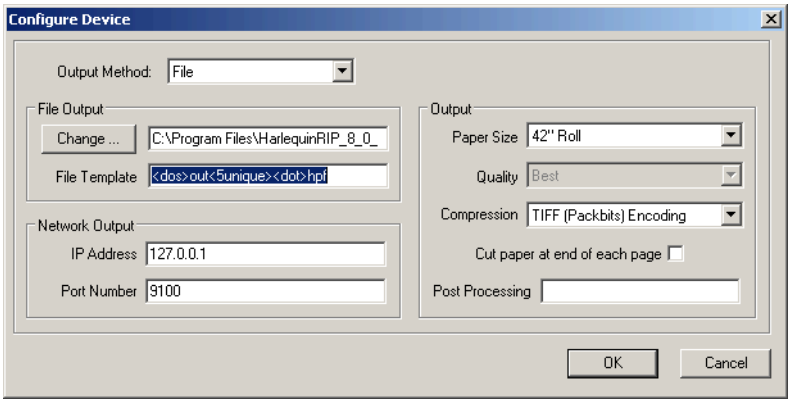


Figure 8 The Configuration Device window

To configure a Harlequin RIP device, do the following:

1. In the <name>, click Harlequin RIP > Page Setup Manager, or use the shortcut key Ctrl+S to open the Page Setup Manager.
2. Click New to create a new page setup, or Edit if you already have one that you wish to amend.
3. With the appropriate device selected, click Configure Device to open the Configure Device window, which is shown in Figure 8 on page 9. The following device configuration options are available:

Output method

Select the output method from the following choices:

| | |
|---|---|
| `File` | (Default option). Output is saved to the location specified in the File output option, and named according to the settings in File template. |
| `Network` | Select this option if using the JetDirect network card. IP Address and Port number should also be specified when `Network` is selected. |
| `LPT1` | Select this option if you are connecting via a parallel port. |
| `USB` | Select this option if you are connecting via a USB port. |

File output

Allows you to specify the output location when `File` is selected as the output method. If you do not change the location, output is placed in `…RIP folder\SW\`.

Note: You can send files to a printer using Windows print spooling by installing Windows printer drivers on a PC print server, and by entering the name of the *print server* in this text box.

File template

This option allows you to use tags to construct the name of the output file. For example, `<dos>out<5unique><dot>hpf` produces `out00001.hpf`, `out00002.hpf`. See Table 5 on page 19 for a complete list of permitted tags.

IP address

If you selected `Network` as the output method enter the correct IP address or network name of the printer, otherwise leave this field at the default setting.

Port number

If you selected `Network` as the output method enter the port number of the printer, otherwise leave this field at the default setting.The printer supports the following ports:

- Port 515: Sets the LPR protocol when using the JetDirect network card. Note that the LPR protocol does *not* provide bidirectional communication with the printer. Consequently, the printer cannot report error messages when using this protocol.
- Port 9100: Sets the JetDirect protocol when using the JetDirect network card. Select 9100 if you are using an external print server. Some external print servers can drive several printers simultaneously. In this case the different physical connections or ports have their own numbers (which may vary with the type of server). For example, on an external unit with three output ports, the physical ports named 1, 2, and 3 have port numbers 9100, 9101, and 9102.

  **Note**: The LPR protocol does not provide bidirectional communication with the printer. Consequently the printer cannot report error messages when using this protocol. Use port number `9100` to avoid this.

  If you are using an external print server you must set the Port Number to `9100`, or a similar number.

  Some external print servers can drive several printers simultaneously. In this case the different physical connections or ports have their own numbers (which may vary with the type of server). For example, on an external unit with three output ports, the physical ports named 1, 2, and 3 have port numbers `9100`, `9101`, and `9102`.

  The RIP supports the use of another printer connected to the same print server. For example, two computers running the RIP and driving the same print server can address any compatible printer connected to that server.

Quality

This option can be used to specify print output quality. For information on the quality setting and the effect it has on your printed output, refer to your printer manual. The following quality options may be available depending on the resolution:

- `Best`: (Default) Highest print quality but slowest print speed. This is the recommended setting to use for the supplied profiles.
- `Normal`: Standard output quality with medium print speed.
- `Fast`: Lowest print quality but fastest print speed.

Compression

This option can be used to specify the encoding method used when data is sent to the printer, which can affect the transfer rate for data sent to the printer. The plugin supports two compression modes:

| | |
|---|---|
| `None` | Data is transferred uncompressed, resulting in longer data transfer times to the printer. |
| `TIFF(Packbits)` | Data is sent compressed, resulting in faster transfer times to the printer without any loss in print quality. |

Paper size

This option is used to select the paper size installed in the printer in previous versions of the Harlequin RIP.

Paper bin

This option can be used to select the printer's paper bin source. The following options are available:

| | |
|---|---|
| `Paper tray 1` | Sets the paper source to Paper tray one. |

| | |
|---|---|
| `Paper tray 2` | Sets the paper source to Paper tray two. |
| `Manual feed front` | Sets the paper source to manual feed from the front of the device. |
| `Manual feed rear` | Sets the paper source to manual feed from the rear of the device. |
| `Auto select` | Automatically selects the paper source that contains the paper size specified in the Device Configuration dialog box. If the specified paper size is unavailable an appropriate alternative will be chosen automatically. |

Post processing

This option can be used to specify commands that will be executed after a job has been processed. For example, you may wish to change the format of the output file or generate a report. For full details see "Post processing operations" on page 21.

This option is *not* supported on Macintosh computers.

# 6 Devices

The HP DesignJet  plugin adds several new devices to the <name> for selection in your page setups. Two devices types are supported:

- "SD" devices print a fixed dot size: small or large dot. Dot sizes *cannot* be mixed on the same page.
- "VSD" devices print a variable dot size: small, medium and large dot. Dot sizes *can* be mixed on the same page.

Your choice of device type will mostly depend on the halftone screening method that you prefer to use. See the table, "Devices installed by the plugin" on page 12 for a list of the screen types supported by each device. In most cases, your choice of device will be determined by your favored dot shape to use for a particular job. If you are not sure which to use, refer to "Description of screening modes" on page 15 for a brief description of the various screening modes which are available for each dot shape. Initially, a little trial and error may be necessary before the optimum dot shape/screening mode is found

> Warning: Output quality may be impaired if the appropriate screening plugin used by a device is not enabled in the <name>. See "Installing the plugin" on page 2.

| Device | Dot type | Screening modes | Color modes |
|---|---|---|---|

Table 2  Devices installed by the plugin

## 6.1 Adding output devices

Depending on how the plugin has been supplied to you, some HP DesignJet 5000 output devices may not be available for selection in the Device list in a page setup dialog. Table 2 lists *all* the output devices that are available with the HP DesignJet 6 color plugin: if an output device you wish to use is not available, you may add it.

To add a print device, do the following:

1. Select Harlequin RIP > Device Manager to open the Device Manager (Figure 9).

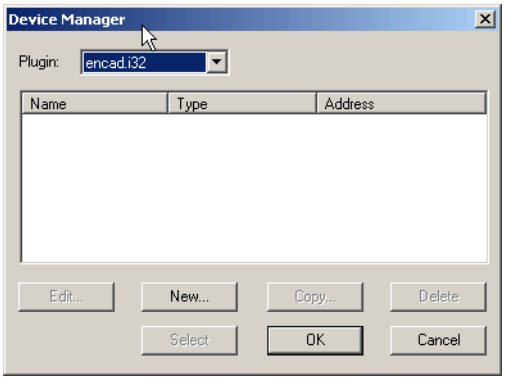


Figure 9 Device Manager

2. Select `hp6col.i32` (Windows) or `hp6col` (Mac OS X) in the Plugin drop-down list.
3. Click New to open the Device Manager Edit dialog box (Figure 10).

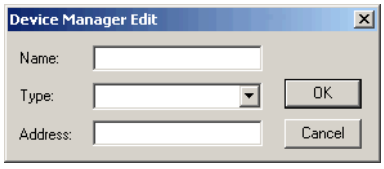


Figure 10 The Device Manager Edit dialog

- Name: Enter a name for your new device. We recommend that you enter a name which matches the Type selection, including the exact same combination of upper and lower case letters.
- Type: Select a device from the drop-down list to specify the device type you wish to add.
- Address: Ignore this option as it is not required.

4. Click OK to add your new device, and OK again to close the Device Manager dialog.

   Your new device will now be available for selection in the Device drop-down list in the page setup dialog.

# 7 ProofReady profiles

The HP DesignJet6 color plugin is supplied with several ProofReady color profiles for ‘out-of-the-box’ color management. Simply choose a ProofReady profile in your page setup, according to the paper type installed in your printer (see Table 3 for supported paper types), and color will be automatically handled in the RIP to produce accurate, consistent and ‘pleasing to the eye’ output.

## 7.1 Supplied ProofReady profiles

Each ProofReady profile supplied with the HP DesignJet 6 color plugin has been created for a specific HP paper type at a specific resolution. For best results, you should always use the recommended paper, as listed in Table 3, and leave the resolution at the default setting.

**Note:** If the ProofReady profile drop-down list in not available in your page setup, enable color management in your RIP.

| ProofReady profile | Device | Paper type (HP Ref) | Resolution (dpi) |
|---|---|---|---|
| HP Photo Gloss 600 | DJ5000 Contone 42 Sheet<br>DJ5000 Contone 42 Sheet<br>DJ5000 60 Contone Roll<br>DJ5000 60 Contone Sheet | Photo Imaging Gloss<br>C6964A, C6965A | 600x600 |
| HP Photo Gloss 600 | DJ5000 Contone 42 Sheet<br>DJ5000 Contone 42 Sheet<br>DJ5000 6-Col 42 Roll<br>DJ5000 6-Col 42 Sheet<br>DJ5000 Contone 60 Roll<br>DJ5000 Contone 60 Sheet<br>DJ5000 6-Col 60 Roll<br>DJ5000 6-Col 60 Sheet | Photo Imaging Gloss<br>C6964A, C6965A | 600x600 |

Table 3 HP 6 color ProofReady profiles

## 7.2 Changing the default screening method

The screening mode used in an output device may be changed if the device supports alternative screens. Refer to Table 1 on page 5 for a list of devices and the screens they support.

To change the screening method used by a device, do the following:

1. In the Harlequin RIP, choose Color > Separations Manager to open the Separations Manager.
2. From the Device list, select the HP Designjet device that you want to configure.
3. From the Style Name list, select the style you want to change, and choose Edit to open the Edit Style dialog, Figure 11.
4. From the Dot shape menu, select the screening method you want to use.

**5.** Choose OK to make your selection, and OK again to close the Separations Manager.

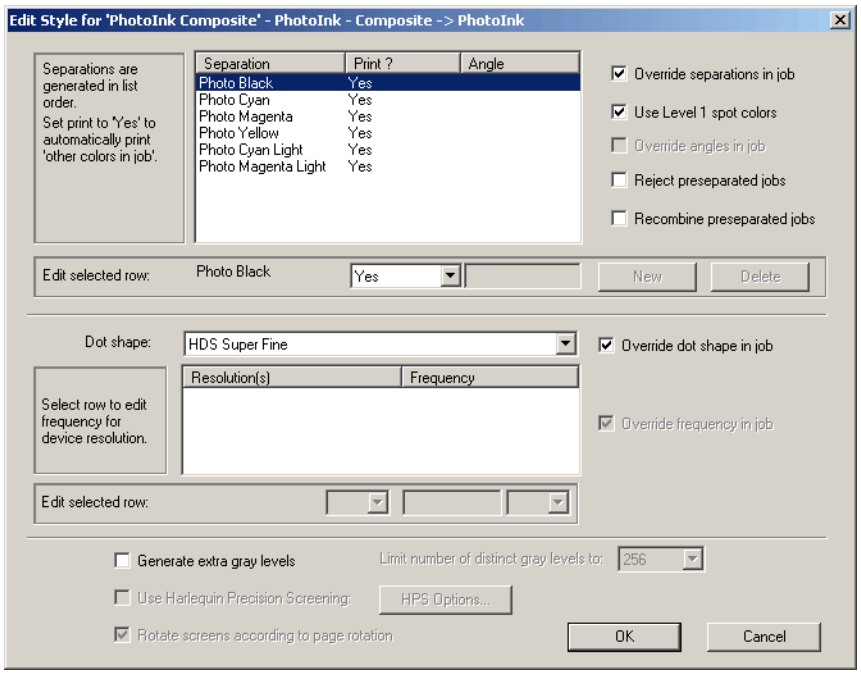


Figure 11 Edit Style dialog

## 7.3 Description of screening modes

This section briefly describes the assorted screening modes (also know as ‘dot shapes’) supported by the HP Designjet plugin. Not every device that is installed by the plugin supports all dot shapes/screening modes.

*HEDS1* HEDS1 (Harlequin 1-bit Error Diffusion Screening) is a frequency modulated (FM) screening method particularly suited to the production of proofs on inkjet printers. HEDS1 works well at low resolutions, since it does not use dot patterns, producing prints that are free from the moire effect. To use round HEDS1 screening, choose HEDS1 from the Dot shape drop-down list.

*HEDS2* HEDS2 (Harlequin 2-bit Error Diffusion Screening) produces the highest quality output for inkjet printers.

Screens are produced with multiple dot sizes: small, medium and large. To use round HEDS2 screening, choose HEDS2 from the Dot shape drop-down list.

# 8 Output file naming

Using variable tags and fixed text you can set up a file naming template for your output files. Using a template ensures your output files will be named consistently, and, depending on which tags you use, with appropriate job information to identify the output file correctly.

To implement your file naming template, add the appropriate tags and text (if needed) to the File template field of the Configure Device dialog for the device you wish to use.

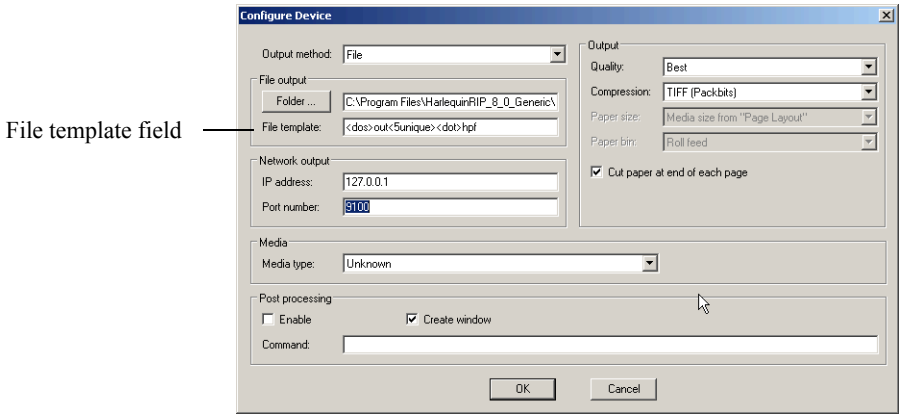


Figure 12 Configure Device dialog showing File template field

## 8.1 Tag usage

There are a few rules to keep in mind when using tags:

- You may limit the length of any expanded (derived) file name by using an integer before the tag. For example, `<5jobname>` limits the name to a maximum of 5 characters.
- Tags which produce numeric values are truncated from left to right.
- Tags that produce alphanumeric strings (strings containing the characters a-z, A-Z, and 0-9) are truncated from right to left.
- Fixed text can be part of the file name stem or extension. For example, *stem*`_<3unique><sepname><dot>hpf` would generate a file name of the form: *stem*`_000Cyan.hpf`, in which *stem*`_` can be any identifying text.
- The tags will not produce useful file names from job names that contain double-byte characters.
- When creating multiple copies of a file, the same page buffer provides tag information. If a template contains dynamic tags (such as `<time>`, where the value changes each time a page buffer file is output), multiple copies of the file are created. If the template contains just static tags (such as `<jobname>`, where the job name remains constant), a single output file will be created, as previous output files will be overwritten.

## 8.2 Checking tags

The plugin always checks the legality of an automatically generated file name against the requirements of the operating system on which the RIP and the plugin are running.

To enable portability of files from one operating system to another, you can also use tags to specify the operating system for which generated file names must be suitable. The use of these tags changes the rules by which a file name is deemed valid. The tags do not modify the file names generated, but cause error messages if the file name is invalid. See "Messages for file name templates" on page 32 for details.

For example, you can create the template `<dos>Averylongfilename<dot>hpf`, but an error is generated. This error occurs because DOS file names require the 8.3 format for stem and extension, which this template fails to meet by having 17 characters in its stem. Table 4 lists the operating system tags.

Examples of tag usage

The following examples demonstrate the format of strings produced by individual tags. Some examples also show how the tags may be used in combination to form a template. The examples are based on these job details:

*Page buffer name*: 1. Uncalibrated Target: Default CMYK + spot colors target

*Date*: 29th of January, 2007

*Compression*: Packbits Encoding

*Quality*: Best

**Note**: When creating multiple copies of a file, the same page buffer provides tag information. If a template contains dynamic tags (such as `<time>`, where the value changes each time a page buffer file is output), multiple

copies of the file are created. If the template contains just static tags (such as <jobname>, where the job name remains constant), a single output file is created because previous files are overwritten.

| Tag | Description |
|---|---|
| <ascii> | Limits the character set of the file name (from the point of the tag onwards) to ascii characters in the range 32 (0x20) to 126 (0x7E). Characters outside this range are discarded. To substitute invalid characters rather than discarding them, prefix the tag with the substitution character value in decimal. |
| <dos> | Verifies that the file name is a legal file name for the MS-DOS operating system.<br>The use of this tag verifies that the file name is suitable for use in a DOS operating system. Illegal characters such as a colon, and white space characters cause an error.<br>For example, the template <dos><jobname><dot>hpf, would generate an illegal file name because the job name could be greater than the eight characters allowed in DOS operating systems. Truncation can be forced by using the template <dos><8jobname><dot>hpf, which produces the file name Uncalibr.hpf. |
| <mac> | Verifies that the file name is a legal file name for the Macintosh operating system.<br>The use of this tag verifies that the file name is suitable for use in a Macintosh operating system. Illegal characters such as an asterisk, colon, and quotation marks cause an error. The maximum length of a file name is thirty-one characters (including the file extension).<br>For example, using the template <mac><28jobname><dot>hpf produces the file name Uncalibrated Target Default.hpf, in which the colon has been removed. |
| <macosx> | Verifies that the file name is a legal file name for the Mac OS X operating system. |
| <unix> | Verifies that the file name is a legal file name for the UNIX operating system.<br>The use of this tag verifies that the file name is suitable for use in the UNIX operating system. Illegal characters such as an asterisk, colon, and quotation marks cause an error. The <dot> tag cannot be used with this tag because file names in UNIX are composed of a single string and are not considered to have separate file extensions.<br>For example, using the template <unix><255jobname>.hpf produces the file name UncalibratedTargetDefaultCMYK+spotcolorstarget.hpf, in which the colon and white space characters have been removed. |
| <win32> | Verifies that the file name is a legal file name for Windows operating systems:<br>The use of this tag verifies that the file name is suitable for use in a Windows operating system. Illegal characters such as an asterisk, colon, or quotation marks cause an error.<br>For example, the template <win32><jobname><dot>hpf produces the file name Uncalibrated Target Default CMYK + spot colors target.hpf, in which the colon has been removed. |

Table 4 Operating system tags

# 9 Content generating tags

The following tags are available and can be used in any order.

| Tag | Description |
|---|---|
| <colorant> | The color space of the device, such as DeviceCMYK or DeviceRGB.<br>The tag includes the color space of the device in the file name string. For example, the template <colorant><dot>hpf produces a file name of the form DeviceCMYK.hpf for a device using a CMYK color space (4-colors) or a file name of the form PhotoInk.hpf for a device using a PhotoInk color space (6-colors). |
| <compression> | The form of compression used, such as Packbits.<br>You can use this tag to include the form of compression used in the file name. For example, based on the job details above, the template <compression><dot>hpf produces the file name Packbits.hpf. |
| <date> | The date when the job is processed, in the format YYYYMMDD, unless a truncated form is specified.<br>The template <date><dot>hpf produces the file name 20070129.hpf. You can remove the year information by using the tag <4date> to produce the file name 0129.hpf. |
| <dot> | Separates the stem of the file name from the file extension, and appears as a period character ( . ) in the file name. For example *stem*<dot>*ext* appears as stem.ext. The use of the <dot> tag enables the verification of the stem and extension lengths.<br>This tag separates the file name stem from the file name extension and enables the verification of their lengths. It is particularly necessary when creating file names compatible with DOS and Windows, otherwise the extension may be considered as part of the file name.<br>For example, the template <dos><8jobname>.hpf would cause an error because the dot is removed as an illegal character and hpf is then considered part of the file name stem. |
| <job#> | The job number allocated by the RIP. Automatic numbering means that successive jobs have incremental job numbers: 000, 001, 002, 003, and so on.<br>You can use this tag to include the job number in the file name string. The default length of the number is three digits, so the first job number created with this tag would be 000, unless a different length is specified. You can specify the length of the job number by preceding the <job#> tag with an integer. For example, <5job#> creates job numbers five digits long.<br>In multi-page jobs use the <page#> tag as well as the <job#> tag to differentiate between the different pages of a job. |

Table 5 File renaming tags

| Tag | Description |
|---|---|
| <jobname> | The page buffer name without the page number prefix and without characters illegal to the operating system. White space characters are used, if present in the job name.<br>This tag ensures that only legal operating system characters are used in the job name.<br>For example, in the RIP running under any Windows operating system, the template <jobname><dot>hpf produces the file name Uncalibrated Target Default CMYK + spot colors target.hpf. The colon character ( : ) is removed from the file name, because this is not a valid file name character for any version of Microsoft Windows. |
| <jobname1> | The page buffer name without the page number prefix, and using only alphanumeric characters (a-z, A-Z, 0-9). White space characters are *not* used.<br>This tag ensures that only alphanumeric characters are used in the job name.<br>For example, in the RIP running under a Windows operating system, the template <jobname1><dot>hpf produces the file name UncalibratedTargetDefaultCMYKspotcolorstarget.hpf. The colon, white space, and '+' characters are removed from the file name, because they are not alphanumeric characters. |
| <jobonly> | This gives the job name without the separation name in brackets, For example, where <jobname> would give **myjob(PANTONE Reflex Blue CVC)**, <jobonly> will give myjob. |
| <page#> | The page number (allocated by the RIP), within the current job. For example: 002.<br>You can use this tag to include the page number in the file name string.<br>For example, the template <page#><dot>hpf produces a file name of the form 001.hpf. It is advisable to use this tag with the <job#> tag to differentiate between the same pages of different jobs. |
| <prefix> | The page number prefix from the page buffer name, such as 1., 2., and so on.<br>You can use this tag to include the page number prefix from the page buffer name in the file name string.<br>For example, based on the page buffer name above, the template <prefix><jobname><dot>hpf produces the file name 1. Uncalibrated Target Default CMYK + spot colors target.hpf. |
| <prefixonly> | You can use this tag to include the characters from the prefix before the full stop in the job name (that is, the prefix, not including the dot and space characters). |

Table 5 File renaming tags *(Continued)*

| Tag | Description |
|---|---|
| <time> | The time when the job is processed, in the 24-hour format HHMMSS, unless a truncated form is specified.<br>You can use this tag to include the time a file is processed in the file name string.<br>For example, if printing to file at 15:39:36 (approximately 3:39 pm) this tag produces the string 153936. |
| <unique> | A unique sequence number used to make every file different when placing output files in a folder.<br>You can use this tag to generate a unique sequence number for the page. The default length of the number generated is four digits long, so the first number would be 0000. The length of the number can be specified, as detailed in the example for the tag <job#>.<br>When restarting the RIP, the unique numbering will attempt to restart at its initial value, for example 0000. However, if a file exists with that number, the next available unique number is used. |
| <xres> | The horizontal resolution of the page, as specified in the page setup.<br>You can use this tag to include the horizontal resolution of the page in the file name string.<br>For example, you can differentiate between pages with a resolution of 600 x 600 dpi and 300 x 300 dpi by using this tag. This tag produces a string such as 600 or 300, depending on the horizontal resolution. |
| <yres> | The vertical resolution of the page, as specified in the page setup.<br>You can use this tag to include the vertical resolution of the page in the file name string. For example, on a page with the resolution 600 x 600, this tag produces the string 600. |

Table 5 File renaming tags *(Continued)*

# 10 Post processing operations

The plugin Configuration dialog box has an Output: Post Processing text box in which you can enter commands and their options, in the same way as a command line. These commands are carried out after the page buffer has been sent to the printer or once the output file has been created. The commands available depend on the platform on which you are running the RIP.

**Note**: You cannot perform post processing if you are using a Macintosh computer.

The command can be a simple batch file or a complex application, provided that you give the command all necessary options and information; a command needing operator intervention is likely to cause problems. You can specify options understood by the application, and data such as the path of the relevant input or output files.

You can use post processing commands to convert the file to a different format or to send somebody an e-mail notifying them that a job has been processed. There are several other possibilities, such as extracting information for use in reports, limited only by your ability to obtain or create a suitable application and to supply information to it.

If the string you enter into the Output: Post Processing text box refers to a post processing application then this application must be available on the computer running the RIP. The string should normally include the file extension and the full path name of the application file. However, you can type just the file name if the application file has the extension .EXE and is in one of the directories specified by the PATH variable.

Your string can contain substitution codes, which are expanded by the RIP. See "Post processing operations" on page 21 for details.

## 10.1 Post processing substitution codes

When using the post processing feature of the HP Designjet  plugin, the RIP recognizes the substitution codes in the following list. You can insert an integer between the percent character and the letter code, to restrict the maximum number of characters used in the result string. For example, `%6j` represents the first six characters of the job name.

| Tag | **Description** |
|---|---|
| `%c` | The current separation color, represented by a string with a default length of one character. Typical separation names are `Cyan`, `Magenta`, `Yellow` and `Black`. Examples for the default length are: `C`, `Y`, `M`, and `B`. |
| `%d` | The current date in the format YYYYMMDD, with a default string length of 8. For example, 26 May 2007 becomes: 20070526. |
| `%f` | The output file name, as created by the template specified in the File Output: File Template text box in the Configuration dialog box. For example: `out00001.hpf`. |
| `%j` | The current page buffer name as shown in the Output Controller/Monitor. For example: `1. Apple.ps`. |
| `%n` | The current job number, an integer that the RIP increments each time it processes a new job. For example: `15`. |
| `%o` | The full output directory path specified in the File Output: Change... text box. For example: **C:\SWNT\SW\Output**. |
| `%p` | The current page number within the job. For example: `4`. |
| `%r` | The job resolution in dots per inch. For example: `300`. |
| `%s` | The current job name, after removal of all the characters that would be illegal in a file name. For example: `Appleps`. |
| `%g` | A fixed jobname using the following rules:<br>1. Skip over the leading `nn.` which the RIP pre-pends.<br>2. Remove all non-alphanumeric characters. |
| `%t` | The current time in the format HHMMSS, using the 24 hour clock. The default length is 6. For example, a time just after 7:30 pm would be shown: `193211`. |
| `%x` | The current file name suffix. For example: `hpf`. |
| `%z` | The current file name stem. For example: `out00001`. |

Table 6  Post processing substitution codes

## 10.2 Checking the command string

The RIP reports each command and the working directory in the main RIP monitor window, in the following form. Italics show which text can vary with different jobs and page setups.

```
Running post-job command "C:\test\logfile.bat out00002.hpf 112442" in directory
C:\SWNT\SW\Output
```

The above example refers to a batch file (*logfile.bat*) which uses a program to send an e-mail confirming that a job has been processed. The e-mail contains the job name (*out00002.hpf*) and the time it was processed (approximately 11:24). These details were provided by using the substitution codes %f and %t in the post processing text box. The working directory is the output file folder specified in the File Output: Change... text box. If no output file folder is specified then the working directory is the '..\SW\' directory, which is one level below the directory containing the RIP executable.

For a more thorough test of how commands behave when used at the command prompt of the operating system, try creating a batch (.BAT) file with these contents and using the name of the batch file as the application in your command string.

```
echo %1 %2 %3 %4 %5 %6 %7 %9
pause
```

**Note**: If you have problems with a command, test it outside the RIP by opening a command window and running the command manually. If you think that you have used any substitution code from which the RIP might generate an element containing characters with a special meaning to your operating system, try surrounding that code with double quotes. For example, use "%f" in the post processing text box rather than just %f.

If there are no special characters involved, look at the number of substitution codes that you are using and the length of the command string both before and after expansion of the substitution codes. The limit on the length of the expanded command string varies with the Microsoft Windows environment but you should have no problems with up to 125 characters in the string after expansion.

## 10.3 Command line monitoring

The RIP uses the monitor window to report the post processing commands that have been run. Typical output takes the form:

```
Running post-job command "C:\test\logfile.bat out00002.hpf 112442" in directory
C:\SWNT\SW\Output
```

where:

**C:\test\logfile.bat** is a batch file

out00002.hpf is data used by the batch file. See %f in Table 6

112442 is the time (11:24) the job was processed. See %t in Table 6.

**C:\SWNT\SW\Output** is the working folder specified in Device Configuration, see "Configuring Harlequin RIP devices" on page 9 for more information. Also see %o in Table 6.

## 10.4 Troubleshooting post processing command

Your post processing commands might not execute as you would expect them to. If this is the case, there are a number of troubleshooting tips which you can follow:

- Open a command dialog and run the post processing command there.
- A substitution code may be being misinterpreted by your operating system. Try enclosing the substitution code in double quotes, for example `"%f"`.
- The total length of the *expanded* command line may be too long for your operating system to handle. Expanded means after the full text has been inserted for the substitution codes. All systems will support command lines up to125 characters: many support command lines considerably longer.
- For a thorough test of how commands behave when used at the command prompt, try running a batch file with the following content:

```
echo %1 %2 %3 %4 %5 %6 %7 %9
pause
```

# 11 Color management

The HP Designjet  plugin provides ProofReady profiles for ‘out-of-the-box’ color management. The profiles adjust color output to suit the resolution and paper type installed in the printer, ensuring that output is color accurate for whatever media settings are in use.

For more information on the Harlequin RIP color management solutions, see the *Harlequin ColorPro™ User’s Guide* and Chapter 13 of the *RIPMate User Guide,* “Calibration”.

This section briefly describes the complete color management process, including:


- “Calibrating the printer” on page 24.
- “Creating and installing ICC profiles” on page 25.
- “Creating color setups” on page 27.


## 11.1 Calibrating the printer

The plugin is supplied with a number of reference calibration profiles which define the output profile of an ideal, or ‘reference’, HP  DesignJet printer. In your page setups, when you select a ProofReady profile the correct calibration profile is automatically chosen by the plugin. However, for maximum output quality, we recommend that you produce calibration profiles for your *own* printer, and select these in the Calibration drop-down list in your page setups.

The reference calibration profile supplied with the plugin are easy to identify, since they are labelled with parentheses; for example, `(Premium Photo 1200)`. The actual calibration profile files can be found in the following folder:

```
…\<RIP_folder>\SW\Config\Devices\DevCalibration\
```

The steps for creating a calibration profile vary depending on the version of RIP you are running. See See Chapter 13 “Calibration” of the *RIPMate User Guide* for information on creating a calibration profile.

### 11.1.1 Recalibrating the printer

To maintain printer calibration accuracy, you should periodically recalibrate your HP printer. This is particularly important if the paper, ink, or some other variable (including ambient room conditions) changes.

To recalibrate the printer, do the following:

1. Click Output > Print Calibration to open the Print Calibration window.
2. Select the correct page setup you are using to output to the installed paper, and click Print calibrated target.
3. Measure the target with *Genlin*
4. Open the Calibration (Dot Gain) Manager and select the calibration set assigned to the page setup. Then click Edit from calibrated target.
5. In the Edited calibrated target dialog, click Import > Import to read the calibration data. You may also wish to specify a new profile name, to indicate, such as `HP Photo Gloss-Aug2007`, to indicate the date the profile was updated.
6. Click OK to save the modified and updated profile. If you have changed the name of the calibration profile, remember to edit your page setups to use the new calibration profile. If you have not changed the name, you do not need to do this.

## 11.2 Creating and installing ICC profiles

To create and install a new ICC profile, do the following:

1. “Create a suitable page setup” on page 25.
2. “Print and measure an ICC target” on page 26.
3. “Install the ICC profile in your RIP” on page 26.

### 11.2.1 Create a suitable page setup

To process the ICC profiling targets and output them to a printer, you will need to create a page setup which uses the correct printer model, media type, ink and output quality. The page setup must *not* have any color management or calibration options selected; these should be set to `(None)` or `(No color management)` as applicable. Or, if you have created a “Golden State” profile for the printer, using Global Graphics’ *SetGold* utility for example, you may select the profile and use it as a suitable reference state for the printer.

Having created a suitable page setup, use it to print the ICC profiling target and measure it using an appropriate software package.

The exact procedure you should use varies from package to package, but it is possible to give some general hints:

- Total area coverage: For some paper types the total area coverage should be limited. This depends on the paper, ink type, resolution and screening used, but a good guide is to limit the coverage for coated media (Premium) to 280%, whereas matte media should be around 320%. Some experimentation may be required to determine the optimum setting.
- Number of patches**:** Although the number of color patches printed and measured is not always a guide to color quality, it is generally true that printing more patches produces better results for any given ICC profiling package.

Having created the ICC profile, install it using the menu option Color > Install ICC Profile. In the Linear Calibration From menu in the Install ICC Profile dialog box choose either:

- `Linear` if the page setup you used contained no color management data (raw state); *or*

- The name of the calibration profile or calibration set that you used in the page setup (golden state). The calibration data is incorporated into the ICC profile when you import it. This means you can delete the temporary calibration profile or calibration set once you have imported the ICC profile.

You can create a color setup using this profile (see "Creating color setups" on page 27 for details).

### 11.2.2 Print and measure an ICC target

Using your page setup, print the ICC target and measure it with your favorite profiling tool, and save the profile to a suitable location.

Some hints for obtaining better results:

- Total area coverage: For some paper types the total area coverage should be limited. This depends on the paper, resolution and screening used, but a good guide is to limit the coverage to 280% for uncoated papers and to 340% for coated papers. Some experimentation may be required to determine the optimum setting.
- Black generation: The presence of black ink in highlights can in some cases be objectionable and can introduce an unnecessarily grainy appearance to some images. Select a setting which images black only in dark regions. (If it is not clear which settings will image black only in dark regions, select the minimum amount of black generation allowed by the ICC profiling package.)
- Number of patches: Although the number of color patches printed and measured is not always a guide to color quality, it is generally true that printing more patches produces better results for any given ICC profiling package.

### 11.2.3 Install the ICC profile in your RIP

The ICC profile can be installed using the Install ICC Profile dialog (Figure 13).

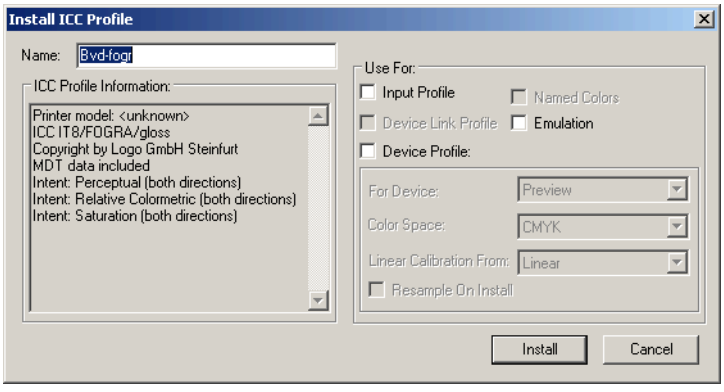


Figure 13 The Install ICC Profile dialog

In your RIP, select Color > Install ICC Profile and select the profile you created above that you wish to import. In the Install ICC Profile dialog, select the following options:

- Device profile: Check this option to add a profile for the output device.
- For Device: Select from the drop-down list the device the ICC profile is to be used for.
- Linear calibration from: Select from the drop-down list `Linear` if the page setup contained no color management data, or the name of the *Golden state* profile used to create the target.
- The name of the calibration profile or calibration set that you used in the page setup (golden state).

After installing this profile you can use it to create a color setup, as described next.

## 11.3 Creating color setups

Using the Color Setup Manager (Figure 14) and the options that are available in the New Color Setup dialog (Figure 15), you can add your own color setups to specify precisely how you want the colors in your jobs to be processed.

The plugin already contains color setups which are invoked when a ProofReady profile (or a calibration profile in a pre-Eclipse RIP) is selected in a page setup. For most purposes these color setups are perfectly adequate and will give excellent results. However, if you wish to create your own color setups and use them instead, follow the steps below.

To create a color setup in the RIP, do the following:

**1.** Select Color > Color Setup Manager to open the Color Setup Manager (Figure 14).

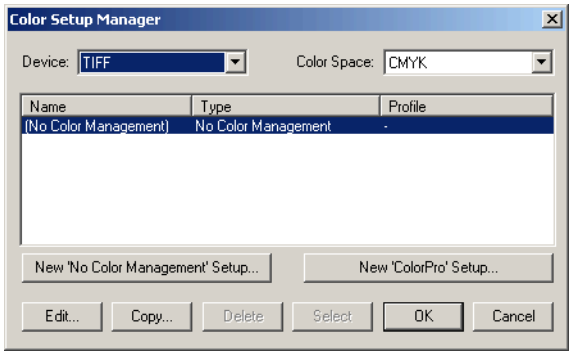


Figure 14 The Color Setup Manager

**2.** Select the manager options as follows:

- Device: Select from the drop-down list the HP device you want the new color setup to be used with.
- Color Space: Select from the drop-down list the color space you want the color setup to be used with.

**3.** Click New ‘ColorPro’ Setup to open the New Color Setup dialog (Figure 15).

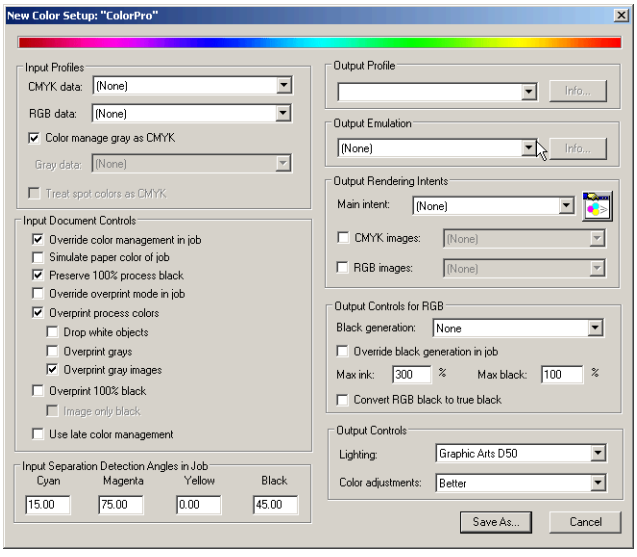


Figure 15 The New Color Setup dialog (Eclipse Release)

4. Specify your color setup options. To correctly process the color in your jobs, the following options need to be specified:
   - Input Profiles
   - Output Profile
   - Output Rendering Intents

   The other options are optional and may be left at their default settings or changed as required.
5. When you have made your selections, click Save As and enter a name for your new color setup.

   To use your new color setup, select it from the Color drop-down list in your page setup.

# 12 Troubleshooting

The HP DesignJet printer plugin for the Harlequin RIP is an advanced piece of software which contains many configuration options and settings. When used in a bi-directional output the printer is able to report diagnostic warning and error messages to the RIP. These can be viewed in the console (the main RIP window), and are described in this section.

## 12.1 Error messages

```
%%[ Error: VMerror; OffendingCommand: pagedevice ]%%
```

*Symptoms:* May occur when printing on large paper sizes or with a high resolution. Some jobs may suppress the VM Error and print using the default page size specified in the Page Layout dialog box, so that the output appears clipped.

*Solution:* Increase the setting for band size in the Configure RIP options dialog box to 1024 KB.

```
%%[Error: undefinedfilename; Offending Command: run]%%
```

*Symptoms:* Occurs when a device type is used with a name similar to another device, or when a new device is created where the case of the letters does not match those used in the device type label.

*Solution:* Change the device name to something completely different. Open the Device Manager, select the device and click Edit. In the Device Manager Edit dialog box.

```
%% [ Error: ioerror; Offending Command: setscreen ] %%
```

*Symptoms:* Occurs when HDS screening is being used when HDS has not been enabled in the RIP.

*Solution:* Enable HDS or HDS Light (Harlequin RIP > Configure RIP > Extras), and then re-submit your job.

```
*****WARNING: Insufficient working set may result in paging and performance may be
affected.
*****Try logging on as a Power User or reducing the memory allocated to the RIP.
```

*Symptoms:* May occur when using the RIP under Windows 2000.

*Solution:* This message may be ignored since performance is unaffected and is simply caused by the way Windows 2000 handles memory requests. Reducing the amount of memory available to the RIP may alleviate this warning, however RIP performance may consequently be affected, depending on the RAM you have available.

```
Not enough system memory to output this page.
```

*Symptoms:* May occur when the RIP is using more memory than is necessary for safe operation of the operating system (OS). On Apple Macs you may also see the OS display a warning message, or the system may freeze before it has chance to display the message.

*Solution:* On the Apple Mac, set the system option Minimum memory left for system to `10000 KB`. Large page sizes may need a larger value. For PC systems add more RAM to the machine.

## 12.2 Printer-specific messages and symptoms

Many of the printer-specific warnings are informative messages, which can be ignored without any adverse effects. Other messages can often be cleared by aborting output from the RIP, clearing any used media from the printer and starting the job again.

`Page Layout media size is less than the Configure Device paper size - clipping may occur.`

*Symptoms:* May occur when a custom paper size page setup is used that is subsequently changed to use a larger paper size. Clipping may occur in the output as the media values used for the custom paper size are still associated with the page setup.

*Solution:* Change the media values in Page Layout so they are larger than the paper size selected in Configure Device, or create a completely new page setup.

`Warning: Top and Bottom Margin values will be swapped.`

*Symptoms:* May occur when sheet-fed devices are being used.

*Solution:* The message is output for information only and may be ignored. It occurs because the RIP needs to swap values specified in the Page Layout dialog box for the top and bottom margins, so it can deal with sheet-fed devices correctly.

`Job output for "job name", sent on <date> <time>`

*Symptoms:* Occurs when the RIP has finished sending a job to the printer.

*Solution:* The message is for information only and can be ignored.

`Job output for "job name", filename "full path name of output file", finished on <date> <time>`

*Symptoms:* Occurs when the RIP has finished creating an output file for the job.

*Solution:* The message is for information only and can be ignored.

`Printer communication failed ( error details )`
`Unable to connect to printer ( error details )`

*Symptoms:* The RIP is unable to communicate with the printer, as described by the error details.

*Solution:* Refer to the error code for the cause of the failure.

`Unable to open output (error details)`
`Open error (error details)`

*Symptoms:* The RIP is unable to communicate with the printer, as described by the error details.

*Solution:* Refer to the error code for the cause of the failure.

`Unable to create file - "full path name of output file"`

*Symptoms:* RIP is not able to create an output file for the job.

*Solution:* Make sure there is sufficient disk space for the output file. Also, make sure a file of the same name does not already exist, and that the disk is not read-only.

`Unable to create file using path "full path name of output file" and template "file name template"`

*Symptoms:* RIP is not able to create an output file for the job.

*Solution:* Make sure the output path is valid and is writable. Also, confirm the template file name is valid, as specified in Configure Device.

`Job output for "job name" is aborting - Printer will print data that it has already received.`

*Symptoms:* May occur after an error has been reported.

*Solution:* If the RIP aborted due to a problem with the parallel (LPT1) connection method, you may be prompted to retry or cancel the job. Click Cancel to abort the job and then check that the printer is switched on and connected using the correct cable.

`Job output for "job name" is aborting`

*Symptoms:* May occur when an output file is being written.

*Solution:* The message is for information only and can be ignored.

`Job output for "job name", aborted on <date> <time>`

*Symptoms:* Occurs after a job has been aborted.

*Solution:* The message is for information only and may be ignored.

`Job output for "job name", filename "full path name of output file", aborted on <date> <time>`

*Symptoms:* Occurs after a job has been aborted.

*Solution:* The message is for information only and can be ignored.

`Job output for "job name" using path "full path name of output file" and template "file name template", aborted on <date> <time>`

*Symptoms:* Occurs after a job has been aborted.

*Solution:* The message is for information only and can be ignored.

Printer ejects paper before completing a page

*Symptoms:* The page is ejected from the printer before it has finished printing.

*Solutions:* There are a number of possible solutions:

- Reset the printer and try printing the page again.
- In your PC BIOS, check the mode setting for the port. Do not use EPP mode, especially if a security dongle is attached.
- If your PC has a second printer port, try using this port instead.
- Swap the parallel printer cable for another one.

Poor or erratic image quality

*Symptoms:* The print quality is poor.

*Solution:* There are a number of possible solutions:

- Check the printer is operating correctly and is able to print a self-diagnostic test page. Your printer manual will have details on how to print a test page.
- Make a note of any error or warning messages issued by the RIP/plugin and use the recommended troubleshooting procedures, as described in this section, to fix the problem.
- Check the settings used in the Harlequin RIP page setup. You may have used an inappropriate setting for resolution or print quality.

No output

*Symptoms:* No output from the printer.

*Solution:* Check the status of the printer: make sure it is online, powered and connected. Also, check ink and media are loaded and ready to be used. If necessary, print a self-diagnostic test page. Your printer manual will have details on how to print a test page.

Output appears clipped

*Symptoms:* Printed output may be clipped at the top, bottom or side of the page when printing with large paper sizes or high resolutions.

*Solution:* Increase the band size setting to `1024 Kb` in Harlequin RIP > Configure RIP > Options > Band size for printing.

PhotoInk color management fails to preserve 100% process black

*Symptoms:* Black is not printed as 100% process black when a job is color managed.

*Solution:* To prevent black being color managed, add a page feature to your page setup that runs the following PostScript:

```
<</ReuseColorChains false>> setsystemparams
```

Refer to the Harlequin RIP manual for details on creating and using page features.

Banding at 300dpi

*Symptoms:* Device pauses for a few seconds shortly after printing starts, resulting in a band in the first few inches.

*Solution:* Increase the band size setting to `2148 Kb` in Harlequin RIP > Configure RIP > Options > Band size for printing.

## 12.3 Messages for file name templates

This section details possible error messages that may appear in the RIP monitor window due to the use of incorrect file name templates (see Section 8). Suggestions are offered to prevent these errors from occurring.

`Filename too long for target platform`

This message appears when the combined file name stem and extension are too long for the target platform. For example, the combined length of the file name stem and extension must not exceed 255 characters on a Windows platform or 31 characters on a Macintosh platform. To prevent this error, use truncated tags, as shown in the example for the `<dos>` tag on page 19.

`File stem too long for target platform`

This message appears when the file name stem is too long for the target platform. To prevent this error, restrict the length of the stem by reducing the fixed text, or by using truncated tags. The example for the `<dos>` tag on page 19 demonstrates truncation.

`Extension too long for target platform`

This message appears when the file name extension is too long for the target platform. For example, file names in UNIX are not considered to have a separate file name extension. Using the `<dot>` tag in conjunction with the `<unix>` tag would generate this error. To prevent this error, create a template such as `<unix><jobname>.hpf` rather than using the `<dot>` tag.

`Full pathname too long for target platform`

This message appears when the full path name (combination of the file path and the file name) is too long for the target platform. For example, in Windows operating systems the full path name must not exceed 259 characters. To prevent this error, examine the number of characters in the file path of the output file (for example, `C:\SW53\RIP\FILES\`) and create a template in which the combined length of the file path and the file name do not exceed the limit for the platform.

`The path was not supplied`

This message appears when the file path is not specified in the Change... text box within the Configuration dialog box. To prevent this error, provide a valid file path.

`Unknown tag found in template`

This message appears when an unknown tag is found in the template. This is most likely due to a spelling error.

`Tag delimiter not found`

This message appears when a tag delimiter, either `<` or `>`, is missing from a tag. Check that all the tags have both delimiter characters.

`An extension is required but not found`

This message appears when a file extension is expected but is not specified in the template. For example, if using the `<dot>` tag, a file extension must be given.

`File requested is not writeable`

This message appears when trying to write to a file that already exists and that has read-only access. If you wish to overwrite the file, you must change the file permissions to provide write access.

`Unique requested but not satisfied`

This message appears when no further unique numbers are available. For example, if using the template `stem<1unique><dot>hpf`, this error would occur once the file names `stem1.hpf` through `stem9.hpf` had been generated, because no further unique numbers are available.

## 12.4 Messages for post processing

This section details possible messages that may appear during post processing (for more information, see “Post processing operations” on page 21).

`Running post processing command "command" in folder "folder name"`

This is a progress message, confirming the command that is being run, and the working directory.

`Post processing command failed - Cannot change directory to "directory path"`

This error message appears when there is a problem changing to the specified directory that prevents the completion of the post processing. Check that the directory exists and that you have permission to access the directory.

`Post processing command failed - "status value"`

This error message appears when the post processing has been unsuccessful. The `"status value"` is the error code generated by the command or shell you are using and can be used by your system administrator to determine the exact cause of the post processing failure.

## 12.5 Parallel port performance and reliability

We are aware of several problems with parallel port behavior when working with built-in parallel ports on PC platforms—where the hardware implementation and supported modes of operation have changed greatly over the development history of the PC.

Windows2000/Windows XP

Under Windows 2000 and Windows XP the parallel port driver can achieve higher data rates, especially when operated in ECP mode. Using this mode the operating system sometimes crashes or shuts itself down. You can avoid these problems by reconfiguring the parallel port in the BIOS to select the most basic configuration. The way to enter and change the BIOS configuration varies from machine to machine, as does the terminology used for the parallel port mode.

To avoid crashes, try using options with descriptions such as “bi-directional”. Do not choose any option where the description includes the words ECP or EPP.

## 12.6 Problems with passwords

If you have problems enabling a device or option you should confirm with your supplier the password or password file. They may provide you with a new password or password file. If this is the case, you may need to provide the serial number of your RIP. The RIP displays this number in the RIP monitor window when starting up, in the form:

```
Serial number: 1234-56
```

You must also tell your supplier the *platform* for which you require the password or password file. The platform is the combination of operating system and processor type. For example, you might specify Windows NT, and Intel processor (CPU).

Once you have a valid password or password file, follow the relevant steps:

| | |
|---|---|
| Password file | Copy the password file into the `Passwords` folder, which is a subfolder of the `SW` folder. See the *RIPMate User Guide* for further details. |
| Password | Use the File > Configure RIP menu option to display the Configure RIP dialog box. Click Extras in the Configure RIP dialog box to display the Extras dialog box. Select the entry for the device or option that you wish to add, and click Add to display the Enable Feature dialog box. Enter the password given to you by your supplier, and click OK. |

## 12.7 Patterning when not using color management

You may see patterning in flat tint areas of black if you print without using any color management. To avoid this problem, use the supplied calibration profiles and color profiles, as listed in“ProofReady profiles” on page 13. If the media or screening type that you wish to use is not supported by the supplied profiles, you need to create your own profile. If necessary, you can use the supplied profiles that are optimized for HDS Super Fine screening with all of the HDS screen sets.