

INSTALLATION GUIDE

For use with the PC

OpenOffice[®]



INSTALLATION GUIDE

For use with the PC

SECOND EDITION

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Welcome to PageMaker and Microsoft Windows!

PageMaker® from Aldus Corporation runs under Microsoft® Windows to provide you with the most efficient operating environment for desktop publishing.

PageMaker requires one of these versions of Windows:

- the run-time version

This is the version that is included in the standard PageMaker package. Installing the run-time version gives you all the features of the Windows operating environment that you need for using PageMaker. However, because the run-time version does not include the MS-DOS® Executive, you can only run Windows applications included with PageMaker.

- the full retail version of Windows

Installing the full retail version of Windows provides you with all Windows functions, including the MS-DOS Executive window. You can run other Windows applications, too, to create the text and graphics files that go into your PageMaker publications. For a complete description of Windows functions, see the *Microsoft Windows User's Guide*.

- the version of Windows supplied by some computer manufacturers, tailored to the requirements of that computer

If you have one of these versions, you will generally follow the procedures in this guide that are prefaced by the statement "If you installed Windows separately." You should also check for any supplemental installation instructions that came with your copy of Windows.

Note: You must use version 1.03 or higher of the Windows operating environment. Using an earlier version will interfere with text justification and kerning, and may cause other problems.

What's in this guide

This *Installation Guide* is divided into three major sections:

- *Getting started* tells you what you need before you start and how to install PageMaker and Windows using the automatic Install program. Be sure to read this information before continuing with the rest of this guide.
- For more advanced users or those who are using PageMaker on a network, the section called *Options for advanced users* provides additional information on:
 - installing PageMaker manually
 - adjusting your startup files
 - installing printer drivers
 - tailoring Windows' WIN.INI file to customize Windows and PageMaker for your system
 - optimizing PageMaker's performance by deleting unnecessary files from your hard disk or installing a RAM disk
 - using PageMaker on networks
- *Additional printer facts* supplements *Printer facts* in the *PageMaker Reference Manual* with information on using PostScript® printers and downloading soft fonts to printers that use Hewlett-Packard's Printer Control Language (PCL).

Any information about installing or using PageMaker that was unavailable before this guide was printed is in a file called README.TXT on the PageMaker Drivers disk. We recommend that you read README.TXT before trying to install PageMaker.

Making a backup copy

Your license agreement authorizes you to make one backup copy of each PageMaker disk. If you want to make a backup copy, do it now. Be sure to use the DOS command DISKCOPY (*not* the COPY command) to format a new disk and copy a PageMaker disk to it.

After installing PageMaker on your hard disk, store all your original disks in a safe place.

Getting started

Before you follow the procedures in *Getting started*, your computer should be set up and ready to use. You should know how to use a mouse and be familiar with basic DOS commands for creating and changing directories, copying files and disks, and listing directory information. For more information about these commands, see the documentation provided with your equipment.

Before you start

Before starting the installation, read the next few pages to make sure you have everything you need. In addition, fill out and return the user registration card that is inside your PageMaker package. Included in the benefits you'll receive as a registered user are:

- automatic notification of product updates
- a bimonthly user newsletter
- *The Aldus Guide to Basic Design*

What you need to get started

First, make sure you have the correct equipment. While setting up Windows, you will be prompted to identify your pointing device, keyboard (by country), printer(s) and printer port(s), graphics adapter, and monitor.

Based on your choices, Windows will copy the necessary files (called "driver files") to your hard disk.

Note: If you change, add, or remove printers from your system, you can adjust the printer drivers, using the Control Panel (read "Installing updated printer drivers" in this guide). If you change any other equipment on your system, you must re-install Windows.

We recommend that you use this equipment to run PageMaker:

- an IBM® Personal System/2™ (model 30, 50, 60 or 80), a PC AT®, or a 100-percent AT-compatible computer

Your system should include a 10MB or larger hard (fixed) disk and a double-sided disk drive that will read 360K 5 1/4-inch or 720K 3 1/2-inch disks.

You need 2MB of free disk space to install PageMaker and Windows. If you previously installed Windows, you need 1.5MB for PageMaker.

- at least 512K of memory — preferably 640K, especially if you are using memory-resident programs or installing PageMaker on a network

Keep in mind that network software itself requires a certain amount of memory. Some networks require 80K or more, which can significantly slow PageMaker's performance on a 512K computer.

- a Microsoft Windows-compatible graphics adapter and a compatible color or monochrome graphics monitor

If you have not previously set up Windows, you will be prompted to specify what kind of graphics adapter and monitor you have — for example, a color or monochrome monitor and an Enhanced Graphics Adapter (EGA) or Hercules™ Graphics Card.

If Windows does not list your graphics adapter as an option, check in the documentation or any README file that came with the adapter. If necessary, call the adapter manufacturer and ask for a Windows driver and installation instructions.

- Microsoft Disk Operating System (DOS) version 3.0 or a version appropriate for your computer
- a Windows-compatible pointing device

If you have not previously set up Windows, you will be prompted to specify what kind of pointing device you have — for example, a Microsoft Mouse.

- a Microsoft Windows-compatible printer

If you have not previously set up Windows, you will be prompted to specify what kind(s) of printer(s) you have and the port to which each printer is connected. If the name of your printer does not appear in this list, call your printer manufacturer and ask for a Windows driver and installation instructions.

PageMaker works with many other equipment configurations, too. In general, if your equipment can run and print from Windows, you can run and print from PageMaker. If you have questions about your equipment, contact your equipment vendor or Aldus Corporation. In the U.S., call (206) 628-2320, and ask for Technical Support. Elsewhere, contact your PageMaker distributor.

What your PageMaker package includes

Check your PageMaker package for the three publications that accompany this *Installation Guide*:

- *PageMaker User Manual* and its supplement
- *PageMaker Reference Manual*
- *Quick Reference Guide*

Also, make sure your PageMaker package includes a sealed envelope. When opened, the envelope should contain one of the following sets of disks:

- 3 1/2-inch disks: Install/Program, Dictionary/Tutorial, Drivers, and — if your package included run-time Windows — Setup/Build and Utilities/Fonts
- 5 1/4-inch disks: Install, Program, Dictionary, Tutorial, Drivers, and — if your package included run-time Windows — Setup, Build, Utilities, and Fonts

3 1/2-inch disks

Contents

Install/Program	The PageMaker application and programs that guide you through the process of installing PageMaker on your system
Dictionary/Tutorial	Three directories: <ul style="list-style-type: none">• DICTIONA.RY contains the hyphenation dictionary files and three Windows programs for effective operation of PageMaker.• DRV_SUPP.ORT contains files needed to work with PostScript printers (such as the Apple® LaserWriter®) and PCL printers (such as the Hewlett-Packard LaserJet).• PMTUTOR contains the files used for the PageMaker tutorial in the <i>PageMaker User Manual</i>.
Setup/Build	The Windows run-time files, as well as device drivers for keyboards, pointing devices, screens, and monitors
Utilities/Fonts	Screen fonts and printer drivers for Windows

3 1/2-inch disks (Cont.) Contents

Drivers	Updated printer drivers and the README.TXT file, as well as other files and utilities that may be needed for some of the instructions in this guide
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5 1/4-inch disks Contents

Install	Programs that guide you through the process of installing PageMaker on your system
Program	The PageMaker application itself
Dictionary	The files for three dictionaries that Page-Maker uses when you want automatic hyphenation
Tutorial	The files used for the PageMaker tutorial in the <i>PageMaker User Manual</i>
Setup	Programs that guide you through the process of installing the run-time version of Windows, as well as driver files that Windows needs to run your equipment (except printers)
Build	The Windows run-time files
Utilities	Printer driver files for Windows
Fonts	Screen, vector, and dot-matrix fonts for Windows
Drivers	Updated printer drivers and the README.TXT file, as well as other files and utilities that may be needed for some of the instructions in this guide

Installing PageMaker and Windows

The easiest way to install PageMaker is to rely on PageMaker's Install program. Once you start, the Install program prompts you on the screen for everything else you need to do.

You can let the program copy the necessary files to the hard disk using default directory names, or you can enter the pathnames you prefer. Windows is set up in the process. For details, continue reading in this section.

If you will be using PageMaker on a network, or if you are an advanced user and want to control more of the installation process, you can install PageMaker and Windows manually. For details, read "Installation options" in *Options for advanced users*.

If your system has previously been set up by a consultant or systems manager, you may want to leave the installation to that person.

Installing PageMaker and Windows automatically

To install PageMaker automatically, you run its Install program. The program provides on-screen directions, which also tell you how to set up Windows. If you wish, the program makes any necessary changes to your CONFIG.SYS and AUTOEXEC.BAT files.

If you've already set up Windows (for example, if you purchased the retail Windows package separately), you can still install PageMaker automatically. When prompted to "install Windows or complete the installation process," you can type C to continue with the PageMaker installation. Later, the program may prompt you to specify the full pathname where you set up Windows.

Take your time and don't rush the installation process. Allow 15 minutes or more to install PageMaker and set up Windows using the Install program.

Note: If you are installing PageMaker on an HP Vectra PC with PAM, skip these instructions and follow the next set of procedures, "Installing PageMaker on the HP Vectra PC with PAM."

To install PageMaker and set up Windows:

- 1. Turn on your PC.**
- 2. Insert the PageMaker Install/Program or Install disk into drive A.**

If you are installing with 3 1/2-inch disks, the Install program is on the Install/Program disk. If you are installing with 5 1/4-inch disks, the Install program is on the Install disk.

- 3. Type A:, and press the Enter key.**

PageMaker requires you to install from either your A or B drive. To install on 3 1/2-inch disks from an external drive (commonly drive D), you must temporarily reassign the external drive as drive B (at the C> prompt, type *ASSIGN B=D*, then press the Enter key).

- 4. Type *INSTALL*, and press the Enter key.**

The Install program begins.

- 5. Follow the instructions on your screen.**

If you have trouble answering any of the questions, re-read “What you need to get started.”

Some of the 3 1/2-inch disks combine information that may be on two 5 1/4-inch disks. If you are installing from the 3 1/2-inch disks, the Install program will sometimes ask you to install a disk whose contents are already on the disk that is inserted. When this happens, simply press the Enter key to continue the installation.

As you insert disks, the Install program copies the necessary files from the PageMaker disks onto your hard disk. When prompted, you can change the default drive and directory names as you wish.

If you have not previously set up Windows on your system, do so when prompted. Use the default pathname (C:\PM), or specify another. If you have multiple printers, the first printer you install is the one that Windows and PageMaker use unless you specify otherwise.

Note: Near the end of the installation process, the Install program may ask if you want to let it modify the two startup files AUTOEXEC.BAT and CONFIG.SYS. In most cases, we recommend that you say yes. However, if you are on a network or your startup files are complex, you may prefer to modify the files yourself or have them modified by your consultant or systems manager. For details, see “Adjusting your startup files” and “Using PageMaker on networks” in *Options for advanced users*.

Installing PageMaker on the HP Vectra PC with PAM

The HP Vectra PC runs under DOS. However, you have the option of also using PAM, the Personal Applications Manager. PAM provides an easy way to start applications without command lines — using the HP Touch Accessory, an HP Mouse or Tablet, or the keyboard function keys.

If your Vectra runs under DOS *without* PAM, you should follow the previous instructions, “Installing PageMaker and Windows automatically.”

If your Vectra runs under DOS *with* PAM, continue reading in this section:

- If PAM does not appear *automatically* when you start your HP Vectra, but you started it by typing *PAMCODE* at the DOS prompt, press F8 (Exit PAM) — do not leave PAM by selecting DOS commands and pressing F1. Then follow the standard instructions for installing PageMaker in “Installing PageMaker and Windows automatically.”
- If PAM appears on your screen when you start your HP Vectra, either your CONFIG.SYS or your AUTOEXEC.BAT file is starting PAM for you. Use the following instructions for installing Page-Maker.

To install PageMaker on the HP Vectra with PAM:

1. Check your CONFIG.SYS file for the command:

SHELL = PAMCODE.COM ROOT

To see the contents of your CONFIG.SYS file, make sure the DOS prompt indicates your startup drive, then type *TYPE CONFIG.SYS*, and press the Enter key.

- If you do not have a CONFIG.SYS file (you’ll see the message, “File not found”), or if the file does not contain the SHELL command, go on to Step 2.
- If the file *does* contain the SHELL command shown above, skip Step 2 and continue from Step 3.

2. Check your AUTOEXEC.BAT file for the command:

PAMCODE

To see the contents of your AUTOEXEC.BAT file, make sure the DOS prompt indicates your startup drive, then type *TYPE AUTOEXEC.BAT*, and press the Enter key.

- If you do not have an AUTOEXEC.BAT file (you'll see the message, "File not found"), or if the file does not contain the command PAMCODE, skip the rest of this procedure and install PageMaker as described earlier in "Installing PageMaker and Windows automatically."
- If the file *does* contain the command PAMCODE, leave PAM by pressing F8 (Exit PAM) — do not leave PAM by selecting DOS commands and pressing F1. Then install PageMaker as described earlier in "Installing PageMaker and Windows automatically."

3. With the PAM Main Menu displayed and the DOS prompt for the startup drive on the command line, type:

RENAME CONFIG.SYS CONFIG.SAV

then press the Enter key.

4. Restart your computer by pressing the CTRL, Alt, and DEL keys at the same time.

This time, you should not see the PAM Main Menu.

5. Insert the PageMaker Install (5 1/4-inch) or Install/Program (3 1/2-inch) disk into drive A.

6. Type A:, and press the Enter key.

7. Type *INSTALL*, and press the Enter key.

8. Follow the instructions on your screen.

If you have trouble answering any of the questions, re-read "What you need to get started."

9. After installing PageMaker, type *CD*, and press the Enter key.

10. Type the command:

COPY CONFIG.SYS+CONFIG.SAV CONFIG.SYS

and press the Enter key.

11. Check your CONFIG.SYS file for duplicate FILES and BUFFERS commands.

Type *TYPE CONFIG.SYS*, and press the Enter key. If your file contains duplicate commands, the last FILES and BUFFERS commands are in effect.

The minimum settings for PageMaker are FILES = 20 and BUFFERS = 30. If you need to modify these settings, see your *Using Vectra* manual.

12. Restart your Vectra by pressing the CTRL, Alt, and DEL keys at the same time.

If you want to add Windows to PAM, see the *HP Vectra Publisher PC Setup Guide* or the *Using Vectra* manual.

Running PageMaker

You have now completed installing PageMaker and Windows on your system. You can turn directly to page 1 of the *PageMaker User Manual* for information on starting and using PageMaker.

If your monitor does not display correctly after you start PageMaker, make sure you identified your equipment correctly during the installation. If not, re-install Windows or, if you have a run-time version of Windows, re-install PageMaker so you can set up Windows again.

Options for advanced users

Getting started described the basic procedures for installing PageMaker on your system. For many users, that's all you need before starting to use PageMaker. The rest of this guide describes some installation alternatives and ways to customize your system after you become more familiar with PageMaker and Windows.

Installation options

If you use PageMaker on a network or are an experienced computer user, you may want to install PageMaker manually, install updated printer drivers, or adjust your startup files yourself, instead of relying on the Install program described earlier in this guide.

Installing PageMaker manually

This procedure assumes that you store PM.EXE in a directory called C:\PM. If you store it in another directory, modify the pathnames in the commands accordingly.

To install PageMaker yourself:

- 1. If you have not set up Windows, do that first.**
 - Insert the Setup/Build (3 1/2-inch) or Setup (5 1/4-inch) disk into drive A.
 - Type *A:*, and press the Enter key.
 - Type *SETUP*, and press the Enter key.
 - Follow the on-screen instructions to install Windows.
- 2. Make a directory (for example, C:\PM) where you want to save your PageMaker files.**
- 3. Within C:\PM, make a subdirectory C:\PM\PMTUTOR to hold the tutorial files.**
- 4. Insert the Dictionary/Tutorial (3 1/2-inch) or Tutorial (5 1/4-inch) disk into drive A, and copy all the tutorial files into the subdirectory you created in Step 3.**
If you are installing from the 3 1/2-inch disks, copy all the files from the directory PMTUTOR on the Dictionary/Tutorial disk.

If you are installing from the 5 1/4-inch disks, copy all the files from the Tutorial disk.

5. Copy all the PageMaker files from the PageMaker disks to the directory you just created.

If you are installing from the 3 1/2-inch disks, copy all the files from the Install/Program, Dictionary/Tutorial, and Drivers disks.

If you are installing from the 5 1/4-inch disks, copy all the files from the Install, Program, Dictionary, and Drivers disks.

6. If you are installing from the 5 1/4-inch disks, combine the two portions of the PageMaker program to create PM.EXE.

For example, if you copied the files to a directory called C:\PM, you would type:

```
COPY \PM\PPMPART1.BIN/B+\PM\PPMPART2.BIN/B \PM\PM.EXE
```

then press the Enter key. The /B specifies that you are combining two binary files.

Make sure the size of PM.EXE equals the sum of PPMPART1.BIN and PPMPART2.BIN. Then delete PPMPART1.BIN and PPMPART2.BIN from your hard disk.

To check file size, display the listing for the directory that contains the PageMaker files. If the file sizes don't match, repeat Step 6, making sure that you specify the /B option exactly as shown. If the problem persists, call your customer support representative. (You, or your company, may have a service contract with the vendor of your system. If so, please contact that vendor for support.)

7. Check your AUTOEXEC.BAT and CONFIG.SYS files.

If necessary, adjust them as described in "Adjusting your startup files."

8. If you installed Windows separately, install PageMaker's new printer driver files on your system as described in "Installing updated printer drivers."

If you are using a PCL or PostScript printer, or any other printer for which there is an updated printer driver on the PageMaker Drivers disk, these new drivers replace any you may previously have installed.

9. If you plan to use the tutorial, create a file so that you can start the tutorial as described in Part 1: *PageMaker Tutorial* in the *PageMaker User Manual*.

- Using EDLIN or any other ASCII text editor, create a file that contains the statements:

```
ECHO OFF  
CD C:\PM\PMTUTOR  
WIN PM  
ECHO ON
```

If you put the tutorial files in another directory, make the directory name in the second line the name of that directory.

- Save the file as PMTUTOR.BAT in the C:\PM directory or wherever you stored the other PageMaker files.

Adjusting your startup files

PageMaker may require adjustments to two startup files:

- the AUTOEXEC.BAT file

AUTOEXEC.BAT contains all the commands you want executed automatically whenever you start DOS. You need to update your AUTOEXEC.BAT file to make the Windows and PageMaker directories the first two paths searched (after any RAM disk) on your program search path.

- the CONFIG.SYS file

CONFIG.SYS contains commands that DOS executes automatically so that your system starts up properly. The adjustment described below gives you faster response from PageMaker.

If you installed automatically, the Install program can make the necessary adjustments for you, although you may wish to check your AUTOEXEC.BAT and CONFIG.SYS files afterward to make sure they contain the commands PageMaker needs. If you install manually, you must check the startup files and modify them yourself.

Updating the AUTOEXEC.BAT file: To run PageMaker, your AUTOEXEC.BAT file must contain:

- a PATH statement that defines the program search path
- a TEMP statement that tells Windows and PageMaker where to store temporary files

The program search path is defined by the PATH statement in your AUTOEXEC.BAT file. Because Windows must open driver, font, and program files frequently, we recommend that you put the Windows and PageMaker directories at or near the beginning of the search path. For example, this PATH statement:

```
PATH C:\WINDOWS;C:\PM;C:\WORD;C:\DOS
```

allows you to run PageMaker from directories other than the one in which you installed it. If you stored PM.EXE in a directory other than C:\PM, change the PATH statement accordingly.

The TEMP statement tells Windows and PageMaker where to store temporary files. Be sure that the TEMP statement names a valid, existing disk and directory. For example, to store temporary files in the C:\PM directory on the C drive, add this statement to your AUTOEXEC.BAT file:

```
SET TEMP=C:\PM
```

Updating the CONFIG.SYS file: The FILES command sets the maximum number of files you can have open at any one time. The BUFFERS command sets the number of blocks of memory that DOS can handle — the more buffers, the more disk data that DOS holds in memory.

For optimum performance from PageMaker, we recommend these minimum settings in your CONFIG.SYS file:

```
FILES=20
```

```
BUFFERS=30
```

Installing updated printer drivers

If you installed the run-time version of Windows *and* your printer was listed during the Windows setup, you can skip this procedure.

Otherwise, if you installed Windows separately *or* if you are using a printer not included in the list, you must install the appropriate printer driver *before* using PageMaker. If your printer is not included in the list that Windows provides and there is no updated driver for your printer on the PageMaker Drivers disk, contact your printer manufacturer for a Windows driver and installation instructions.

The updated drivers provided with PageMaker replace any you may previously have installed (for example, while installing Windows). They let you:

- print faster with PageMaker or other Windows applications
- use downloadable fonts on the Hewlett-Packard LaserJet+ and other PCL printers
- in most cases, print more graphics on a page

You install and modify printer drivers using the “Printer...” and “Connections...” commands on the Setup menu in the Windows Control Panel. For details, see pages 66 through 70 in the *PageMaker Reference Manual*.

Modifying the WIN.INI file

WIN.INI is the initialization file where Windows stores information about your system setup. Although editing the WIN.INI file to customize your system is generally recommended for advanced users only, certain printers or other system setups for PageMaker may require specific changes. Such changes are described, as needed, throughout the rest of this guide.

You can edit WIN.INI using any ASCII text editor such as EDLIN (supplied with DOS) or Notepad (supplied with the retail version of Windows).

Note: We strongly recommend that you make only the changes described in this *Installation Guide*. Other changes may have unexpected effects.

After you make any changes to the WIN.INI file:

- delete PM.CNF, if present (a new one will be created the next time you change any of PageMaker's defaults)
- restart Windows from the DOS prompt so the changes will take effect

How WIN.INI is organized

The WIN.INI file is organized into sections. Each section starts with a keyword in brackets, followed by one or more lines describing how you customized your system for that keyword. For example, the keyword [windows] is used for general Windows settings.

Other sections that appear in the WIN.INI file are:

Name	Purpose
[extensions]	Links filename extensions with their applications
[devices]	<p>Lists the drivers you have installed for printers and other equipment</p> <p>Each device entry has the form:</p> <p>device name=driver, port</p> <p>where <i>device name</i> identifies the piece of equipment (for example, PCL/LaserJet), <i>driver</i> is the filename of the Windows driver file (for example, HPPCL.DRV), and <i>port</i> is the DOS port to which the device is connected (for example, LPT1).</p>
[fonts]	<p>Lists available screen fonts and dot-matrix printer fonts</p> <p>Each font entry has the form:</p> <p>font name=filename</p> <p>where <i>font name</i> is a description of the fonts and sizes contained in the font file and <i>filename</i> is the filename of the associated .FON file.</p>
[colors]	Specifies the screen colors to use for various Windows screen elements
[intl]	Contains international settings
[ports]	Lists available device ports and print files

Each Windows application typically adds its own section to the WIN.INI file to hold configuration settings for that program. For example, PageMaker creates a [PageMaker] section the first time you start PageMaker.

Also, the first time you use a printer with Windows, Windows creates a WIN.INI entry with specific information about that printer. For example, if you install and then use a Hewlett-Packard LaserJet on LPT1:, you'll find the entry [HPPCL,LPT1] in the WIN.INI file. You may need to edit this entry if you are downloading fonts to a PCL printer.

For additional information about the contents of WIN.INI, see Appendix A: *Customizing your WIN.INI file* in the *Microsoft Windows User's Guide*.

Customizing WIN.INI for PageMaker

Keeping all the PageMaker files in the same directory is a good idea. However, you may want to edit the [PageMaker] section of your WIN.INI file if you prefer to:

- organize your disk differently
- optimize PageMaker with a RAM disk
- install PageMaker on a network file server

For example, assume you stored PM.EXE in a directory called C:\PM, but you want to store your required PageMaker files in a directory called C:\PROGRAMS. You would add statements like these to the [PageMaker] section of your WIN.INI file to tell PageMaker where to find those files (the RAM dictionary doesn't refer to a RAM disk — it's part of the necessary hyphenation files):

```
[PageMaker]
Defaults=C:\PROGRAMS\PM.CNF
Help=C:\PROGRAMS\PM.HLP
RAM dictionary=C:\PROGRAMS\PMUSRAM.DCT
Disk dictionary=C:\PROGRAMS\PMUSDISK.DCT
User dictionary=C:\PROGRAMS\PMUSER.TXT
```

Note that the .FON file is not listed. To store the PageMaker .FON file somewhere other than on your program search path, you must add the necessary statement for the file to the [fonts] section of the WIN.INI file. For example, if you are using the font file for EGA and Hercules monitors, you would add this statement to the [fonts] section:

```
[fonts]
PageMaker fonts=C:\PROGRAMS\PMFONTB.FON
```

You also edit the WIN.INI file if you use a RAM disk or downloadable fonts on a PCL printer, as described later in this *Installation Guide*.

Optimizing PageMaker's performance

Because Windows can only use 640K of RAM memory for its programs and data, your system swaps portions of the PageMaker program and your publication between the computer and the hard disk as you work. Extensive swapping can dramatically slow response time from PageMaker.

Here are ways you can improve PageMaker's performance by reducing both the need for swapping and the time required to swap:

- Maximize the amount of memory available on your system for PageMaker.

The more RAM that is available, the faster PageMaker responds. That's why PageMaker on a 640K system runs faster than on a 512K system.

Programs that reside in RAM — for example, installable DOS device drivers and networking software — reduce the amount of available RAM. Do not use unnecessary RAM-resident utilities when running Windows and PageMaker.

- Make sure the BUFFERS= setting in the CONFIG.SYS file is at least 20.
- Eliminate unnecessary files from the directories you use with PageMaker. In general, limit the text and graphics files in a directory to those that you need for a particular publication.
- Eliminate unnecessary program files to save space on your disk. For details, see "PageMaker files you need" and "Windows files you need" in this section.
- Make sure the directories on your program search path do not have too many files.
- Because PageMaker and Windows frequently load separately stored files by checking your program search path, set up the program search path in this order:
 - any RAM disk paths
 - the Windows directory
 - the PageMaker directory
 - directories for other programs, listed by frequency of use

For example, assuming a RAM disk on drive D, a PageMaker directory (\PM), a Windows directory (\WINDOWS), a \WORD directory where you store Microsoft Word, and a \DOS directory where you store your DOS programs, the PATH statement in your AUTOEXEC.BAT file should read:

PATH D:\;C:\WINDOWS;C:\PM;C:\WORD;C:\DOS

PageMaker files you need

All PageMaker files start with the two letters *PM* and end with a DOS file extension that indicates the type of file. In addition, PageMaker dictionary files have the language code as the third and fourth letters of the filename (for example, US for U.S. English and UK for British English).

Before deleting any files, check your hard disk to make sure you have these files:

Filename	Description
PM.EXE	The PageMaker executable file
PM.HLP	PageMaker's help file
PMFONTA.FON	PageMaker's screen fonts for monitors with Color/Graphics Adapter (CGA) cards or other monitors with a 640-by-200 bit-map
PMFONTB.FON	PageMaker's screen fonts for monitors using EGA and Hercules graphics cards or other monitors displaying with a 4:3 pixel aspect ratio
PMFONTE.FON	PageMaker's screen fonts for high-resolution monitors using graphics adapters with a 640-by-480 bit-map or that have a pixel aspect ratio of 1:1
PMUSRAM.DCT or PMUKRAM.DCT	PageMaker's English RAM hyphenation dictionary
PMUSDISK.DCT or PMUKDISK.DCT	PageMaker's English disk hyphenation dictionary
PMUSUSER.TXT or PMUKUSER.TXT	PageMaker's user hyphenation dictionary

The first time you change the defaults shipped with PageMaker, PageMaker creates a configuration file called PM.CNF. Each time you start PageMaker, it checks this file for the default settings you prefer.

To operate, PageMaker technically requires only two files:

- PM.EXE
- one of the .FON files

PageMaker needs a .FON file to display type on the screen that closely matches the printed results and to display the toolbox tools, page tabs, and rulers.

The Install program installs all the .FON files, but only one is actually used on any particular monitor. Check the list above so you know which one works with your monitor. Most monitors use PMFONTB.FON.

Always leave your original disks intact. However, you can erase from your hard disk any PageMaker files you don't plan to use, such as the extra .FON files that don't apply to your monitor. You can also delete the tutorial files after you have finished with them.

If you want to save more disk space, you can erase any of the following PageMaker files from your hard disk (after installing), if you are willing to accept the ensuing change in performance:

- If you delete the default file PM.CNF, PageMaker uses its built-in defaults.
- If you delete the help file PM.HLP, the "Help..." command on the System menu will not work.
- If you delete either PMUSRAM.DCT or PMUSDISK.DCT (that is, the built-in dictionary), PageMaker alerts you, but will function normally. However, you cannot use its automatic hyphenation feature.
- If you delete the supplementary dictionary PMUSUSER.TXT, PageMaker alerts you, but will function normally. However, any words you added to the supplementary dictionary will not be known by PageMaker.

If you erase a file from your hard disk and want it later, simply copy the file from the original disks you received in your PageMaker package, or install PageMaker again. You do not have to set up Windows again.

PageMaker can load the .FON files from anywhere on your program search path. If you change monitors, just make sure you have the correct .FON file for it.

The other files are loaded specifically from the directory that contains PM.EXE, unless you have modified the [PageMaker] section of the WIN.INI file. For more information, read “Modifying the WIN.INI file.”

Windows files you need

PageMaker uses four types of Windows files:

- the files that comprise the Windows system itself
- driver files, which Windows needs to run various pieces of equipment in your system

Driver filenames have .DRV extensions and are installed as needed during installation. Windows stores the driver information for all equipment *except printers* in the file WIN100.BIN.

Printer driver files, which are stored separately and can be installed separately using Windows’ Control Panel, are program files that Windows uses to create the printer’s command language when you print.

When an application calls for driver information, Windows loads the driver information from the file. This loading may occur at times other than printing. For example, PageMaker needs access to the printer driver file so it can correctly compose text for the screen.

- font (.FON) and printer font metric (.PFM) files, which Windows uses to print files

The .FON files contain bit-map fonts for the screen and for dot-matrix printers, as well as vector fonts for plotters. The .PFM files store metric information (such as the widths and heights of characters) for printer fonts.

- application (.EXE) files for Windows applications you use with PageMaker

PageMaker uses three Windows applications:

- Control Panel (CONTROL.EXE) for controlling system settings
- Spooler (SPOOLER.EXE) for controlling printing
- Clipboard (CLIPBRD.EXE) for cutting and pasting within your PageMaker publication, between PageMaker publications, and between PageMaker and other Windows applications.

Like the Windows system files, the .DRV, .FON, and .EXE files must be available to Windows in the current directory or on the program search path.

If you change your keyboard, mouse (or other pointing device), graphics adapter, or monitor, you must re-install Windows (thus recreating the WIN100.BIN file with the correct driver files). However, because printer drivers are stored separately, you can add or remove printer driver files without re-installing Windows. For more information about adding or removing printer drivers, see *Printer facts* in the *PageMaker Reference Manual*.

These are the system files you need to run Windows:

Filename	Description
WIN.COM or PM.COM	The Windows startup program executed from DOS (if you have the run-time version of Windows shipped with PageMaker, the file is PM.COM instead of WIN.COM)
WIN.INI	The Windows initialization file
WIN100.OVL	The bulk of the Windows executable code
WIN100.BIN	The device-specific Windows executable code, based on the drivers for the equipment you identified during installation
WINOLDAP.MOD	The Windows “old application” handler for non-Windows applications such as Microsoft Word (needed only if you have the complete retail version of Windows)
WINOLDAP.GRB	The Windows “old application” screen grabber (needed only if you have the complete retail version of Windows)

You should also have the Windows applications CONTROL.EXE, CLIPBRD.EXE, and SPOOLER.EXE, as well as a driver file for each type of printer you will be using.

For Windows and PageMaker to function properly, all these files must be in the current directory or program search path, as defined in the AUTOEXEC.BAT file.

Using PageMaker with a RAM Disk

If you have an add-on memory board, a RAM disk greatly reduces the time Windows takes to load PageMaker or a non-resident portion of itself. This can noticeably improve performance of PageMaker and other Windows applications.

The more PageMaker and Windows files you can put on the RAM disk, the faster the response you'll get from PageMaker. Depending on the amount of memory you want to dedicate to PageMaker, we recommend that you put as many Windows and PageMaker programs as possible on your RAM disk.

Setting up a RAM disk

If your RAM disk can hold PM.EXE, put it there. After that, or if your RAM disk is not large enough to hold PM.EXE, we recommend that you add these files in this order:

```
\PM\PMUSRAM.DCT or \PM\PMUKRAM.DCT  
\PM\PMUSDISK.DCT or \PM\PMUKDISK.DCT  
\PM\PMFONTx.FON  
\WINDOWS\TMSRx.FON  
\WINDOWS\HELVx.FON  
\WINDOWS\COURx.FON  
\WINDOWS\WIN100.OVL  
\WINDOWS\WIN100.BIN  
\WINDOWS\ROMAN.FON  
\WINDOWS\MODERN.FON
```

Here, the *x* in the .FON files is *A*, *B*, or *E*, depending on your graphics adapter and monitor, as described in “PageMaker files you need.”

Editing WIN.INI for a RAM disk

After you set up a RAM disk, edit the WIN.INI file according to what file(s) you placed on the RAM disk.

If you load PM.EXE into your RAM disk: Update the WIN.INI file as follows. In these examples, the RAM disk is drive D:

- Update the [extensions] section with a statement like:

```
PUB=D:\PM.EXE ^.PUB
```

so Windows will start the copy of PM.EXE on the RAM disk when you double-click on a .PUB file.

- Update the [PageMaker] section to indicate that your program defaults and user dictionary are to be saved to your hard disk. Otherwise, PageMaker saves these files on your RAM disk, and you lose your changes when you turn off your computer. For example, add these statements:

```
[PageMaker]
Defaults=C:\PM\PM.CNF
User dictionary=C:\PM\PMUSUSER.TXT
```

- Update the [PageMaker] section with a statement telling PageMaker where to find its help and dictionary files. For example, add these statements:

```
[PageMaker]
Help=C:\PM\PM.HLP
Disk dictionary=C:\PM\PMUSDISK.DCT
RAM dictionary=C:\PM\PMUSRAM.DCT
```

If you load the .DCT files, but not PM.EXE, onto your RAM disk:

Update the WIN.INI file as follows. In these examples, the RAM disk is drive D:

```
[PageMaker]
Disk dictionary=D:\PMUSDISK.DCT
RAM dictionary=D:\PMUSRAM.DCT
```

If you load any of the .FON files onto your RAM disk: Update the [fonts] section of the WIN.INI file. For example, add these statements:

```
[fonts]
Tms Rmn 8, 10, 12 (Set #3)=D:\TMSRB
Helv 8, 10 12 (Set #3)=D:\HELVB
PageMaker fonts=D:\PMFONTB
Roman (Set #1)=D:\ROMAN
```

Using PageMaker on networks

You can use PageMaker on a network. Although PageMaker does not currently support specific networking features, it is network aware.

To use PageMaker on a network file server, your company must have a network license agreement from Aldus Corporation. The license allows a specified number of users to legally access PageMaker on the server or to download PageMaker to their workstations. Copies of the PageMaker documentation are available for registered network stations.

If you plan to operate PageMaker on a network, contact Aldus Customer Relations for licensing information. For details, call (206) 628-2320 in the U.S. and Canada. Elsewhere, contact your PageMaker distributor.

This section explains how to use PageMaker on networks, including tips for use with four networks:

- 3+™ by 3Com® (Version 1.1)
- Novell Advanced Netware/86™ (Version 1.0)
- IBM PC Network (Version 1.1)
- IBM Token Ring

PageMaker and networks

Microsoft Windows is a single-user product that must be purchased for and installed on each of the computers attached to the network server. Installing Windows on your local hard disk configures Windows to the specifications of your computer and stores that information in the Windows files WIN100.BIN and WIN.INI.

PageMaker is also a single-user product. However, you can either run PageMaker from the server or download it to your workstation. For the best performance, download PageMaker to your workstation, then use the network to share your laser printer, exchange publications, and get the text and graphics files you will place in your publication.

When you run PageMaker with a network server, keep these points in mind:

- For exclusive access to a publication, open the original version of a publication (not a copy). PageMaker locks the file so no one else can use it.
- Open a copy of a publication, rather than the original, when several people want to make copies of the same publication (for example, a dummy publication used as the template for a newsletter). This option appears in the “Open...” dialog box. When multiple copies of a publication are opened, only one user can save under the publication’s original name.

The first person to accidentally open the original locks the file so others cannot open copies. PageMaker publications marked “read only” are automatically opened as copies.

- If you want PageMaker to keep the defaults you set for lines, shades, and other options, save a private copy of the PM.CNF file by adding

the following statement to the PageMaker portion of the WIN.INI file on your computer:

```
[PageMaker]  
Defaults=C:\PM\PM.CNF
```

This tells PageMaker to read your default file (PM.CNF) from the \PM directory on drive C when you start PageMaker. If you stored PM.EXE in another directory, change the DEFAULTS= statement to match.

Installing PageMaker on a network

You can install PageMaker on a network either automatically or manually, following the procedures described earlier in this guide. However, if you install automatically and the Install program asks if you want it to append the statement:

PATH C:\WINDOWS;C:\PM

to your AUTOEXEC.BAT file, say no. Such a PATH statement may be unnecessary or inappropriate for your network. Some network configurations may prevent PageMaker from adding such a PATH statement.

After installing PageMaker, check your AUTOEXEC.BAT file for a PATH statement. Then add or modify the PATH statement, following the guidelines suggested earlier in “Adjusting your startup files.”

When you install PageMaker on a network, keep these points in mind:

- For server-based operation on a 3Com network, store PageMaker in the D drive, which is typically shared, but is read-only. Or, for faster response, store PageMaker in a subdirectory of your local C drive.
- To print on a Novell network, you must issue the Novell SPOOL command *before* starting Windows.

For PostScript printers, we suggest a “de-spool time factor” of at least 10 seconds. For example, the Novell SPOOL command might read:

SPOOL /NB/PRINTER=<#>/TIME=10

where # represents the printer number (0 to 4).

- For IBM PC Network and Token Ring networks, use the DOS ATTRIB command to make PM.EXE, PM.HLP, PMUSRAM.DCT (or PMUKRAM.DCT), and PMUSDISK.DCT (or PMUKDISK.DCT) into read-only files.

Additional printer facts

The rest of this guide supplements the printer information you'll find in *Printer facts* in the *PageMaker Reference Manual*. If you are using a Postscript or PCL printer, read the appropriate section before trying to print with PageMaker.

Using PostScript printers

PostScript is a page description language used by many printers and imagesetters, including the Apple LaserWriter and IBM Personal Pageprinter.

If you installed PageMaker and run-time Windows using the Install program and you selected "Postscript/LaserWriter" from the list of printers, the most up-to-date version of the PostScript printer driver was installed at that time.

If you installed PageMaker manually or installed Windows separately, you should install the PSCRIPT.DRV driver from the PageMaker Drivers disk. Use the "Printer..." command from the Control Panel's Setup menu, as described in pages 66 through 70 of the *PageMaker Reference Manual*.

When you install the printer driver as described or use the "Target printer..." command on PageMaker's File menu, a printer-specific dialog box lists the devices you can use with this printer driver. If you don't see your printer listed, select the Apple LaserWriter, then select the correct graphics resolution for your printer.

The rest of this section describes several aspects of using PostScript printers:

- setting up an Apple LaserWriter (Plus®)
- printing short jobs faster
- printing on a Linotronic™ imagesetter

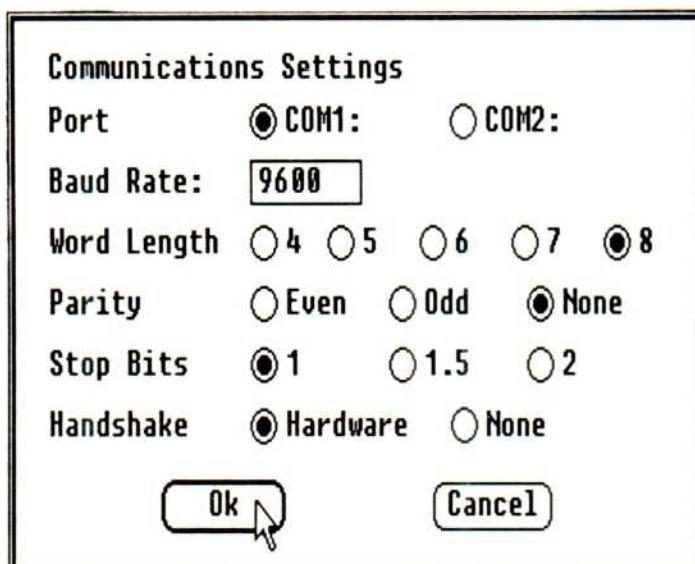
Using an Apple LaserWriter (Plus)

Before printing with an Apple LaserWriter (Plus), read this section to:

- be sure that the communications settings are correct
- learn how to get the best results when tiling
- know what to expect when using ITC Zapf Dingbats® and when printing

To ensure the correct setup for your LaserWriter (Plus):

1. Choose the “Communications Port...” command from the Setup menu of the Control Panel, and check that the options in the dialog box look like this:



2. Turn the printer off, reset its communications switch to 9600 baud, and turn the printer back on.
3. Check the [Windows] section of the WIN.INI file.
If you are not on a network, make sure that the SPOOLER= entry in that section is “SPOOLER=YES” (the default Windows setting). Otherwise, your print job may terminate unnecessarily.
If you are running PageMaker on a network, the network may have its own spooler. For best performance in such a case, set the SPOOLER= entry to “SPOOLER=NO.”
4. Configure your LaserWriter (Plus) to use hardware handshaking, which is typical of most MS-DOS computers and print servers.

Copy LASRHARD.TXT from the Drivers disk to the LaserWriter (Plus). For example, assuming an Apple LaserWriter (Plus) connected to the COM1: serial port, you would type:

COPY A:LASRHARD.TXT COM1:

at the DOS prompt, then press the Enter key. Do this before you start Windows and try to print.

Configure the handshake of your LaserWriter (Plus) just once — not every day — so you don’t use up the erasable memory in the printer. Configuring permanently (by copying LASRHARD.TXT) records the handshake in the printer, even after you turn it off.

If you have trouble printing:

- Turn both the computer and the printer off. Then turn both on again, and try to print.

- Check with your dealer to see if the ROM in your printer pre-dates version 23.0.
- Try installing a new serial port. Again, see your dealer about installing the new port.

To improve the quality of tiling with the Laser Writer (Plus):

1. **Use Windows Notepad or an ASCII text editor to open your WIN.INI file.**
2. **Locate the [PSCRIPT,...] section of the file (the port listed will depend on how you installed the printer), and add the line:**

TILE MODE=YES

If the line is already there, make sure the setting is “yes.”

Note: This change may prevent some other Windows applications from working or from working correctly. You may wish to make the change only if you are using Windows exclusively with PageMaker. Or, change the setting to “no” before using the other Windows applications.

3. **Close and restart Windows (or Windows and PageMaker) for the change to take effect.**

If you installed the run-time version of Windows, close and then restart Windows. If you installed Windows separately, close PageMaker and Windows, then start both again.

Here are two additional points to keep in mind while using an Apple LaserWriter (Plus):

- With the LaserWriter (Plus), you can select the font, ITC Zapf Dingbats. However, because a screen equivalent of the font is not yet available from the font vendor, the screen will display the normal ANSI character. Also, due to limitations with the Windows ANSI character set, some dingbats may not be available to the printer.
- Printing on the LaserWriter (Plus) may take a long time while the printer “computes” the image of a very complicated job. When this happens, the Spooler occasionally alerts you that the printer is not responding. Just click the “Retry” button, and the print job will continue normally.

Printing short files faster

Each time you send a Windows print job to a PostScript printer, you must download a printer header — a set of PostScript commands that prepares the printer to receive data from a Windows application such as PageMaker.

The PostScript header is in a file called PSPREP.TXT on the Page-Maker Drivers disk. Downloading, or sending that 12K file from your system to the printer, takes about 30 seconds. If you are printing a short file of two or three pages, the time required to download the header may take longer than the actual printing time.

With this in mind, you may want to download the PostScript header file before you start Windows. The header stays downloaded until you turn the printer off. By downloading once, instead of each time you print, you shorten each print job by the time it would take to download the header file.

Note: Do not download the header file this way if you are creating PostScript files to send to a service bureau for printing. If you plan to send files to a service bureau, be sure to contact the service bureau beforehand for instructions on preparing, saving, and transmitting your files.

You can download the printer header in either of two ways:

- The easiest way is to add a line to your AUTOEXEC.BAT file so that your system automatically downloads the header each time you turn on your system. Then modify WIN.INI to tell Windows you have done so.

For example, assuming you copied PSPREP.TXT to a directory called C:\BIN and your LaserWriter is connected to COM1:, you would add this line to your AUTOEXEC.BAT file:

`COPY C:\BIN\PSREP.TXT COM1:`

In your WIN.INI file, locate the keyword that describes your printer (for example, [PSCRIPT, COM1]). Add the line:

`HEADER DOWNLOADED=YES`

to tell the PostScript printer driver on your system not to download the header every time you print.

The next time you start your system, your AUTOEXEC.BAT file automatically copies the PSPREP.TXT header from C:\BIN and sends it to the LaserWriter that is on COM1:. (Always turn your

printer on before you start your system. Otherwise, the printer will not get the header.) This is a good approach if you routinely turn your system and printer off at the end of the work day.

- If you turn off your printer but not the system (or you simply realize that the printer header is not downloaded), return to DOS and type:

COPY C:\BIN\PSPREP.TXT COM1:

If the header is already downloaded and you download it again, you get a message that says so. Just continue working.

Printing on a Linotronic imagesetter

Linotronic imagesetters are PostScript devices. Be sure to install the updated PostScript printer driver provided with PageMaker. In the printer-specific dialog box for PostScript devices, set the “Graphics resolution:” to 1,270 dots per inch so that the pages will print correctly.

Using PCL printers

The driver file HPPCL.DRV on the PageMaker Drivers disk is an updated driver for any printer that uses Hewlett-Packard’s Printer Control Language (PCL). This HPPCL.DRV supercedes any PCL driver you may have installed earlier (for example, HPLASER.DRV or HPLASERP.DRV).

The new driver includes support for a wider range of Hewlett-Packard font cartridges and for downloadable (“soft”) fonts, and it generally improves the performance of PageMaker on these printers.

If you installed PageMaker and run-time Windows using the Install program and you selected “PCL/LaserJet” from the list of printers, the most up-to-date version of the PCL printer driver was installed at that time.

If you installed PageMaker manually or installed Windows separately, you should install HPPCL.DRV from the Drivers disk. Use the “Printer...” command on the Control Panel’s Setup menu, as described in pages 66 through 70 of the *PageMaker Reference Manual*.

When you install a printer driver as described or use the “Target printer...” command on PageMaker’s File menu, a printer-specific dialog box lists the devices you can use with this printer driver. If you don’t see your printer listed, select the Hewlett-Packard LaserJet+, then select the correct graphics resolution for your printer.

Downloading fonts to PCL printers

Printers that use the PCL language can have either or both of two types of fonts:

- resident fonts that the manufacturer built into the memory of the printer (these also are called ROM fonts)
- cartridge fonts, which are available on cartridges that you purchase from a dealer for use with the printer

In addition, you may separately purchase floppy disks that contain files of soft fonts that you can download to your printer.

Not all PCL printers can accept downloadable fonts (for example, the Hewlett-Packard LaserJet+ can, but the Hewlett-Packard LaserJet cannot). Also, there are some limits to the number you can use on a single page or in a single publication. For details, see “Guidelines for using soft fonts” in this section.

You download fonts two ways:

- “Permanently” downloaded fonts are copied into the printer’s memory at the beginning of your work day. As long as the printer remains on, the font will be available. Usually, you permanently download a font by putting a command in your AUTOEXEC.BAT file so that the font goes to the printer when you start your system.
- “Temporarily” downloaded fonts remain on disk so that the application (such as PageMaker) uses them only when needed.

The font vendor usually provides complete instructions and any utility programs you need for downloading the fonts to your printer. If you plan to use these fonts only with Windows and PageMaker, use the procedures that follow. If you plan to use soft fonts with other programs or on a network, use the manufacturer’s instructions and utilities for non-Windows applications.

Font naming conventions: Look at the name of the font provided by your vendor — for example, HV100RPP.R8P. Most font names follow these conventions:

- The first two characters identify the font name (for example, HV = Helvetica®, TR = Times® Roman, and CN = Century Schoolbook).
- The next two or three characters identify point size.
- The next character identifies the type style — whether it is normal or roman (R), bold (B), or italic (I).

- The last character of the filename extension identifies the orientation: P for portrait or L for landscape.

For additional details, see the documentation supplied by the font vendor.

Installing soft fonts: Briefly, the procedure is this:

- Copy the soft fonts to your hard disk.
- Run the program PCLPFM provided on the PageMaker Drivers disk. PCLPFM creates a Printer Font Metrics (.PFM) file for each soft font file. When all the .PFM files are created, PCLPFM creates another file, APPNDWIN.INI.
- Copy APPNDWIN.INI to the appropriate place in your WIN.INI file. This information describes to Windows the fonts that Page-Maker uses to compose your pages.

The procedures that follow assume that you create and use the subdirectory C:\PM\PCLPFM to store soft font files and run PCLPFM. In fact, you can use any directory, as long as you specify a full pathname wherever appropriate.

Note: The printer driver HPPCL.DRV must already be installed before you follow these procedures. When you have finished with all three parts of the procedures, you'll need to restart Windows so the new soft fonts will take effect.

To install soft fonts:

1. **Create a subdirectory C:\PM\PCLPFM in the PageMaker directory (C:\PM).**

This directory should contain only soft font files and the PCLPFM program file(s). After you run PCLPFM, the directory will also contain .PFM files.

2. **Copy the soft font files you wish to use from the vendor's disk to the C:\PM\PCLPFM directory.**

Although you can install up to 250 soft font files containing “portrait” fonts and an additional 250 fonts containing “landscape” fonts, there are limitations, as described later, on the number you can use in a single publication.

To run PCLPFM:

1. **Insert the PageMaker Drivers disk into drive A, then copy PCLPFM.EXE to the C:\PM\PCLPFM directory.**

If you will be running PCLPFM.EXE from the MS-DOS Executive in Windows, also copy the file PCLPFM.PIF.

2. **Start the program PCLPFM.EXE.**

From MS-DOS, change to the directory C:\PM\PCLPFM. Type *PCLPFM*, then press the Enter key.

In the MS-DOS Executive window in Windows, double-click on the program PCLPFM.EXE.

3. **When prompted, type a single soft font filename or use wildcards, then press the Enter key.**

For a single font, type a name like HV100RPN.R8P. For a group of fonts, use a wildcard (for example, *.R8P, HV*.USP, or HV???8???.USP — actual naming conventions vary according to soft font manufacturer).

4. **When prompted, type Y to save the necessary soft font information in a file called APPNDWIN.INI.**

The PCLPFM program creates this ASCII file for you to insert into your WIN.INI file so that Windows can read the soft fonts.

To modify WIN.INI:

1. **In WIN.INI, locate the key word (for example, [HPPCL,LPT1]) for the printer/port combination you will be using with the soft fonts.**
2. **Insert the entire contents of APPNDWIN.INI, starting on the line after the printer keyword.**
3. **Review the inserted information in WIN.INI.**

If you used a wildcard when running PCLPFM, you may have converted more soft fonts than you actually want. Check the filenames in WIN.INI, and delete the entire line for each soft font you don't want.

For each font you plan to permanently download (by using the vendor's download utility), delete everything from the comma to the end of the line (including the comma). Then edit the font ID number, if necessary, to match the number loaded into the printer. Check to see that all font ID numbers are unique — they need not be consecutive.

4. Look for the line “FontSummary=*filename*” and – if you find it – delete it.

5. Finish up.

Save WIN.INI, close your word-processing application or text editor, then start PageMaker again.

Guidelines for using soft fonts

Each style of a font is considered one soft font. For example, bold, italic, and regular styles are all considered separate fonts. This is important because the number of soft fonts you can use in a single publication is limited by the amount of memory your printer has.

The amount of memory required for each font varies. As a rule of thumb, the Hewlett-Packard LaserJet+ with 512K of memory can handle around 10 to 12 text fonts — about 9 or 10 points in size. The larger the point size, the more memory the font requires.

The more memory your printer has, the more fonts it can handle. Keep in mind, though, that the LaserJet family has a design limit of 16 fonts per page and 32 fonts per document. Within Windows and Page-Maker, the upper limit is 16 fonts per page and the same 16 per document.

Using soft fonts reduces the amount of printer memory available for graphics. If you use too many soft fonts and print pages with graphics, your printer may send you “out of memory” error messages.

To optimize the use of soft fonts, download the standard font (usually Roman) and the italic font. Most printer drivers can use these to simulate bold, strikethru, and underline fonts.

Because permanently downloaded fonts are already in the printer, printing time is faster than with temporarily downloaded fonts.

However, you have to set up your system and printer correctly to send the fonts to the printer so they are available to PageMaker.

Temporarily downloaded fonts, although slower for printing, give you the flexibility to use more fonts per publication.

In general, permanently download fonts that you use routinely for printing text. Temporarily download fonts used in headlines or for special effects.

If your soft fonts don't work

If you have problems printing with soft fonts, make sure:

- that you quit PageMaker, deleted PM.CNF, and restarted PageMaker
- if you have permanently downloaded fonts, you correctly followed the vendor's instructions for downloading them
- the WIN.INI file names a .PFM file for each soft font you want to download
- the soft font lines added to WIN.INI contain no spaces
- the path and filenames listed for soft font files and .PFM files in WIN.INI match exactly the path and filenames for the actual files
- the orientation of the font matches the orientation of the paper as specified in the printer-specific dialog box for the "Target printer..." command in PageMaker
- only one section in WIN.INI is headed by a printer and port combination describing your system

For example, if your printer is on COM1:, make sure that WIN.INI has only one [HPPCL,COM1] section. If you find more than one, delete the extra(s), and save the edited WIN.INI file. Then close and restart Windows.

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