

# **Introductions to PPDs 6.x**

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## 1. About PPD

This directory contains PPD files for a variety of Heidelberg output devices such as Herkules, Quasar, R30x0, Signasetter, ColorFlash, the FormProofer and others. These PPDs comply with the PostScript Printer Description File Format 4.3. The current PPD File Version is 6.x. The PPDs for Japanese applications are stored separately in a directory marked with a "J".

A PPD file is a machine readable file which provides information about the output device and also provides device specific PostScript language fragments to invoke certain features, such as printing mode, page sizes, built-in fonts, color separation algorithms and other user selectable features. PPD files are used by system software such as printer drivers and spoolers to construct user interfaces for printing and to enable machine specific options.

## 2. How to install the PPDs

### 2.1 Mac OS

The installation of the PPDs on a Macintosh computer is pretty easy. The MacOS PPD directory (e.g. Delta\MacTools\PPDs) is structured into four sub-directories:

#### **Film, Plate, Special, and DI**

Plate: containing all PPDs for CTP recorders, e.g. Trendsetter 3244

Film : containing all PPDs for film recorders, e.g. Herkules

Special: containing all PPDs for special output devices, e.g. Proofer, ColorFlash, Signastation, and a Heidelberg Common PPD.

DI: containing all PPDs for direct imaging printing machines,  
e. g. Quickmaster 46 DI

Just copy the required PPD into the Printer Description folder located in the System Extension folder. Select the PPD by the desired PostScript printer driver (e.g. LaserWriter 8.5.x) and follow the instructions.

Don't forget to set up the installable options and to restart the DTP application to allow it to update its local PPD library.

### 2.2 Windows NT 4.0

If you are using the Microsoft "PSCRIPT" PostScript driver and once a PostScript printer has been installed already you should copy the files

#### **PSCRIPT.DLL, PSCRIPT.HLP, PSCRIPT.CNT and PSCRPTUI.DLL**

into the same directory where the INF file (HDPrint\_NT.INF) and the PPDs are stored (e.g. D:\Delta\NTTools\PPDS). On intel-CPU based systems these files can be found in the NT system directory

SYSTEM32\SPOOL\DRIVERS\W32X86\\* .

On DEC-Alpha based systems the files can be found in the NT system directory

SYSTEM32\SPOOL\DRIVERS\W32ALPHA\\* .

If a PostScript printer should be installed for the first time the Windows NT 4.0 CD is required to access the system driver files. Start the NT 4.0 print manager and add the desired Heidelberg printer by clicking the switch "Have Disk" in the print manager dialog. Then select HDPrint\_NT.INF located in the PPDs directory on your Delta Workstation and follow the instructions.

The Manufacturer list displayed by the printer installer wizard consists of five entries:

Heidelberg: CTP:	containing all PPDs for CTP recorders, e.g. Trendsetter 3244
Heidelberg: Film:	containing all PPDs for film recorders, e.g. Herkules
Heidelberg: Special:	containing all PPDs for special output devices, e.g. Proofer, ColorFlash, Signastation, and a Heidelberg Common PPD
Heidelberg: DI:	containing all PPDs for direct imaging printing machines, e.g. Quickmaster 46 DI

## 2.3 Windows 95, Windows 98 and Windows Millenim

If you are using the Microsoft PostScript Driver PSCRIPT and once a PostScript printer has already been installed you should copy the files

**PSCRIPT.DRV, PSCRIPT.HLP, PSCRIPT.INI, TESTPS.TXT  
APPLE380.SPD, FONTS.MFM, ICONLIB.DLL, PSMON.DLL**

into the same directory where the INF file (HDPrint\_W95.INF) and the PPDs are stored (e.g. D:\Delta\W95Tools\PPDS). These files can be found in the Windows 95 system directory SYSTEM\\*.

If a PostScript printer should be installed for the first time the Windows 95 CD is required to access the system driver files. Now start the Windows 95 print manager and add the desired Heidelberg printer by clicking the switch "Have Disk" in the print manager dialog. Then select HDPrint\_W95.INF located in the PPDs directory on your Delta Workstation and follow the instructions.

The Manufacturer list displayed by the printer installer wizard consists of five entries:

Heidelberg: CTP:	containing all PPDs for CTP recorders, e.g. Trendsetter 3244
Heidelberg: Film:	containing all PPDs for film recorders, e.g. Herkules
Heidelberg: Special:	containing all PPDs for special output devices, e.g. Proofer, ColorFlash, Signastation, and a Heidelberg Common PPD
Heidelberg: DI:	containing all PPDs for direct imaging printing machines, e.g. Quickmaster 46 DI

## 2.4 Windows 2000

If you are using the Microsoft "PSCRIPT" PostScript driver and once a PostScript printer has been installed already you should copy the files

**PSCRIPT5.DLL, PSCRIPT.HLP, PSCRIPT.NTF and PS5UI.DLL**

into the same directory where the INF file (HDPrint\_W2000.INF) and the PPDs are stored (e.g. D:\Delta\W2000Tools\PPDS). These files can be found in the NT system directory

SYSTEM32\SPOOL\DRIVERS\W32X86\3 .

If a PostScript printer should be installed for the first time the Windows 2000 CD is required to access the system driver files. Start the Add printer wizard and add the desired Heidelberg printer by clicking the switch "Have Disk" in the print manager dialog. Then select HDPrint\_W2000.INF located in the PPDs directory on your Delta Workstation and follow the instructions.

Please ignore the warning against the installation of an uncertified driver and continue the installation.

The Manufacturer list displayed by the printer installer wizard consists of five entries:

Heidelberg: CTP:	containing all PPDs for CTP recorders, e.g. Trendsetter 3244
Heidelberg: Film:	containing all PPDs for film recorders, e.g. Herkules
Heidelberg: Special:	containing all PPDs for special output devices, e.g. Proofer, ColorFlash, Signastation, and a Heidelberg Common PPD
Heidelberg: DI:	containing all PPDs for direct imaging printing machines, e.g. Quickmaster 46 DI

## 2.5 Using the Adobe printer driver AdobePS for Windows 95 and Windows NT 4.0

### I. INTRODUCTION

This document contains installation instructions for PostScript Printer Description (PPD) files for use with the AdobePS 4.2.5 (or newer) PostScript printer drivers for Microsoft Windows 95 and AdobePS 5.x for Windows NT4.0. You can obtain AdobePS from the Adobe online services.

#### **PPD file installation instructions for ADOBEPS 4.2.5 or newer for Windows 95 and AdobePS 5.x for Windows NT 4.0.**

1. If you have not yet installed AdobePS install it according to the installation instructions.
2. You will need to know the location of the PPD files you would like to install. Note the directory location now (you will need it in Step 5 below).
3. Start the AdobePS Setup Utility: From the Start Menu, choose Programs > AdobePS > AdobePS Setup Utility.
4. Follow the instructions that appear on your screen.
5. When the setup utility prompts you for the location of the PPD file change to the directory containing your PPD file.
6. Select your PPD file by clicking once (not twice). A filename will appear in the lower left corner of the "Install PostScript Printer from PPD" dialog. For instance, the filename may be "HDHERR61.PPD".
7. Write down the file name that appears.
8. Click Next and follow the instructions that appear on your screen to complete the installation.
9. When the properties sheet for your printer appears you may optionally modify any default settings. Click OK when you are done.

10. Once the software has been successfully installed you click Exit to close the installer or click Add Another to add a new printer.

Your PPD file installation is complete. Some applications such as Adobe PageMaker may require the PPD file to be copied to an additional location. See your application's documentation to determine if your application searches for PPD files in a specific directory. If you have any such applications, you will need to follow these additional steps to ensure that they print properly:

11. Copy the file (see step 7.) from the original directory (setp 2) to the location that your application requires.

## **2.5 Adobe printer driver for Windows 2000, Windows NT, Windows 95/98 and**

### **Windows Millenium**

Please find a universal printer driver installer on Adobe's home page (look at PS\_driver\PS\_driver.htm) which detects the Windows variant in use and installs the right driver for Windows 2000, Windows NT, Windows 95/98 and Windows Millenium. The installation is as in 2.5 described.

### **Troubleshooting**

If this archive does not contain the PPD file you need, do one or more of the following:

- a. Your printer probably came with a disk containing the PPD file you need. If it is lost or damaged contact your printer manufacturer for a replacement.
- b. If your printer manufacturer has a website or other online service, visit that location using a Web browser or communications software to download the PPD file you need. See your printer documentation to determine if these services are available and how to reach them.
- c. Contact the Technical Support department of your printer manufacturer to obtain a PPD file. See your printer documentation to determine how to reach them. Adobe redistributes a number of PPD files as a courtesy to Adobe customers but does not guarantee to have the PPD file you need. Your printer manufacturer is ultimately responsible for PPD file distribution.

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### 3. Output Control (OPC) for Windows 95

After the printer has been installed by using the HDPrint\_W95.INF a specific module was installed, too. This module allows to include OPC headers in PostScript files generated by the Windows 95 printer driver. OPC headers are generated by the Output Control (OPC) tool available for Windows 95, as well as for Macintosh and Windows NT. The OPC allows to send job specific output parameters, such as screening parameters, resolution, or punch configurations along with a particular job.

### 4. Device Specific Features

One part of the PPD specifies a set of device specific features which are available through the printer driver's user interface.

#### 4.1 Mirror Print

This feature allows the user to control the mirror mode (wrong reading) from the printer menu.

#### 4.2 Negative Print

This feature allows the user to control the negative print mode from the printer menu.

#### 4.3 RIP-internal Color Separation

The PostScript 3 internal color separation feature allows the user to separate composite PostScript jobs either with or w/o data compression like JPEG. Another advantage of this feature is a performance gain for pages containing complex lineart objects. In this case the interpreter has to process the page just one time. If the front end application carries out the separation the RIP receives four times the same page, each time with different gray values but always with the same lineart objects. Therefore the interpretation of the page lasts four times longer.

If you are using the internal color separation feature, make sure that the color separation of the application program you are using (e.g. Quark Express) is switched off. Otherwise a total of 16 planes per page will be printed, because the interpreter separates each color plane once again. If you are sending just black and white pages and the RIP internal separation is switched on, also four planes will be printed by the RIP where only the black plane is marked and the other three are just blank.

#### 4.4 Black Overprint

When Black Overprint is selected at the front end application black objects (mainly characters) will appear only on the black plane. This will eliminate the possibility of flashes (white space) where black objects are placed on a colored background.

Most DTP applications do not support the Black Overprint feature when In-RIP color separation is used. However InRIP Color Separation and Black Overprint are standard features since PostScript Level 2. To support these features the Heidelberg PPDs have been extended by an overprint feature. With these PPDs, overprinting of black objects (100% black but cyan, magenta and yellow 0%) can be enabled or disabled by the printer driver dialog.

Most applications do not set alignment marks and separation names correctly for all separations. With activated BlackOverprint this will be corrected exclusively for Adobe PageMaker and for Quark Xpress.

#### 4.5 Advanced PostScript Error Handler

Debugging and analyzing PostScript errors is always a hard job. The error messages the PostScript interpreter issues are pretty much insufficient to pin down the problem.

Heidelberger Druckmaschinen AG therefore developed an Advanced PostScript Error Handler to obtain a lot more information about the location and the kind of the bug. This might help support specialists to provide a solution in a shorter time frame.

There are three levels of error information the Advanced PostScript Error Handler provides:

1. Standard: same as the standard PostScript implementation
2. Basic: error message and stack contents
3. Detailed: error description, stack and graphic state contents and a hint about the error location.

If a PostScript error occurs the user should switch on the Advanced PostScript ErrorHandler and run the job again. The output of the Advanced PostScript ErrorHandler is printed to the back channel and to a log file as well (Delta\Interpreter\Exe\PSErrorLogs\Log.nn, where nn is the number of the error log). A history of the last 100 error logs are kept on the disk.

#### 4.6 Page Size Policies

PostScript 3 allows to set certain Page Size Policies. A Page Size Policy specifies the behavior of the PostScript interpreter if the size of the page defined in the PostScript job by the user exceeds the max. exposure area. There are three options the user can choose from:

1. Abort the Job: if the page is too large
2. Clip to MaxPage: the page is clipped to the maximal exposable area
3. Shrink to fit: the page is scaled down to fit into the max. exposable **area**


#### 4.7 Missing Fonts Policies

A policy for missing fonts specifies how to proceed if a font required for a document is not available for the interpreter. There are three options:

1. Using Courier: courier replaces the missing font
2. Warning: a warning is issued but the job continues
3. Abort the job: the job is aborted with an error message

#### 4.8 RGB-Black-UCR

Some applications, e.g. Office on Windows95 work in an RGB color space and do not set a pure black. With this option a pure black (0% Cyan, 0% Yellow, 0% Magenta, 100% Black) can be set within the CMYK color space.

 RGB-Black-UCR can only be enabled with enabled InRIP Color Separation!

## **5. What's new in the PPDs 6.x?**

### **5.1 Custom Page Size**

The PPD Specification 4.3 from Adobe Systems, Inc. specifies how to deal with the Custom Page Size feature available in our PPDs. Our implementation of this feature complies now exactly with this specification. The reference of the page orientation is not the exposing direction any more but the media feed direction. In other words: portrait for example means the long edge of the page runs parallel to the media feed direction. The landscape orientation is rotated 90 degrees counterclockwise. This is already valid since the PPDs 4.2 (for Level 2) and 5.3 (for PostScript 3).

### **5.2 Compatibility**

The 6.x PPDs are for Delta versions 6.x (not for Meta Dimension).

They should never be used for Delta 4.x or for RIP50 since these devices only support PostScript Level 1 and Level 2.

As Delta 5.x supports PostScript 3 as Delta 6.x does. However these older versions include other fonts. Therefore the font lists within the 6.1 PPDs do not match the fonts of Delta 5.x.

### **5.3 True Type Fonts**

True Type Fonts are supported by all 6.x PPDs.

### **5.4 New Output Devices**

New output devices were added by an own PPD, e.g. Spectrum, CFx31CX (CLC1000) and Approval.

### **5.5 ColorProofer, TiffDir, and ColorFlash**

Since PPD version 5.6 there is only one roman and one kanji PPDs for each of these printer classes. Standard page formats and the Custom Page Size are supported within the same PPD.

Two new ICC profiles sRGB and MacRGB are included.

### **5.6 ColorFlash and CFx31CX**

The parameter "Rotation" was introduced to rotate the output within the proofer workflow. The orientation of the output may be changed to 90 or -90 degrees.

### **5.7 DI Devices**

A choice of often used standard formats and the respective maximal format is offered for the DI devices. The format MaxPage\_DeltaList\_Workflow is offered for the signstation workflow only. It must not be used for direct output.