READMEHP.WRI FILE FOR THE HP LASERJET 4 FAMILY DRIVERS FOR WINDOWS v.3.1/v.3.11 This README file contains the following information: * Software License, Warranty, Trademark Notices and Copyrights * Introduction * BEFORE YOU INSTALL! * Installation Instructions - Driver Only * System Update Information - What's New * User Hints * Special Features of the HP LaserJet 4 Family Driver * How to Obtain Additional Information from HP Services SOFTWARE LICENSE, WARRANTY, TRADEMARK NOTICES and COPYRIGHTS The HP LaserJet 4 Family Driver version 1.60 may be copied and distributed ONLY to users of an HP LaserJet 4 Family printer. Please refer to your printers "User's Manual" for Software License and Warranty information. MS-DOS, Windows are registered trademarks of Microsoft Corporation. TrueType is a registered trademark of Apple Computers Inc. CorelDRAW is a registered trademark of Corel Corporation. PostScript is a registered trademark of Adobe Systems, Inc. Copyright (c) 1990-1995 Hewlett-Packard Company. Copyright (c) 1985-1995 Microsoft Corp. All Rights Reserved. INTRODUCTION This release of the "HP LaserJet 4 Family Driver" supports HP's Enhanced PCL5 printer language with the HP LaserJet 4 Family printers; HP LaserJet 4V/4MV HP LaserJet 4/4M HP LaserJet 4Si/4SiMX HP LaserJet 4P/4MP HP LaserJet 4L/4ML HP LaserJet 4 Plus/4M Plus It includes the following components: HPPCL5E Printer Driver: 31.1.60 READMEHP.WRI: 1.60 BEFORE YOU INSTALL!

- Close all applications and TSR (Terminate and Stay Resident)programs that load at startup (in Windows or DOS) such as virus checkers, fax utilities, etc., and all other applications that may be open. - Close any shell utilities such as: Microsoft Office Manager, Norton Desktop, Dashboard, etc. _____ NOTE In order to close some shell utilities you will need to de-install the software. Refer to the documentation provided with that utility. _____ - Exit any previous version of HP Status Window that may be running. Hint: In Windows 3.1/3.11, simultaneously press [Ctrl] and [Esc] to launch the "Task List" window. In it select each application, except Program Manager, and click on "End Task" to close it. These precautions help ensure a smooth installation. After installing the HP LaserJet 4 Family Driver, you can turn these programs back on. INSTALLATION INSTRUCTIONS - DRIVER ONLY _____ NOTE Follow the instructions found in the "BEFORE YOU INSTALL!" section before installing the driver. _____ 1. Choose the "Control Panel" from the Main Group in Program Manager. 2. Choose the "Printers" icon from the Control Panel window. 3. The Printer's dialog box appears. Choose the "Add>>" button. 4. The "List of Printers" dialog box appears. Select "Install Unlisted or Updated Printer" (first line in list). 5. Choose the "Install" button. 6. Enter the drive and directory where the driver files are stored; Press [Enter]. 7. At the "Add Unlisted or Updated Printer" dialog box, highlight the desired printer from the list of available printers: HP LaserJet 4V/4MV HP LaserJet 4/4M HP LaserJet 4Si/4SiMX HP LaserJet 4P/4MP HP LaserJet 4L/4ML HP LaserJet 4 Plus/4M Plus and press [Enter]. 8. Choose the "Connect" button. 9. Highlight the correct printer port from the "Ports:" list box and press [Enter]. 10. Choose the "Setup" button. 11. Make any necessary changes in the Printer Setup screen to reflect your printer's configuration. 12. Choose OK. 13. Choose the "Set as Default Printer" button. 14. Choose the "Close" button.

New User Interface

The HP LaserJet 4 Family driver has been modified to include a new user interface which looks and acts like a card file. By clicking on a tab, the page displays the settings associated with that tab. After the desired driver changes have been made on all property sheets, the user clicks the "OK" button (located at the bottom of the page) to save all driver settings. For more information on the settings on any page, press the "Help" button at the bottom of that page.

"80286" Support

Intel 80286 based PCs (IBM AT or compatibles) are no longer supported with this driver.

Installation from a Local or Network Hard Drive

The HP LaserJet 4 Family driver will also install files which are located on a local or network hard drive for more convenient installations. Copy the files from each of the floppy diskettes you received from HP in the following manner:

<drive>:\path\disk

Example: c:\drivers\HPLJ4FAM\disk

Follow the instructions for a Windows 95 or Windows 3.1 installation. Specify the hard drive path or "browse" for the location of "disk".

On-Line Help

The HP LaserJet 4 Family driver includes extensive on-line help for all of its components. For detailed feature and operating information refer to the "Help" button available in each component.

Graphics, Memory Errors, and Print Performance

If you encounter printing difficulties, memory errors, or slow performance with any application, it is recommended that you try printing with both Graphics Mode settings, RASTER and HP-GL/2. Access these settings in the HP LaserJet 4 Family driver under the "Print Quality" tab in the "Graphics Mode" box.

If neither Graphics Mode is able to print your document, you may try reducing the complexity of the graphics on the page which you are unable to print or reduce the resolution setting in the driver to 300 dpi. If you print complex graphics on a frequent basis, you may desire to upgrade the memory in your printer (minimum upgrade should be 4MB)..

600 DPI "TrueType as Bitmaps" Selection

On the Print Quality tab, Text Mode has three selections: "Auto", "TrueType as Bitmaps", and "TrueType as Graphics". "Auto" is the default mode. It sends TrueType fonts that don't already reside on the printer as TrueType Outlines. If the fonts on the page do not match the fonts on the screen, select "TrueType as Bitmaps". If closer compatiblity to what appears on the application's display is necessary, use "TrueType as Graphics". To select TrueType as Graphics, Graphics Mode must be set to "Raster".

CorelDRAW Printing Performance

Print performance is largely dependent on information in the graphics document being printed. The options below may assist you in optimizing print speed in CorelDRAW.

- Printer Driver Settings

For best printing performance in CorelDRAW, it is recommended that you change the Graphics Mode to Auto or RASTER in the HP PCL printer driver and try your print job again. See the section on Graphics, Memory Errors, and Print Performance above for further assistance.

- CorelDRAW 3.0: Improve graphics performance.
 - a) Open CORELDRW.INI with a text editor. The CORELDRW.INI is in the DRAW subdirectory for CorelDRAW 3.0b or later.
 e.g. c:\corel30\coreldrw\draw\coreldrw.ini
 - b) Go the section labeled: [CDrawConfig].
 -) Go the section labeled. [CDIawconiig].
 - c) At the end of this section, enter the following line (exactly as shown): UseClippingForFills=0
 - d) Save and close the CORELDRW.INI file.
 - e) Restart CorelDRAW.
- CorelDRAW 4.0 and 5.0 Improve graphics and scanned image printing performance.
 - a) Open CORELDRW.INI with a text editor. The CORELDRW.INI file is found in the COREL40\CONFIG subdirectory for Corel 4.0 and 5.0. e.g. c:\corel40\config\coreldrw. ini
 - b) Go the section labeled: [Config]
 - c) At the end of this section, enter the following line (exactly as shown): UseClippingForFills=0
 - d) Save and close the CORELDRW.INI file.
- The setting below impacts raster graphics only.
 - a) Open the CORELPRN.INI file with a text editor. The CORELPRN.INI file is also located in the CONFIG sub-directory.
 - b) Go to the section labeled: [Config]
 - c) Find the following line: DumpEntireBitmap=0.
 - Changed to read: DumpEntireBitmap=1.
 - d) Save and close the CORELPRN.INI file.
 - e) RESTART CorelDRAW.

Changing this entry from 0 to 1 allows CorelDRAW to send raster data in blocks rather than line by line. This should improve processing time of graphic intense files.

Special Features of the HP LaserJet 4 Family Driver _____ Graphics Quality Depending upon which dpi (dots per inch) selection you choose, there are different graphic resolution settings available. The actual settings are denoted by the descriptive terms of High, Medium and Low rather than the actual dpi number. When the driver is set to 600 dpi mode, the settings available are 600, 300, and 150 dpi. When the driver is set to 300 dpi mode, the settings available are 300, 150, and 75 dpi. _____ Typefaces All the internal Intellifont typefaces in the HP LaserJet 4 printer family are supported in the 19U (Windows) symbol set. _____ EconoMode With EconoMode enabled the output will resemble draft mode, using fewer dots in order to conserve toner. _____ Print Density For the HP LaserJet 4V/4MV printers, Print Density can not be selected through the driver. Refer to the user's manual for instructions on setting print density using the printer's print density dial. _____ REt (Resolution Enhancement technology) REt refines the print quality of characters and graphics by smoothing the fine gradations along the angles and curves of the printed image. The driver default is "Printer Default". The printer default is "Medium". Other options override the printer setting. _____ Maximum (11.7 x 17.7) Paper Size Maximum paper size is supported for the HP LaserJet 4V/4MV printers. The size of the custom media in most cases must be set in both the application's page setup and the driver setup. For more information about minimum and maximum page size, see your users manual or software application manual under such headings as page setup or margins. Cartridge Support (Removed 31.v1.26 and later) This driver does not have built-in support for HP font cartridges. Font cartridge support is still available by:

1) Installing the fonts for the font cartridge from the

autofont support disk shipped with the font cartridge.

2) North American customer can contact Hewlett-Packard's Driver Distribution Center. Call: 303-339-7009 Monday through Saturday, 24 hours a day Fax: 303-330-7655

3) For other customers, please contact your local HP dealer.

4) Downloading the PCM (printer cartridge metric) files from the HP Periperals Forum library on CompuServe. The filename for the PCM files is L4PCM.EXE.

After extracting the files, the PCM files can be installed from the HP Font Installer which is accessed from the "Control Panel", "Printers", "Setup", "Fonts...", "Add Fonts..." option in Windows 3.1. Detailed installation instructions are included with the PCM files.

Printer Control Panel Installation (Support on 31.v1.20a and later)

The driver on this Printing Systems Disk may be installed from the Printer Control Panel. However, this is not the recommended installation procedure since this will not install the other parts of the HP LaserJet Printing System.

300 DPI Compatibility (Supported on 31.v1.26 and later)

Additional compatibility has been added between documents printed with this driver and documents printed with the LaserJet III Family drivers. In the HP LaserJet 4 Family driver, select the "Print Quality" tab and in the "Text Mode" box select "TrueType as Bitmaps". If this is not acceptable, 300 dpi compatibility is automatically enabled when a document is printed with the "Printer Resolution" field set to 300 dpi.

Thin lines, such as gridlines form a spredsheet program, now print thick enough to see.

Multiple graphic images placed on top of each other now print correctly.

Truetype fonts with short names no longer cause a GPF in HPPCL5E.DRV.

Resource memory leak problem in HPTABS16.DLL has been resolved.

Some bitmap images may be print inverted, the workaround is to use a previous driver.

HOW TO OBTAIN ADDITIONAL INFORMATION FROM HP SERVICES

HP ELECTRONIC SERVICES

INTERNET

Anonymous ftp library service is available for around-the-clock access to drivers and technical support information for Hewlett-Packard peripheral and computer products.

Internet address - ftp-boi.external.hp.com
Login - anonymous
Password - send user identification (your Internet name)
URL to access HP - http://www.hp.com/home.html

COMPUSERVE

HP Peripherals Forum provides low-cost, around-the-clock access to drivers and technical support information. In the US, you can call CompuServe at 800-848-8199 (Users type: GO HPPER). This service is provided by CompuServe, not Hewlett-Packard. In countries other than the US, contact CompuServe for information.

SOFTWARE APPLICATION SUPPORT Call the phone number listed in your software vendor's manual.

PERIPHERAL TECHNICAL SUPPORT AND ASSISTANCE To resolve problems you may encounter, we suggest using the following resources:

- 1) Your company may have an internal support professional, department, or help desk.
- Your local authorized reseller is also qualified to provide you with support.

US and CANADA SUPPORT SERVICES

"HP Guide to Electronic Support Services" HP FIRST DOCUMENT #9020. See HP FIRST section below for assistance.

HP BBS DOWNLOAD SERVICES Hewlett-Packard provides a download service for around-the-clock access to drivers and technical support information for Hewlett-Packard peripheral and computer products.

> (208) 344-1691 Modem Settings - N,8,1 14,400 baud maximum

DRIVER DISTRIBUTION - US and Canada Hewlett-Packard's Driver Distribution Center provides US and Canadian customers with printer drivers for several popular software packages. To order drivers (handling fee will be charged):

Call: 970-339-7009, Monday - Saturday, 24 hours a day Fax: 970-330-7655

HP FIRST - US and Canada HP's automated fax system provides technical information around-the-clock for Hewlett-Packard peripherals and computer products. Indexes are available listing thousands of documents.

Call: 800-333-1917

Elsewhere call 208-344-4809 (must call from your fax machine)

AUDIO-TIPS - US and Canada Audio-Tips offers pre-recorded technical information for Hewlett-Packard peripherals and computer products around-theclock. Many trouble-shooting tips have faxable documents providing for more detailed information.

Call: 800-333-1917, then press "3"

HP CUSTOMER SUPPORT CENTER - US and Canada The HP Customer Support Center provides live technical assistance for peripherals.

> Call: 208-323-2551 Hours of operation (Mountain Standard Time): Monday-Friday: 6:00 a.m. to 10:00 p.m. Saturday: 9:00 a.m. to 4:00 p.m.

Free technical support is offered during the warranty period at (have your HP LaserJet printer serial number available).

After the warranty period, call 800-999-1148 (US and Canada) at \$25 per call (US Funds - VISA or MasterCard); or call 900-555-1500 (US) at \$2.50 per minute. Charges begin only when you connect with a support technician. Prices subject to change.

LATIN AMERICA SUPPORT SERVICES

DRIVER DISTRIBUTION - Latin America You can order printer drivers for several popular software packages via FAX (handling fee will be charged):

EUROPEAN SUPPORT SERVICES

DRIVER DISTRIBUTION - Europe Driver Lists and Driver Order Forms are available from HP FIRST (see HP FIRST in this section). Use the product numbers listed on the Driver List to fill in the Driver Order Form. Drivers can be ordered from the following numbers:

Language	Phone	Numbers	3
=======		=======	
English	+44 (0) 1429	865511

French	+44	(0)	1429	863343
German	+44	(0)	1429	863353
Italian	+44	(0)	1429	520013
Spanish	+44	(0)	1429	520012

Customers outside the UK need to omit the "0" in parentheses when calling.

HP FIRST - Europe HP provides technical information by fax, around the clock. To use HP FIRST, you must call from a touch-tone telephone or fax. Telephone numbers for HP FIRST are listed below.

Country	Language	Toll Free Numbers		
=======	=======			
Austria	German	0660-8128	(local toll charged)	
Belgium	Dutch	0800 1 1906		
Belgium	French	0800 1 7043		
Denmark	Danish	800-10453		
Finland	Finnish	9800-13134	(local toll charged)	
France	French	05-905900		
Germany	German	0130-810061		
Great Britain	English	0800-960271		
Italy	Italian	1678-59020		
Netherlands	Dutch	06-0222420		
Norway	Norwegian	800-11319	(local toll charged)	
Spain	Spanish	900-993123		
Sweden	Swedish	020-795743	(local toll charged)	
Switzerland	German	155-1527		
Switzerland	French	155-1526		

Access to HP FIRST in English is available from the countries listed above and other countries by calling the Netherlands at (+31) 20 6815792. NOTE: International call charges apply outside of the Netherlands.

EUROPEAN CUSTOMER SUPPORT CENTER

Hours of operation: Mon/Tue/Thu/Fri from 8:30 to 18:00, Central European Time Wednesday from 8:30 to 16:00, Central European Time

Free technical support is offered during the product's warranty period. Please have the product's serial number available when you call. Telephone numbers and other information about the European Customer Support Center is included with supported products.

ASIA PACIFIC SUPPORT SERVICES

DRIVER DISTRIBUTION - Singapore You can order printer drivers for several popular software packages via phone or FAX (handling fee will be charged):

Phone: 65-740-4477, Monday-Friday, 8:30 am - 5:30 pm (Singapore time) FAX: 65-740-4499, (24 hours a day - 7 days a week)

DRIVER DISTRIBUTION - Australia (Sidney) You can order printer drivers for several popular software packages via phone or FAX (handling fee will be charged): Phone: 612-565-6099, Monday-Friday, 8:30 am - 5:30 pm (Australian Eastern time) FAX: 612-519-5631, (24 hours a day - 7 days a week) _____ SUPPORT SERVICES - OTHER COUNTRIES _____ Driver Distribution and HP FIRST is available in many other countries. Ask your local HP dealer for the numbers. Customer Support is also available in several other countries. Check your printer User's Manual or contact your authorized HP Dealer for more information. -End-