User Guide

Adobe PostScript

Printer Driver version 3.0

with Digital PostScript Laser Printer Information

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Windows

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Contents

Introduction

Welcome to the Adobe™ PostScript™ Printer Driver—Windows™ Version 3.0. The Adobe Printer Driver works with Adobe Post-Script language printers and lets you take full advantage of your printer's features and capabilities. The Adobe Printer Driver can be used instead of the Microsoft® Windows PostScript printer driver that comes with Windows 3.1.

A printer driver is an operating system program that lets application programs communicate with printers. The Adobe Printer Driver translates your application's documents into the PostScript language and sends the PostScript document descriptions to your printer. The driver also provides applications with information about your printer, such as available fonts, paper sizes, and so on.

The Adobe Printer Driver supports both PostScript Type 1 fonts and TrueType fonts within a document. You can use the Adobe Printer Driver to save your documents as PostScript files to send to a service bureau. You can also use it to produce Encapsulated PostScript (EPS) files so that graphic images you create with one application and place in the documents of another application print with the greatest possible resolution.

The Adobe Printer Driver provides the following features:

o Full support for *all* your printer's features, including optional paper trays, duplex (two-sided) printing, and print enhancement technologies

o Maintenance of separate printer settings for each PostScript printer, making it easy to use two or more PostScript printers with the same computer

o Support for PostScript Level 1 and Level 2 printers

o A font downloader utility that lets you manually download PostScript Type 1 fonts to your printer; you can also use the font downloader utility to register font storage devices such as cartridges, disk drives, and CD-ROM drives

o A port-monitoring facility that lets you monitor and control specific activities on PostScript printers that are capable of bi-directional communication

ABOUT THIS MANUAL

This guide explains how to install and use the Adobe Printer Driver with your computer running Windows or Windows for WorkGroups versions 3.1 or 3.11. It also explains how to use the PostScript downloader utility and Port Monitor, which are included in your driver product package. The Appendix gives advice on troubleshooting printer problems.

This guide assumes a basic familiarity with Windows operations and terminology. For instructions on basic Windows operations, see your Microsoft Windows 3.1 documentation.

In this manual, text that you type as part of a procedure appears in **boldface**.

The README file included on the driver program disk contains the latest information about the Adobe Printer Driver. The README file also contains instructions for using the Adobe Printer Driver with your printer model and with specific applications. You can read or print the README file with any word-processing program supported by Windows.

SYSTEM REQUIREMENTS

The Adobe Printer Driver requires the following hardware and software:

o One 5.25-inch floppy-disk drive with 1.2 megabytes (MB) capacity or 3.5-inch drive with 1.44 MB capacity, required for installation only

o Hard disk

o Four megabytes or more of memory

o Microsoft Windows or Windows for WorkGroups, versions 3.1 or 3.11 running in enhanced mode

o MS-DOS® operating system, version 3.3 or higher (version 5.0 or higher is recommended)

o An Adobe PostScript language printer or other Adobe PostScript language imaging device

USING SOFT FONTS WITH THE ADOBE PRINTER DRIVER

You can use soft fonts to increase your font choices beyond the basic set of PostScript language (Type 1) fonts built into your printer. A soft font is a Type 1 font that you install on your computer's hard disk and that is downloaded to your printer when you print a document that uses that font. Soft fonts are available from Adobe Systems Incorporated and other Type 1 font vendors.

To view documents using soft fonts on your computer screen before printing, you must install screen versions of the soft fonts. Soft fonts sold by Adobe come with a program called Font Foundry™, which you can use to make screen versions of all of your soft fonts. However, the best way to make sure your documents look the same on screen as on paper is to use the Adobe Type Manager™ (ATM™) for Windows program. ATM uses Type 1 fonts stored on your computer hard disk to create screen fonts of any size and style on your computer screen as needed. With ATM, installing soft fonts is quick and easy, and you don't have to worry about installing screen versions of fonts at all. ATM also lets you print Type 1 fonts on non-PostScript printers, such as inkjet and dot matrix printers.

Chapter 1: Installing the Software

T his chapter explains how to install the Adobe Printer Driver software on your computer and how to set up the driver to work with your PostScript printer.

Installation and setup involve the following steps:

o Running the Adobe Printer Driver setup program

o Installing a PostScript printer from a PostScript Printer Description file (PPD), which the driver uses to give you control of your printer's features

o Configuring the PostScript printer

o Installing the Adobe PostScript Port Monitor software

RUNNING THE ADOBE PRINTER DRIVER SETUP PROGRAM
The Adobe Printer Driver setup program deletes any copies of earlier versions of the Adobe Printer Driver.

Before installing the Adobe Printer Driver, perform the following tasks:

o Make sure that the Microsoft Windows 3.1 program or Windows for WorkGroups version 3.1 or 3.11 is installed on your computer.

o Close all other applications that may be using an earlier version of the driver.

o For safekeeping, make a backup copy of the Adobe Printer Driver disks.

To install the Adobe Printer Driver program:
1 Start Windows.

2 Make sure the Control Panel window in the Windows Program Manager is closed. Windows will place the PostScript Printers icon used to install PPDs in the Control Panel. To do so, the Control Panel must be closed; it is not sufficient to minimize the Control Panel to an icon.

3 Close any applications that may be using an earlier version of the Adobe Printer Driver.

4 Insert the Adobe Printer Driver program diskette into your floppy disk drive.

5 From the Windows Program Manager, choose File/Run.

6 In the Command Line box, type **a:\setup**, and click OK. Change the designation of the drive containing the program diskette (**b:**, for example), if necessary. The PostScript Printer Driver Setup window appears as setup is initialized. Then a window displaying information about the README file appears. The file README.WRI contains information about the Adobe Printer Driver that you should read before installing the software.

7 Click Read. The README file appears.

8 Choose File/Exit to exit the Write application after you have read the README file. The PostScript Printer Driver Setup window reappears.

9 Click Continue to continue the installation process.

The installation begins. A status window displaying the progress of the copy appears. The Adobe Printer Driver setup program first tries to install the driver files in the WINDOWS\SYSTEM directory.

If the setup program is unable to copy the files to the WINDOWS\SYSTEM directory because that directory is write protected, it displays a message about copying to your Windows directory. To copy the files to your Windows directory, click Continue. To contact a system administrator for assistance, click Exit.

If another version of the Adobe Printer Driver already exists in a read-only WINDOWS\SYSTEM directory, a message explaining this situation appears and the program does not proceed with software setup.

Once the copy has successfully completed, the setup program displays a message instructing you to restart Windows and then to use the PostScript Printers control panel to install printers from a selected PPD.

10 Click Restart Windows. The setup program restarts Windows. The PostScript Printers icon appears in the Control Panel the next time you run the Control Panel. For more information on using the PostScript Printers icon, see the following section.

INSTALLING A POSTSCRIPT PRINTER FROM A PPD

The PostScript Printers icon lets you install a PostScript printer from a
PostScript Printer Description file (PPD) that you specify. The driver
uses the information in a PPD to give you control of all your printer's
features.

The Adobe Printer Driver software package includes several diskettes
containing alphabetized PPD files. While installing the PostScript
printer, the printer driver can help you to find the diskette containing the
desired PPD.

To install a PostScript printer from a PPD:

1 Insert the diskette that contains the PPD to be installed in a floppy
diskette drive.

2 From the Windows Program Manager, open the Control Panel and
double-click PostScript Printers. The Install PostScript Printer from
PPD dialog box appears.
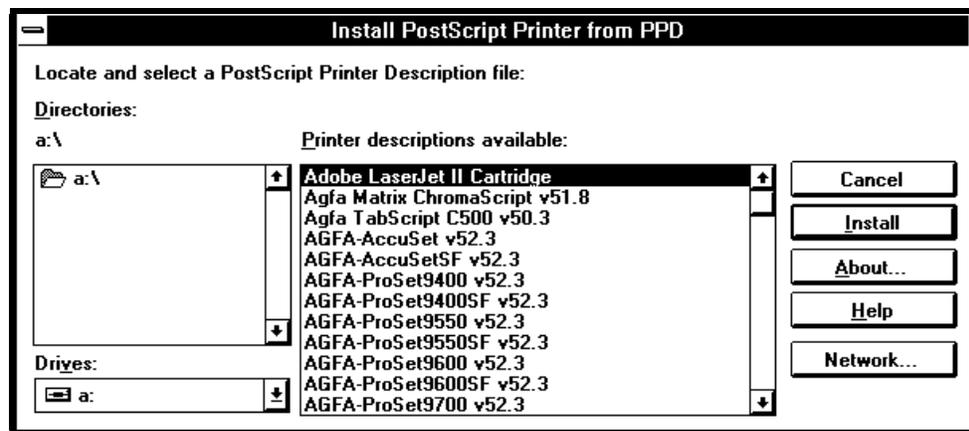
3 In the Drives box, select the drive containing the diskette that you just
inserted. The Printer Descriptions Available panel in the dialog box
displays all the PPDs on that drive.

4 In the Printer Descriptions Available panel, select the PPD that you
wish to use to install the PostScript printer. If the PPD that you wish to
use is not on that drive, insert diskettes and view the corresponding
PPDs until you find the PPD that you wish to install. Select that PPD.

5 Click Install. The PostScript Printers installation software copies the selected PPD to the appropriate directory. It then assigns the printer the first available port that is not already assigned this printer description.

You can continue to install PPDs by selecting entries in the Printer Descriptions Available panel and clicking Install.

6 Click Close when you have installed all the desired PPDs.

CONFIGURING THE POSTSCRIPT PRINTER

The next step is to configure any PostScript printers that you have installed.

1 In the Control Panel, double-click Printers. The Printers dialog box appears. This dialog box is similar to the following screen:
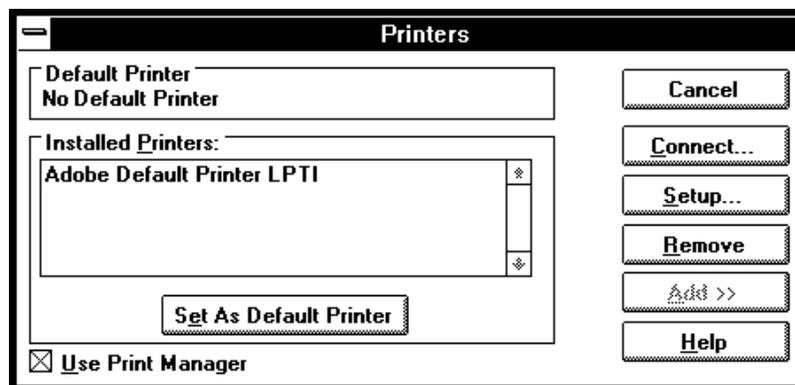
2 Select the printer that you wish to configure from the Installed Printers list.

3 Click Setup. The Setup dialog (the Paper tab dialog, by default) appears. For information on using this dialog to configure printers, see "Changing Your Printer's Setup" on page 16.

4 Configure the printer as desired, and click OK when you are finished.

5 To set up the printer you just installed to be the default printer, click the Set As Default Printer button, if desired.

6 If your printer is connected to a port other than the one shown (usually LPT1), or if your printer is connected to your computer through a network, you must now set up the port for your printer. For more information, see the next section, "Setting Up the Printer Port for Your Printer."

7 Click Close to close the Printers dialog box, and choose Settings/Exit to close the Control Panel and return to the Program Manager. You have now completed installing the Adobe Printer Driver and configuring the PostScript printer to work with the driver.

SETTING UP THE PRINTER PORT FOR YOUR PRINTER

After you install the Adobe Printer Driver, the entry for your printer model in the Installed Printers list of the Printers dialog box shows your printer as connected to LPT1. If your printer is connected to a parallel port other than LPT1, to a serial port, or to your computer through a network, you must set up the port for your printer.

The following instructions assume you have already connected your printer to your computer. If you haven't yet connected your printer, do so now. For instructions on how to connect your printer to your computer, see your printer documentation. Make a note of the port to which you connect your printer (LPT1 or COM2, for example).

To set up a port for your printer:

1 In the Printers dialog box, select the name of the printer you are setting up in the Installed Printers list.

2 Click Connect. The Connect dialog box appears.
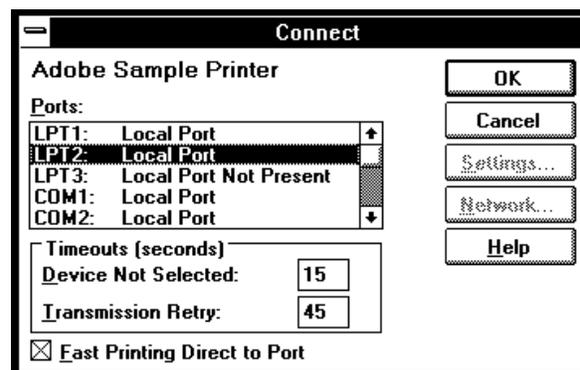
3 From the Ports list, select the port to which you connected your printer.

4 Complete the setup by choosing one of the followings steps:

o If your printer is connected directly to a parallel port such as LPT2 or LPT3, choose OK to close the Connect dialog box; choose Close to close the Printers dialog box; then choose Settings/Exit to close the Control Panel and return to the Program Manager.

o If your printer is connected directly to a serial port, follow the steps in the next procedure, "To Complete the Setup for a Serial Port."

o If your printer is connected to your computer through a network, follow the steps in the procedure on page 11, "To Complete the Setup for a Network Printer."

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To complete the setup for a serial port:

1 Choose Settings to display the Settings dialog box, and make sure that the settings match the serial communications settings for your printer. Typical values for these settings include

o Baud Rate: This value varies according to your hardware configuration, for example, 9600, 19200, and so on.

o Data Bits: 8

o Parity: None

o Stop Bits: 1

To determine your printer's serial communications settings, see your printer documentation.

2 When the communications settings in the Settings dialog box match your printer settings, choose OK to close the Settings dialog box, OK to close the Connect dialog box, Close to close the Printers dialog box, and then Settings/Exit to close the Control Panel and return to the Program Manager.

To complete the setup for a network printer:

1 Choose Network to display the Network – Printer Connections dialog box.

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┌─────────────────────────────────────────────────────────────┐
│ ▬           Network - Printer Connections                    │
│ Printer connections:                                          │
│ ┌───────────────────────────────────────────┐  ┌──────────┐  │
│ │ LPT1:                                       │  │  Close   │  │
│ │ LPT2:                                       │  └──────────┘  │
│ │ LPT3:                                       │  ┌──────────┐  │
│ └───────────────────────────────────────────┘  │ Options... │ │
│ Available queues:                                └──────────┘  │
│ ┌─────────────────────────────────────────┐ ┌─Operation─────┐ │
│ │                                          │ │ ☜ ☐ Permanent │ │
│ │ PCMAIL1/NW_LASERJET_4              ▲     │ │ ┌──────────┐  │ │
│ │ PCMAIL1/NW_ISCF_DESKJET_1200C_2013.104   │ │ │ Connect  │  │ │
│ │ PCMAIL1/NW_HGLITE                        │ │ └──────────┘  │ │
│ │ PCMAIL1/NW_LASERWRITER_PRO_630           │ │ ┌──────────┐  │ │
│ │ PCMAIL1/NW_JUANITA                       │ │ │Disconnect│  │ │
│ │ PCMAIL1/NW_KZINTI                        │ │ └──────────┘  │ │
│ │ PCMAIL1/NW_MARKETING_FAX_PRINTER         │ └───────────────┘ │
│ │ PCMAIL1/NW_SLUGGER                       │ ┌──────────┐      │
│ │ PCADOBEMV/NW_QUICKSILVER                 │ │   Help   │      │
│ │ PCADOBEMV/NW_MIS_COMPAQ           ▓      │ └──────────┘      │
│ │ PCADOBEMV/NW_KABEL_HP_LJ_4SI             │ ┌──────────┐      │
│ │ PCADOBEMV/NW_MARKETING_FAX_PRINTER ▼     │ │ Attach...│      │
│ └─────────────────────────────────────────┘ └──────────┘      │
│                                              ┌──────────┐      │
│                                              │ Detach...│      │
│                                              └──────────┘      │
└─────────────────────────────────────────────────────────────┘
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2 Choose the network path to your printer.

For instructions on connecting to a network printer, see your Windows documentation or network manager. After you have selected a network path to the printer, you are done.

3 Choose Close to close the Network – Printer Connections dialog box, Close to close the Printers dialog box, and Settings/Exit to close the Control Panel and return to the Program Manager.

INSTALLING PORT MONITOR

This section describes how to install the Adobe PostScript Port Monitor (PPM) software that comes in the Adobe Printer Driver package. It also shows you how to set up the PPM software for a port other than LPT1 and how to create PPM icons for other bidirectional printers attached to your computer.

Note: Only install PPM if your printer has bidirectional capability. For some printers, you may have to turn on the bidirectional mode in the front panel, usually via the Advanced Functions or Bidirectional option. For more information, see your printer documentation.

To install Adobe PostScript Port Monitor:

1 Make sure the printer you wish to use is directly connected to a parallel port of a local computer running Windows or Windows for Work Groups, and that you have turned on the bidirectional mode, if necessary.

2 Insert the PostScript Port Monitor Setup disk into your a: or b: drive.

3 From the Windows Program Manager, choose File/Run.

4 In the Command Line box, type **a:\setup**, and click OK. Change the designation of the drive containing the program disk setter, if necessary. The Port Monitor Setup window appears.

5 Click Continue to continue the installation process. A window displays information about the README file appears. The file README.WRI contains information about Port Monitor that you should read before installing the software.

6 Click Read. The README file appears.

7 Choose File/Exit to exit the Write application after you have read the README file. The Port Monitor Destination window appears.

8 Click Continue to copy the Port Monitor software into the default directory PORTMON, or change the name of the directory and click Continue. A status window displays the progress of the copy appears. Once the copy is complete, the Program Group Options window appears.

9 Click Continue to add Port Monitor to your StartUp Group.

10 Click OK once the installation was successfully completed.

Note: You may choose to economize desktop space and display printer information using the Port Monitor icon only. If you use the Port Monitor icon, the Windows Task List displays the brief summary status message that appears below the Port Monitor icon, instead of the expected name of the application task, "Port Monitor."

Setting up the PPM software for a parallel port other than LPT1

If your printer is configured for an LPT*n* port other than LPT1, to monitor your printer you need to change your StartUp Group Configuration to reflect that LPT*n* port.

To set up Port Monitor to monitor a printer connected to the LPT*n* port:

1 Open the StartUp Group in the Program Manager window by clicking the StartUp icon. The StartUp window appears.

2 Click the Port Monitor icon.

3 Choose File/Properties. The Properties dialog box appears.

4 In the Description field, type a name that will help you remember with which port this icon is associated, for example, "Port Monitor LPT*n*." The name you specify in this field will appear below the Port Monitor icon.

5 In the Command field, change LPT1 to LPT*n*. The port designation appears after the pathname to the Port Monitor software.

6 Click OK. If you added Port Monitor to your StartUp Group during installation, in future Windows sessions PostScript Port Monitor automatically becomes active for the specified port when you start Windows. To monitor the specified port in the current Windows session, double-click the Port Monitor icon.

Creating PPM icons for multiple printers attached to your computer

You might have connected more than one bidirectional printer to the parallel ports in your computer. To use multiple printers in a work environment, you must create a Port Monitor icon for each printer.

To create a Port Monitor icon for a second printer:

1 Click the Port Monitor icon.

2 Choose File/Copy. The Copy Program Item dialog box appears.

3 Select the group to contain the new program item, and then click OK. You will probably want to leave the new icon in the same group in which the original Port Monitor icon resides, normally the StartUp Group.

4 Click File/Properties. The Program Item Properties dialog box appears.

5 In the Description field, type a name that will help you recognize different Port Monitor icons. You might want to include the type of printer associated with this icon. The name that you specify in this field appears below the icon.

6 In the Command field, change the port designation, as needed, for example, from LPT1 to LPT2.

7 Click OK. If you added Port Monitor to your StartUp Group during installation, in future Windows sessions PostScript Port Monitor automatically becomes active for the specified port when you start Windows. To monitor the specified port in the current Windows session, double-click the Port Monitor icon.

Chapter 2: Using the Adobe Printer Driver

T his chapter explains how to change printer settings, how to create PostScript files for your documents, and how to manually download Type 1 fonts to your printer. For brief descriptions of the printer settings, see Chapter 3, "Summary of Printer Settings." For detailed descriptions of the printer settings, see online help for the driver tab dialogs and dialog boxes.

USING ONLINE HELP

Online help for the Adobe Printer Driver contains detailed information intended to supplement this user guide. Online help for the driver covers the following subjects:

o Setting up the driver for fast printing

o Using TrueType fonts with a PostScript printer

o Substituting PostScript fonts for TrueType fonts

o Starting the PostScript downloader utility

o Setting up the printer to accept binary data

o Printing to a file

o Using the driver to print to a file

o Setting up the driver to create PostScript files for a remote printer

o Sending a PostScript file to a printer

o Creating an Encapsulated PostScript (EPS) file

o Ensuring that PostScript files are portable

o Using soft fonts with the Adobe Printer Driver

o Using type cartridges and font disks

o Downloading the PostScript header once per session

o Downloading the PostScript header with AUTOEXEC.BAT

o Changing the communications port to which a printer is attached

o Setting up the driver for an IBM Personal Pageprinter

o Using the Error Handler to troubleshoot printing problems

Online help for the driver also contains detailed descriptions of all the printer settings, and many troubleshooting tips and techniques.

To display online help, choose the Help button in any of the driver dialog boxes. To see the list of help topics, choose the Contents button in the Help window; click any topic title to display help for that topic.

CHANGING YOUR PRINTER'S SETUP

When you install the Adobe Printer Driver for your printer, the driver selects settings for the printer that meet the needs of most users and most applications. Many users can install the driver for their printers and never have to think about changing their printer settings. However, in some situations, you might want to change your printer's setup:

o To select print options such as Paper Size, Paper Source, Scaling, Orientation, and Number of Copies that are unavailable in your application's Print or Print Setup dialog boxes

Caution: Use your application to set any printer settings you can set with your application (such as number of copies). Use the driver tab dialogs only to set printer options you cannot control with your application's Print or Print Setup dialog boxes.

o To download Type 1 fonts to your printer manually, which can speed printing

o To download the PostScript header just once when you turn on your computer, which speeds printing to a printer that is always connected only to your computer

o To take advantage of your printer's binary communication feature (if the printer has this feature), which speeds printing

o To create PostScript files that can be printed on remote printers—at a service bureau, for example

o To create Encapsulated PostScript files that capture images from one application that can be placed in the documents of another application

o To download the PostScript Error Handler to your printer to help troubleshoot printing problems

Many print options you set with the Adobe Printer Driver apply to *all* documents printed from *all* applications. If you use one of the Setup tab dialogs to change these options for a single document, you must return to the tab dialog to restore the options to their original settings before printing another document.

Displaying the Setup tab dialog

You can display the Adobe Printer Driver Setup dialog in a number of ways:

o **From the Control Panel.** You can use the Printers dialog box in the Control Panel to display the Setup dialog for every printer attached to your computer. From the Program Manager, double-click the Control Panel icon to display the Control Panel; then double-click the Printers icon to display the Printers dialog box. Select the printer that you wish to set up from the Installed Printers list and click Setup to display the Setup dialog for the printer. You can also use the Printers dialog box to select a default printer, to turn the Print Manager on and off, and to connect your printer to a different port. To complete the Default Printer setup and port connection, you must close the Printers dialog box and the Control Panel.

o **From your application.** Most applications have a Print Setup command on their File menus. Choosing this command usually displays the standard Print Setup dialog box. If you are using more than one printer, you can use the Print Setup dialog box to select the printer you want to set up. After selecting the printer, choose the Options (or Setup) button to display the Adobe Printer Driver's Setup dialog.

Note: The names of the commands and buttons used to display the printer setup dialog box vary from application to application. See your application's documentation for the precise command and button names used by your application.

o **From the Print Manager.** You can use the Print Manager dialog box to display the setup dialog box for every printer attached to your computer. From the Program Manager, double-click the Print Manager icon to display the Print Manager. Then select the printer you want to set up from the list of Printers. Finally, choose the Setup command from the Options menu to display the Setup dialog for your printer.

Changing printer settings

You change printer settings with the following Setup dialog:
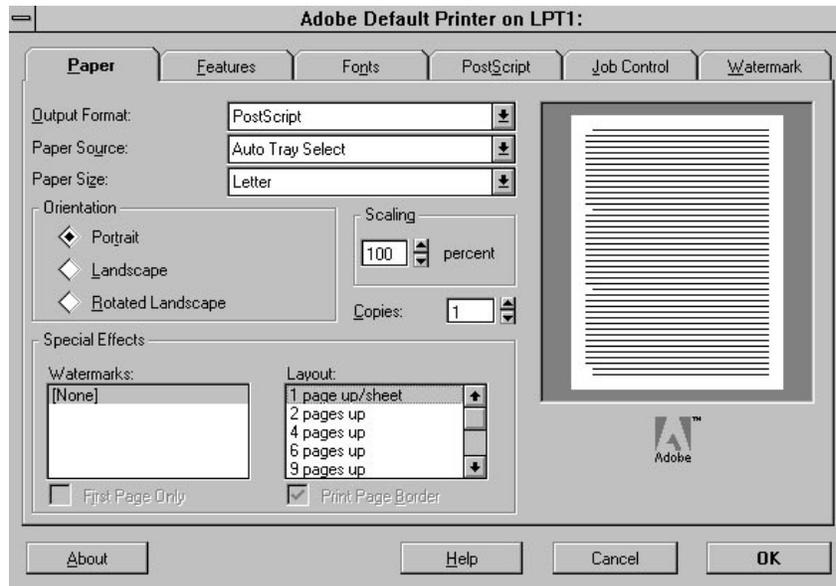
The Setup dialog contains the following tabs:

o *Paper.* This tab displays the Paper tab dialog (the default for the Setup dialog). This tab dialog lets you specify paper source and size, orientation of the printout, scaling, and special effects. It provides a Custom Paper button if your printer supports custom paper sizes. The Custom Paper option lets you control the size of the print image produced by your application.

o *Features*. This tab displays the Features tab dialog, which contains controls for additional printer features. These controls change from printer to printer, but typically include such features as optional paper trays and duplex (two-sided) printing. The Features tab button is available only for printers that support additional features.

o *Fonts*. This tab displays the Fonts tab dialog, which lets you control the way the driver prints TrueType fonts that you use in your documents. The driver can either substitute available PostScript fonts for TrueType fonts or automatically create PostScript versions of TrueType fonts and download them to the printer when you print. The Fonts tab dialog provides a Font Downloader button that displays the Adobe PostScript

Font Downloader dialog box. The Font Downloader lets you specify the fonts to download to the printer and the destination device. It also lets you create and delete font groups.

o *PostScript*. This tab displays the PostScript tab dialog, which lets you control features such as color printing, the communications protocol, and PostScript Level 2 features.

o *Job Control*. This tab displays the Job Control tab dialog, which lets you control when the PostScript header and the PostScript Error Handler are sent to your printer, for example.

o *Watermark*. This tab displays the Watermark tab dialog (only for PostScript Level 2 printers). This feature lets you specify the font size and the style of text, such as *Draft* or *Confidential*, to print across a page.

For a brief description of the printer settings you can control with the driver setup dialog boxes, see Chapter 3, "Summary of Printer Settings."

PRINTING TO A FILE

As an alternative to printing your document on your printer, you can save a PostScript language description of your document as a disk file. PostScript language descriptions of documents can be useful for creating document archives and printing documents without using the application that created them (at a service bureau, for example).

Another use of printing to a file is to create an Encapsulated PostScript (EPS) file. You can use EPS files to export single pages from one application to another. EPS files can include any combination of text, graphics, and images, but they do not describe complete documents. For example, by saving an Encapsulated PostScript file, you can insert a page of a document created with one application as an illustration in a document created by another application.

Note: If you select the Send Data in Binary option in the PostScript tab dialog, the PostScript files can include binary characters, which may make them unsuitable for use with word processors and certain telecommunication services applications. If you intend to transfer the PostScript file over telecommunication services, the services must fully support binary data transfer, as needed.

Two methods let you create PostScript files:

o If your application's Print dialog box has a Print to File check box, place a check in this check box.

o If your application's Print dialog box does not have a Print to File check box, make temporary changes to your printer connection.

Note: Make sure that the printer settings in the PostScript tab dialog will produce a file that prints correctly on your destination printer. For example, select the Use PostScript Level 2 Features option if you are sure that you will be printing the file only on Level 2 printers. If you plan to use a printer that does not support binary communication, disable the Send Data in Binary option. Selecting the Optimize for Portability option creates PostScript files that print successfully from different applications on a wide variety of printers and imaging devices; Adobe Systems recommends that you enable this option.

Creating a PostScript file from the application with the Print to File check box
Follow these steps to create a PostScript file with the Print to File check box:

1 Start your application and open the document.

2 Choose Print from the File menu. The Print dialog box appears.

3 Click the Print to File check box and choose OK. The Print To File dialog box appears.

4 Enter a pathname and filename for the file. (If you don't specify a pathname, your PostScript file is placed in your application's default directory.) Then choose OK. The file is created and you are returned to your application.

Using the driver to print to a PostScript file
Using the driver to print to a PostScript file is a three-step process. First you go to the Printers dialog box of the Control Panel to change your printer connection, then you use your application to create the file, and then you reset your printer connection for normal printing.

To change your printer connection to print to a PostScript file:

1 From the Program manager, open the Control Panel and double-click the Printers icon. The Printers dialog box appears.

2 If it is not already selected, select the name of the PostScript printer that you are using from the Installed Printers list. Then select Connect. The Connect dialog box appears.

3 Select FILE from the Ports list box.
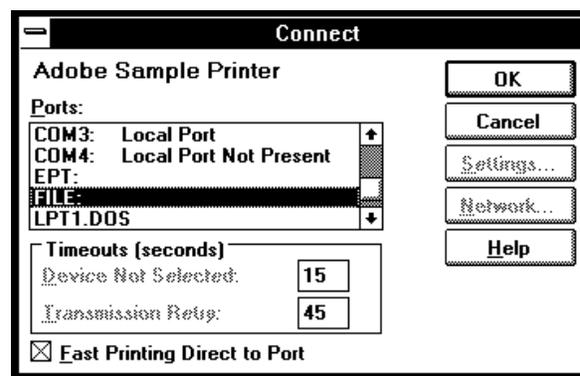
4 Choose OK to close the Connect dialog box and return to the Printers dialog box.

5 Choose Setup. The driver Setup dialog box appears.

6 After changing (or confirming) your printer settings, choose OK to close the Setup dialog box.

7 Choose Close to close the Printers dialog box; then choose Settings/Exit to close the Control Panel.

Your computer is now set up to create PostScript files when you choose the Print command from a Windows application.

To print to a PostScript file:

1 Start your application and open the document for which you want to create a PostScript file.

2 If needed, select the Print Setup command from the File menu, change the settings as appropriate, and select OK.

3 Select the Print command from the File menu. Your application's Print dialog box appears.

4 Choose OK. A dialog box appears that asks you to name the file. Enter a pathname and filename for the file. If you don't specify a pathname, the PostScript file is placed in your application's default directory.

5 Choose OK. The PostScript file is created, and you are returned to your
application.

After creating PostScript files, you need to restore your original printer setup options before you can use your printer again.

To restore your printer connection options after printing to a PostScript file:

1 From the Program Manager, open the Control Panel; then double-click the Printers icon. The Printers dialog box appears.

2 If it is not already selected, select the printer model on FILE entry from the Installed Printers list. Then choose Connect. The Connect dialog box appears.

3 In the Ports list box, select the port to which your PostScript printer is connected. Then choose OK. The Connect dialog box closes and you are returned to the Printers dialog box.

4 If you changed any printer settings to print to file, choose Setup to display the Setup dialog. Undo any changes you made and then choose OK. The Printers dialog box appears.

5 Select OK to close the Printers dialog box; then choose Settings/Exit to close the Control Panel.

DOWNLOADING TYPE 1 FONTS
The Adobe Printer Driver automatically downloads any Adobe Type 1 fonts from your hard disk to your PostScript printer's memory as needed for each document that you print. You can also use the Font Downloader to download fonts manually when you don't want to download fonts for each document. Manually downloading fonts can speed printing. Note that to start the Font Downloader, your computer must be connected to a printer.

Note: *All PostScript printers have a set of built-in fonts, called resident fonts, which do not need to be downloaded. For information about resident fonts, see the documentation on your printer or PostScript Cartridge.*

The size of your printer memory and the number and frequency with which fonts are used in a document determine whether to download automatically or manually.

When an application prints a document containing a font that is not resident in your printer, the driver automatically downloads the font with the document. The printer clears downloaded fonts from the printer memory after the document prints. This means that each time you print a document that contains fonts not resident in the printer, the fonts must be downloaded.

In contrast, when you manually download a Type 1 font with the downloader, the font remains in printer memory until you turn off or restart the printer or when memory limitations are exceeded. Manually downloading frequently used fonts therefore reduces printing time because the fonts do not have to be sent to the printer each time they are used. Keep in mind, however, that the manually downloaded fonts reduce the overall amount of memory available for printing and so may affect the printing of documents that do not contain the downloaded fonts.

In addition to downloading fonts, you can also use the Downloader to

o Install a hard disk (or other font storage device) attached to your printer to store the fonts for use by Windows applications

o Format a blank hard disk (or magnetic cartridge) for use as a font storage device

o Manually download soft fonts to a hard disk (or a magnetic cartridge) attached to your printer

o Perform various printer management tasks, such as listing and removing downloaded fonts, manually downloading PostScript language document descriptions, clearing the printer font cache, and resynchronizing your printer with Windows (when connected via serial communications)

Choose the Help button on the Downloader dialog box for instructions on performing these tasks.

To manually download Type 1 fonts:

1 From the Program Manager, open the Control Panel; then double-click the Printers icon. The Printers control panel appears.

2 If it is not already selected, select the PostScript printer entry from the Installed Printers list; then choose Setup. The Setup dialog (the Paper tab dialog, by default) appears.

Note: You can also open the Setup dialog from within many Windows applications. Check your application documentation to see if you can change your printer setup from within your application.

3 From the Setup dialog, select the Fonts tab. The Fonts tab dialog appears.

4 Choose Font Downloader. The Adobe PostScript Font Downloader dialog box appears.
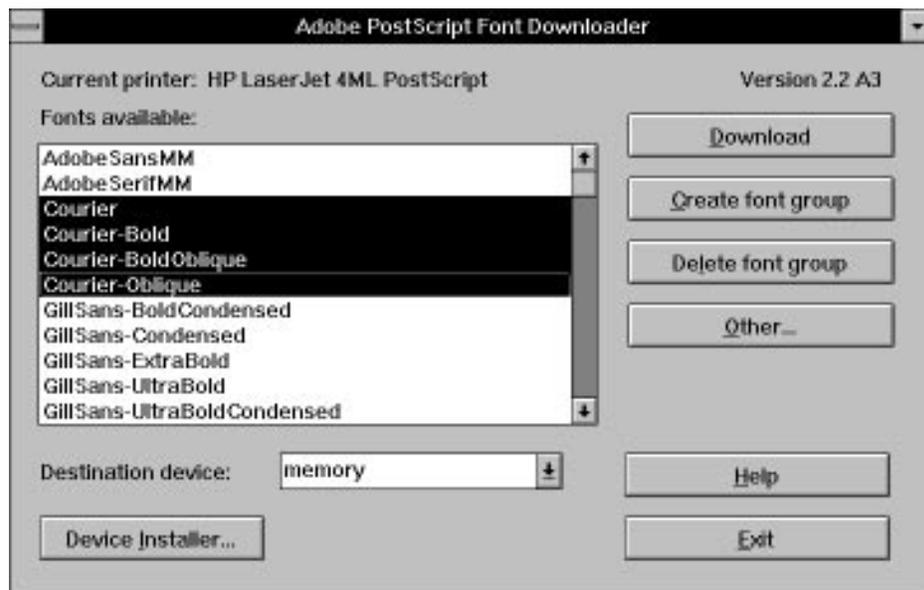
5 Select the fonts you want to download from the Fonts Available list.

6 Choose Download. The downloader informs you of its progress as it downloads fonts.

Note: During downloading, you can use other applications, but you will not be able to print.

7 After you have finished downloading fonts, choose Exit. The program returns you to the Fonts tab dialog.

8 Choose OK to close the dialog, choose Close to close the Printers dialog box, and then choose Settings/Exit to close the Control Panel.

Chapter 3: Summary of Printer Settings

T his chapter briefly describes all the printer settings you can control with the driver tab dialogs and dialog boxes. You can access the Paper, Features (if available on your printer), PostScript, Fonts, Job Control, and Watermark tab dialogs from each tab dialog.

This chapter does not describe the printer settings available in the Features tab dialog; these settings vary from printer to printer. For a description of the printer settings in the Features tab dialog, see your printer documentation.

PAPER TAB DIALOG SETTINGS

The following table summarizes the printer settings in the PostScript Printer Setup dialog, by default the Paper tab dialog.

Setting	Description
Output Format ▼	Selects either PostScript or Encapsulated PostScript. Use PostScript for normal printing. Use Encapsulated PostScript to create a one-page file that can be placed in a document of an application that accepts Encapsulated PostScript images.
Paper Source ▼	Selects the paper tray or manual input slot to use as the paper source.
Paper Size ▼	Specifies the paper size. Select the size that matches the paper in the current paper source. Printers that support user-defined paper sizes have a custom-paper option (the name of this option varies with your specific printer). Selecting the custom-paper option enables the Custom Paper button.
Orientation: ◈ Portrait ◇ Landscape ◇ Rotated Landscape	Selects the orientation of the printed page. Portrait prints text and images on tall pages. Landscape prints text and images on wide pages. Rotated Landscape also prints text and images on wide pages but reverses the top and bottom of the page.
Scaling ___ percent	Shrinks or enlarges the print image by the specified percentage. You can scale the image from 10 percent to 400 percent.
Copies	Specifies the number of copies of each document page to print.
Special Effects: Watermarks ☐ First Page Only Layout ☐ Print Page Border	Selects special effects for your printout. Watermarks lists the names of available watermarks. First Page Only prints the watermark on the first page only. Layout lists the options for arranging pages on paper; between 1 and 16 document pages can appear on a single printer page. Print Page Border prints borders around each document page if you are printing more than one document page on a printed page.

In addition to these printer settings, the Paper tab dialog contains the Custom Paper button, which is available only if you choose the Custom Paper option in the Paper Size menu. Choosing the Custom Paper button displays the Custom Paper dialog box. The following table summarizes the printer settings in the Custom Paper dialog box.

The values you set for width and height are specific to the Portrait orientation. The relative width and height of a page might appear to change if you set the Orientation value to Landscape or Rotated Landscape, where the Landscape height reflects the Portrait width value and the Landscape width reflects the Portrait height value.

Setting	Description
Units: ⊙ **Inches** ○ **Millimeters**	Tells the driver whether to interpret the Width and Height values as inches or millimeters.
Width	Specifies the paper width in either inches or millimeters, depending on the Units setting.
Height	Specifies the paper height in either inches or millimeters, depending on the Units setting.

FONTS TAB DIALOG SETTINGS

Choosing the Fonts tab button displays the Fonts tab dialog. The following table summarizes the printer settings in the Fonts tab dialog.

Setting	Description
Send TrueType Fonts to This Printer as: ▼	Tells the driver what kind of PostScript fonts to create for TrueType fonts. Select one of these options: • Type 1 (to synthesize outline PostScript fonts) • Type 3 (to synthesize bitmapped PostScript fonts) • Type 42 (to package TrueType fonts for the PostScript printer) • Don't Send (to use TrueType fonts that are resident in the printer or are supplied by print-manager software) The Type 42 option is available only for printers that support Type 42 fonts. Type 42 is an encapsulated PostScript TrueType outline, which improves printing of TrueType fonts.
☐ **Substitute PostScript Fonts for TrueType Fonts on This Printer**	When checked, tells the driver to substitute PostScript fonts available to the printer for TrueType fonts. The driver uses the TrueType Substitutions table to determine which PostScript font to use for each TrueType font installed on your system. Substituting appropriate PostScript fonts for TrueType fonts speeds printing (especially when the PostScript fonts are resident in the printer).
TrueType Substitutions for All Printers	This table lists all the TrueType fonts installed on your system, and for each TrueType font, shows which PostScript font is substituted for the TrueType font. This table is used only when you select the "Substitute PostScript Fonts for TrueType Fonts on This Printer" option.
For This TrueType Font:	Lists all the TrueType fonts installed on your system.
Substitute This Font: ▼ **Use Defaults Button**	Lists the PostScript fonts that are substituted for the TrueType fonts. Each drop-down list box lists all the PostScript fonts available to the printer. PostScript fonts available to the printer include all the fonts resident in the printer's ROM, as well as all the Type 1 soft fonts installed on your system. Each drop-down list box also contains a Send As option. The Send As option is the option currently selected in the Send TrueType Fonts to This Printer As drop-down list box. The Use Defaults button restores the original PostScript font substitutions.
Font Downloader Button	Displays the Adobe PostScript Font Downloader dialog box that lets you specify the fonts to download to a specified printer destination device.

POSTSCRIPT TAB DIALOG SETTINGS

Choosing the PostScript tab button displays the PostScript tab dialog. The following table summarizes the printer settings in the PostScript tab dialog.

Setting	Description
Performance Options: ☐ **Use PostScript Level 2 Features**	Tells the driver to use PostScript Level 2 features when printing documents. For printers that support PostScript Level 2, using Level 2 features speeds printing.
☐ **Send Data in Binary**	Tells the driver to send data to the printer in a binary format. The printer must be set up to receive binary data. For printers that support the binary data format, sending data in binary format speeds printing. You might need to set up some printers to receive binary data with the Send Mode button in the Job Control tab dialog. If so, see the Send Mode description in the Job Control tab dialog.
Color Options: ☐ **Send Full Color Data**	Tells the driver to print full color bitmaps in color on a color printer. Turn this option off only if you have a black-and-white printer or are sending a 24-bit bitmap to your printer.
☐ **Match Colors Across Printers**	Tells the driver to use the color matching feature with PostScript Level 2 printers. The color matching feature slows printing somewhat, but produces consistent colors on different Level 2 PostScript printers and gives results closer to the on-screen image.
PostScript Timeout Values: **Job Timeout – Seconds**	The maximum number of seconds that the printer will spend printing a document before canceling the print job. A value of zero means that the job is never canceled. If your printer is shared (for example, on a network), do not specify a value of 0.
Wait Timeout – Seconds	The maximum number of seconds that the printer will wait for Windows to send data before canceling the print job. A value of zero means that job is never canceled. If your printer is shared (for example, on a network), do not specify a value of 0.
Margins: ◈ **Default** ◇ **None**	Default tells the driver to accurately report the printable area to the application. Most applications work best with the Default option. None tells the driver to report the size of the paper. Choose None only if an application is printing pages with the edges clipped.
Protocol Options: ◈ **Default – Serial/Parallel** ◇ **None (AppleTalk)**	Default tells the driver to begin and end print jobs with Ctrl-D. Use this option if your printer is connected directly to your computer through a serial or parallel communications port, or across most network types. None tells the driver not to end print jobs with Ctrl-D. Use this option if your printer is connected to your computer through an AppleTalk network.
PostScript Performance: ◈ **Optimize for Speed** ◇ **Optimize for Portability**	Optimize for Speed tells the driver to build PostScript document descriptions that print as fast as possible but that might not print successfully on printers with limited memory. Optimize for Portability tells the driver to build PostScript document descriptions that print successfully on many different printers. Use Optimize for Portability if you have a spooler or document manager that can interpret the data and allows sophisticated tasks, such as reversing page order or printing only parts of a document.

JOB CONTROL TAB DIALOG SETTINGS

Choosing the Job Control tab button displays the Job Control tab dialog. The following table summarizes the printer settings in the Job Control tab dialog.

Setting	Description
Printer Mode: ◈ **ASCII Mode** ◇ **Binary Mode** 　**Send Mode Button**	Tells the driver whether your printer is set up to receive data in the ASCII format or binary format. The driver sends instructions that set up your printer to accept either ASCII or binary data when you choose the Send Mode button. These controls are available only for printers that can accept data in the binary format and that respond to mode-change instructions from the driver. Some printers accept only ASCII format or automatically switch between ASCII and binary format. When you set up your printer to accept binary data, remember that you must also select the Send Data in Binary option in the PostScript Options dialog box.
PostScript Header: ◈ **Download Each Job** ◇ **Already Downloaded** 　**Download Button**	The PostScript header contains instructions that a PostScript printer needs to print documents created by the driver. If your printer is connected directly to only your computer, you can save time by choosing the Download button to send the PostScript header only once when you switch on your printer. Download Each Job tells the driver to send the PostScript header with every document. Already Downloaded tells the driver not to send the PostScript header with documents. Download immediately sends the PostScript header to the printer, where it resides until you restart the printer. When you choose Download, the Adobe Printer Driver automatically turns on the Already Downloaded button.
Error Handler: ☐ **Send Error Handler with Each Job**	Tells the driver to send a special PostScript error handler with every document you print. The error handler prints a page with a PostScript error message when a document fails to print.
Font Control: ☐ **Do Not Download Fonts**	This advanced feature tells the driver not to download soft fonts when printing documents. Use this option *only* if you know that the fonts you use in your documents are always available to your printer (for example, if you have a Font Folio disk attached to your printer).

WATERMARK TAB DIALOG SETTINGS

Choosing the Watermark tab button displays the Watermark tab dialog, which lets you define new watermarks and edit and delete existing watermark definitions. The Watermark tab dialog is available only for PostScript Level 2 printers. The following table summarizes the printer settings in the Watermark tab dialog.

Setting	Description
Select a Watermark	Lists the available watermark definitions, which you can select for editing or deletion.
Edit	Displays the Edit Watermark dialog box. For a summary of its features, see the following section, "Edit Watermark Dialog Settings."
Add	Displays the Add Watermark dialog box. For more information, see "Add Watermark Dialog Settings" on page 31.
Delete	Deletes the watermark definition selected in the Select a Watermark box.
Display Area	This bitmap displays a 1-up, portrait image of what the page will look like when printed.

Edit Watermark dialog settings

Choosing the Edit button in the Watermark tab dialog displays the Edit Watermark dialog box. The following table summarizes the printer settings in the Edit Watermark dialog box.

Setting	Description
Text	Displays the text of the watermark selected in the Select a Watermark box and lets you edit it.
Font	Lists all the TrueType fonts, ATM fonts, and the 4 base PostScript fonts either that reside in the printer or that you can download to the printer.
Size	Lets you specify a font size between 7 and 600 points.
Style	Lets you specify a style for the font: Regular, Bold, Bold Italic, and Italic when available.
Print in Foreground	Tells the printer to print the watermark in the foreground rather than in the background (the default). In some applications, for example, graphic images might cover up watermarks printed in the background. If you cannot see the watermark on the printed page, choose this option.
Print Outline Only	Tells the printer to print only the outline of the watermark and not to fill in the characters of the watermark. Choose this option if the watermark is covering up graphic images in your document.
Angle	Lets you specify the angle at which the watermark will display on the page.
Color	Lets you specify red, green, and blue values for the color in which the watermark is printed. Choose Color brings up a Color dialog box that lets you view and select a color for the watermark.
Position **Automatically Center Watermark** **Position Relative to Center**	Tells the driver how to position the watermark. Automatically Center Watermark centers the watermark on the page. Position Relative to Center lets you specify x and y coordinates for the watermark relative to the center.

Add Watermark dialog settings

Choosing the Add button in the Watermark tab dialog displays the Add Watermark dialog box. The Add Watermark dialog box has the same features as the Edit Watermark dialog box. For information on the Add Watermark features, see "Edit Watermark Dialog Settings."

Chapter 4: Using the Adobe PostScript Port Monitor

his chapter explains how to access information on using the Adobe PostScript Port Monitor (PPM) for monitoring and controlling your printers that support the bidirectional communications feature. The bidirectional communications feature is the capability of a printer to communicate information about printer jobs and status to the computer. To use PPM effectively, the printer must be able to communicate bidirectionally, it must be configured to do so, and it must be connected to a parallel port on the computer that will use PPM to display job and printer status.

If you do not have a bidirectionally capable printer that is connected to a parallel port on your computer, PPM provides limited printer monitoring, such as on/off status of the printer and the name of the document being printed.

You will be unable to use the Adobe PostScript Port Monitor in environments where the printer is connected

o To a Novell network

o Via third-party software to an AppleTalk network

o Over Microsoft Windows for Workgroups that are sharing a printer with the computer to which it is connected, in which case only the computer directly attached to the printer can view printer status information

Also, in a few network environments—for example, on LANtastic 3.*x* networks—that print software, the Fast Printing Direct To Port option in the Control Panel needs to be turned off. If you do turn off the Fast Printing Direct To Port check box, you will be unable to use Port Monitor because PPM requires this option to be turned on.

The Adobe PostScript Port Monitor online help gives more details on these environments and on using the product.

Online help for Port Monitor includes the following how-to topics:

o Viewing various types of printer status

o Pausing, resuming, and canceling printing

o Turning off status processing

o Getting printer information

o Choosing the way the program displays printer status

o Choosing the type of sound to alert you to errors

o Setting up Port Monitor if your printer is connected to a port other than LPT1

o Creating a Port Monitor icon for a second printer

In addition to troubleshooting techniques and tips, the online help for Port Monitor also contains information on the two Port Monitor windows:

o PostScript Port Monitor Main Window

o Printer Information Dialog Box

To display online help, choose the Help button in any of the dialog boxes. To see the list of help topics, choose the Contents button in the Help window; click any topic title to display help for that topic.

Appendix: Troubleshooting

This appendix offers solutions to problems you might encounter using the Adobe Printer Driver.

When the Adobe Printer Driver detects a problem, it displays an alert message describing the problem and telling you how to correct the problem. If you receive an alert message, follow any instructions provided in the message.

If you have a problem but do not receive an alert message or the alert message does not include any instructions, look through the following list of problems to find the solution. If you don't find a description of your problem in this appendix, look at the troubleshooting topics in online help for the Adobe Printer Driver.

To display the list of troubleshooting topics described in online help:

1 Display help for any driver tab dialog or dialog box by choosing the Help button.

2 In the Help window, choose Contents. A list of topics is displayed.

3 Scroll down to the bottom of the topics and click the line "Click this line to see the list of troubleshooting topics." The list of troubleshooting topics is displayed.

4 Click any topic to see the help for that topic.

If after checking the troubleshooting topics in this appendix and online help you still need help, contact your printer manufacturer for help.

You try to add an unlisted printer using the Printers Control Panel and receive an error message

Problem: When trying to install the Adobe Printer Driver software using the installation procedures for earlier versions of the Adobe Printer Driver or other products, you receive the message "The file OEMSETUP.INF does not exist in this directory."

Solution: You must use the current installation procedures to install this version of the Adobe Printer Driver and PostScript printers. To install using the correct procedure, follow all the instructions in "Installing the Software" on page 5.

Your printer isn't working at all

Problem: You've installed the Adobe Printer Driver and set up the driver for your printer but your printer isn't working. A number of problems can cause your printer to fail to print:

o Your printer is not turned on.

o Your printer is not connected correctly to your computer or network.

o Your printer is not selected as the default printer in the Printers dialog box (displayed from the Control Panel).

o The port you selected in the Printer-Connect dialog box is *not* the port to which you connected your printer.

o For printers connected to a serial communications port, the printer setup does not match the Windows port setup. (For example, your printer is set up to operate at 1200 Baud and the Windows Port Baud Rate is set to 9600 Baud.)

o The Adobe Printer Driver printer control settings do not match your printer's setup. (When this happens, your printer prints a page with a short description of the problem.)

o You left the output option set to Encapsulated PostScript after creating Encapsulated PostScript files.

o You did not return to the Program Manager after specifying the printer setup.

o You specified the default printer incorrectly. You can set a default printer in several different places, including the Printers dialog box of the Control Panel, an application's Print Setup dialog box, and an application's Print dialog box.

o Your printer is broken.

Solution: Check for these problems in the preceding order. If you cannot correct the problem, carefully repeat the installation instructions in your printer documentation. Then carefully check the Adobe Printer Driver printer control settings to make sure they match your printer's setup. If the printer still does not work, contact your printer dealer or printer manufacturer for help.

Printer stops printing

Problem: You try to print a document but the printer stops printing before the entire document has printed. A number of problems can cause your printer to stop printing:

o The Print Manager requires more memory or disk space than is available.

o Your printer requires more memory to print a complicated page than is available.

o Your printer encounters a PostScript language error while interpreting the PostScript language description of your document.

o The printer control settings of the Adobe Printer Driver do not match your printer's setup. When this happens, the printer prints a page with a short description of the problem.

o The output from the application is incorrect or incomplete.

Solution: If you suspect the problem is with the Print Manager, turn off the Print Manager (from the Printers dialog box) and try printing again. If computer memory or disk space is low, you can increase available disk space by deleting unused files or by purchasing an additional disk drive. You increase available memory by reducing the number of applications you run at the same time or by purchasing additional memory. You can sometimes reduce the amount of printer memory required to print your documents by selecting the Optimize for Portability option in the PostScript tab dialog.

If you suspect one of the other problems, download the PostScript Error Handler with the document that is failing to print. For instructions on how to download the Error Handler, see the description of "Job Control Tab Dialog Settings" on page 31.

If you cannot correct the problem, contact your printer dealer or printer manufacturer for help.

You cannot print to a network printer

Problem: You try to print a document to a network printer but the document fails to print. A number of problems can cause this failure:

o Your network is failing; nobody can print.

o Your Windows network setup is incorrect.

o Your print job has been redirected to a printer connected to an Apple-Talk network but the printer driver is not set up to work with AppleTalk.

Solution: Contact your network administrator for help solving the first two problems.

For the second problem, if you are connected to a Novell network, you might have a problem with how the printer was connected to the port. In a Novell environment, you must first capture an LPTn port. (For details on capturing ports, see the Novell network documentation.) Next, edit the ports section of the WIN.INI file to include the name of the port you captured with a DOS extension, such as LPTn.DOS. Finally, connect the selected printer to the LPTn.DOS port (not the LPTn port itself) via the Connect option in the Printers dialog box of the Control Panel.

If you suspect the third problem, choose None as the Protocol Option in the PostScript tab dialog and try printing again.

Appendix: Digital PostScript Laser Printers— Features, Options and Capabilities

This appendix highlights the key features and capabilities of the Digital PostScript printers that are accessible through the Adobe PostScript Printer Driver. Tables 1–4 list the features of the base printer models and the features that are available with printer options. Following the tables, there are descriptions of each printer's features.

Table 1: DEClaser Printers Features and Options

	DEClaser 1152	DEClaser 2250 Plus	DEClaser 3500	DEClaser 5100
PostScript				
Level 1	--	X	--	--
Level 2	X	--	X	X
128 MB hard drive	--	--	--	X (option)
DECimage	--	X	--	--
DECimage Plus	--	--	--	X
DECimage Lite	X	--	X	--
Fonts				
17	X	X	X	X
35	X (option)	X	X	X
43	X (option)	X	--	X
73	--	--	--	X
Input Media Sources				
Envelope feeder	--	X (option)	--	X (option)
Large capacity tray	--	--	--	X (option)
Lower tray	--	X	X (option)	--
Manual feed	X	X	X	X
Upper tray	--	X	X	--
Cassette	X (option)	--	--	X
Multipurpose	X	--	X	X
Tray Switch	--	X	X	--
Memory (MB)				
2	X	--	--	X
3	--	--	X	--
4	X (option)	X	--	--
5	--	--	X	--
6	--	--	--	X (option) up to 66 MB

Table 1 (cont'd): DEClaser Printers Features and Options

	DEClaser 1152	DEClaser 2250 Plus	DEClaser 3500	DEClaser 5100
Memory (MB) (cont'd)				
7	--	--	X (option) up to 19 MB	--
Orientation				
Landscape	X	X	X	X
Portrait	X	X	X	X
Rotated Landscape	X	X	X	X
Page Protect	--	--	--	X
Paper Sizes[1]				
7x9	X	X	--	X
A4	X	X	X	X
A4 Small	--	X	--	X
A5	X	X	X	X
B5	X	X	X	X
C5	X	X	X	X
Comm10 (4.125x9.5)	X	X	X	X
DL	X	X	X	X
Executive	X	X	X	X
Legal	X	X	X	X
Legal Small	X	X	--	X
Letter	X	X	X	X
Letter Small	X	X	--	X
Monarch (3.875x7.5)	X	X	X	X
Statement	X	X	X	X
Two Thirds A4	X	X	--	X
Print Mode				
Duplex	--	X	--	--
Simplex	X	X	X	X
Resolution (DPI)				
300 x 300	X	X	X	X
600 x 300	--	--	--	X
600 x 600	--	--	X	X
Resolution/Graphics Enhancement				
1200 x 600 dpi	--	--	--	X (option)
1200 x 1200 dpi	--	--	--	X (option)
Print Enhancement	--	--	X	X (option)
Toner Saver	--	--	X	--

[1] To feed in the supported paper sizes, you can use the multipurpose paper tray on the DEClaser 1152, 3500, and 5100 printers and the manual feed slot on the DEClaser 2000 series printers. Either the Letter or the A4-size trays are standard with your printer; other trays are available. See the printer's user documentation for availability and order numbers for the optional trays.

Table 2: PrintServer Printers Features and Options

	PrintServer 17	PrintServer 17/600	turbo PrintServer 20	PrintServer 32 and 32 plus
PostScript				
Level 1	X version 4.2[1]	--	X version 5.0	X version 5.0
Level 2	X version 5.0	X	X version 5.1[2]	X version 5.1[2]
DECimage	X	--	X version 5.0	X version 5.0
DECimage Plus	X version 5.0	X	X version 5.1	X version 5.1
Fonts				
29	X	X	X	X
43	X version 5.0	X	X version 5.1	X version 5.1
Input Media Sources				
Envelope feeder	X (option)	X (option)	--	--
Large capacity tray	X (option)[3]	X (option)[3]	X	X
Lower tray	X	X	--	--
Middle tray	--	--	X	X
Upper tray	X	X	X	X
Manual feed tray	X	X	--	--
Memory (MB)				
8	X	--	--	--
12	X (option)	--	X	X
	up to 32 MB			
16	--	X (option) up to 32 MB	X Level 2[2] (option) up to 32 MB	X Level 2[2] (option) up to 32 MB
Orientation				
Landscape	X	X	X	X
Portrait	X	X	X	X
Rotated Landscape	X	X	X	X
Output Media Sources				
Upper	X	X	X	X
Side	X	X	X	X
Lower	--	--	X	X
Large capacity tray	X (option)[4]	X (option)[4]	--	X (option)
Mailbox	--	--	--	X (option)

Table 2 (cont'd): PrintServer Printers Features and Options

	PrintServer 17	PrintServer 17/600	turbo PrintServer 20	PrintServer 32 and 32 plus
Paper Sizes[5]				
7x9	*	*	--	--
10x14	--	--	--	--
11x17	--	--	X	X
A3	--	--	X	X
A4	X	X	X	X
A4 Small	X	X	X	X
A5	*	*	X	X
B4	--	--	X	X
B5	X	X	X	X
B6	*	*	--	--
C5	*	*	--	--
Comm10 (4.125x9.5)	X	X	--	--
DL	X	X	--	--
Executive	X	X	X	X
Legal	X	X	X	X
Legal Small	X	X	X	X
Letter	X	X	X	X
Letter Small	X	X	X	X
Monarch (3.875x7.5)	X	X	--	--
Statement	*	*	--	--
Two Thirds A4	*	*	--	--
Print Mode				
Duplex	X (option)	X (option)	X	X (option)
Simplex	X	X	X	X
Resolution (DPI)				
300 x 300	X	--	X	X
400 x 400	--	X	--	--
600 x 600	--	X	--	--

[1] Version numbers refer to the PrintServer Software version used to support the PrintServer printer.

[2] The turbo PrintServer 20 and PrintServer 32 plus printers require PrintServer Software version 5.1 and 16 MB of memory to support Level 2 PostScript.

[3] The PrintServer 17 series large capacity input tray uses the same slot as the lower tray.

[4] The PrintServer 17 series large capacity output tray uses the same slot as the side output tray.

[5] Either the Letter or the A4-size trays are standard with your printer; other trays are available. See the printer's user documentation for order numbers for the optional trays.

* PrintServer 17 and PrintServer 17/600 support these sizes through the manual feed slot.

Table 3 and Table 4 list the communication interfaces that are available for the designated printers. You should refer to your printer's user documentation or to the feature/option documentation for information.

Table 3: DEClaser Printers Communication Options

	DEClaser 1152	DEClaser 2250 Plus	DEClaser 3500	DEClaser 5100
Communications				
Ethernet	--	X (option)[1]	X (option)[2]	X (option)[2]
LocalTalk	X	--	X (option)	X
Parallel	X	X	X	X
Serial	X	X	X (option)	X
Serialb	X	--	--	-

[1] For DEClaser 2000 series printers, only the Novell protocol is available through the optional Ethernet card (LNXX-NE).

[2] The DEClaser 3500 and 5100 Ethernet cards support EtherTalk, LAT, Novell, and TCP/IP.

Table 4: PrintServer Printers Communications Options

	PrintServer 17	PrintServer 17/600	turbo PrintServer 20	PrintServer 32 and 32 plus
Communications				
Ethernet	X	X	X	X

When printing to PrintServer printers, change the Protocol Options setting in the PostScript tab dialog to "None-AppleTalk." This will prevent the printer driver from including Control-D characters in your print jobs.

DEClaser 2000 Series and Level 1 PrintServer Printers
Features and Options: Additional Information

DECimage

DECimage is an enhancement technique that improves the functional capability of the existing PostScript image operator.

DECimage enhances halftone image quality by using improved image processing techniques. DECimage, when applied to any continuous-tone image of 2, 4, or 8 bits per sample renders images in a superior way. Images consisting of 12 bits/pixel can be rendered, but the 4 least significant bits are not used.

Refer to the Digital *PostScript Printers Programmer's Supplement* for more information on DECimage.

DECimage Parameters

The DEClaser 2000 series printers and Level 1 PrintServer printers offer the following choices for applying DECimage enhancement: high contrast, low contrast, sharp, and soft.

Contrast Adjustments

The contrast of the image can be increased (**high**) or decreased (**low**) by expanding or compressing the gray levels respectively. Increasing contrast makes bright areas more bright and dark areas more dark, while decreasing the contrast makes bright areas darker and dark areas brighter.

Sharp

Sharp makes the edge detail of the image crisp.

Soft

Soft makes the edge detail of the image faint.

The PrintServer 32 printer supports the Mailbox option described below.

Mailbox

This PrintServer 32 printer option is a 20-bin output device. It accepts A4, B5, Letter, and Legal size paper. Print speed is approximately 24 pages per minute. The Mailbox comes with two locking trays with the option of purchasing more.

DEClaser 3500 Printer
Features and Options: Additional Information

DECimage Lite

DECimage Lite is a downloadable version of DECimage Plus. The DECimage Lite features add clarity and smoothness to your graphics. DECimage Lite can also provide additional gray levels and very high resolution for complex and highly detailed images.

DECimage Lite Parameters

You can adjust certain characteristics of a printed image. For normal business applications, the default settings provide a good, all-purpose set of characteristics. When you need a finer-quality image, adjust the DECimage Lite parameters to utilize the full capabilities of your printer.

Gray Level Correction

To modify the gray level characteristics of an image, you can adjust contrast, highlights, and shadows.

Contrast

Contrast adjustments are used to equally increase or decrease the lightness of the light areas and the darkness of the dark areas of the image. Contrast adjustments evenly adjust the gray level of an image.

Highlights

This adjustment is for the light areas of the image. If the light areas seems to be too light, you might want to decrease the highlights. The light areas are modified to a greater extent than are the dark areas. Changes made to the highlights are added to or subtracted from any changes made with the contrast adjustment.

Shadows

This adjustment is for the dark areas of the image. When you adjust shadows, the dark areas of an image are modified more than the light areas. Changes made to the shadows are added to or subtracted from any changes made with the contrast adjustment.

The overall brightness or darkness of the image can be modified by making simultaneous adjustments to both the highlights and shadows of the image. For example, if the image requires overall darkening, you would decrease the highlights and increase the shadows.

DECimage Lite Halftones

You can choose from four halftones to adjust the number of gray levels in a printed image.

Default Spot (Classic—50 grays)

This is the default setting of the printer. This round-dot halftone is used in most types of laser printers. This halftone is good for general purpose printing where the pages may be subjected to photocopying, rough handling, or less than perfect environmental conditions.

Diffused (High detail—256 grays)

This halftone is created by adjusting the number of dots per unit area of the image to produce different gray tones. With this halftone, individual device pixels remain distinct. This halftone is useful for graphics with fine detail, such as map sections, or text on gray backgrounds. The Diffused halftone is also called FM screening, stochastic screening, and dithering.

RTA Spot (Smooth—123 grays)

The RTA (Recursive Tessellation Array) Spot is a halftone that has some of the qualities of both the Default Spot and the Diffused halftone. It has the general usability of the Default Spot, comparable or better resolution, and more gray levels. The RTA Spot produces gray levels by managing small families of 16 spots. Since each spot is not working alone to produce a particular level of gray, many more gray levels are possible. This halftone is useful for printing images that require the robust character of the Default Spot and subtle variations of gray, such as portraits, landscapes, and images with gentle sweeps of color used in synthetic shading.

RTA Spot (Fine—66 grays)

This version of the RTA Spot can produce more gray levels than the Default Spot and provide a higher apparent resolution to the image. This halftone is good for larger architectural images where higher detail is important and large image size is required.

Print Enhancement Technology (PET)

This feature improves the quality of printed documents by smoothing the edges of text and graphics. Choose "Smoothing and Toner Saver" from the Features tab dialog to select a setting for print enhancement. You may wish to experiment with different settings to achieve the desired effect in your document. Your choices are: light, medium (default), dark, and none.

Toner Saver

The Toner Saver feature reduces the amount of toner applied to the paper and produces a draft-like quality to your document. This feature cannot be used with Print Enhancement.

DEClaser 5100 and Level 2 PrintServer Printers
Features and Options: Additional Information

DECimage Plus

DECimage Plus is an enhanced version of DECimage that gives your graphics clarity, smoothness, sharpness, and better quality. DECimage Plus is best applied to continuous gray images, but can also be applied to synthetic images created with a graphics application.

DECimage Plus is available with the DEClaser 5100 and Level 2 PrintServer printers. Refer to the *DEClaser 5100 Printer User's Guide*, Chapter 6 and Appendix F, or the *PrintServer Printers PostScript Level 2 Programmer's Supplement* for more information on DECimage Plus.

DECimage Plus Parameters

You can adjust certain characteristics of a printed image. For normal business applications, the default settings provide a good, all-purpose set of characteristics. When you need a finer quality image, adjust the DECimage Plus parameters to utilize the full capabilities of your printer.

Gray Level Correction

To modify the gray level characteristics of an image, you can adjust the contrast, highlights, and shadows.

Contrast

Contrast adjustments are used to equally increase or decrease the lightness of the light areas and the dark areas of the image. Contrast adjustments evenly adjust the gray level for an image.

Highlights

This adjustment is for the light areas of the image. If the light areas seems to be too light, you might want to decrease the highlights. The light areas are modified to a greater extent that are the dark areas. Changes made to the highlights are added to or subtracted from any changes made with the contrast adjustment.

Shadows

This adjustment is for the dark areas of the image. When you adjust the shadows, the dark areas of an image are modified more than the light areas. Changes made to the shadows are added to or subtracted from any changes made with the contrast adjustment.

The overall brightness or darkness of the image can be modified by making simultaneous adjustments to both the highlights and shadows of the image. For example, if the image requires overall darkening, you would decrease the highlights and increase the shadows.

DECimage Plus Halftones

You can choose from two halftones to adjust the number of gray levels in a printed image.

Default Spot (Classic—50 grays)

This is the default setting of the printer. This round-dot halftone is used in most types of laser print-ers. This halftone is good for general purpose printing where the pages may be subjected to photo-copying, rough handling, or less than perfect environmental conditions.

Diffused (High detail—256 grays)

This halftone is created by adjusting the number of dots per unit area of the image to produce different gray tones.   With this halftone, individual device pixels remain distinct. This halftone is useful for graphics with fine detail, such as map sections, or text on gray backgrounds. The Diffused halftone is also called FM screening, stochastic screening, and dithering.

Sharpness

The optional sharpness parameter controls the emphasis of the edge detail. Sharpening must be used with care; too much can make the image look harsh and unrealistic, while not enough can make the image look soft and blurry. The choices available are soft, sharp, very sharp, and extra sharp.

The DEClaser 5100 printer supports the Resolution/Graphics Enhancement Option and the Print Enhancement and Page Protect features described below.

Resolution/Graphics Enhancement Option

This option enhances the appearance of text and graphics at any resolution. This option also provides the following high-resolution settings that improve your document's appearance: 1200 x 600 dpi and 1200 x 1200 dpi.

The Resolution/Graphics Enhancement Option enhances the control of your printer in several ways: edge detection algorithms remove the jagged edges on text, and it provides a superfine halftone ren-dition for images. No adjustments are required to use this option, and once installed, it is enabled at all times.

Refer to the *DEClaser 5100 Printer Documentation Addendum* for more information on the Resolu-tion/Graphics Enhancement Option.

Print Enhancement

This feature improves the quality of printed documents by smoothing the edges of text and graphics. Print Enhancement is available only when the Resolution/Graphics Enhancement Option is installed.

Page Protect

The DEClaser 5100 SmartPage technology includes a special banding co-processor capable of generating the page image in real time while the paper is moving through the printer. As a result, the DEClaser 5100 printer can print most documents at 600 x 600 dpi with the built-in 2 MB of memory. Some documents may fail to print using this method because they are graphically complex or make use of a large number of memory-intensive resources, such as fonts. For these documents, you should use Page Protect.

Page Protect allows a full-page bitmap to be created in memory before paper begins to move through the printer. However, the DEClaser 5100 may print at a lower resolution if there is not enough memory installed to create a full-page bitmap at your desired resolution. For Page Protect and 600 x 600 dpi resolution, the printer must have 6 MB of memory installed.

Refer to the *DEClaser 5100 Printer User's Guide*, Chapter 7, for more information on SmartPage, Page Protect, and memory requirements.

The PrintServer 32 plus supports the Mailbox option described below.

Mailbox

This PrintServer 32 plus printer option is a 20-bin output device. It accepts A4, B5, Letter, and Legal size paper. Print speed is approximately 24 pages per minute. The Mailbox comes with two locking trays with the option of purchasing more.

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