PCL 5 Printer Driver Help Index

Use the scroll bar to see index entries not visible in the Help window describing this <u>driver</u>.

Help Topics

Compatible Fonts and Typefaces

The basic HP Font Installer allows you to install the following:

* Bitmapped printer fonts -- cartridge or disk-based (soft)
* Scalable printer fonts -- through AutoFont Support utilities
* Printer Cartridge Metric (.PCM) files

If you have *HP Intellifont-for-Windows 3.0,* you can also use the HP Font Installer to install:

* Scalable typefaces

NOTE: Disk-based (soft) bitmapped printer fonts must be in PCL format for HP LaserJet printers.   Scalable typeface products must be in AGFA Compugraphic's FAIS format.   All other font products require AutoFont Support files or .PCM files. Scalable typefaces require *HP Intellifont-for-Windows 3.0* or an AutoFont Support utility to use them with the HP Font Installer.

To access the **HP Font Installer** from the PCL 5 Printer Driver window, click on the **Fonts** button.

Fonts Button.

Cartridges

Support is already included for many of Hewlett-Packard's scalable typeface and bitmapped cartridges with the PCL 5 Printer Driver.   Be sure to select a cartridge **before** you format your documents.   The cartridge you select includes a list of fonts and point sizes that you will be able to use in your Windows applications.

You will not need to use the **Fonts** button or the HP Font Installer if your cartridge is listed (unless you need to install matching screen fonts for the *HP Intellifont-for-Windows 3.0*
program).

Unlisted Cartridges

If you have a font cartridge that is unlisted, you must install AutoFont Support files
(.TFM) or a Printer Cartridge Metric (.PCM) file which supports the fonts through the
HP Font Installer

If you do not have <u>AutoFont Support</u> diskettes for HP font products, you can order them by calling Hewlett-Packard at 303-353-7650.

If you have a Hewlett-Packard font cartridge with part number 92286A through 92286Z, 92290S1 or 92290S2 you cannot use AutoFont Support.   Call Hewlett-Packard at the number listed above to obtain a .PCM file which will allow the font cartridge to work with Windows 3.0.

If you purchased a font cartridge from a company other than HP, call that company to see if a Windows 3.0 .PCM file or AutoFont Support file is available.

For specific instructions on the procedures to install new (unlisted) cartridges, click   here: **<u>Unlisted Cartridges</u>**

<u>HP Font Installer</u>

<u>Ordering Typefaces</u>

Copies

The **Copies** selection tells Windows how many <u>uncollated</u> copies you want to print from a software application. This setting is independent of the "copies selection" that may be available within the print menus of your software application.

Do not use the two selections simultaneously.

As a general rule: Set the number of copies in the PCL 5 Printer Driver window when you want to print uncollated copies.   When you want sets of <u>collated</u> copies, select the number of copies from within your software application.

You should experiment to determine which selection works best for the   jobs you print.

Defining Printer Memory

The **Memory** selection, which defines the amount of memory installed in a printer, should be configured to match your HP LaserJet printer.   Windows uses this information to determine the amount of memory you have available for printing.

The HP LaserJet III, IIID and IIIP printers come with a minimum of 1 megabyte of memory, standard, and can be expanded to 5 megabytes.   The HP LaserJet IIISi printer can be expanded up to 17 megabytes. If you are unsure how much memory is installed in your printer, you can run a <u>Self Test</u> printout using your HP LaserJet printer's font panel.

Additional printer memory can eliminate memory overflows (Error 20) if you print complex forms, full-page graphics and/or download many fonts.

<u>Ordering Additional Printer Memory</u>

Fonts Button

By clicking on the **Fonts** button you can access the **HP Font Installer** where you can install new printer fonts or, if you have *HP Intellifont-for-Windows 3.0* scalable typefaces.   Step-by-step procedures for installing fonts can be found in the HP Font Installer help screens.

You can install any PCL compatible printer fonts with the HP Font Installer.

The following are the three separate methods that can be used to access the HP Font Installer:

1.   If you have *HP Intellifont-for-Windows 3.0,* double-click on the **Intellifont** icon, then click on the **Fonts** button.

2.   From the Program Manager's **Main** group, double-click on **Control Panel,** double-click on the **Printers** icon, click on the **Configure** button, click on the **Setup** button, then click on the **Fonts** button.

3.   Within most software applications, click on the **File** title bar, click on **Printer** setup, click on the **Setup** button, then click on the **Fonts** button.

Ordering Scalable Typefaces and Fonts
Compatible Fonts

Graphics Resolution

The Graphics Resolution settings in the printer setup dialog box affect the resolution of graphic images only, not text.

Graphics resolution is measured in **dots per inch** (dpi). Choosing 300 dpi will produce finer, higher-quality output.   The output quality decreases as the resolution decreases to 150 and 75 dpi. However, on most printers, higher resolution output will take longer to print.

The Hewlett-Packard LaserJet III family of printers requires at least one additional megabyte of memory in order to print 300 dpi graphics for a full page.   The printers have enough resident memory to print 300 dpi graphics for half a page or to print 75 dpi or 150 dpi graphics for a full page.

If the printer does not print the entire graphic image on one page and displays an "Error 20" message, then most likely the printer has run out of memory. You either need to install more memory in your printer or choose a lower graphics resolution setting.

<u>Ordering Memory</u>

<u>Memory</u>

Gray Scale Settings

Gray scale refers to a type of pattern that is applied to printed images.   Though HP LaserJet printers print only black, these patterns produce a "gray" appearance on the printed page.

The best way to choose a setting for your graphic image is to **experiment.** Print a graphic image at each setting and choose the one you like best.

To help you decide which selection to choose, the three settings are described here:

Photographic Images

Choose this setting for printed images that you want to have smooth, realistic and photographic appearance.   The **Photographic Images** setting provides soft contrasts between various shades of gray.   This setting also works well for images originally designed with color.   The PCL 5 Printer Driver uses an 8 bit-by-8 bit "clustered dot" method to emulate 60 different levels of gray at this setting.

Line Art Images

Choose this setting for graphic images with intricate lines and fine detail, like "clip art" graphics.   The **Line Art Images** setting provides solid lines and sharp contrasts between shaded areas.   The PCL 5 Printer Driver uses 32 different 8 bit-by-8 bit "dispersed dot" patterns to produce gray tones.

HP ScanJet Images

Choose this setting if your graphic images were originally scanned in through an HP ScanJet.   The **HP ScanJet Images** setting is specially tuned to provide exceptional quality and clarity to printed images originally scanned with an HP ScanJet.   The PCL 5 Printer Driver uses a variation of the 8 bit-by-8 bit "clustered dot" method used in the Photographic Images setting.   This method also produces 60 different levels of gray.

Orientation

Print orientation can be Portrait or Landscape. Portrait orientation means the page is taller than it is wide when you view the printed text upright. Landscape orientation means the page is wider than it is tall when you view the printed text upright.

NOTE: For HP LaserJet IIID or IIISi printers, when printing in <u>duplex</u> (double-sided) mode, orientation is an important consideration that affects the <u>binding</u> setup of your documents.

<u>Duplex</u>

Page Protection

"Page Protection" refers to a setting for the HP LaserJet III family of printers that reserves additional memory for the creation of page images.   Page protection is only available if you have installed at least 1 megabyte of optional memory in your HP LaserJet printer.

The selections, which are related to the size of the paper source you usually use, should match the selection on your printer's control panel settings.

The default is **off.**   Other selections are **LTR** (letter-size paper), **A4**, or **LGL** (legal-size paper). To verify how your printer is configured, you can run a <u>Self Test</u> on your HP LaserJet printer.

The page protection feature allows the printer to create an entire page image in memory before physically moving the paper through the printer. This process ensures that the entire page will be printed and helps eliminate the "21 PRINT OVERRUN" error that can sometimes appear on the display of your HP LaserJet printer.

NOTE: This setting does not change any settings within your HP LaserJet printer.   In order to set Page Protection you must configure your HP LaserJet printer using the printer's control panel.   Refer to your HP LaserJet printer user's manual for more information.

<u>**Ordering Additional Memory**</u>

Paper Source

If you are unsure about which paper source and paper size is used in your printer, you can run a <u>Self Test</u> printout on your HP LaserJet printer.

Paper Source

For a **HP LaserJet III** printer, which has one paper tray, you can choose

* Upper tray
* Envelope
* <u>Manual Feed</u>

For a **HP LaserJet IIIP** printer, which has up to two paper trays, you can choose

* Upper tray
* Lower tray
* Envelope
* <u>Manual Feed</u>

For **HP LaserJet IIID and IIISi** printers, which have two paper trays and an optional envelope feeder, you can choose:

* Upper tray
* Lower tray
* Envelope
* Manual Feed
* <u>Auto Select</u>

If you choose Manual or Envelope for the paper source, the PCL 5 Printer Driver will use this selection only until you exit Windows. The next time you start Windows, the paper source selection will revert to the default paper tray.

<u>Ordering Paper Trays</u>

Paper Size

The PCL 5 Printer Driver lets you select four sizes of paper and four sizes of envelopes.

Letter   8.5 x 11 inches
Legal   8.5 x 14 inches
A4   210 x 297 mm
Executive   7.25 x 10.5 inches

Envelopes
  COM-10   4 1/8 x 9 1/2 inches
  Monarch   3 7/8 x 7 1/2 inches
  DL   110 x 220 mm
  C5   162 x 229 mm   (not available with the LaserJet IIISi printer)

Selecting a Printer Model

The PCL 5 Printer Driver supports the HP LaserJet III, IIID, IIP, and IIISi printers.

NOTE: The title shown in many Windows menus simply lists "LaserJet III printer" driver. The HP LaserJet III driver also includes support for the entire HP LaserJet III family of printers.

Special Options

The Special Options dialog box allows you to select the following:

Duplex Printing -- For LaserJet IIID and IIISi printers

Output Bin -- For the LaserJet IIISi printer

Job Separation -- For the LaserJet IIISi printer

Duplex Printing

Duplex (two-sided) printing is available standard with HP LaserJet IIID printers and as an option with HP LaserJet IIISi printers.

The default selection is "None" for single-sided printing. If you want to print in duplex mode, you should determine how your finished document will be bound:

"Long-edge" <u>binding</u> setup in portrait orientation is used for conventional layouts in book binding. Long-edge in landscape orientation is often used in accounting and spreadsheet applications because pages can be flipped through as on a clipboard.

"Short-edge" binding setup in portrait orientation is often used for calendar-like books.   Short-edge in landscape orientation is another variation of conventional book layouts.

NOTE: If you have a LaserJet IIID printer and you select duplex, you must use the upper output tray (bin).

<u>Orientation</u>

Output Bin Selection

With the HP LaserJet IIISi printer, you can choose to have your printed pages output to either the upper (top) output bin or the lower (rear) output bin by making a selection in the Special Options dialog box.

Upper -- Choose upper, the default, when you want pages to exit the printer and stack face down in the upper output bin.   Pages sent to the upper bin are said to stack in "correct order," which means page two will follow page one.   If you select the upper tray you can use the Job Separation feature of the LaserJet IIISi printer.

Lower -- Choose lower if you want pages to exit the printer and stack face up in the lower output bin. Pages sent to the lower bin stack in "reverse order," which means that the last page comes out on top. In addition to the selection made in this window, remember to   physically prepare your printer by opening the door and extending the lower (rear) output bin.

Job Separation

Job Separation

The HP LaserJet IIISi printer has the ability to offset (shift position) every other print job that is sent to the upper output bin.   An "X" in the box indicates that Job Separation is ON.

If Job Separation is ON, every other print job sent to the upper output bin will be offset.   This makes it easy to determine where one job ends and the next begins.

If Job Separation is OFF, every print job will stack directly on top of the previous job.

NOTE: If you are printing from a network server, job separation is best administered at the network level; therefore the Job Separation selection should be OFF.

Output Bin

Unlisted Cartridge-based Scalable Typeface Installation

Because you will have to exit Windows in order to complete this task, we recommend that you print this help topic.   Choose **Print Topic** from the "File" box above.

Follow the steps below to install HP scalable typeface cartridges that are not already listed in the Windows 3.0 printer **Setup** box (such as the HP WordPerfect Scalable Typeface Cartridge):

This procedure will create cartridge support files and allow selection of the cartridge name.   It will also install matching screen fonts for WYSIWYG display when *HP Intellifont-for-Windows 3.0* is **on.**

Step A -- Install AutoFont Support Files

1.   Completely exit   Windows and return to a **DOS prompt** (do not use the DOS icon in Windows).

2.   Your HP scalable typeface cartridge includes AutoFont Support disks.   Insert the *AutoFont Support Installer and Metrics* disk #1 into drive A:

3.   Type in `A:AUTOFONT` and press **[Enter]**.

4.   Follow the instructions that appear on your screen.   When the AutoFont Support Installer asks you if your software supports screen fonts, answer **YES**.   The AutoFont Support Installer will place the screen fonts in the C:\TD\TYPE directory.

   During the installation, the AutoFont Installer will prompt you to insert the Screen Fonts disks that are included with your cartridge.   You can install all the screen fonts, or you can install only the ones you need.   (All of the *printer* fonts will be available whether or not you install screen fonts.)

Step B -- Activating Your Scalable Cartridge in Windows

Before you can select cartridge-based typefaces or fonts in your Windows applications, you must activate the cartridge name in the printer **Setup** menu.   Follow these steps:

1.   From the Program Manager's **Main** window, double-click on **Control Panel.**

2.   Double-click on the **Printers** icon.

3.   Click on the **Configure** button.

4.   Click on the **Setup** button.

5.   Click on the **Fonts** button.

6.   Click on the **Add Fonts...** button.

7.   Type in the location of the AutoFont Support files as the source drive and directory.   The default is C:\AUTOFONT, then click on **OK.**

8.   Highlight the cartridge name and click on the **Add...** button.

   The cartridge name will appear in the box on the right.   (There will be a small cartridge icon beside the name.)

9. We recommend you accept the default printer font directory (C:\PCLFONTS).   Click on **OK.**

  10.   Click on **Exit** to return to the **Setup** window.

11.   In the **Setup: PCL5/HP LaserJet III ...** window, highlight the name of your new cartridge in the
      Cartridges box.   Then click on **OK.**

12.   Click on **OK** to advance through the remaining windows until you return to the Control Panel window.
      Close the Control Panel.

  Continue with step "C" to install screen fonts only if you have *HP Intellifont-for-Windows 3.0.*

Step C -- Installing Matching Screen Fonts

1. From the Program Manager's **Accessory** window, double-click on the **Intellifont** icon.

2. Click on the **Fonts** button.

3. Click on the **Add Fonts...** button.

4. Type in the drive and directory where the AutoFont Support installer placed the .TYP (screen font)
    files (for example, C:\TD\TYPE).   Then click on **OK.**

5. Highlight typeface(s) you want to install as screen fonts. You may highlight more than one.

6. Click on the **Add...** button.

7. Highlight a <u>symbol set</u> and click on **OK.**

    We recommend that you select **Cartridge - Screen fonts only,** which will give you access to the characters in
    the WN: Windows symbol set.   However, you can choose any symbol set you want.   If you need characters for
    a special application (such as math, legal or dingbats), refer to the symbol set charts in the appendix of your
    printer user's manual.

8. Indicate the destination drive and directory where you want to store your screen fonts. We recommend
    the default C:\TD\TYPE.   Click on **OK.**

    Use the *same* directory as you did in step 4 so that duplicate files will not be made. Once installed, the scalable
    typeface(s) will appear on the left side of the screen under the heading "PCL/HP LaserJet on [port]."   Scalable
    screen fonts can be recognized by a small dot (·) before the typeface name.

9. Click on **Exit**   until you return to your original window.

  You will now be able to select fonts from your HP scalable typeface cartridge within your software
  applications.   If *HP Intellifont-for-Windows 3.0* is **on,** you will see matching screen fonts on your monitor.

Ordering Accessories for Your HP LaserJet Printer

To order additional printer memory, paper trays, and font   or typeface products, check with your authorized HP dealer.

To locate your nearest HP dealer, to receive additional product sales information, or to order an accessory catalog, call Hewlett-Packard's Customer Information Center at:

USA   1-800-752-0900

Canada   1-800-387-3867

Other countries Contact a Hewlett-Packard sales office

If your dealer is temporarily out of stock, call Hewlett-Packard for fast-ship service:

USA   1-800-538-8787

Canada
   Toronto   416-671-8383
   Ontario/Quebec   1-800-387-3417
   Other provinces   1-800-387-3154

Free copies of *HP Intellifont-for-Windows 3.0* can be obtained by calling 303-353-7650 (offer good in USA and Canada).

To run a Self Test printout on your HP LaserJet III, IIID, or IIISi printer, take your printer off-line (light out), press and hold down the TEST button on your printer's control panel until 05 SELF TEST appears.   A printout will be generated in a few moments.

On the HP LaserJet IIIP printer, take your printer off-line, lightly press the ALT button and the TEST button at the same time.   The printer's control panel will read 05 SELF TEST.
A printout will be generated in a few moments.

AutoFont Support files are provided with all HP font and typeface products. These files contain font metric (width) information used by the HP Font Installer.   AutoFont Support files are usually shipped with special installation utilities that must be run prior to using the HP Font Installer.

Binding refers to the process of joining a stack of printed sheets with stitches (staples), three-hole, glue or some other means.

An acronym for "What You See Is What Your Get." The screen fonts that appear on your display match the fonts used in your printer.

The term **scalable** describes products that can be reduced or enlarged (scaled) to virtually any point size that your Windows 3.0 application will support. CG Times and Univers are examples of scalable typefaces.

Conversely, **bitmapped** fonts are limited to an exact point size.   A bitmapped font can not be reduced or enlarged (non-scalable).   Courier 10 point is an example of a bitmapped fonts.

A **driver** is a portion of software code that controls commands sent to a device such as a printer or screen.   Drivers work automatically so that you don't have to enter programming codes.   Drivers allow you to select fonts, set margins, number of copies, etc.

In multiple page jobs that are **uncollated,** several copies of page One are printed followed by several copies of page Two, followed by several copies of page Three, etc.

In multiple page jobs that are **collated,** a complete set of pages in a job are printed followed by another complete set of pages.   For example: One copy of Page 1, then Page 2, then Page 3; followed by another copy of Page 1, then Page 2, then Page 3.

HP Intellifont-for-Windows 3.0 is a software program from Hewlett-Packard that includes a special screen font driver in addition to the PCL 5 Printer Driver and HP Font Installer.   With *HP Intellifont-for-Windows 3.0*   loaded, scalable typeface products can be directly installed to produce both printer fonts and screen fonts.

HP Intellifont-for-Windows 3.0, requires an IBM PC-AT or compatible (286 and above) and a minimum of 1 megabyte of extended RAM.   Call 303-353-7650 to order a free copy (USA and Canada only).

Manual feed is often used for printing non-standard sizes of paper, envelopes, labels and transparencies.   Also, when an occasional page of special paper, such as letter-head or color paper, is wanted without having to open and load a paper tray.

If **Auto Select** is used for a HP LaserJet IIID or IIISi printer when both input paper trays have the same size of paper, the printer will automatically print from the upper tray until it is empty, then continue printing from the lower tray.

Auto Select can also be used if you store different size paper (for example, letter-size paper in one tray and legal-size paper in the other).

Symbol sets are unique groupings of characters in a font.   Each symbol set is defined with a specific set of applications in mind.   WN: Windows is the default symbol set.   Other symbol sets are used for math and multi-language purposes.   Refer to your printer user's manual for charts showing all the characters in symbol sets.