

May/June 1988

- LaserJet Family Q&A
- Vectra Portable CS
- Lotus 1-2-3

For users of  
HP Personal Computer  
Products

|              |                                   |  |
|--------------|-----------------------------------|--|
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## Late-breaking news on HP personal computer products

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You can now order the standard Microsoft version of **Windows/386** for the HP Vectra RS PCs directly from Hewlett-Packard. The features of Windows/386 are described below.

### o Multiple Virtual PCs

Windows/386 overcomes the 640 Kbyte memory limitation of the 8086- and 80286-based PCs by using the virtual machine capabilities of 80386. Under Windows/386, each MS-DOS application executes within a private "virtual PC" and can be allocated a full 640 Kbytes of memory. The number of MS-DOS applications that you can run at the same time is dependent only on the total amount of physical memory present on the system.

### o Multiple MS-DOS Applications

Windows/386 allows you to run multiple MS-DOS applications. For example, you can be editing a document in Executive MemoMaker while Lotus 1-2-3 is calculating a large spreadsheet in the background.

Applications can be executed in a variety of modes. Applications can be run in the foreground mode, which means the application executes only when you are working with it. Background mode allows the application to continue execution while the user is working on another application. Exclusive mode turns off multiple "tasking" and gives maximum resources to the application running in this mode.

### o Windowing

Windows/386 allows MS-DOS applications to be viewed in a window or full screen.

### o Microsoft Windows/386 and Microsoft Windows 2.0

Windows/386 and Windows 2.0 share the same user interface and provide a consistent application environment for Windows applications. Microsoft Windows 2.0-based applications can be used interchangeably with either Windows product.

### o Expanded Memory Support

A new memory manager in Windows/386 provides emulation of the LIM 4.0 (Lotus/INTEL/Microsoft) expanded memory specification, using conventional memory. Windows applications, as well as MS-DOS applications written to use LIM 4.0, have access to expanded memory under Windows/386.

### Ordering Information

To ensure that you are working with the latest release of Windows/386 and a version that HP can support on the HP Vectra RS systems, make sure that you are using a copy of Microsoft Windows/386 distributed from HP. Microsoft Windows/386 with Presentation Manager for Personal Computers Using the Intel 80386 Processor is HP

product D1651A opt ABA. Contact your dealer or HP sales representative for more information.

\* \* \*

**JetScript(R)**, an Adobe-licensed PostScript accessory kit for the LaserJet Series II printer, is now available.

The JetScript accessory kit (HP 88141A) is a product designed, manufactured, and labeled by QMS, Inc., in association with HP. Both QMS and HP will distribute and sell the product through their own distribution channels in North America. QMS will distribute the product outside North America.

QMS will support JetScript kits sold through QMS. HP will support the JetScript kits we sell through HP distribution channels, giving LaserJet printer customers a one-vendor support advantage.

**Product Components:**

- The JetScript controller board (a PC backplane card that plugs into any Vectra, IBM PC XT/AT, IBM PS/2 Model 30, and 100 percent IBM XT/AT compatible).
- An adaptor card that plugs into the "Optional I/O" slot in the back of the LaserJet Series II printer.
- A set of discs containing the PostScript interpreter and thirty-five typefaces.
- A 10-foot printer cable connecting the JetScript controller board to the Adaptor card.

**Product Performance:**

JetScript's PC backplane design eliminates the RS-232 or parallel I/F bottleneck problem common to most PostScript laser printers.

End users printing short text-oriented documents will find that JetScript, like other PostScript printers, tends to print the first page of a document more slowly than the standard LaserJet Series II with its PCL printer language. But, for those end users looking for on-line scaling of fonts and improved graphics flexibility associated with page layout, JetScript will be a faster, more efficient solution.

Because the JetScript controller resides in the PC, it is dedicated to a single PC, and therefore cannot be shared among users.

For more information, contact your dealer or HP sales representative.

*JetScript is a registered trademark of QMS, Inc.*

\* \* \*

Now all Vectra Desktop PCs can be enhanced with a new accessory that makes the Terminal Emulation program ROM-resident.

The HP 24531A **Terminal ROM Card** is a memory card containing the HP Terminal program in ROM (also available on disc media as HP 24597A).

If you start from PAM or DOS, the program loads two to three times faster than when loaded from a hard disc.

In addition, if the PC is not equipped with a hard disc, the user may "boot and go" into terminal mode directly from the Terminal ROM Card when the system is started.

This accessory is recommended for terminal-intensive users and is another step forward in individual productivity and reduced disc manipulation.

The Terminal ROM Card (HP 24531A) operates on all Vectra Desktop PCs as well as on the installed base of Vectras. It does not operate on non-HP PCs.

For more information, contact your dealer or HP sales representative.

\* \* \*

Now, with the **ROM Disc Accessory** for HP Vectra PCs, system integrators are able to build dedicated, PC-based workstations, and to build discless workstations with the application software in ROM.

The HP 24530A ROM Disc Accessory is a memory card containing sockets for ROMs or EPROMs and a few Kbytes of CMOS battery-protected RAM. It allows the installation of applications in ROM/EPROM, which makes them permanently resident in the PC. The application does not need to be modified and a software utility kit is also available to ease installation/burning of the application in EPROM.

The ROM Disc Accessory is ideal for all applications requiring ruggedness, as it allows the design of intelligent workstations with no moving parts, for example:

- Process controllers: metallurgy, chemicals, cement,...
- Mobile data acquisition: petroleum...

It also fits applications where "discless" operation is of importance and where the end-product is a "closed box," such as:

- Measuring instruments
- Dedicated POS terminals: rental, ticketing, videotext,...
- LAN-based workstations
- Non-US terminals
- Protocol controller or front-end processor...

The ROM Disc Accessory operates on all HP Vectra Desktop PCs and does not operate on non-HP PCs.

ROM Disc Accessory (RDA) is HP product number 24530A. Add option number 001 for the ROM Disc programmer's kit (includes product development documentation and software).

For more information, contact your HP sales office.

\* \* \*

A new release (E.01.02) of **HP150 MS-DOS 3.2** is now available. This version offers several significant improvements and enhancements:

Enhancement: MS-DOS now recovers from misidentified 9121 single-sided drives. In the past, intermittent DIR problems with single-sided drives (9121 and 9133XV) were occurring.

Enhancement: The 9153A and 9153B are now usable as swapdiscs by Microsoft Windows.

Enhancements:

- Multiple flexible discs can now be formatted.
- Backward compatibility is provided with the Portable PLUS.
- IBM-formatted flexible discs are supported on the 9153B, 9153C, and 9122C.
- IBM-formatted 720 Kbyte flexible discs are verified for bad sectors on the 9153B, 9153C, and 9122C.

Improvements: Year correctly rolls over on January 1, rechecks the year on February 1, and will not skip February 29 (Touchscreen II only).

To upgrade, order one of the following from **HP DIRECT** (see the article "Software Exchange Kits" in the green pages of this issue for general ordering instructions). You may also order from your dealer or HP sales representative.

- o Touchscreen Operating System upgrade (HP 45849-63031) includes software only. It comes on three single-sided discs and includes all the enhancements and the improvement listed above.
- o Touchscreen Operating System and Firmware upgrade kit (HP 45849-63024) includes software and Rev I ROMs. It must be installed by HP-authorized service person.

\* \* \*

A new release of **Executive MemoMaker/Touchscreen** (Version C.03.00) is now available (HP 45418A). This version is compatible with Release B.03.00 of the Graphics Gallery products.

New features such as rotation and additional text enhancements have been added to Drawing Gallery. Version 3.0 of Executive MemoMaker will merge and print these pictures. Several new printers, including the HP PaintJet and QuietJet are also now supported.

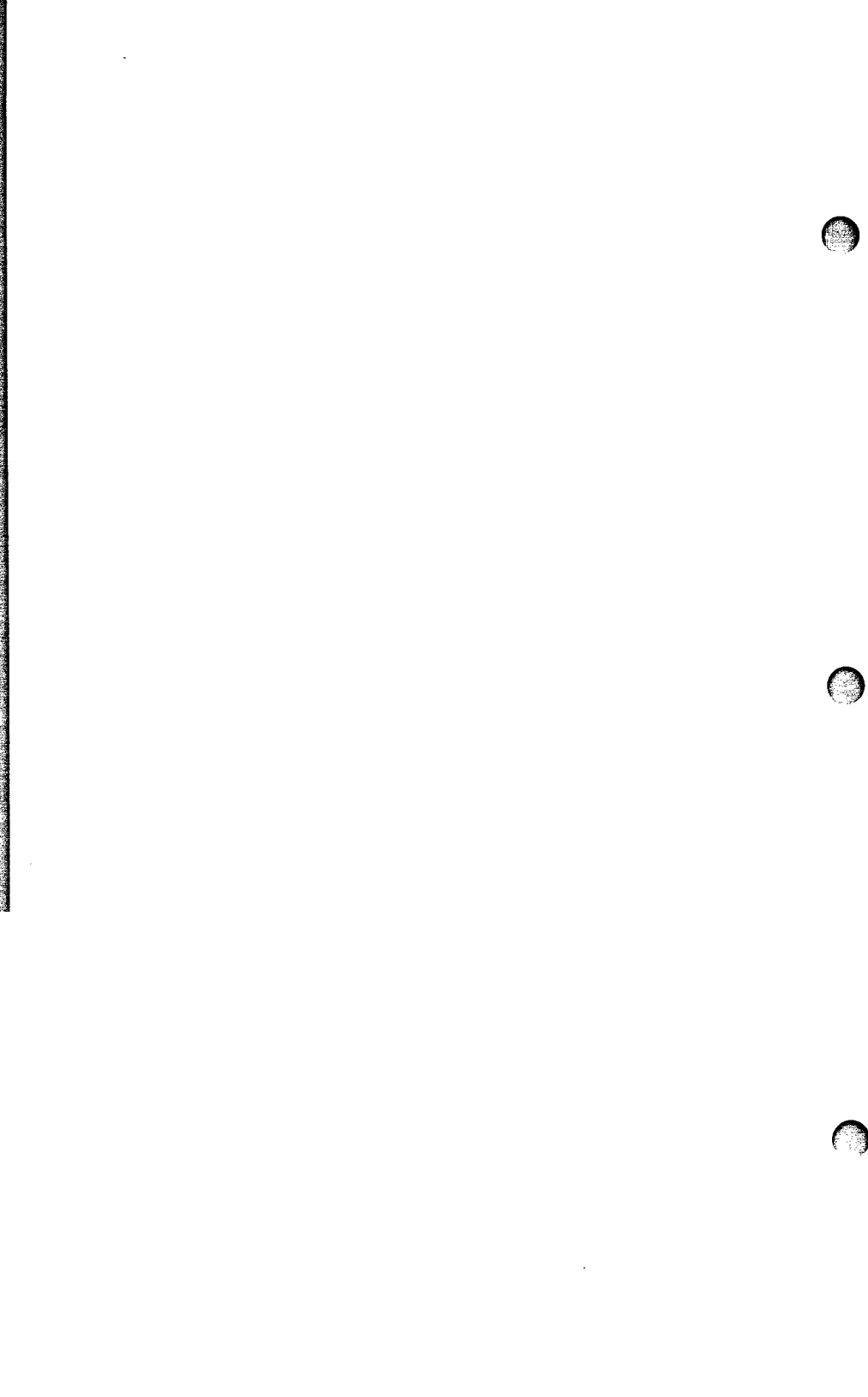
With this new release, it will no longer be possible to run Executive MemoMaker (EMM) from the master discs, or from an HP 9121 dual floppy system. However, users will still be able to run this version of EMM on the HP 9122 high-density dual floppy system. It can also be installed and run on a system that has a hard disc with a low-density disc drive.

An upgrade from version 2.0 to 3.0 of EMM (HP 45418-63006) is available from HP DIRECT. See the article "Software Exchange Kits" in the green pages of this issue for general upgrade ordering instructions.

To order HP 45418A, contact HP DIRECT (for phone numbers see "How to Order" in the green pages), or contact your dealer or HP sales office.

\* \* \*





## Welcome to the *HP PC Communicator*

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**WELCOME**

The *HP PC Communicator* is the heart of HP's support program for personal computers and software. The magazine contains programming techniques, information on software updates, notes on using applications, and corrections for manuals. The *HP PC Communicator* also lists known software problems and their solutions, and introduces new members of the HP PC family.

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### **Subscriptions and Back Issues**

In many countries, you can order subscriptions and back issues by telephone. For details, see the "Ordering *HP PC Communicator* Subscriptions" and "Ordering Back Issues" articles in the Current Information insert.

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### **Becoming a Contributor**

Much of the material in this issue was submitted by users and HP field-support people. If you'd like to contribute an article, program, question, or suggestion, please send it to us at the following address:

Editor, *HP PC Communicator*  
Hewlett-Packard Company  
P.O. Box 486  
Sunnyvale, CA 94086 U.S.A.

By submitting information, you agree that the material will not be considered confidential, and that HP may use, copy, edit, modify, publish, or sell it without any liability and without any obligation to you or to anyone else. If we publish your contribution in the *HP PC Communicator*, your name will appear on the by-line. If you'd like us to return the material you submit, please enclose a stamped, self-addressed envelope with it.

We look forward to sharing your ideas with HP PC users throughout the world.





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## The Encyclopedia

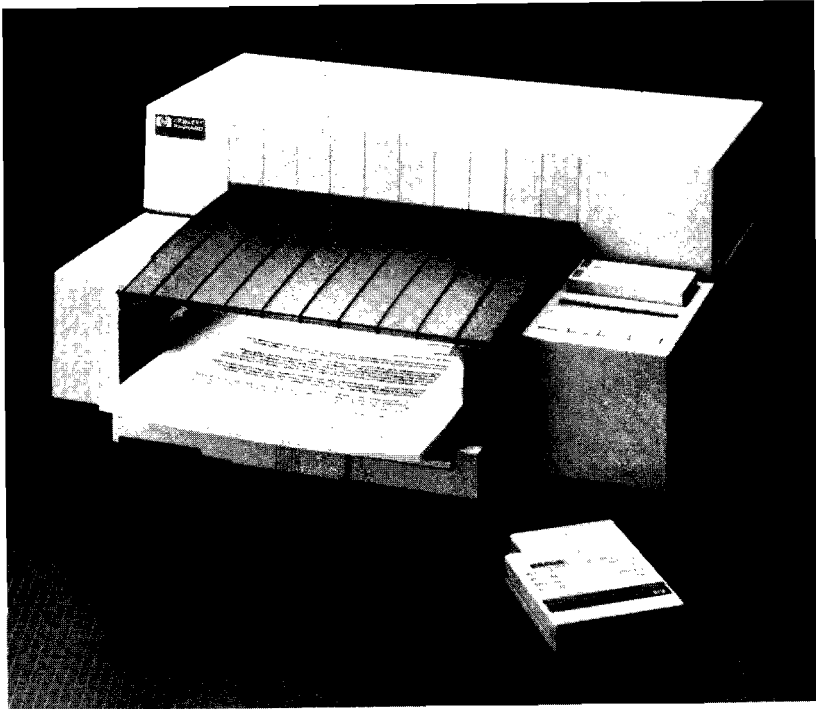
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| Welcome to the Encyclopedia<br>Cumulative Encyclopedia Index<br>(See Cumulative Encyclopedia Index for articles included in this issue.) |  |
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## Current Information

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(See page Current Information-3 for Table of Contents.)



- Q: When I attempt to print, I receive an "Insufficient Memory" error message. What's wrong?**
- A: All versions of PageMaker require a temporary working area on the hard disc for hardcopy composition. PageMaker recognizes an internal variable called **TEMP**.  
If C is a designator for a hard disc volume, the line **SET TEMP = C:I** must either be entered interactively at the DOS prompt or be placed into the turnkey batch file, **AUTOEXEC.BAT**. Note: There should be at least two megabytes of free disc space with which PageMaker can work. If a sizable virtual disc can be constructed from an extended memory board, you can get faster performance if the virtual disc is used as the working area; (if drive D represents the virtual disc, the statement entered would be **SET TEMP = D:/**).
- Q: When I print a document to my HP LaserJet printer, the quotes and double quotes turn into periods and double periods. What's wrong?**
- A: You are probably using PageMaker with the LaserJet driver **HPLASERP.DRV** furnished by Microsoft or Microsoft Windows for the HP Vectra PC (A.01.03). This driver has a bug that does not translate quotes properly. The LaserJet driver provided on the PageMaker driver's disc **HPPCL.DRV** will translate the quotes and double quotes correctly. PageMaker, version 1.0a has the latest **HPPCL.DRV** driver (version 1.05).
- Q: When I import an ASCII file originating from a simple text editor (e.g., EDLIN.COM) into PageMaker, some lines have extra trailing spaces, resulting in paragraphs with ragged right margins. How can I prevent this from happening?**
- A: Use HP's Executive MemoMaker (EMM). Executive MemoMaker will read and display ASCII text files as is and will allow you to easily block and justify each paragraph. The following steps should be applied in preparing each paragraph of the original ASCII text:

1. After the original file has been read by Executive MemoMaker, make sure that the left and right margins are at columns 1 and 80, respectively. These are the default settings used when Executive MemoMaker is first executed.
2. From the main menu, press "BLOCK KEYS" and position the cursor to the beginning of the text you want to block. The resulting blocked text will be left justified from column one. Take into account any indentation in the first line of the paragraph. For example, if the indentation is five spaces, start the blocking from column six preceding the text.
3. Next, press the "ALIGN BLOCK" key and then the "JUSTIFY" key. A star should appear in the box of the JUSTIFY key.
4. Using the cursor keys or mouse, block the paragraph to be justified and press "BLOCK OK." If the results are not as expected, press "CANCEL" and redo the process. Press "ALIGNMENT OK" to make the blocking permanent. This process of justifying the paragraph from column 1 to column 80 will eliminate carriage returns within the paragraph. These carriage returns are not filtered out by PageMaker and are the cause of ragged right margins.
5. After repeating steps 1 through 4 for each paragraph, save the new file by pressing "FILE KEYS" and then "SAVE MEMO." Choose the "DOCUMENT FILE" option (a star should appear in the box). Type in a new name with a ".WS" extension. EMM's document file format is identical to WordStar's document file format. By affixing a ".WS" to the name, PageMaker will readily accept the file without any delay.

If you prepare your ASCII file with EMM in this manner, you will have great flexibility and freedom to arrange your text within PageMaker.

If you need to create text blocks of varying column widths, use PageMaker's column guides and horizontal handles to manipulate the text. If the original text files are large, it is a good idea to break them up into several files. In doing so, you obtain more manageability in text placement.

**Q: What can I do to maximize the sharpness of placed images? (Note: For information on how to save files from HP Graphics Gallery for placement in PageMaker, see *HP PC Communicator Issue 25, Encyclopedia page 9*. Those instructions also work for saving .GAL files to PC Paintbrush format (with .PCX file extension) except you need to click on the "DEVICE NAME/PORT" field until "PC PAINTBRUSH" appears.)**

**A:** There are several approaches you can take to optimize the appearance of the graphics on both the screen and (the most important result) the final output.

1. After you have completed the drawing of the picture to be used, you can select the entire picture and proportionally enlarge the image with Drawing Gallery's "ENLARGE/REDUCE" function. Doing this will capture more detail for PageMaker to use later. However, keep in mind that larger images require more storage.
2. Furthermore, as you set up for drawing to either a TIFF or a PC Paintbrush formatted file on the DEVICE CONTROL screen, you can click on the "RESOLUTION" field and obtain the highest value possible. HP LaserJet printers are capable of outputting at a maximum resolution of 300 dpi (dots per inch). Maximizing resolution likewise captures more detail and consumes more disc storage.
3. An important aspect about PageMaker is that its video rendering of a graphical image onto its work area is of a resolution equal to or less than the resolution of the original image. This is understandable as the highest resolutions on the popular Enhanced Graphics Adapter and the Hercules Graphics Controller are well below the 300 dpi maximum of the LaserJet printers.



When PageMaker composes a document with a graphical image, it will record the drive and directory origin of the original graphical image file. When the publication has been completed and printing is requested, PageMaker will look for the location of the original graphical files and use those as resources for composing the output. Otherwise, if PageMaker cannot find them, it will use the lower-resolution rendition of the original graphic (as seen on the video screen) as the resource for hardcopy composition.

Therefore, after you have drawn or scanned all the images you intend to import into a publication, it is a good idea to place these resources together within a particular drive and directory (e.g., C:\PMGRAPHIC) before doing any importing into PageMaker. Always leave them in the same location and have them available to PageMaker.

There is another reason why you should place and keep all the images within one location. If you open an existing publication and PageMaker cannot find the origins of a graphic used (especially if the original graphics file exceeded 64 Kbytes), PageMaker will open a window with a warning "**Cannot find <filename> in drive <original location>**". You have the option to either type in the new location of the original graphic or to tell PageMaker to ignore and proceed. Nevertheless, if the original graphics are always at the same location, the warning would never appear and one is assured of the highest resolution possible during printing.

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□

**HP Vectra PC Family:  
Accessing Extended ASCII Characters  
in Executive MemoMaker**

Sylvia Brown  
Isabel Rosenblitt

---

Applications are unique in the way they access the 128 characters that comprise the extended ASCII character set. When you use Executive MemoMaker (EMM) on an HP Vectra PC, those special characters can be accessed using the Alt key and entering the decimal value of the character on the numeric keypad.

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Hewlett-Packard computers use the Roman8 symbol set made up of the standard ASCII set plus the Roman Extension (which is a full set of European and special symbols). However, IBM uses the IBM-US symbol set. This differs from the Roman8 Symbol set in the extended characters and in the visual representation of the first thirty-two non-printable characters. To get an IBM-US extended symbol on the screen of your EMM document, you should look for the symbol in the IBM-US chart and decipher the correct decimal value to be entered in combination with the Alt key. The IBM-8 and Roman8 charts are shown below.

|   | 00 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | A0 | B0 | C0 | D0 | E0 | F0 |
|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0 |    | ▶  |    | 0  | @  | P  | `  | p  | Ç  | É  | á  |    | ı  | ı  | α  | ≡  |
| 1 | ☺  | ◀  | !  | 1  | A  | Q  | a  | q  | ü  | æ  | í  | ■  | ı  | ı  | β  | ±  |
| 2 | ☹  | ↑  | "  | 2  | B  | R  | b  | r  | é  | Æ  | ó  | ■  | ı  | ı  | Γ  | ≥  |
| 3 | ♥  | !! | #  | 3  | C  | S  | c  | s  | â  | ô  | ú  |    | ı  | ı  | π  | ≤  |
| 4 | ♦  | ¶  | \$ | 4  | D  | T  | d  | t  | ä  | ö  | ñ  |    | -  | ı  | Σ  | ı  |
| 5 | ♣  | §  | %  | 5  | E  | U  | e  | u  | à  | ò  | Ñ  |    | ı  | ı  | σ  | ı  |
| 6 | ♠  | -  | &  | 6  | F  | V  | f  | v  | á  | û  | a  | ı  | ı  | ı  | μ  | ı  |
| 7 | •  | ‡  | ´  | 7  | G  | W  | g  | w  | ç  | ù  | o  | ı  | ı  | ı  | τ  | ≈  |
| 8 | ■  | ↑  | (  | 8  | H  | X  | h  | x  | è  | ÿ  | ı  | ı  | ı  | ı  | Φ  | °  |
| 9 | ○  | ↓  | )  | 9  | I  | Y  | i  | y  | ë  | Ö  | ı  | ı  | ı  | ı  | Θ  | •  |
| A | ■  | →  | *  | :  | J  | Z  | j  | z  | è  | Ü  | ı  | ı  | ı  | ı  | Ω  | ·  |
| B | ♂  | ←  | +  | ;  | K  | [  | k  | {  | ı  | ı  | ı  | ı  | ı  | ı  | δ  | √  |
| C | ♀  |    | ,  | <  | L  | \  | l  |    | ı  | ı  | ı  | ı  | ı  | ı  | ∞  | n  |
| D | ♪  | ↔  | -  | =  | M  | ]  | m  | }  | ı  | ı  | ı  | ı  | ı  | ı  | φ  | 2  |
| E | ♫  | ▲  | .  | >  | N  | ^  | n  | ~  | ı  | ı  | ı  | ı  | ı  | ı  | ε  | ı  |
| F | ✳  | ▼  | /  | ?  | O  | _  | o  | ı  | ı  | ı  | ı  | ı  | ı  | ı  | ı  | ı  |

IBM-8

|   | 00 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | A0 | B0 | C0 | D0 | E0 | F0 |
|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 0 |    |    |    | 0  | @  | P  | `  | p  |    |    |    | -  | â  | À  | Á  | ƒ  |
| 1 |    |    | !  | 1  | A  | Q  | a  | q  |    |    | À  | Ý  | ê  | î  | Â  | ƒ  |
| 2 |    |    | "  | 2  | B  | R  | b  | r  |    |    | Â  | ý  | ô  | ø  | ã  | •  |
| 3 |    |    | #  | 3  | C  | S  | c  | s  |    |    | Ê  | °  | û  | Æ  | Đ  | μ  |
| 4 |    |    | \$ | 4  | D  | T  | d  | t  |    |    | Ê  | Ç  | á  | à  | ð  | ¶  |
| 5 |    |    | %  | 5  | E  | U  | e  | u  |    |    | Ë  | ç  | é  | í  | Í  | ¾  |
| 6 |    |    | &  | 6  | F  | V  | f  | v  |    |    | Ë  | Ñ  | ó  | ø  | Ì  | -  |
| 7 |    |    | ´  | 7  | G  | W  | g  | w  |    |    | Ë  | ñ  | ú  | æ  | Ó  | ¼  |
| 8 |    |    | (  | 8  | H  | X  | h  | x  |    |    | ı  | ı  | à  | Ä  | Ö  | ½  |
| 9 |    |    | )  | 9  | I  | Y  | i  | y  |    |    | ı  | ı  | è  | ì  | Õ  | a  |
| A |    |    | *  | :  | J  | Z  | j  | z  |    |    | ı  | ı  | ò  | Ö  | õ  | °  |
| B |    |    | +  | ;  | K  | [  | k  | {  |    |    | ı  | ı  | ù  | Ü  | Š  | «  |
| C |    |    | ,  | <  | L  | \  | l  |    |    |    | ı  | ı  | ä  | É  | š  | ▪  |
| D |    |    | -  | =  | M  | ]  | m  | }  |    |    | ı  | ı  | ë  | ï  | Û  | »  |
| E |    |    | .  | >  | N  | ^  | n  | ~  |    |    | ı  | ı  | ö  | ö  | ÿ  | ±  |
| F |    |    | /  | ?  | O  | _  | o  | ı  |    |    | ı  | ı  | ü  | Û  | ÿ  | ı  |

Roman-8

**How to read the chart:** First locate the desired symbol. Follow its column up to the top row which contains the column headers (00 through F0). Write down the header of the column. Next, follow the row of the symbol to the column at the far left, which contains the row labels (0 through F). Write down the label of that row. Add the column header and the row label. This gives the hexadecimal representation of the value of the desired character. This value needs to be converted to decimal before it can be used with the Alt key in EMM.

**How to convert hexadecimal values to decimal:** The hexadecimal system is base 16. This means that 16 units must be represented uniquely. The digits 0 through 9 serve for the first 10 units, and A, B, C, D, E, and F have been chosen to represent units 10 through 15. Thus A is the hexadecimal representation of the decimal value 10, and F is the representation of 15. To get the English pound sign (£), for example, check the IBM-US chart and you will find that this symbol is in column 90 and row C. Adding these together you get 9C.

To convert this hex number to decimal, the character on the right (C) is converted (12); then the character on the left (9) is converted (9) and multiplied by 16, yielding 144 (decimal value). Next add the 144 and the 12 to get 156. This is the value to be used in combination with the Alt key to get EMM to show an English pound sign on the screen.

---

**Accessible Characters**

The following list, taken from the IBM character set, contains the extended characters and their decimal values:

| <u>Decimal Value</u> | <u>Character</u> |
|----------------------|------------------|
| 128                  | Ç                |
| 129                  | ù                |
| 130                  | é                |
| 131                  | â                |
| 132                  | ä                |
| 133                  | à                |
| 134                  | á                |
| 135                  | ç                |
| 136                  | ê                |
| 137                  | ë                |
| 138                  | è                |
| 139                  | ì                |
| 140                  | î                |
| 141                  | ï                |
| 142                  | À                |
| 143                  | Á                |
| 144                  | Ê                |
| 145                  | æ                |
| 146                  | Æ                |
| 147                  | ò                |
| 148                  | ö                |
| 149                  | ó                |
| 150                  | û                |
| 151                  | ù                |
| 152                  | ÿ                |
| 153                  | Ö                |
| 154                  | Ü                |
| 155                  | ¢                |
| 156                  | £                |
| 157                  | ¥                |
| 158                  | ƒ                |
| 159                  | á                |
| 160                  | í                |
| 161                  | ó                |
| 162                  | ú                |
| 163                  | ñ                |
| 164                  | Ñ                |
| 165                  | ª                |
| 166                  | ¸                |
| 167                  | ¿                |
| 168                  | ¿                |
| 171                  | ½                |
| 172                  | ¼                |
| 173                  | ¡                |
| 174                  | «                |
| 175                  | »                |
| 225                  | β                |
| 241                  | ±                |

Note: Not all of the extended characters can be accessed. If you attempt to access one that is not accessible, an asterisk will appear on the screen instead of the character.

---

**Printing**

To print memos containing extended characters, the character set specified for the printer in the Device ID program must correspond to the symbol set selected on the printer, or the character which prints may not be the one that appears on the screen. This discrepancy occurs because the character set selected in DEVICEID determines what is sent to the printer. For example, <Alt> 156 displays the English pound sign (£) on the screen, but if the Roman8 character set is specified in Device ID and the IBM-8 symbol set is selected on the printer, the box drawing character will print instead of the English pound sign.

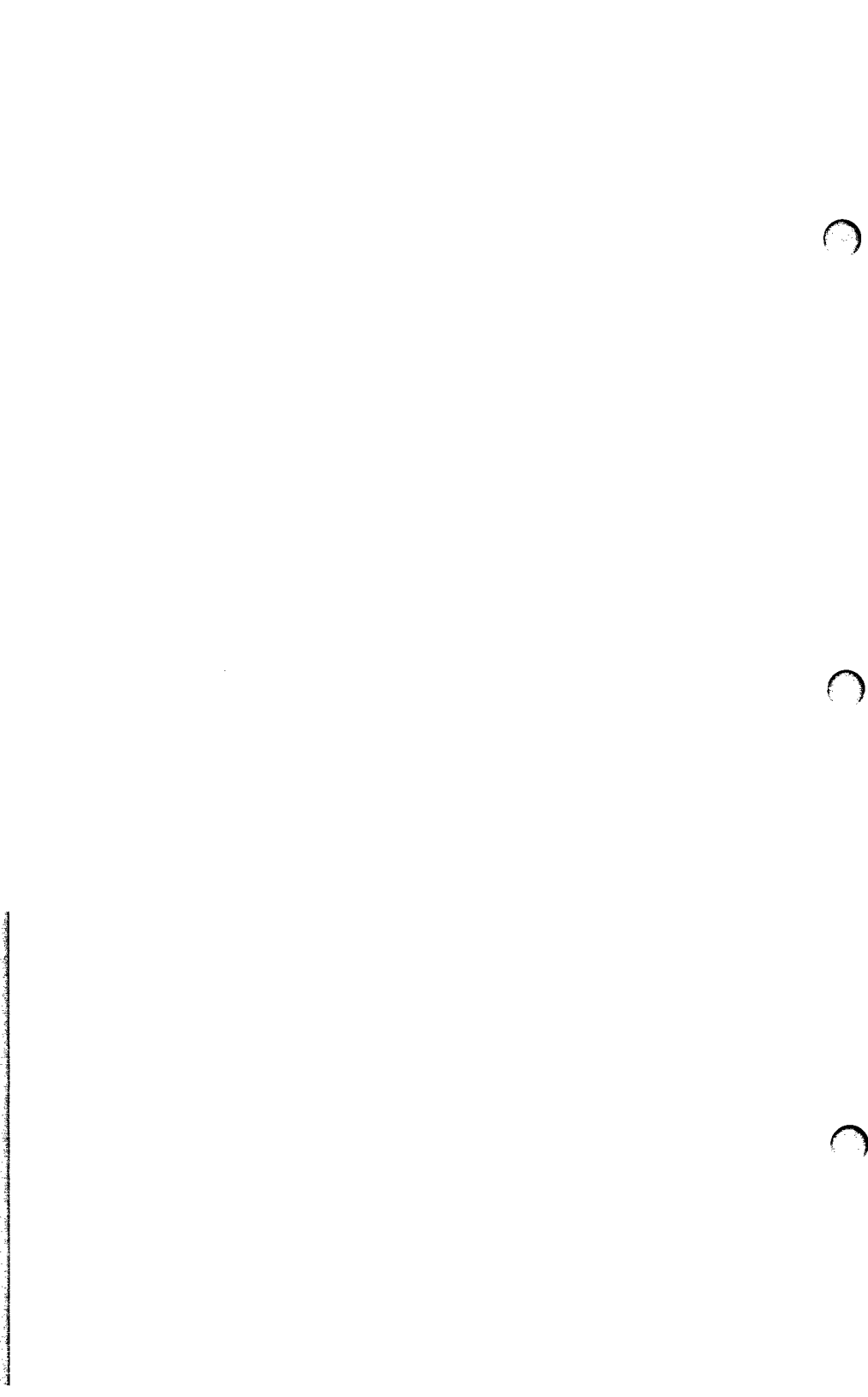
---

**Symbol Set Translations**

EMM will "see" an extended character entered via the keyboard and will immediately translate it to that same character's decimal representation in the Roman8 symbol set. Thus, if you were to look at a memo stored on your disc using a debugger such as debug.com, you would see the Roman8 decimal representation of the extended ASCII characters you entered. When it comes time to print a memo, EMM "knows" that characters are stored in the Roman8 representation and looks at the character set specified in the Device ID program and invokes a "translator" if needed.

For example, say the character set specified in Device ID is IBM-8. You enter an English pound sign into your memo using the Alt key and the decimal value 156 on the numeric keypad. This will be stored in memory and on disc (when the memo is saved) as a decimal 187. You may want to check in the Roman8 symbol table that this is an English pound sign. When EMM goes to print this memo it will see that the selected character set in Device ID is IBM-8, and as it sends characters to the printer it will translate the 187 back to a 156 before sending it out.





*Note: The EMM/DCA converter is a standalone utility which comes with Executive MemoMaker (EMM) version A.03.00 and above.*

Since introducing the EMM/DCA converter several months ago, most of the questions we have received are concentrated around justified text. (Justified text is where the spacing between words has been adjusted so each line is the same length and the right margin is even.) Therefore, the following information may be helpful in getting your EMM text converted correctly.

- To make sure a justified block of text at the very beginning of your EMM document is converted as justified, insert a blank line before the justified block.
- When you convert an EMM document created using word wrap, and the first two lines of text happen to have the same right and left margins, the EMM/DCA Converter will convert the text as justified. The easiest way to get around this is to make the first two lines of that block of text in EMM uneven in length.
- When you convert blocks of justified text in an EMM document, lines ending with a period will appear one character longer. A way to get around this is to go into your EMM document and make any physical line that ends with a period one character shorter before converting.

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Are you aware that with Release 2.01 of Lotus 1-2-3 you now have the capability of putting passwords on worksheets?

To create a password:

1. Save your spreadsheet with the command / **File Save**.
2. Type the filename.
3. Press the spacebar.
4. Type **P** and press Return.
5. 1-2-3 then prompts you for the password and a confirmation.

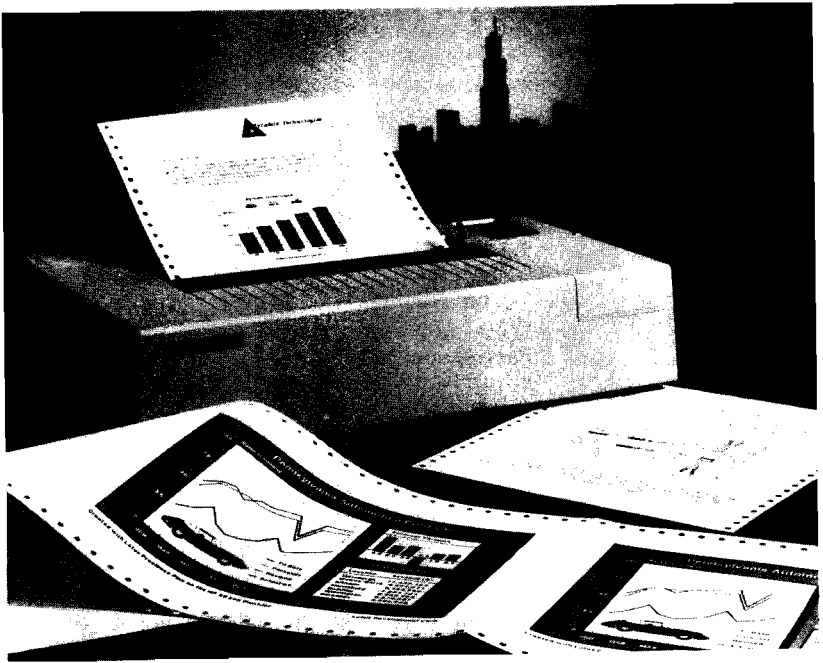
When you retrieve this worksheet again, you will have to specify the correct password. Passwords in 1-2-3 are case sensitive, so upper and lowercase characters are significant. When you save the worksheet again, you will not be asked for the password, but 1-2-3 tells you that the file will be protected.

**Caution:** Once a worksheet has a password associated with it, you can only retrieve it by entering the correct password. If you forget the password, there is no way to recover your file.

To remove a password from a file, follow the steps above. When prompted to enter a password, press Return or Backspace. You may also change an existing password on any file in the same way.

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If WordStar 2000 is your favorite word processor and you have been wondering how to access colored text from your HP PaintJet printer, here is a simple solution.

There is no printer driver specially for the PaintJet in WordStar 2000 Rel 2.00. What you have to do is use a printer driver for a printer similar to the PaintJet, and add in the extra color feature. Then you will be able to access the various colors available on a PaintJet from the Print-eXtra menu (Control P X) directly by name.

This is how it is done:

- Run the WordStar 2000 installation program WS2INS.EXE.
- Answer the questions regarding your monitor and hard disc.
- Choose the HP ThinkJet in HP mode (option F on page 5 of the Printers menu) as your printer, this being the printer closest in features to the PaintJet.
- Name the printer driver file as "PaintJet."
- From the Quit Installation Menu choose option E (change settings).
- Choose option K (Reprogram Print eXtra command). This is where you add the escape sequences for the colors.
- WordStar 2000 asks you the name of the driver you want to alter. Type in "PaintJet."
- WordStar 2000 shows a list of eight reprogrammable commands, currently named A-H. You want to change these to represent the following colors—black, red, green, yellow, blue, magenta and cyan.
- Choose to reprogram command A. When prompted for a new name, enter "black." Next enter the escape sequence to access black color text carefully. This is `^I$^v0S` (up caret, open square bracket, ampersand, small v, zero, capital S). Then choose option A (no width) to indicate that this is a non-printing feature.
- Program the remaining colors similarly. Use Table 1 below to find the correct escape sequence for each color.
- Exit from the Reprogram Print eXtra Menu.
- Exit from the Modifications Menu (option X).
- Choose option A to save the altered driver and exit.

- Now when you are in WordStar 2000, you can access the various colors from the Print eXtra menu. This new PaintJet driver will also allow you to access other PaintJet functions like bold and underline in the normal way. The use of letter gothic fonts is not possible since the ThinkJet has no font of a similar size.

Table 1. Escape Sequences to Use With WordStar 2000.

| <u>Color</u> | <u>Sequence</u> |
|--------------|-----------------|
| Black        | ^[&v0S          |
| Red          | ^[&v1S          |
| Green        | ^[&v2S          |
| Yellow       | ^[&v3S          |
| Blue         | ^[&v4S          |
| Magenta      | ^[&v5S          |
| Cyan         | ^[&v6S          |

Reference: *HP PaintJet Color Graphics Printer User's Guide*, page A-2.

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Are you experiencing unusual results when accessing data in an R:BASE database? For example, "SELECT custname city from custdb, where city = Boston" returns a city column of more than Boston:

| <u>custname</u> | <u>city</u> |
|-----------------|-------------|
| Jones           | Boston      |
| Finnegan        | Boston      |
| Watts           | Denver      |
| Adams           | Boston      |

If so, try packing your data. To enter the PACK command, use the following syntax at the R> prompt: **PACK databasename**. If no database name is defined, R:BASE packs the database currently open. (Prior to using the PACK command, make a backup copy of your database.) If the process is interrupted for some reason, you will need to use your backup copy and start again.

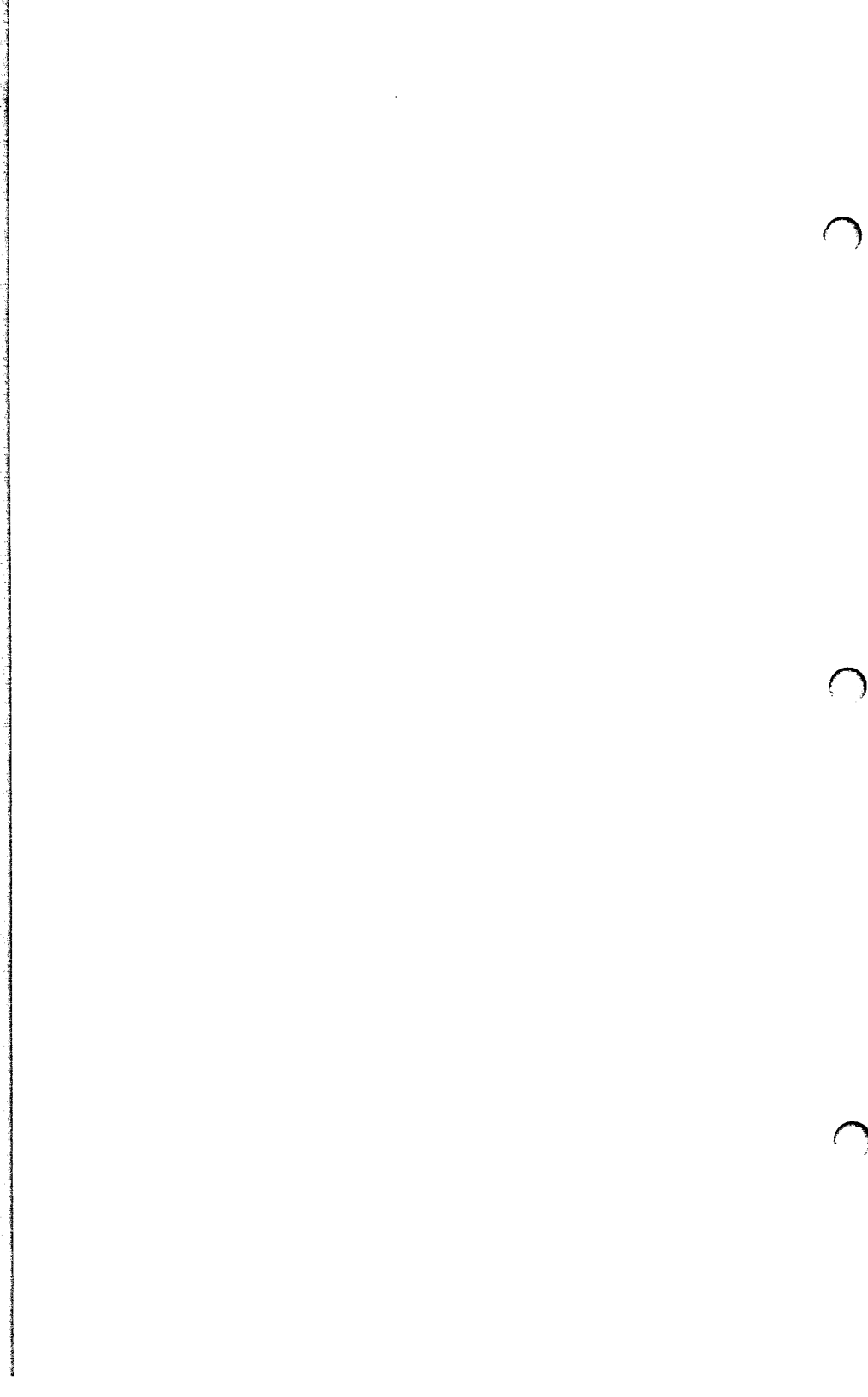
When entries are deleted in R:BASE, previously occupied space is not totally free. R:BASE only flags entries as deleted. Over time, if a lot of entries have been deleted, the record pointers in R:BASE can allow entries flagged as deleted to be displayed to the user. Large databases or databases that have been in use for a long time are especially prone to this problem.

The PACK command does the following:

1. Runs down the B-tree structure, identifying flagged deleted entries and reconfiguring the pointers.
2. Compacts the data.
3. Rebuilds the index file.

The net result is that the database is reorganized and previously unuseable disc space is freed. Discussion concerning the PACK command can be found on pages 5-25 of the R:BASE user's manual (Version 1.01).

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Do you sometimes need an almost duplicate set of Executive Card Manager (ECM) cards? ECM has a feature called Copy Cardfile under Cardfile Tasks. One of the formats of Copy Cardfile is called BASIC format and is the default. With the BASIC format, you can quickly create duplicate cards. Below is a sample card layout and an explanation of the BASIC format.

### Sample ECM card layout

---

lastname: xxxxxxxxxxxxxxxxxxxxxxxx firstname: xxxxxxxxxxxxxxxxxxxx  
address: xxxxxxxxxxxxxxxxxxxx city: xxxxxxxxxxxx st: xx zip: xxxxx

---

(xxxxxx is an ECM data field)

The BASIC file puts double quotes around each field and separates each field with a comma. If this cardfile were transferred out then the resultant BASIC file might look like this:

"Hassell", "Bill", "321 E. Evelyn", "Mtn. View", "CA", "95050"  
"Franklin", "Alfred E.", "XYZ magazine", "New York", "NY", "10001"  
"Dummy", "Mr. D.", " ", " ", " ", " "

So, in the BASIC file each field has a double quote pair plus a comma between multiple fields. All-blank fields (the Dummy example) have just two adjacent quotes.

Following the above format, you can use MemoMaker or TDP or EDIT/1000 or any simple text editor to create additional records for your ECM file.

Use the record-duplicate command in your favorite editor, make the changes as needed, download the file (if you are using a different computer editor), and then Transfer In the resultant file. The Transfer In will add these cards to the existing file.



Rules to remember:

- Always have the same number of quote-pairs and commas for every record. It must match the ECM card layout.
- Blank fields can just be two double quotes (" ")
- Backup your existing cardfile to a flexible disc before experimenting. That way, if an error occurs, you can just replace the file rather than finding and deleting the bad records.
- Data that is too long for the ECM record will be truncated, while shorter data will be space-filled on the right.

Note: You can use Reorder Fields in ECM for rearranging the fields or supplying just a few of the fields. Check out the ECM manual for information on this feature.

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AdvanceMail is a PC front-end to HP DeskManager. It allows you to exchange electronic mail and PC files with other users connected to HP DeskManager. You can create and edit messages, distribution lists, or work in your local filing cabinet. When you are ready to receive or mail messages, you may either open the mailroom and work interactively with HP DeskManager, or have AdvanceMail do a batch transfer.

When you are downloading your messages, AdvanceMail has a feature (Message Filter) that allows you to select what messages you want to receive and what to do with them when selected.

AdvanceMail Message Filters can be selected by:

- Subject
- Sender
- Urgent
- Private
- New
- To

You could, if you wished, choose only to receive Private, Urgent messages from the Sender, John Doe, with Subjects containing the word "gubernatorial."

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Once filtered messages are selected, you could have AdvanceMail:

- Transfer them to your local In Tray.
- Delete them from your HP Desk In Tray (the "mailroom").
- Print them on your HP 3000 system printer.
- Print them on your local printer.
- File them in a local Filing Cabinet folder.

You can choose to have AdvanceMail do one or all of these things.

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You create message filters in the Message Filters menu of the Mailroom area. To create several filters:

1. Specify the items to select on (for example, message sender).
2. Specify what is to be done with selected messages (for example, print them).
3. Name the filter and Save it.
4. Choose Start Over and go back to step 1; if you don't Start Over, AdvanceMail will write over the last one you created.

When you create filters, they are automatically activated for all your AdvanceMail sessions until you deactivate them. Please note that the order in which activated filters are shown is important. AdvanceMail will compare each incoming message to the filters in the order they are shown and stop comparing when it finds a match. To reorder your filters, choose Reorder and:

- Highlight the filter to be moved
- Choose Move
- Move the filter to its new location

---

## Practice

Here are some exercises you can do with filters to help you understand how AdvanceMail works in comparing and finding a match.

As an example of how to use filters, let's say you wanted to:

- Download all messages from your manager to your local In Tray and file them in a local Filing Cabinet folder (called CYA).
- Print all messages with a Subject containing the word "Newsletter" on your HP 3000 system printer.

- Download any other messages to your local In Tray.
- Delete all messages from the HP Desk mailroom so they do not accumulate there.

To accomplish this, create these filters, in this order:

1. Filter Name: NEWSLETTERS  
Select Messages on:  
Subject: newsletter  
New: YES  
When Selected then:  
Delete: YES Print: HP 3000
2. Filter Name: MANAGER  
Select Messages on:  
Sender: Bob Young  
New: YES  
When Selected then:  
Transfer to In Tray: YES Delete: YES  
File in Folder: CYA
3. Filter Name: MISC  
Select Messages on:  
New: YES  
When Selected then:  
Transfer to In Tray: YES Delete: YES

Any field not specified in these filter definitions takes on the default value of NO or DON'T CARE.

What would happen if you activated them in a different order?

If MISC was first, all new mail would be downloaded, and AdvanceMail would never check if any of the messages were newsletters or from your manager. If MANAGER was listed before NEWSLETTER, then you might download and file newsletters your manager forwards to you.





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**Battery Type and  
Characteristics**

There are two basic types of batteries used in portable computers today: ni-cad, and lead acid. Hewlett-Packard has chosen a lead acid battery for use in the HP Vectra Portable CS. While each type of battery has inherent advantages and disadvantages, a major advantage of lead acid batteries is that they do not develop "memory."

A memory problem occurs in ni-cad batteries when the battery has not discharged fully, and is recharged. Let's say your battery is 50 percent discharged, then fully charged. This only needs to happen a few times, and the ni-cad "remembers" 50 percent as all that can be discharged, therefore, you have effectively cut the maximum battery use in half, say from four, to two hours.

With a lead acid battery there is no memory problem. But be sure not to "deep discharge" the battery, as lead acid batteries do not tolerate this, and can be damaged by it. The best procedure is to use the Vectra Portable CS on battery power for whatever length of time you need, but be sure to connect the charger as soon as the unit indicates a "low battery" condition. If you only use the unit for a short period of time, simply connect the charger at your earliest convenience.

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**Optimizing Battery  
Usage**

The question "How many hours can I use my portable on battery power?" cannot be given a specific answer because there are simply too many variables. When you read a specification for battery usage, take it as a generality. The two main drains on battery power are mechanical (that is, disc drive usage), and memory (that is, computation in RAM). Of the two, mechanical usage drains the battery at a far faster rate. Therefore, if you use a program that is "disc-intensive," such as WordStar, the battery will need charging sooner than if you use a program that is "RAM-intensive," such as Lotus 1-2-3. One way to discover if your program will tend to be disc-intensive is to look at the program files. Files that have the extension .OVL are overlay files which the program needs to access continually from the disc, and load into memory. This constant disc access will shorten the time you can use the computer before you must recharge the battery.

Obviously, if you choose programs that initially load most of the needed files into memory, your system will access memory rather than the disc, and your computing time on the battery will be lengthened. A good example of this type of program is "Word Perfect Executive." This integrated program incorporates word processing, a spreadsheet, calendar, calculator, and other utilities, and fits entirely on a single 720 Kbyte 3½-inch disc (ideal for the dual-flexible version of the Vectra Portable CS).

There is a way to make any program totally memory intensive, and therefore maximize battery usage. It is one of the options available for the Vectra Portable CS, a "dual serial/EMS board." By installing this board with two megabytes of memory, you can use part of the memory (say, one megabyte) as a large RAM Disc.

Then, write a simple batch file which will 1) copy all program files to the RAM disc, 2) move control to the RAM disc, and 3) run the program from the RAM disc. Using the example of WordStar, and assuming you keep all necessary files in a subdirectory named CAWS, your batch file might look like this:

```
CD\WS      Change to the WordStar Directory
COPY *.* D: Copy all files to RAM
D:          Move control to the RAM Disc
WS         Begin WordStar
```

Note: So the RAM disc will be initialized each time the computer is started, you must have the appropriate line in your CONFIG.SYS file—read about setting a portion of the memory as a RAM disc in the documentation that came with the board.

By using this method you will optimize battery usage, and, incidentally, you should see a marked increase in the speed at which your program operates.

However, if you save any data files on the RAM disc, be absolutely sure you copy them to either a flexible or hard disc before you turn off the machine, or they will be lost. A good rule of thumb is to never have any more data (which is not copied on another disc) in RAM than you are willing to re-create, as any interruption to the power will cause the loss of all data in RAM.

### Naming Conventions

At first glance downloadable/soft fonts seem to have unintelligible file names. But in reality they do follow a file naming convention. The file names have the format **TTpppSpp.SSP**, where:

TT = typeface: For example, HV-Helv  
TR-TmsRmn

ppp = point size: For example, 120-12 point  
095-9.5 point

S = style/weight: R-regular      K-black  
  B-bold                            G-black italic  
  I-italic                         J-bold italic

pp = abbreviated pitch: i.e. 16-16.66 pitch  
PN-medium width proportional  
PC-compressed width proportional  
PX-expanded width proportional

SS = symbol set: For example, US-USASCII  
R8-Roman8

P = page orientation: P-portrait  
L-landscape

As an example, let us take the file name TR120BPN.USP. This file contains the data needed to generate the TmsRmn-USASCII proportional font in 12 point bold print in the portrait orientation. We can tell this by taking apart the file name:

TR = TmsRmn typeface

120 = 12.0 point size

B = bold style/weight

PN = medium width proportional pitch

US = USASCII symbol set

P = portrait page orientation

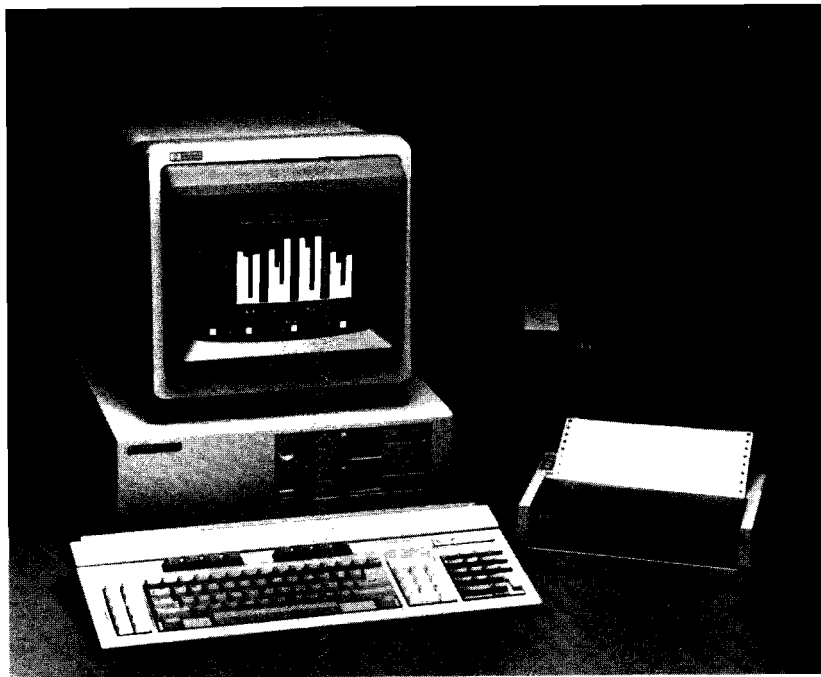
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Soft fonts are distributed on flexible discs—HP 150 discs or 5¼-inch HP Vectra (IBM-compatible MS-DOS) PC discs. Sample output of the fonts and their point sizes can be found in the *HP DIRECT Supplies and Accessories Flyer* (HP 5956-4252). It is available from HP DIRECT (see "How to Order" in the green pages of this issue).

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One night the manager of a firm, who was computer literate, desired to review some files on the personal computer. But, since someone had changed the control codes, nothing could be done. Work which could have been completed that evening had to wait until the next day, causing unnecessary delays, lost time and expenses. This problem (and others) can be avoided if you maintain a security manual for your computer.

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The manual can have various levels depending on the complexity of the information and systems maintained in the office.

A compressed example of a manual is shown below. It is a rudimentary suggestion on what information should be included. The more information and instructional steps included, the safer you are in assuring that the information will be obtainable either by yourself or by temporary help that is called into the office. The same type of manual should exist for personal computers in your home, so that in case of incapacitation of the user, other members of the family will be able to access necessary information.

#### **Computer Security Manual**

**Make:** Hewlett-Packard Model: 150A

**Serial Number:** H334-B-7890

**Location of Operating Discs:** Second drawer of computer desk, in a plastic container.

**Location of Software:** Third drawer of computer desk, in a plastic container.

**Location of Manuals for Computers, Printers, Software:** Top file drawer next to computer.

**Software Packages:** List various software packages including versions and updates.

**Location of Data Discs:** All data discs are located in locked file cabinet next to computer desk, file drawer labeled "files." All discs are labeled, and disc containers are separated into letters, forms, active files, etc.

**Operation of Computer:** Place boot up disc in drive A and turn on computer. Once MS-DOS is loaded, place operation program in drive A and data disc in drive B. (Also give step by step instructions, which should be numbered and very basic, to list how to start various programs and call up files).

**Operation of Printer:** (Information in this area would be how to print files.)

**Guidelines:** A guidelines section can be used for stating password policy and guidelines such as "don't change any control codes without entering that information in the manual." A periodic check should be made to insure that the operators of the machines are maintaining guidelines.

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The HP NewWave environment is built on top of Microsoft Windows, which is built on top of the "C" language. To develop applications for HP NewWave, you will need a solid understanding not only of HP NewWave and MS Windows, but of Microsoft C as well.

Kernighan and Richie, the creators of C, said, "C is a general-purpose programming language which features economy of expression, modern control flow and data structures and a rich set of operators."

Sort of a structured assembly language, C is a very powerful language that to the uninitiated can look overwhelmingly complex. It's not, once you learn how to "speak" it. But, how can you learn C?

There are a number of ways:

- HP customer classes
- Local college classes
- Microsoft University classes
- Videotape classes
- Computer-based training
- Various books

One note of caution before you launch into this:

If you haven't done any programming in a structured (for example, Pascal, Algol) or low-level (that is, Assembly) language, you should probably start your studies there. Understanding the general concepts of programming is an essential prerequisite to learning C.

Also note that the C compiler used for MS Windows and HP NewWave programming is the Microsoft C compiler, version 5.0; although you can use an inexpensive substitute C compiler with which to learn, you will need to have a Microsoft-compatible compiler to write programs for HP NewWave.

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■ **HP Customer Classes:**

HP sales offices offer the "C Programming Class" to customers. For more information about the classes available in the U.S., call 1-800-2HP-EDUC.

■ **Local College Classes**

Most U.S. Colleges offer evening computer classes. Write to a school near you for a list of available courses.

### ■ Microsoft University Classes

Microsoft's training group, Microsoft University, offers a C programming course either in Bellevue, Washington or at one of their extension sites on the East Coast (U.S.). The five day course costs \$800 and is generally offered once a month. For more information, write to Microsoft University, Box 97017, Redmond, WA 98073-9717, or call the University Registrar at (206) 882-8080.

### ■ Videotape Classes

AT&T offers several videotaped UNIX courses you can buy or lease. Each course includes video tapes, workbooks and a telephone support line. With the purchase of a course, you receive six weeks free support; with a leased course, free support lasts as long as your lease. The course "C Language for Programmers" consists of twelve twenty- to thirty-minute tapes, and costs \$2100, or \$300 a month leased. Although designed for programmers working in a UNIX environment, the course appears to cover "generic" C, and would be a good base before learning the specifics of Microsoft C. The videotapes are available in several domestic and international formats, including BETA, VHS and PAL.

For more information, contact the Client Training Product Manager, Harman Feig, at (201) 898-6488 or (800) 247-1212 x1001 (U.S.). Ask him to send you more information and their twenty-minute Executive Summary tape. If you wish to write to him instead, the address is AT&T Video Tape Library, P.O. Box 1000, Hopewell, NJ 08525.

### ■ Computer Based Training

For those of you who are self-motivated, there is a good, inexpensive computer based C training course available from a company called Wordcraft in Oakland, CA. The course, "The C Workshop" by Charles Pine, was quoted in *Computer Currents* (August 25, 1987) as a "complete introduction to the C programming language that is easy to understand and absorb ... It includes a set of two discs that provide live training to go along with the instructions and programming exercises. The disc comes with a C compiler that takes C sources and produces executable programs ... This is perhaps the best thought out computer based training program you will see for quite a while."

To order it, just call Wordcraft at (800) 227-2400 ext. 955 (U.S.) (day or night), and have your Visa/MasterCard/AMEX card ready. The cost is \$69.99. For more information, write to them at 3827 Penniman Ave., Oakland, CA 94619.

■ Various Books

There are myriad books available on C. Here's a quick list of books on C and on Windows that we recommend and some comments about each one:

Title

*The C Programming Language*  
Kernighan and Ritchie  
Prentice-Hall, 1978

*C Made Easy*  
Herbert Schildt  
Osborne McGraw-Hill, 1985

*C Primer Plus*  
Waite, Prata and Martin  
Howard W. Sams & Co., 1987

*From Pascal To C*  
Brown  
Wadsworth Publishing  
Co., 1985

*Programmer's Guide to Windows*  
Durant, Carlson and Yao  
Sybex Inc., 1987

*Programming with Windows*  
Tim Farrell  
Que Corp., 1987

Audience/Purpose

This classic book by the authors of C is a great reference, but not a book from which to learn.

This easy-to-read book has some good sample programs from which to learn. It's a gentle introduction to C, but don't expect to become an expert from it.

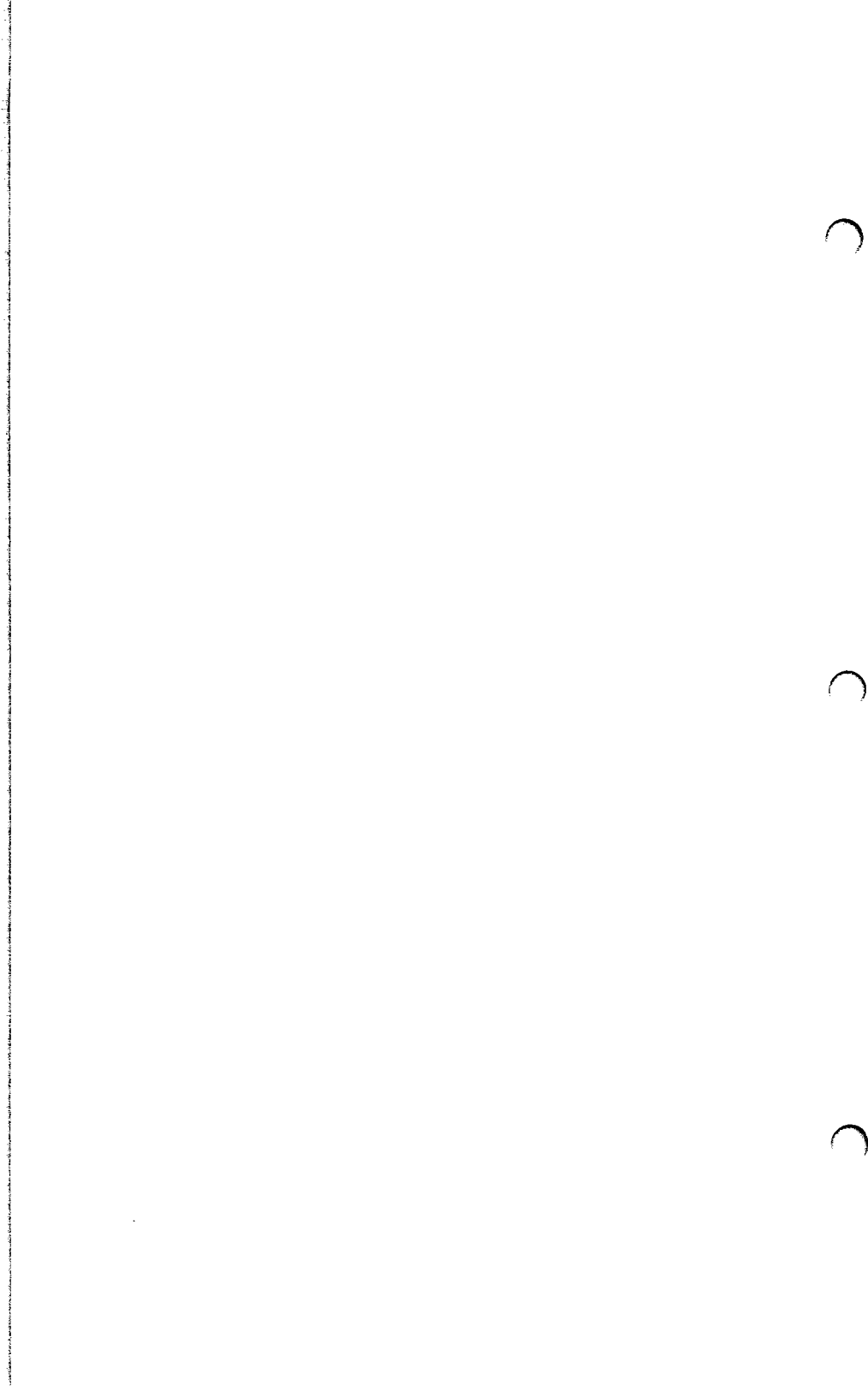
Another easy-to-read book that takes a rather folksy approach to learning C. Great illustrations.

The book for programmers making the transition from Pascal to C.

Not for learning C, but Windows. If you plan on doing any NewWave/Windows programming, then buy this book. Based on Windows 1.03, but still the best book for learning Windows.

Based on Windows 2.0. Also a good book for learning Windows.





Two new features for 1-2-3 Release 2.01, Lotus Speedup and Lotus Learn, are now included in all 1-2-3 Release 2.01 packages. Speedup and Learn is also offered at little or no cost to registered users of 1-2-3.

Speedup allows 1-2-3 users to recalculate only cells whose values have changed since the last recalculation. When updating large spreadsheets containing formulas, this can save a considerable amount of time.

Learn provides an automatic keystroke recorder that makes it easier to create 1-2-3 macros. New users, or those using the 1-2-3 macro facility for the first time, will no longer need to learn the macro language to generate simple spreadsheet macros.

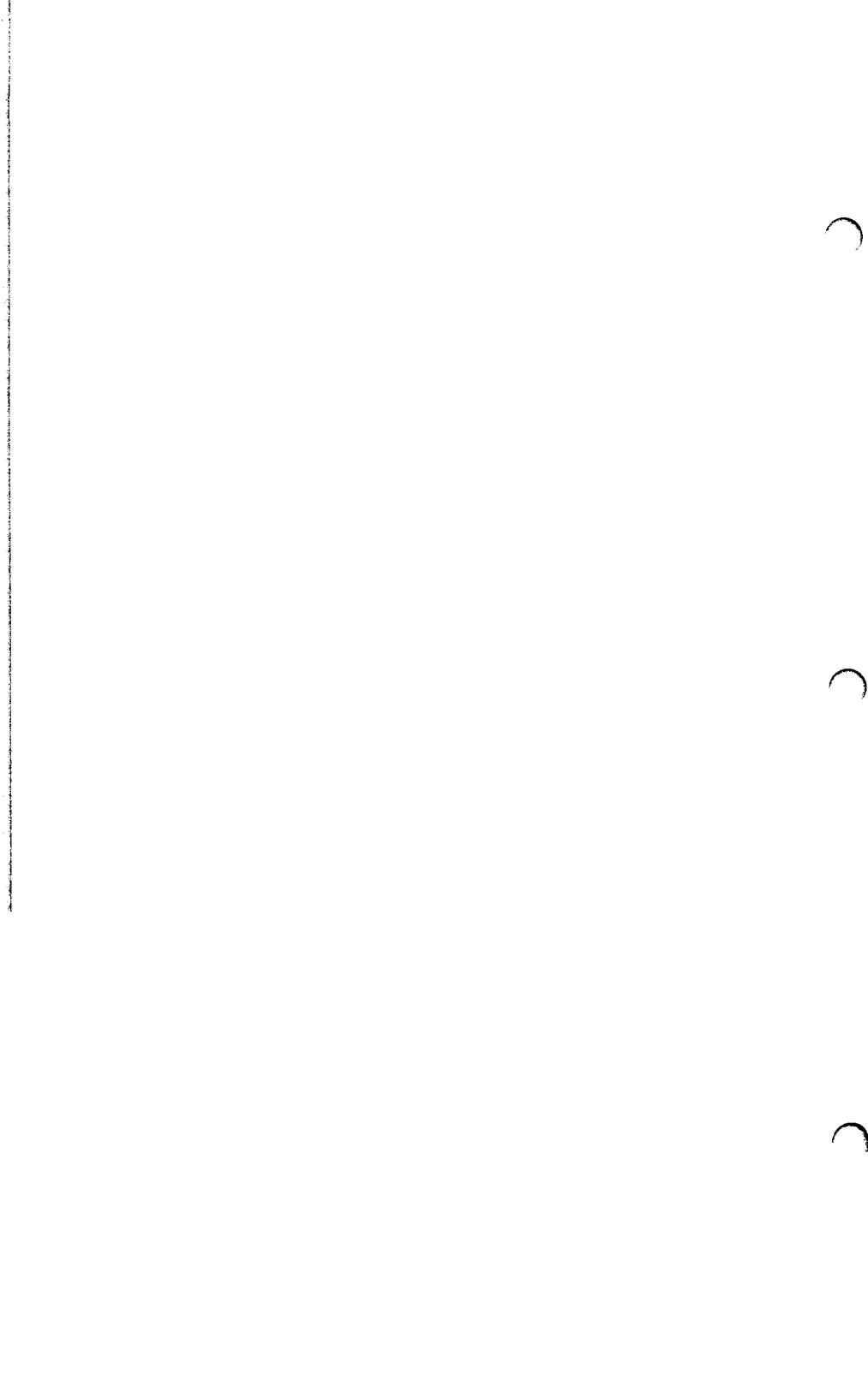
Both Speedup and Learn are available on 5¼- or 3½-inch discs and are not copy protected. Lotus offers the features and documentation to current 1-2-3 Release 2.01 users for a \$20 shipping and handling charge. All prices and terms are for North America only. Speedup and Learn will also be available through Lotus-authorized dealers for a limited time at no charge. The products will also be available through the World of Lotus on CompuServe, free of charge.

For more information about ordering Speedup and Learn, call (617) 623-6572 in the U.S.

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The Cooperative Services product is a third generation application development tool for software developers. It was designed to help in the creation of effective end-user transaction processing applications that integrate PCs and the HP 3000 in distributed data processing and office automation environments. Programs that use the Cooperative Services software are developed and executed on PCs. With this product, HP offers a tool to make it easy to develop "co-processing" applications that run on personal computers and access information that resides on the HP 3000 system.

Software designers now have the freedom to develop applications using high-level PC languages, and have the power to call Cooperative Services routines to perform file and data base access and call remote procedures. Therefore, the result of their application design efforts are customized packages uniquely tailored to user needs.

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The Cooperative Services library will allow applications running on PCs attached to HP 3000s to access TurboIMAGE data bases and MPE files in much the same manner as if the application were running directly on the HP 3000 system. It will also allow applications to access user-defined and user-written procedures residing in an SL on the HP 3000.

Programmers will have access to IMAGE intrinsics on the PC, certain remote MPE intrinsics and a remote procedure call intrinsic. The remote procedure call intrinsic will allow the application to execute procedures on the HP 3000 which are not part of the Cooperative Services software.

Additionally, language-dependent data type conversion routines are provided to take care of the internal representation differences between the PC and the HP 3000 data storage formats.

With the Cooperative Services product, the data base and/or file information can be secured and maintained on the HP 3000 or on the PC, providing a very flexible processing environment. The developer can create an application that runs with the PC connected to the HP 3000 at all times or an application disconnected from the HP 3000, connecting periodically to upload/download data to the PC.

A server process is provided on the HP 3000 for each PC requiring TurboIMAGE access, remote file access, or program-to-program communication. This server receives requests from the PC, maps the requests to TurboIMAGE intrinsics, MPE access intrinsics, or appropriate procedure calls, executes the intrinsics and procedures, and passes data and status information back to the requesting PC.

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## Product Features

- **Datacom**—basic serial support includes hardwired RS-232 and RS-422 links, asynchronous RS-232 modem connections and X.25 connections. The X.25 connections include Stat Mux 2334 configuration to an ATP, PAD 2334 configuration to an INP and Public Network connection.  
OfficeShare support includes ThinLAN, StarLAN and HP SERIAL Networks.
- **Connection and Session Management Support**—establishes a connection to an HP 3000, initiates a session, terminates the session and disconnects from the HP 3000.
- **TurboIMAGE Intrinsic Support**—includes DBBEGIN, DBCLOSE, DBCONTROL, DBDELETE, DBEND, DBERROR, DBEXPLAIN, DBFIND, DBGET, DBINFO, DBLOCK, DBMEMO, DBOPEN, DBPUT, DBUNLOCK, and DBUPDATE.
- **MPE Intrinsic Support**—includes FCHECK, FCLOSE, FCONTROL, FFILEINFO, FOPEN, FREAD, FWRITE, FERRMSG, and COMMAND.
- **Remote Procedure Call (RPC) Support**—packages procedure requests, transmits the requests to the HP 3000 and returns the data to the application.
- **Special Function Support**—loads specialized code modules such as conversion, status and version routines.
- **PC Development Languages**—Lattice C, Microsoft C, Microsoft COBOL, Microsoft Pascal, and Microfocus COBOL.
- **Supported PC Hardware**—HP Vectra Family (including the new Vectra CS, ES and RS PCs), HP Touchscreen/150, HP Portable Plus, and IBM PC/XT/AT and Personal System/2.

- Supported HP 3000 Hardware—MICRO 3000, MICRO 3000XE, Series 37, 39, 40/42, 44/48, 52, 58, 64/68 and 70.
- Supported PC Operating System—MS-DOS version 2.11 and later for basic serial and MS-DOS version 3.10 and later for OfficeShare.
- Supported HP 3000 Operating System—MPE V/E (G.02.03 or later). The MPE XL operating system will be supported on a future release.

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**Questions  
& Answers**

**Q: Is the product compatible with HP NewWave?**

A: Yes, you can currently run one Cooperative Services built application at a time under Microsoft Windows. A future release of Cooperative Services will provide the ability to run multiple applications under Windows.

**Q: Can existing HP 3000 code be fully transported down to the PC?**

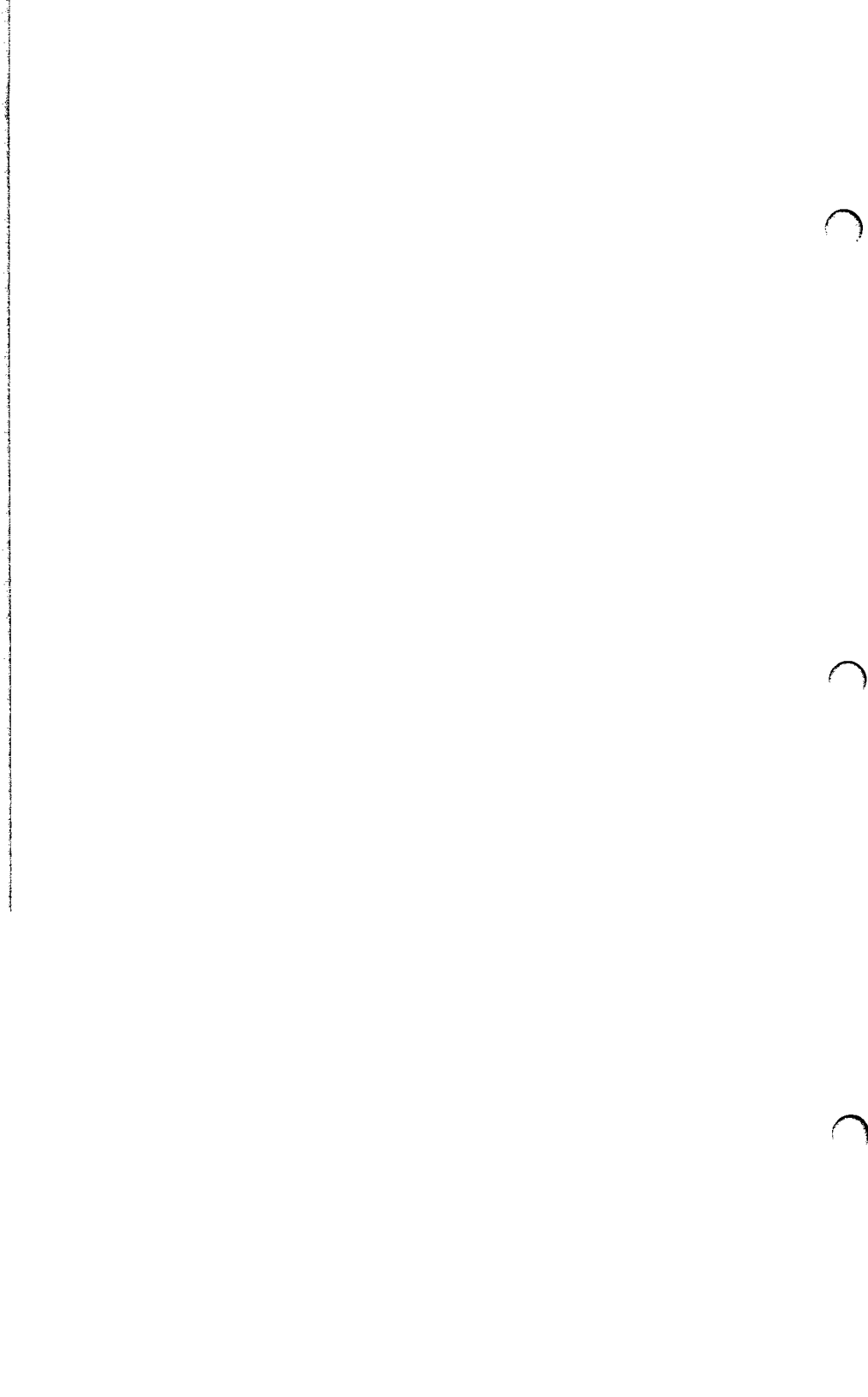
A: The majority of COBOL, Pascal and C code can be transported. New code will have to be added, however, for connection and session management. Differences between the HP 3000 language and the PC versions will need to be modified, as well as the calls to TurboIMAGE and MPE. In addition, any calls to HP 3000 based utilities (such as screen handlers) will need to be changed.

**Q: Where can I get more technical information on the product?**

A: The Cooperative Services FastTrak (HP 32570-90001) can be ordered directly from HP DIRECT (see "How to Order" in the green pages of this issue), or from your HP sales office or dealer.

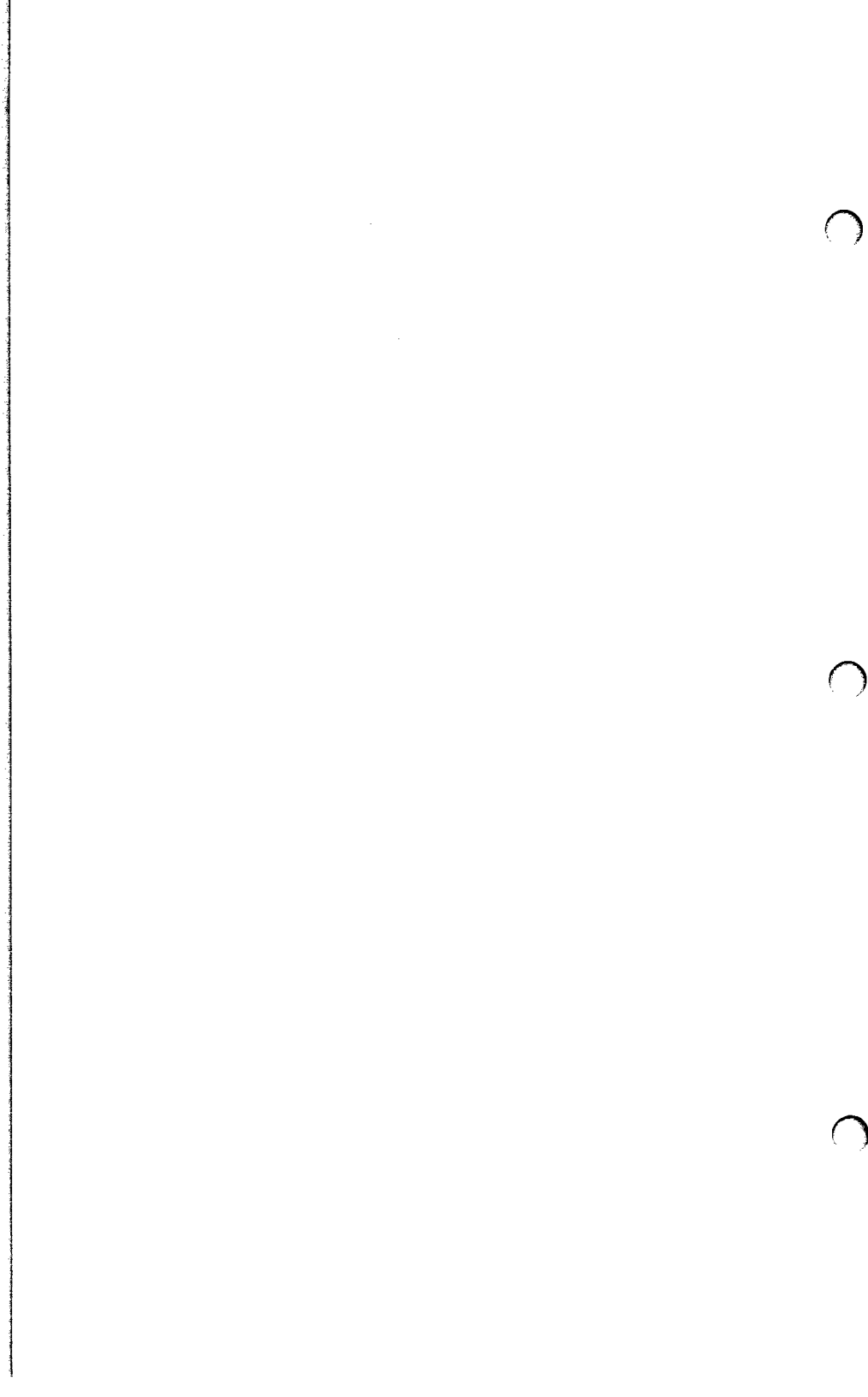
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□





# Encyclopedia



# The HP PC Bugline

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## Latest information about HP PC questions, problems, and solutions

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**Q:** I am using **Drawing Gallery** on an HP Vectra CS and HP Vectra ES. Why is the mouse moving one pixel at a time?

**A:** What is happening is that **Drawing Gallery** is checking for a mouse driver, does not find one, and therefore, is treating the mouse as a cursor key moving one pixel at a time.

ES users need to install the mouse driver and set up config.sys. The mouse driver is located on the Utilities and Drivers disc (45744-15001). On this disc resides a MOUSE.SYS file which needs to be copied to the root directory of your start up disc (usually C:). Then your CONFIG.SYS file needs to be changed to contain the following line:

DEVICE = MOUSE.SYS

When you re-start the system, the Mouse driver will be loaded and should work properly.

CS users need the Vectra CS HP-HIL Accessory Interface (HP D1171A).

**Note:** This did not happen in the original Vectra since the mouse driver was in ROM. It does occur in the new Vectras (ES, ES/12, CS), because they maintain compatibility with industry standards by having an installable mouse driver (MOUSE.SYS) which goes into CONFIG.SYS.

\* \* \*

**Q:** When I specify an HP LaserJet printer for my **AdvanceWrite Plus** document there is an option to choose this printer with the MC option. What does MC mean?

**A:** Information on this question can be located on the Printer Documentation Discs. In short, MC stands for multiple copies. If you select this option while in **AdvanceWrite Plus**, multiple copies are printed without collation. Alternatively, if the option is not specified, multiple copies are collated, but this takes more time.

\* \* \*

**Q:** I'm trying to use the HP 46087A or 45911A Graphics Tablet with **Drawing Gallery B.03.00**. When I load **Drawing Gallery**, the cursor sits in the upper right corner on the Settings command and cannot be moved. Why?

**A:** You're experiencing a problem with the new release that is relieved by a patch that the Response Center (800-858-8867 in the U.S.) can provide to you. It replaces the Gallery file 150AIOS.G04.

\* \* \*

**Q:** I'm using **AdvanceLink** to access a remote system. When I log on, the characters I type do not appear on the screen, although the host recognizes my commands. Text coming from the host does appear on my screen. Why?



A: Try ECHO ON in Terminal Config. If that still doesn't display the characters you type on your screen, configure the port as HALF DUPLEX. In AdvanceLink, you can use the command, &DUPLEX HALF. You should then see the characters you type, as well as text from the remote system.

\* \* \*

Q: I just switched from using an original Vectra to using a Vectra ES PC with OfficeShare, and now when I press the Control-Alt-Print Screen keys to force my output to be printed immediately, the printout does not come out. It only comes out when I exit the application. This worked on the original Vectra, but no longer works. Why?

A: Use the "\*" key on the right-hand side of the ES keyboard (above the the numeric keypad) instead of the Print Screen key on the top row of the of the keyboard. This means that you must press Control-Alt-Asterisk on Vectra ES computers instead of Control-Alt-Print Screen, when you want to force your printout to be printed immediately.

The reason for this is that the memory-resident utility is actually trapping for the Control-Alt-Asterisk sequence on both computers. This was done originally because the original Print Screen key is the same as the asterisk key. Although the Print Screen key was moved, the asterisk remains in the same location, and the keyboard trap is still tied to the original asterisk key.

\* \* \*

Q: I cannot get the TIFF file output from **Drawing or Charting Gallery** to print properly. The first thing I noticed was that the Device Control Screen for TIFF Output looked incorrect. It should have 11 as the Height and 8 as the Width in units of inches and it did not. Also the TIFF extension did not show the default file name. When I output at 300 DPI and then printed this from within PageMaker, the resulting printout (at 300 DPI in PageMaker) looked as if it were 75 DPI. What's the problem?

A: The workaround is to copy DRAWG.HUI and CHARTG.HUI from the Gold Master Disc for Charting Gallery and Drawing Gallery to your work disc (C: if it is the hard drive on the HP Vectra PC). Then rerun SETUP DTP. The default units for the TIFF file type should now indicate inches when Device Control is selected and modifications may be made to the height and width.

\* \* \*

Q: When I turn on the **HP RuggedWriter** printer, I would like to be in draft mode. Appendix 7-2 of the Owner's Manual instructs users to set switch 8 on the A bank up. When I do this and turn on the printer, it prints in letter quality mode. Why?

A: Do a self-test on the printer. This will display the firmware revision. If the revision is 12/23/87, switch A8 must be down for draft mode and up for letter quality. If the firmware revision is lower than 12/23/87, use the instructions in the manual on page 7-2.

\* \* \*

Q: I'm getting the message "Error initializing Microsoft share software (NETL315)" when I try to boot up my ThinLAN server. I just restored a backup from an original Vectra running DOS 3.1 to a new Vectra running DOS 3.2. What do I need to do?

A: Copy the file SHARE.EXE from the DOS 3.2 master disc, or wherever your DOS 3.2 files are, to the directory where your ThinLAN server software is. This file is required by ThinLAN, and you must use the version that comes with whatever DOS revision you are using. This problem could crop up on user nodes too, not just servers.

\* \* \*

Q: I'm getting the error message "Host system is responding, but cannot verify the connection" when I try to print to an HP 3000 printer through **Print Central**.

A: This means that the Print Central PC software is getting to the HP 3000 but it's not linking to the printer and possibly not getting logged on.

Check the following things:

1. Is the printer configured into PSUTIL on the HP 3000? Make sure there is a printer in the configuration list with the appropriate class name and address, which is the same as the ldev number.

2. Is PSUTIL running? Start it.

3. Are you getting logged on? Check the HP 3000 console. If you use the Print Central logon field to log on, go into a terminal emulator such as AdvanceLink to see if you got logged on or not. Try logging on in AdvanceLink and going back to Print Central to Activate Setup again. When you check the console, make sure there is not already a session for your Print Central connection. Also, make sure the session limit on the HP 3000 has not been reached.

4. Are you using the correct Host Printer name in the Print Central PC software (REDIRECT.EXE)? This field should contain the class name (from PSUTIL) of the printer to which you want to connect.

\* \* \*

Q: I am getting the error "Host system not responding, possible cable problem or host system is down" when I try to connect to a shared printer via **Print Central** on my HP 150. I'm directly connected to the 3000. What's the problem?

A: This means you're not getting logged on to the 3000. Check the following:

1. Is the host system up? See if you can log on to the HP 3000 in 150 Terminal mode. If not, check the cable, the 3000 port, the 150 port, etc. If you can log on here, read on.

2. Are any messages on the console? Specifically, check for messages indicating that Print Central tried to log on but couldn't. If so, check the logon string and any passwords that

might be required in the Print Central logon field. Go back to terminal mode and try to log on. If you can't, see step 1 above. If you can, try going to Print Central and activate Setup. If this works, you need to look at the Print Central logon string again. If this doesn't work, read on.

3. Are you using a DCFIG.COMD file? See if this file is misleading you by setting up Print Central to go out the other serial port. In Global Config, set the port Print Central uses to be the Remote port.

4. Are you set up correctly in DEVICE CONFIG? Specifically, make sure that the COM port you are using (COM1 or COM2) is set for either Port1, Port2 (as appropriate) or Remote; make sure it's not set to "No Device."

\* \* \*

Q: Is the **HP 9144A** tape drive supported on the Vectra with the HP 88500A Disc/Tape Interface product?

A: As of November 1, 1987 it became officially supported.

\* \* \*

Q: I'm trying to use the /D option of **GWBASIC** to load the Double Precision Transcendental math package but I'm seeing no increase in the precision returned by the functions I'm using. I was doing SIN(1) and with or without the **GWBASIC /D** option I get the same result. Why is this?

A: You need to give **GWBASIC** math functions double precision arguments in order to get back double precision results. If you print the result returned from SIN(1#), where # means that this is a double precision constant, you will see greater precision when using the /D option.

\* \* \*

Q: I have a Vectra CS with the multimode card and monochrome monitor. I am trying to run the **AdvanceLink/HP Terminal** program with HP Mode set to "Yes," but there is no HP Mode field in my Global Configuration. I want to be able to use 26 lines--24 for text and 2 for function keys. Is this possible?

A: Yes, this is possible. The multimode card can be used to produce 26 lines of text. However, the HP Vectra CS **HP-HIL** Accessory Interface (HP D1171A) must be installed to access the Extended BIOS routine for higher resolution. It enables 640 by 400 display graphics. This higher resolution is also used with other HP software including Drawing Gallery, Charting Gallery, and Executive MemoMaker. The HP Mode field only appears when the Extended BIOS is present.

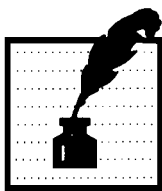
\* \* \*

In Issue 25 of the *HP PC Communicator*, on page 19, the answer to question 2 should say that the upgrade for the **HP-IL** software is available from your local HP sales office.

\* \* \*

## Welcome to the Encyclopedia

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Welcome to the "Encyclopedia" section of the *HP PC Communicator*—bringing together all the news you need on each of the software packages and systems that you use.

Coupled with the manuals, your *HP PC Communicator* back issues and subscription provide everything you need to make the best use of your personal computer.

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### What's in the Encyclopedia?

- The HP PC Bugline—the information about HP PC questions, problems, and solutions too late to classify.
- The Encyclopedia Index—an index of Encyclopedia articles for all issues, listed by system.

Encyclopedia articles containing:

- Software Problem Reports—a list of the major problems which have been reported.
- Manual Corrections or Updates—a list of corrections to the manuals for the product.
- Data Files—a description of the files used by the product, to aid in data transfer.
- Integration Features—a summary of any features built into the product to facilitate data transfer to other products.
- Data Transfer Procedures—specific techniques which have been discovered for data transfer to specific products.

The Encyclopedia entries are arranged so that you can remove them for insertion in your manuals or a separate binder.

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### Which Products are Covered?

The Encyclopedia Table of Contents, given at the front of the section, is updated in every *HP PC Communicator* . . . directing you to the issues containing the latest articles for each product.

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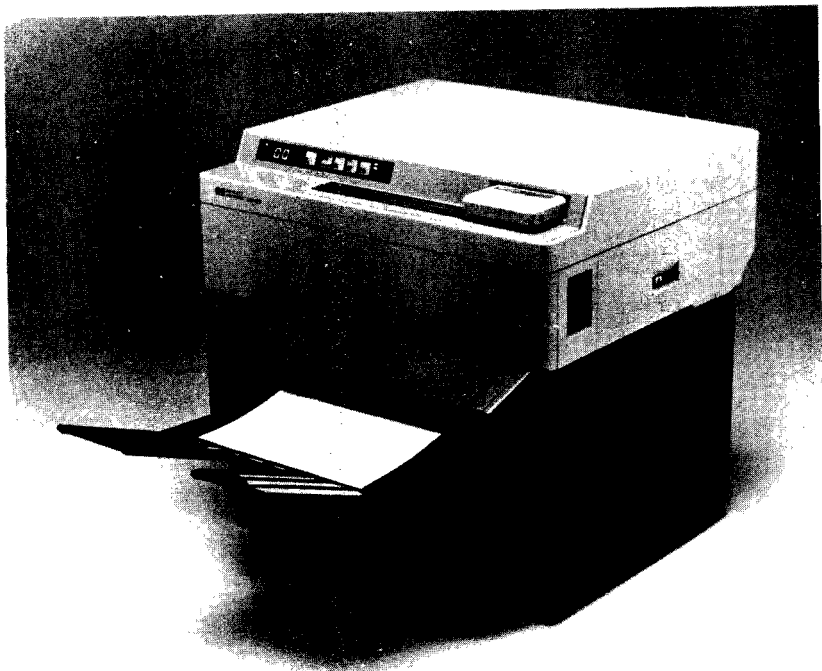
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## HP LaserJet Printer Family: General Questions and Answers

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*Editor's Note: Special thanks go to the staff of the LaserJet Printer Family Customer Assistance Line for the articles which appear in the Encyclopedia section of this issue.*

**Q: How do I know when something is in the printer buffer?**

A: When the form feed LED is illuminated, there is data in the printer buffer.

**Q: When I send data to the printer, why doesn't anything seem to happen? How can I make the LaserJet print my page?**

A: Since the LaserJet is a page printer, a page is ejected when one of the following five conditions occur:

1. The printer receives a form feed (control character decimal 12), either from the software or from the control panel of the LaserJet.
2. The printer reaches the perforation skip region at the bottom of the page. The page is ejected and the printer continues at the top of the next page.
3. The printer receives the paper input escape sequence with a value of zero (ESC&10H).
4. A reset (ESC E). If there is something in memory, a reset ejects the page.
5. An orientation change (ESC&1#O). The printer can only print in one orientation per page. Once data has been received, the printer has started formatting that page. When it receives an orientation change, it ejects the current page and starts formatting a new page in the new orientation.

If none of the above occurs, data remaining in the buffer is not ejected and data received afterwards is added to the page currently in the buffer.

**Q: Can my LaserJet printer emulate an Epson or Diablo printer?**

A: No, HP cannot emulate Epson or Diablo because LaserJet printers are capable of more features through the Printer Command Language (PCL). If you wish to emulate one of these or other popular printer languages, Insight Development Corporation offers:

Laser Control 100—A pop-up software program designed for IBM PCs and compatibles for a price of \$150.00. For further information, you can contact Insight Development Corporation at 415-376-9451 in the U.S.

**Q: I did a print test and the print is slightly crooked. How should it be measured to find out if this result is within the printer specifications and, if not, what action should be taken?**

A: The top and bottom of the print test attempt to print into the non-document portion of the drum causing misleading results. The test print should be measured from one of the vertical lines to the side of the physical paper both at the top and the bottom and then subtract to find the difference. Up to  $\frac{1}{16}$ " is within printer specifications but above this, the printer should be serviced.

**Q: How do I use the printer's manual feed feature?**

A: Pressing the manual feed button on the printer's front panel will initiate manual feed mode. However, many software applications initialize the printer with a reset (ESC E), which turns manual feed off. The best way to ensure that manual feed mode is initiated is to use the escape sequence Esc&12H. Upon receipt of this command, the printer's front panel will display the size of paper to be printed. The sheet of paper can now be inserted into the back of the printer (for the LaserJet, LaserJet PLUS or 500 PLUS) or in the manual feed guides on the top of the paper tray (for the Series II). The front panel display will change to double zeroes and the printer will pull the paper through.

**Q: What paper sizes are supported by the LaserJet printers?**

A: Four sizes are supported (without using manual feed): Letter size: (8½ x 11 inch); Legal size: (8½ x 14 inch); European A4: (210 x 297 mm); and European B5: (182 x 257 mm). The Series II printer also supports the Executive (7¼ x 10½ inch). Smaller sizes can be manually fed.

**Q: Why doesn't my printer print eight pages per minute?**

A: Your printer's speed depends upon your software application's ability to format the document and transmit it to the printer quickly. Word processing and desktop publishing applications are usually printed slowly because of the special formatting and graphics being used in those documents. If text is provided by your application to the printer at a rate of eight pages per minute, your LaserJet will print eight pages per minute.

**Q: Where can I order additional supplies for my printer?**

A: In the U.S. you can order additional supplies through HP DIRECT by dialing 800-538-8787 (408-738-4133 in California); if you want to find the nearest dealer to you, you can call 800-367-4772. Outside the U.S. contact your local dealer or HP sales office or use the telephone order lines given in the column "How to Order" in the green pages of this issue.

**Q: Where can I go to have my printer serviced?**

A: In the U.S. to obtain the name of the nearest authorized service dealer, call 800-835-4747; outside U.S., contact your local dealer or HP sales office.

**Q: Why can't I get the manual feed to feed envelopes?**

**A:** Extra stiff paper requires users to assist the feeding operation. The following are a few suggestions when feeding envelopes:

- Always install one sheet of blank paper in the paper cassette prior to feeding envelopes. The sheet of paper provides a smooth surface, at the leading edge of the paper cassette, from which to slide the envelopes along.
- Always wait for the "PE Feed Comm-10" (or similar envelope size) message to appear before feeding the envelope. Do not rush the envelopes through the printer.
- Closely inspect the leading edge of the envelopes prior to feeding them into the printer. Ensure the leading edge is flat. Watch for envelope curl and "dog ears." If necessary, flatten the leading edge of the envelope prior to feeding. (It is helpful to place the envelope on a flat, hard surface and slide your finger along the leading edge of the envelope prior to feeding. This ensures that the edge of the envelope is flat.) It should be noted that envelopes are often packaged and stored in such a manner that envelope damage, for example, curling, dog ears, paper bow, etc. often occur. Closely inspect the packaging of your envelopes prior to purchase.
- Do not allow too many envelopes to accumulate in the printer's face-up output tray (no more than 10). If too many envelopes are allowed to accumulate, there is a possibility of getting "false paper jams."

**Q: What is the benefit of using the Centronics Parallel interface on my HP LaserJet PLUS, LaserJet 500 PLUS or Series II printer over the serial interface?**

A: Using the parallel interface allows graphics data (raster graphics, downloadable fonts, rules, etc.) to be transferred to the printer up to four times faster than the serial interface. Using the parallel interface has no effect on the speed at which your text or spreadsheet data will be transferred.

**Q: The HP LaserJet PLUS, LaserJet 500 PLUS and LaserJet Series II printers offer either Serial or Parallel interface connections. What is required to switch from one interface to another?**

A: First of all, make sure you are using the proper cable to connect your printer to the parallel interface. (For IBM PC, XT, AT, or compatibles, this cable is HP part number 24542D or 92219K.) There are different methods for the different printers:

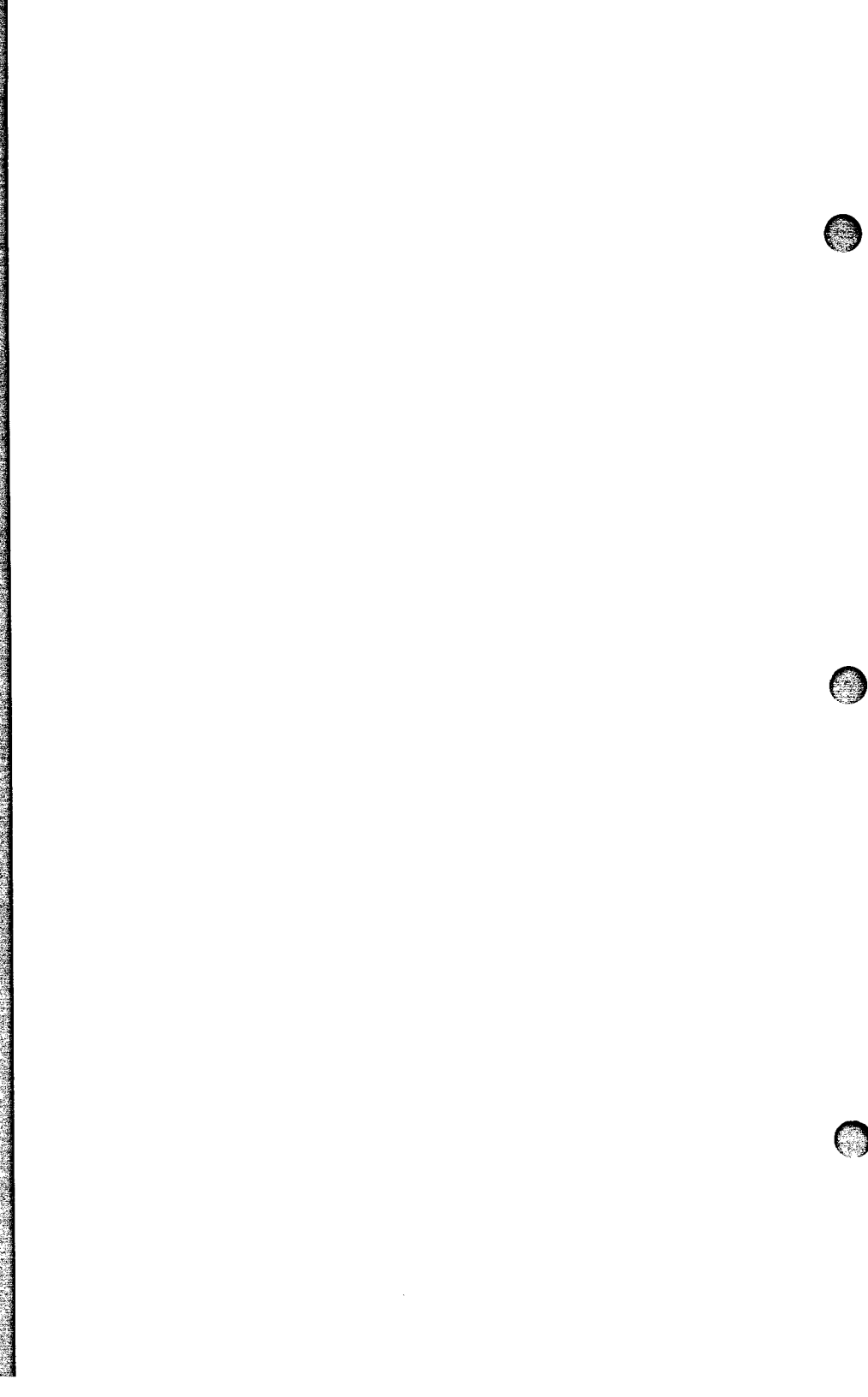
**For the LaserJet PLUS and 500 PLUS:**

Change DIP switch number 1 (located in the rear of the printer, behind the rear panel) to the ON position. Also make sure you have removed all MODE commands from your autoexec.bat file. For additional information, refer to your *LaserJet Technical Reference Manual*, Appendix C, HP product 02686-90912.

**For the HP LaserJet Series II:**

The LaserJet Series II printer can be changed by following the instructions in the *LaserJet Series II User's Manual*. It is done by using the front panel (refer to pages 2-31 and 2-32 in the *Series II User's Manual*).





## HP LaserJet Printer Family: Graphics Questions and Answers

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- Q: How can I print 300 x 300 dots-per-inch, full-page graphics on the HP laser printers?**
- A: For the HP LaserJet, LaserJet PLUS, and LaserJet 500 PLUS printers, you need to order the HP 26054A two-Mbyte upgrade kit. It can be installed by a HP-authorized technician and consists of a two-megabyte memory board, new front panel display, dual I/O, and new HP LaserJet family manuals. For the LaserJet Series II printer, you must purchase the HP 33443A one-Mbyte Memory Board, HP 33444A two-megabyte memory board or the HP 33445A four-megabyte memory board. These boards are user installable.
- Q: How can I tell when a graphics screen dump has completed?**
- A: There is no direct way to determine that it has completed. On the average, a graphics screen dump takes about 40 seconds. With some packages the message "Keyboard Locked" will display on the screen while the graphics transfer is taking place and will go off when it is completed; or you can watch the ready light on the LaserJet PLUS, LaserJet 500 PLUS, or Series II and it will stop blinking.
- Q: Does an HP LaserJet printer accept vector graphics commands like a plotter?**
- A: No, only raster graphics commands. However, vector to raster conversion can be accomplished by using a third-party solution (LASERPLOT by Insight Development Corporation). Their address is 2005 Vine St., Berkeley, CA, USA; their phone number is 415-376-9451.



**Q: I created a graph in the portrait mode and it prints fine. When I send the escape sequence to print the same graph in the landscape mode, it prints off the page. Why?**

**A:** Sending the escape sequence to change the orientation to landscape will only move the cursor to reflect the starting point of the landscape orientation (the bottom left-hand corner of the page when viewed in portrait). Therefore, after sending the escape sequence for the landscape orientation, you must first move the cursor to the right (at least the length of your graphic image), and rotate your data to reflect the landscape orientation. If this process does not take place, your graph will print off the bottom of the page.

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## HP LaserJet Printer Family: Character Fonts Questions and Answers

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**Q: Why is my cartridge font not working?**

A: Unlike a Daisywheel print wheel, plugging in a new cartridge does not cause the printer to recognize the new fonts. If you change the cartridge, you should:

1. Set the printer off-line when removing or inserting a cartridge.
2. Ensure the cartridge is firmly seated.
3. Ensure the font select procedures in the owner's manual are followed exactly.

**Q: What does pressing the Reset key do to the fonts I've downloaded?**

A: Pressing Reset erases all temporarily downloaded soft fonts. To erase permanently downloaded fonts, you must turn off the printer or send the command to erase all downloaded fonts (EC \* c0F).

**Q: I started my print job using the Italics character font, then changed to Bold; however, I am still getting the Italics character font. Why?**

A: All font selection is done by priority (See your owner's manual). In this case, the character style (upright vs. italic) has a higher priority than stroke weight (light, medium and bold). Therefore, you must turn the Italics off before turning the Bold on.

**Q: The LaserJet PLUS, LaserJet 500 PLUS, and LaserJet Series II printers have the ability to use soft (downloadable) as well as hard (cartridge) fonts. The standard LaserJet printer can use font cartridges only. There are several factors you should consider when deciding which type of font to purchase. What are some of the pros and cons of each?**

**A: Cartridge Advantages:**

- Hard fonts are stored entirely in the cartridge, the fonts are immediately available to the printer.
- There is no downloading necessary.
- Printer memory is not utilized. The font cartridge contains all the memory needed to store the font data. Cartridges do not use any of the printer's memory.
- Easy to see what is available. All accessible fonts are shown on the cartridge label.

**Soft Font Advantages:**

- More versatility in the combinations you can use. You can "mix and match" soft fonts as you wish.
- Costs less—since there is no hardware involved, you get more fonts for the money.
- The soft font license agreement permits the use of soft fonts on up to three printers.

**Q: Why can't I access any of the alternate fonts from the HP 92286B cartridge, but I can with the 92286A?**

**A:** The HP 92286B cartridge uses the USASCII symbol set (this allows more fonts to be contained in the cartridge) and must be specified at the beginning of the print job. The following escape sequence specifies the USASCII symbol set as the primary symbol set: "ESC(0U." The LaserJet printer defaults to the Roman8 symbol set.

**Q: How can I print in compressed print in a landscape orientation?**

A: If you have a LaserJet, LaserJet PLUS or LaserJet 500 PLUS, you must use a font cartridge. Several font cartridges contain a compressed lineprinter font in landscape including the HP 92286A, 92286B and 92286L font cartridges. One of these cartridges must first be installed in the printer. The shortest escape sequence needed to access the compressed landscape character font is Esc&l10 Esc(s16.6H.

**Q: I am using a proportionally spaced font cartridge, but I can't seem to get a justified right margin.**

A: Right justification with proportionally spaced fonts is a capability dependent on the software package. To determine which software packages support right justification with proportional fonts, see the *HP LaserJet Printer Family Software and Hardware Solutions Catalog*; the catalog can be requested from the LaserJet hotline (208-323-2551 in the U.S.), or from your local dealer or HP sales representative. If your software is not listed or does not provide right justification, check with the software vendor to see if this feature will be provided on a new release.

HP can supply the software vendor with the metrics of each character font to allow them to incorporate into their software the algorithm to generate a right-justified document.

**Q: Even though I don't have a true 12 pitch font cartridge, can I print 12 characters per inch using the default courier font?**

A: The courier character font in the printer is designed to print 10 characters per inch. The horizontal spacing can be adjusted to compress the courier font and give the effect of 12 characters per inch. Use the escape sequence Esc&l10H. Remember that this will not be a true 12 pitch font, but a 10 pitch font with the characters printed closer together.

**Q: How many different character fonts per page can I print?**

A: The LaserJet printer will allow up to eight character fonts of the same orientation. When you change any font characteristic, the printer considers it to be a completely new font (for example changing the style from upright to italic). The usual result when the eight font limit is exceeded is incorrect vertical and horizontal spacing for the font printed (often times it won't be the one selected).

**Q: Even though I have sent the escape sequence to tell the printer I'm manually feeding an envelope, it comes out blank. How do I let my printer know I'm feeding an envelope?**

A: The escape sequence (Ec&13H) lets the printer know you have adjusted the paper guides on the manual feed area to fit an envelope. It does not set the printer to the landscape mode, nor does it format the data for you. These steps must also be done to get the envelope to print properly. An eleven line top margin and a four-inch left margin are the suggested settings to assist you in formatting your envelope.



## HP LaserJet 500 PLUS Printer Questions and Answers

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**Q: How do I access the second paper tray on the HP LaserJet 500 PLUS printer?**

A: The paper tray can easily be selected from either the front panel on the printer or via an escape sequence within your document. One of the front control panel options is Auto Select, which will automatically switch paper cassettes if one tray runs out of paper, as long as both trays are the same size. Manual feed is also available.

**Q: What is "Job Offset" and how does it work on the HP LaserJet 500 PLUS printer?**

A: Job Offset refers to the ability to physically separate different jobs in the output tray. This feature can be accessed only from within your document by sending an escape sequence, and is ideal for separating output when the printer is in multi-user environment. Job offset can be performed only when correct-order output is used. This feature should not be confused with Collation, which will separate and arrange multiple copies of the same job (like a photocopier that separates and arranges several copies of a multi-page document).

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## HP LaserJet Series II Printer Questions and Answers

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**Q: What fonts do I have available on my new LaserJet Series II printer?**

A: Courier 10 pitch and lineprinter 16 pitch in regular stroke weight with Roman8, IBM-US and IBM-DN and ECMA-94 symbol sets in both portrait and landscape orientations. Courier bold is resident in both portrait and landscape.

**Q: Even though I have changed the font ID# on the panel of the printer, the printer is not recognizing the change; how do I get the printer to recognize my new font choice?**

A: Although you have selected the new font, you still need to reset the printer for it to recognize your new font choice. After selecting the font, press the menu key until the message "00 Ready" is displayed. Now hold the Continue/Reset Button until "07 Reset" is displayed. Release the button and the printer will automatically come back on-line.

**Q: What are the optional symbol sets I have available resident in the printer and what is the bit mapping of the character sets?**

A: The symbol sets available are Roman8, IBM-US, IBM-DN, ECMA-94, ISO2, 04, 06, 10, 11, 14, 15, 16, 17, 25, 57, 60, 61, 69, 84, 85, German and Spanish. The bit mapping is available upon request from the LaserJet Assistance line (208-323-2551 in the U.S.).

**Q: On the LaserJet Series II printer, how do I get to the two levels of menu options?**

A: To get to the top level, or "printing level" of the MENU key, first press ON LINE to take the printer off-line. Then press MENU and toggle through choices using the + and - keys.

To get to the second level, or "configuration level," press ON LINE to take the printer off-line, then press and hold the MENU key for approximately four seconds. When "SYM SET = ..." appears, you have reached the second level menu.



**Q: Even though I have a font cartridge installed, my default font is still Courier. How do I get the printer to recognize the default font on the cartridge?**

A: When inserting a font cartridge with a new default marker you must reset the printer before it will recognize your new default font. After taking your printer off-line and inserting your new font cartridge, hold the "reset" button until the message "07 Reset" is displayed. Release the button and the printer will automatically come back on-line, recognizing your new default font.

**Q: I have performed a font printout and am trying to access the internal font for courier bold typeface, (listed as #104 on the Print Fonts Printout). When I use the printer command that is in the manual on page A-14 of the *LaserJet Series II User's Manual* for accessing a font by its ID number ,Esc (#X, it does not recognize that command. What am I doing wrong?**

A: You will not be able to access the internal fonts using the above escape sequence. This sequence is used to access the soft font previously downloaded and with that ID number assigned to it.

To access an internal or cartridge font with an escape sequence, specify the character of the desired font; for example **EC(s3B** would be used to access internal, courier bold, 10 cpi.

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## HP PC LaserJet Printer Family: Error Codes Questions and Answers

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**Q: Why am I receiving an Error 40 (line error) when I start the operating system in my computer?**

**A:** When started many computers will send a string of null characters through the serial interface port. These characters will put the printer in an Error 40 condition. The printer must then be turned off to clear it. It is recommended that the printer always be turned on after the computer to eliminate this situation.

**Q: I am getting an Error 54, why?**

**A:** There may be too much paper in the input cassette.

**Q: I am receiving an Error 50 when I turn on my printer. I have attempted to clear it by turning off the printer for ten minutes and then turning it back on as it states in the manual; but, the error does not clear.**

**A:** An Error 50 will occur most commonly when one or more of the following situations have occurred:

- A power surge caused by a brownout, blackout or a variance exceeding  $\pm 10\%$ .
- A mechanical switchbox is being used with the printer. Mechanical switchboxes can cause voltage and current disturbances. Buffered receiver chips are not a common design feature in RS-232 digital electronic devices; therefore, mechanical switchboxes are not recommended.

A significant number of interface boards have failed while using mechanical switchboxes. Therefore, electronic switchboxes are recommended.

If you still desire to use a mechanical switchbox device you should be advised that such use will, in fact, void your warranty. Should you still desire to continue using a mechanical device, you should do the following to minimize the risk of damage to the printer:

1. Check with your switchbox vendor to ensure that the communication lines are protected from voltage and current transients.
2. Turn the printer OFF before rotating the switch or disconnecting system cables.
3. Obtain a data line surge protector to provide protection from the disturbances that could be caused by the use of a mechanical switch.



## HP LaserJet Printer Family: Print Quality Questions and Answers

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**Q: I'm getting a dark, vertical smear down my page. What's causing this?**

**A:** If the smear appears down the right edge of the paper, you may need to clean or replace your separation belt (if you are using a LaserJet, LaserJet PLUS or LaserJet 500 PLUS). If the smear appears down the center of the page, you may be using the wrong type of paper. Check to see that your paper meets LaserJet printer specifications.

**Q: What causes a dark vertical smear towards the center of my page?**

**A:** This may be caused by using unsupported bond papers (mainly 25 percent, 50 percent or 100 percent cotton) in dry environments. This has been an acute problem in areas where the ambient temperature has been 20 to 40 degrees F. (- 6.6 to 4.4 degrees C.) with a relative humidity of 10 percent to 25 percent. The operating range for the LaserJet printer is 20 percent to 80 percent relative humidity. Most of the Central and Eastern U.S. and Canada experience these conditions during winter and may see this problem. The problem occurs when you use or have used an unsupported paper or a combination of supported and unsupported papers which wears the teflon coating off of the Feeder Guide Assembly (HP Part #RGI-0192-000CN) thus, exposing the plastic underneath the Teflon coating. The friction caused by the paper rubbing the Feeder Guide causes a static charge to develop on the part. The static charge attracts the unfused toner and causes the smear.

**Q: What kind of paper should I use with my LaserJet printer?**

- A: The LaserJet printer is designed to work well with most types of paper, although some variables in their composition may significantly affect print quality and paper handling. Paper manufactured for photocopying (such as Canon NP or Xerox 4024) provides good results for general purpose applications. For other applications where cotton bond is desirable (for example, company letterhead), HP has obtained good results using paper such as Gilbert Neu-Tech and Neenah NP. Textured papers with woven or rough finishes may adversely affect print quality. Note: HP does not recommend or advocate the use of any particular paper—the papers mentioned above are only a few that tested well with the LaserJet. Always test paper prior to purchase to ensure desirable performance. Consult your *LaserJet Operator's Reference Manual*, page D-4, for more detailed paper specifications.
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## HP LaserJet Printer Family: EP Cartridge Questions and Answers

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**Q: When installing the EP cartridge, I flexed the removable tab until it broke off. When I pulled the tab, it broke away from the attached sealing tape. How do I remove the tape?**

**A:** Try grasping the tape with pliers or your hands to remove it. If this doesn't work, you should return the defective cartridge to your local HP dealer. HP will reimburse the dealer for replacing the cartridge.

**Q: I replaced my EP cartridge and now nothing is printing, why?**

**A:** You probably forgot to remove the sealing tape before inserting the cartridge. Refer to Section V of the owner's manual.

**Q: How can I extend the toner cartridge's life once the print begins to fade?**

**A:** When your pages begin to show white streaks, remove the EP cartridge and rock it back and forth four or five times to distribute any remaining toner. Replace the cartridge and use it until the print begins to fade again. Once this happens, the cartridge will have to be replaced.

**Q: When my EP cartridge runs out of toner, why can't I have it refilled rather than purchase a new one?**

A: HP does not recommend the use of refilled toner cartridges. The toner cartridge is a consumable with a finite expected life. When the cartridges are refilled, they are exceeding their designed life and you have no way to have the cartridge replaced if it fails soon after being refilled.

The electrophotographic (EP) drum in the cartridge shows performance degradation with use. A refilled cartridge may show unacceptable print quality very soon after being refilled, causing unnecessary and unjustified service calls for the printer. Since the use of unsupported media is inadequate maintenance and misuse of the printer, the service due to use of a refilled cartridge would not be covered under warranty.

Currently, there are many companies that are offering toner cartridge refilling services. There is a broad range of quality being offered by these different companies. Some of the refilled cartridges have been seen to cause background (the white of the page appears gray) in the printed document, and to cause accelerated wear on the paper path of the machine. The liability of your using a refilled cartridge may be greater than the potential savings.

**Q: I changed my EP (toner) cartridge in my LaserJet (or PLUS or 500 PLUS) and now my printer fades from left to right. What is wrong?**

A: Make sure the doctor pin is in place. The doctor pin holds the doctor blade in place, which allows the toner to distribute evenly across the page. The pin can work itself loose in the shipping process. The doctor pin is located on the end of the cartridge that is inserted into the printer at the upper left side (11:00 position). If the pin (it resembles a screw) is not in place, you will see a small hole. You can either replace your doctor pin using the pin from your previous EP cartridge or return your cartridge for replacement.

**Q: How long can I use my EP cartridge? How can I tell if it needs replacement?**

A: The expected life of an EP cartridge for the LaserJet, LaserJet PLUS and LaserJet 500 PLUS is 3000 pages at four percent coverage. Your print will begin to fade when your cartridge needs replacing. Gently rocking the cartridge to distribute any remaining toner will prolong the use of the cartridge. Another indicator as to the amount of toner that is left in this type of EP cartridge is the small window that shows either a green, yellow, or red (green indicating a new cartridge) background. Keep in mind, however, that the window indicator is based on the number of rotations of the drum of the EP cartridge—not an exact measurement of toner level.

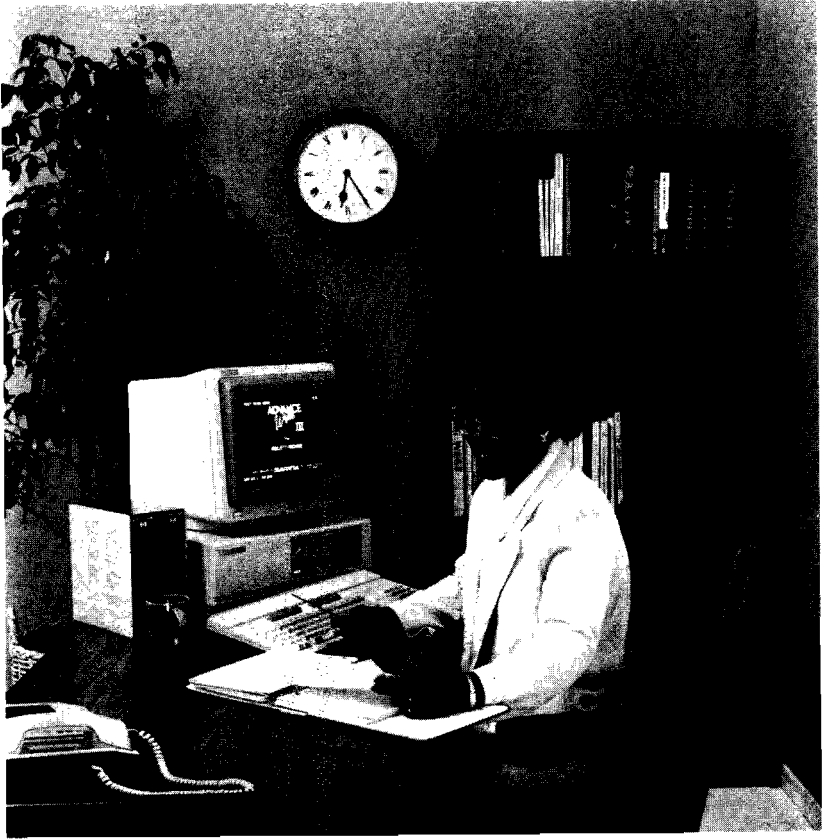
On the LaserJet Series II printer, the estimated life of the EP cartridge is 4000 pages at four percent coverage. There is no window on the EP cartridge that is used. The printer will indicate on the display window an error message that states "16 Toner Low" (at which time you should have toner for approximately 100 pages). Follow the instructions on page 5-4 of your *LaserJet Series II User's Manual*.

**Q: I would like to take advantage of a sale on LaserJet toner cartridges. What is the shelf life of a toner cartridge?**

A: The estimated life of a toner cartridge is approximately two years for an unopened cartridge, and six months for an open cartridge. These estimates are based on storage temperatures between 32 to 95 degrees F.







## HP LaserJet Printer Family: Software Questions and Answers

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**Q: Will my "Brand X" software package work with the LaserJet printer?**

A: To get the most updated information, please contact the software vendor about the compatibility of their package with the LaserJet printer.

**Q: Can I run software packages not listed in the *HP LaserJet Software and Hardware Solutions Catalog* on one of the HP LaserJet printers?**

A: Print and space applications (database, spreadsheets and general business) should work well with fixed space fonts. Graphics and word processing packages may require user modifications or changes on the part of the software vendor. Contact the software vendor for more information.

**Q: What languages can I write programmatically to LaserJet?**

A: BASIC has been thoroughly tested and documentation is available in the *LaserJet Owner's Manual*.

FORTRAN, COBOL, and Pascal have not been tested; however, there should not be a problem if they were written for an HP PCL printer or if the packages were written to use only base level features (standard control codes). Otherwise, they might need to be modified to work with LaserJet.

**Q: How and when should I input an escape sequence or printer command into my application program?**

A: In most application programs, printing and formatting features can be accessed directly through menus, set-up tables, or commands. Therefore, you don't have to bother with escape sequences—the application sends them for you.

In some programs, however, you must input escape sequences or set-up strings to access printer features. In these programs, the escape sequence is represented in a variety of different ways (and in most cases, simply pressing the escape key will not produce the escape character for you). Programs such as Lotus 1-2-3 use \027 as the escape character, and others such as IBM DisplayWrite 4 use the hexadecimal value 1B. If your application does require the use of escape sequences, your software vendor's manual should specify how and will also tell you when and where to input the sequences.

**Q: Why didn't my escape sequence work when I sent a command for landscape orientation (\027&l1O)?**

A: Be sure you have not confused the lowercase "L" (l) with the number one (1) or the uppercase "I" and also the uppercase "O" with the number zero (0).

**Q: Why does the first page of my document print with the correct top margin, but each succeeding page start lower, with a larger top margin?**

A: This is often referred to as "creeping text," and results from the number of lines per page in your software application not being set equal to the number of lines per page of the printer. The printer has default margins of three lines at the top and bottom of the page, and by default prints 60 lines per page. But most applications default to 66 lines per page. If you set the application program to send only 60 lines to the printer, the problem will be solved. Or, simply adjust the vertical line spacing of the printer to allow 66 lines to print. Do this in your application software, or by sending Ec&17.27C for portrait orientation, or Ec&11o5.45C for landscape orientation. Note: "1" is the number one, and "l" is a lowercase "L."

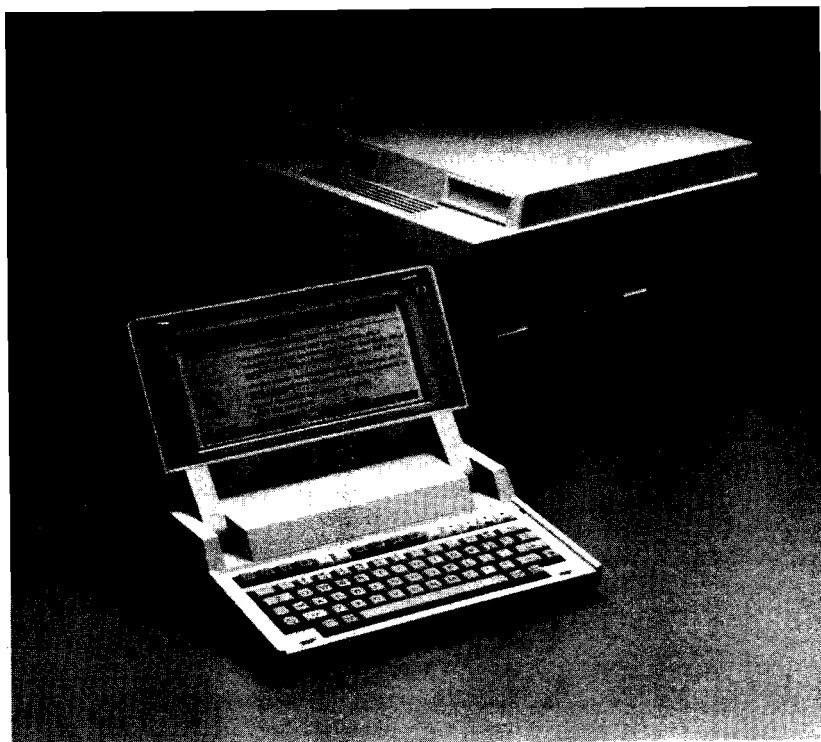
**Q: Why do blank pages eject between pages when I'm printing?**

A: Blank pages ejecting between printed pages usually results when the number of lines per page in your software application is not set equal to the number of lines per page of the printer. Text will either creep down the page as described above, or blank pages will eject. See the previous answer to remedy the problem.

**Q: Why can't I print bold with MemoMaker?**

A: You need to change Device Config, Model Field from "Special" to "Other." Other is the only field that lets all escape sequences pass through unaltered. Also, you need a font cartridge that supports bold (HP 92286A or a LaserJet Series II printer).





## HP LaserJet Printer Family: Word Perfect Questions and Answers

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**Q: I do not have the LaserJet Series II printer driver available on my printer disc, what should I use?**

**A:** If the LaserJet Series II printer driver is not available, select the "LaserJet Reg, PLUS, 500 PLUS Y: PC Courier" printer definition. This definition is the closest to the LaserJet Series II printer internal fonts. You can contact the Word Perfect Corporation and request an updated version of their printer drivers. The address is 288 West Center St., Orem, Utah, USA 84057; the phone number is given at the end of this article.

**Q: How do I print envelopes using Word Perfect?**

**A:** There are a number of steps to printing envelopes, using manual feed. They are:

1. Install either the LaserJet Reg., PLUS, 500 PLUS A: Courier or the HP LaserJet Series II printer definition.
2. Format your addresses in Word Perfect according to the following table. (Note: You must follow the order shown in the table, for example, set the top margin first, then the left and right margins, etc.).

| Word Perfect           | Command                | Monarc | Com-10 | DL | C5 |
|------------------------|------------------------|--------|--------|----|----|
| Top Margin (Alt F8)    |                        | 46     | 50     | 50 | 62 |
| Left Margin (Shift F8) |                        | 45     | 50     | 50 | 50 |
| Right Margin           |                        | 70     | 90     | 80 | 85 |
| Font Change (Ctrl F8)  | Enter 10 Pitch, Font 4 |        |        |    |    |
| Bin Number (Ctrl F8)   |                        | 4      | 4      | 4  | 4  |

3. Type the address, separating each one with a page break, [Ctrl Return].
4. Press [Shift F7] and choose [1] (Full Text to print the addresses).

**Q: When I am attempting to print my document, why does the printer display PC Load Exec or PC B5?**

A: This can occur when: 1) You have specified the incorrect page length (form length)—normal setting for six lpi letter size paper is a form length of 66 and text length of 54, and for legal the form length should be set at 84 with the text length set at 72. 2) Your LaserJet printer's default page length (60 lines) has been changed. Reset your printer by either shutting it off or by taking it off-line and holding down the Hold to Reset key until 07 is displayed. If you have a LaserJet Series II printer, hold down the Enter/Reset Menu key until 09 Menu Reset is displayed.

**Q: An Error 40 is appearing on the front Control panel—what should I do?**

A: To correct this problem, check your baud rate setting in your autoexec.bat file to verify that it is set correctly—the LaserJet printer's default is 9600 baud. If that is set correctly, make sure that when selecting printers in Word Perfect, you selected a baud rate of 9600.

**Q: The top margin and left margin of my document are much larger than I specified, why?**

A: If you selected #3 Sheet Feeder as the Type of Forms, make sure you specified zero Extra Lines Between Pages as well as a Column Position of Left Edge of Paper equal to zero.

**Q: I used Word Perfect on my standard LaserJet printer; can I still use this product on the LaserJet Series II?**

A: Even though the Word Perfect drivers do not specifically address the Series II, the previous driver selections are still appropriate. Because the LaserJet Series II is LaserJet PLUS compatible, select an existing driver that supports the LaserJet PLUS.

**Q: What is the customer support phone number for the package?**

A: The Word Perfect Corporation customer support number for Word Perfect is 800-321-5906 in the U.S.

## HP LaserJet Printer Family: Lotus 1-2-3 Questions and Answers

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**Q: In Lotus 1-2-3, I used "set-up string" to print a spreadsheet using a landscape, compressed font; the spreadsheet printed fine. I then graphed the spreadsheet and did a screen dump from the HP 150. Why did the spreadsheet print and the graph not?**

**A:** The printer was still in landscape mode when the screen dump was done. You need to send an ESC E to reset the printer to default conditions or return to portrait mode by sending the escape sequence ESC&10O. If landscape mode is required, use the Printgraph feature of 1-2-3 (this may require repositioning the logical cursor of the LaserJet before printing). The screen dump graphics capability, from Lotus, cannot be done in landscape mode.

**Q: In 1-2-3, how do I print in landscape compressed mode on a legal size sheet of paper?**

**A:** In the SETUP string of 1-2-3, send the following string:  
`\027E\027&184p1o2H\027(s16.66H`. This sends a reset to the printer, sends a page length of 84 lines (6 lines per inch and 14 inch legal paper), sets the orientation of the character set to landscape, sets the printer in manual feed mode, and selects compressed print (16.66 cpi).

**Q: Which printer drivers should I select for my text printer?**

**A:** In Version 2.0, select the Unlisted, no backspace option. In version 2.01, select the HP 2686 LaserJet or LaserJet PLUS option.

**Q: When in Printgraph utility, I have the ability to select different fonts. Must I also have these fonts in my printer to have them printed correctly?**

**A:** No, these special fonts do not need to be in the printer to have them printed. Because the Printgraph program prints the entire screen in raster graphics, the fonts seen on your screen will be re-created on the printed page.



**Q: Can I print two separate ranges of my spreadsheet on the same printed page?**

A: Yes, however, the setup string for your second range must not contain a \027E command. This command performs a reset of the printer and will eject any data previously sent, but not yet printed.

**Q: How can I eject the last page of my spreadsheet from the printer?**

A: There are three ways of accomplishing this. The first is manually by taking the printer off-line, pressing the form feed key, then placing the printer back on-line.

The second way is by using the Page option in the printer's buffer, and may result in a blank page when printing the next document. It can be accessed by typing the following from the command menu:

**/Print Printer Range Align Go Page**

(Note: This works properly only if you have installed your printer as "Unlisted, No Backspace" during the install program.)

The third way is available only with Lotus Versions 2.0 and higher. It involves embedding the command ||\012 in column 1 of your spreadsheet at the bottom of the data. This command will send a form feed control to the printer.

**Q: Large blocks of blank lines are printing in the middle of the spreadsheet when I print, what should I do?**

A: Setting the print format to "unformatted" should correct the problem. Type the following commands: / P P O O U

**Q: What is the customer support phone number for the package?**

A: The Lotus Corporation customer support number for Lotus is 617-253-9150 in the U.S.

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## HP LaserJet Printer Family: Symphony Questions and Answers

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**Q: How do I access landscape, manual feed using legal paper?**

A: Use the following settings:

- Page Length = 45
- Right Margin = 136
- Setup = \027E\027&184p2h1O

**Q: How do I access landscape, legal paper, manual feed, compressed, 45 lines per page?**

A: This feature requires a font cartridge unless you have a LaserJet Series II printer. Use the following settings:

- Page Length = 45
- Right Margin = 226
- Setup = \027E\027&184p2h1O\027(s16.66H

**Q: When using the "Page" command to eject my page, I am getting a blank page printed prior to the next document. What should I do to correct the problem?**

A: By using the "Page" command to eject a page, you could get an extra blank page before your next document. If you take the printer off-line, then press the form feed key, the printer ejects the page and the blank page is eliminated.

**Q: I am having a difficult time printing envelopes. Do you have any suggestions?**

A: Use the following settings when printing envelopes in Symphony:

- Page Length = 45
- Left Margin = 38
- Right Margin = 76
- Top Margin = 6
- Bottom Margin = 2
- Init-String = \027E\027&l81a1o3H

**Q: What is the customer support phone number for the package?**

A: The Lotus Corporation customer support number for Symphony is 617-253-9150 in the U.S.

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## HP LaserJet Printer Family: WordStar 2000 Plus Questions and Answers

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**Q: What is the customer support phone number for the package?**

A: The customer support number for WORDSTAR 2000 Plus is 415-499-8320 in the U.S.

**Q: How do I access landscape?**

A: Through the Control PX command in the Print Enhancements.

**Q: How do I print envelopes?**

A: WordStar 2000 has a new printer driver available for printing envelopes. This can also be accomplished by reprogramming the extra printer commands.

**Q: How do I access bold in WordStar 2000 Plus?**

A: Select the proper pitch for the typefaces you are using; that is, if you have a D font cartridge, you must first select the 12 pitch font (non PS 12), the bold feature.

**Q: Which printer driver do I install if I don't have a font cartridge?**

A: Select the driver "HP LaserJet F and all others" driver.

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## HP LaserJet Family: MultiMate Questions and Answers

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- Q: I am using MultiMate Advantage II with a LaserJet printer, but I do not have a legal paper tray. How can I produce a document on legal paper?**
- A: MultiMate Advantage II printer action tables (PATs) do not directly support manual feeding of legal paper with the LaserJet printer. Manually fed legal documents can be produced in one of two ways. One, the command for legal manual feed can be embedded in the MultiMate document: ALT-A027&l1O. When you embed a command, do not place the command against the left margin on the screen, insert several spaces prior to the embedded command. Two, your printer action table can be modified to accommodate legal manual feed (see your *MultiMate Advantage II Printer Guide* for instructions).
- Q: I want to use my LaserJet printer to print envelopes using MultiMate Advantage II. How is this done?**
- A: MultiMate Advantage II has a PAT for printing envelopes. The PAT name is LJETENV. Instructions for use of this PAT are in the *MultiMate Advantage II Printer Guide*. Note: Among the instructions is the instruction to insert thirty-five carriage returns prior to your address. This is correct for all LaserJet printers except Series II, which requires twenty-four carriage returns to position your mailing address.
- Q: Can I use multiple fonts in a MultiMate Advantage II document; and, if so, how can I access the fonts?**
- A: Yes, multiple fonts can be accessed in a single document. MultiMate Advantage II defines as many as twenty-six different font selections within a single PAT. Font changes are made using the ALT-C command followed by the appropriate font letter for the desired selection.

**Q: I have several font cartridges, how do I choose the correct PAT for the cartridge that I want to use?**

A: Many of the PAT selections are documented in the *MultiMate Advantage II Printer Guide* where the PATs are associated with particular font cartridges. More complete documentation is available from Ashton-Tate in a publication titled *Using MultiMate Advantage II with Your LaserJet Printer*. Their address is Ashton-Tate MultiMate, 52 Oakland Ave., E. Hartford, CT, USA 06108; their phone number is 203-247-3447.

**Q: I have soft fonts, can I use them with MultiMate Advantage II?**

A: Yes, soft fonts can be used with MultiMate Advantage II. Direct soft font support is limited and it is suggested that you print out the `ljetplus.doc` document from the `\LJETPLUS` subdirectory of the `Conversions 2` disc before attempting to use soft fonts. The PATs and CWTs for soft font use are also in the `\LJETPLUS` subdirectory and will have to be copied to the `\MM` subdirectory of your hard disc before they can be accessed. These PATs and CWTs are not copied during the installation program. Also, Ashton-Tate is working on supplementary PATs and CWTs for soft fonts; for more information contact Ashton-Tate.

**Q: I have a LaserJet Series II printer which has the line and box drawing characters as resident fonts, but have been unable to access them using MultiMate Advantage II's line and box drawing function. Is it possible to access these characters using MultiMate Advantage II?**

A: MultiMate Advantage II does not directly support the symbol set which contains these characters. These characters can be accessed in one of two ways. One, configure the software as if you were using the 92286Y font cartridge, and set the printer front panel default to default for the IBM-US (10U) symbol set (this can be done by changing the font number or by changing the symbol set default). Two, modify the PAT(s) to send the 10U symbol set request. There is a PAT available from MultiMate.

## HP LaserJet Printer Family: Display Write 4 Questions and Answers

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- Q: I am getting a blank page between pages—how can I correct this?**
- A: Change your last typing line or footer line so that it is less than 60.
- Q: After going into landscape orientation, I cannot get back into portrait orientation. What should I do?**
- A: You need to upgrade your HP printer drivers. Contact the LaserJet hotline at 208-323-2551 in the U.S.
- Q: How can Display Write 4's cursor draw work with the LaserJet?**
- A: With a LaserJet, LaserJet PLUS or LaserJet 500 PLUS, you must have a Y font cartridge. Cursor draw only supports certain symbol sets: PC Set 1 and IBM-US. With a Y cartridge in 10 pitch, choose a typestyle with the PC Set 1 symbol set. With a LaserJet, LaserJet PLUS or LaserJet 500 PLUS, use typestyle in 10 pitch with IBM US Symbol Set. Cursor draw is available only in 10 pitch.
- Q: How do I get extended characters to print in Display Write 4?**
- A: Perform a typestyle change to a Roman Extension typestyle and type in the ASCII character equivalent. It is a good idea to do the entire keyboard when set in Roman Extension to see how the keyboard is mapped, that is, what key is equal to what extended character.

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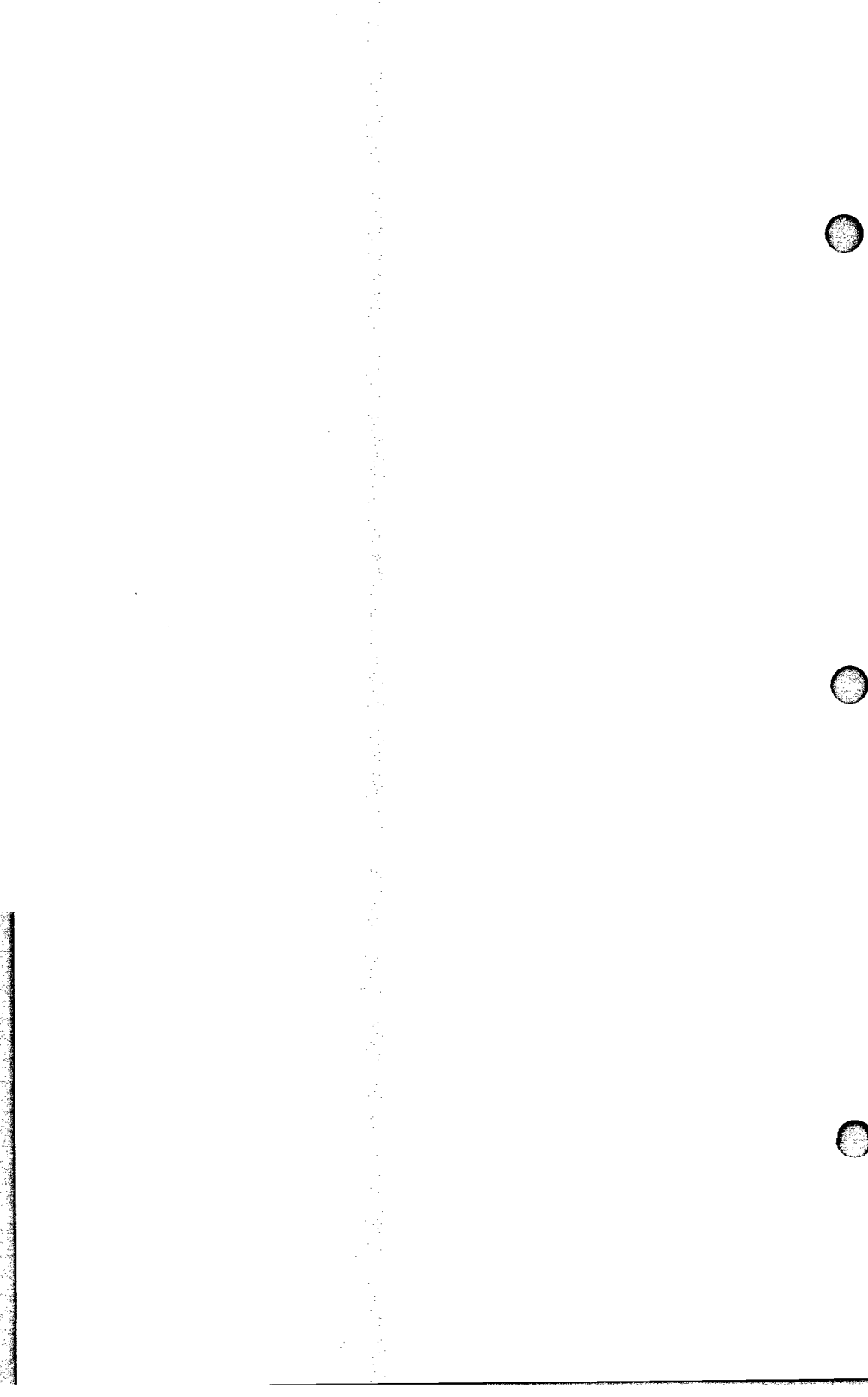
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# **Current Information**

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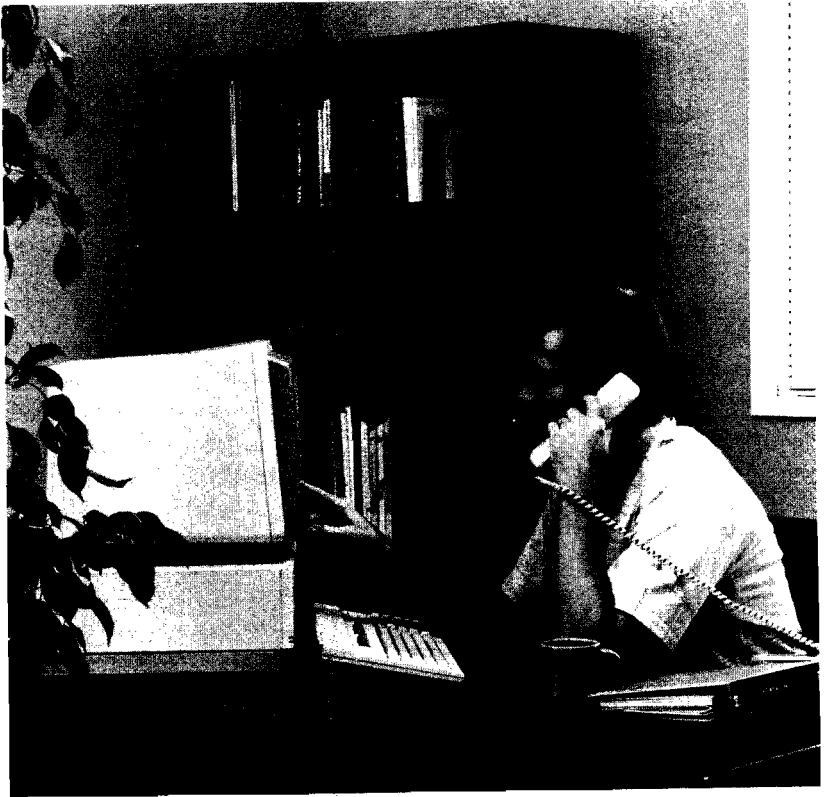
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## Current Information

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|   |                         |
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The level of capability provided by advanced personal computer software—together with the rapid evolution of this field—means that you may sometimes have questions that are not answered in the product manuals. Depending on where you purchased the specific software or hardware product, the best source of assistance for that product may be your own organization, your dealer or value-added reseller, an independent vendor, or Hewlett-Packard.

This section is designed to guide you through the process of obtaining the most rapid resolution of any question that you have. It is organized in a series of steps:

Step 1: Is the answer in the *HP PC Communicator*?

Step 2: Is the answer available through CompuServe?

Step 3: Is support provided from within your own organization?

Step 4: Was this product purchased from a dealer or value-added reseller?

Step 5: Was this product provided by an independent vendor?

Step 6: Telephone assistance from Hewlett-Packard

Step 7: Training or consulting

By following these steps, you can rapidly and inexpensively get the answer you need.

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**Step 1: Is the answer in the *HP PC Communicator*?**

The *HP PC Communicator* is the heart of our support program. This magazine brings you applications information, operational tips, programming techniques, information on software updates, manual corrections, and data on known software problems and their solutions.

The Encyclopedia section provides detailed, easily-accessed information on each major hardware and software product. Many of these sections are written by people from our HP HelpLine Response Centers, reflecting the most common questions and problems.

Refer to the article "Ordering *HP PC Communicator* Subscriptions" in the Current Information section of this issue for ordering details.

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**Step 2: Is the answer available through CompuServe?**

HP maintains a database on the CompuServe™ on-line information service called HP OnLine—it contains product news, answers to frequently-asked questions, and other information. HP also facilitates user interaction by hosting an open forum where users may post messages for general user response. Periodically, HP may respond to selected user questions.

To gain access to HP OnLine, you must have an account with CompuServe (you are billed for CompuServe connect time and network services) and you must have a 300- or 1200-baud modem.

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**Step 3: Is support provided from within your own organization?**

If you work in an organization which has several HP personal computers, there is often one person who coordinates the purchase, set-up, and training for your company or institution. In a large organization, this function is often provided by the central MIS, office-automation, or data-processing department. (For example, each Hewlett-Packard division or office has an Office Automation Coordinator, usually part of the information systems department, who provides the personal computer training and assistance.)

Your internal support personnel have full knowledge of your organization's overall system: your internally developed programs, your particular operating and networking procedures ... and your specific hardware and software configuration. Your experts, in turn, have access to special resources within Hewlett-Packard. HP support services, such as training courses, are purchased to supplement your internal capabilities.

With centralized support within your organization, your support is localized and customized to your particular needs.

If you do not have an internal support capability, support for a product generally comes from the organization that sold you the product—the dealer, value-added reseller, or Hewlett-Packard.

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**Step 4: Was this product purchased from a dealer or Value-Added Reseller?**

If this product was purchased from a dealer or Value-Added Reseller (VAR), they have worked with you to define your application and configure your system—perhaps selecting software or hardware not supplied or supported by Hewlett-Packard. Here, your dealer or VAR is the best source of assistance—knowing you, your needs, and your configuration well.

Authorized dealers and VARs are backed up by special support resources within HP . . . and, of course, the full range of Hewlett-Packard software and hardware support services may be purchased as a supplement to those provided by your dealer or VAR.

By buying your hardware, software, accessories, and supplies from an Authorized Hewlett-Packard Dealer or VAR who provides full support, you build up a continuing relationship—providing a local, personal, and uniquely-responsive support program customized for your business.

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**Step 5: Was this product provided by an independent vendor?**

Many products which run on HP personal computers are developed and marketed by independent organizations—referred to in the personal computer industry as “Independent Software Vendors” (ISVs) or “Independent Hardware Vendors” (IHVs).

Hewlett-Packard publishes catalogs and directories listing certain classes of software and hardware products that ISVs and IHVs have tested for operation on our systems. We refer to these as “verified” or “listed” products. Because of the specialized knowledge required, your support for one of these products comes either directly from the original developer or through the dealer or value-added reseller from whom you purchased it.

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**Step 6: Telephone assistance from Hewlett-Packard**

Telephone assistance is available from the worldwide network of Hewlett-Packard Response Centers for most products distributed by HP. (For certain specialized non-HP-developed products which are distributed by HP under our product number, we have made arrangements for support to come directly from the original developer. This is indicated in the product data sheet and the documentation supplied with the product.)

For telephone assistance outside the U.S. and Canada, call your HP Sales and Service Office and ask for the Personal Computer Response Center.

In the U.S. and Canada, the telephone assistance program is called HP HelpLine.



Here is how the U.S./Canada HP HelpLine program works:

- The toll-free HP HelpLine number is:  
1-800/858-8867

HP HelpLine is open Monday through Friday from 7 A.M. to 9 P.M. Eastern Standard Time (to 6 P.M. Pacific Standard Time).

- Calls to the HP HelpLine are paid for by one of three means:
  - By quoting a unique "certificate number" from a Call Certificate. Certificate packs are ordered by mail or telephone from HP's Direct Marketing Division.
  - By providing a VISA, MasterCard, or American Express charge authorization.
  - By identifying yourself as the Authorized Caller under a specific annual Software Support Agreement.
- When you call, a coordinator arranges for the appropriate HP support representative to return your initial call within two hours. Using a full set of software and documentation— together with computer knowledge, problem-solving skills, and access to further assistance via HP's worldwide telecommunications network—the support representative works with you to answer your question.
- HelpLine support does not extend to program development, program coding, isolation of coding errors, and implementation assistance. These areas are most economically resolved through on-site consulting and training, as described in Step 7, below.
- A call-incident is defined as a discussion of moderate duration focusing on one specific topic to resolve an inquiry or problem. A call-incident includes the time on the telephone discussing the question, time to research the solution, plus any additional call-backs required to clarify the question.
- The actual charge for a call-incident is not initiated until the call is closed. There is no charge if the call is the result of a specific documentation defect or software design problem ... or if an answer cannot be found.

[Of course, this is only a summary of the new Personal Computer Assistance program. For details, please call the National Response Center at (800) 858-8867.]

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**Step 7: Training or consulting**

Perhaps your need for support is most efficiently and economically met by training or consulting:

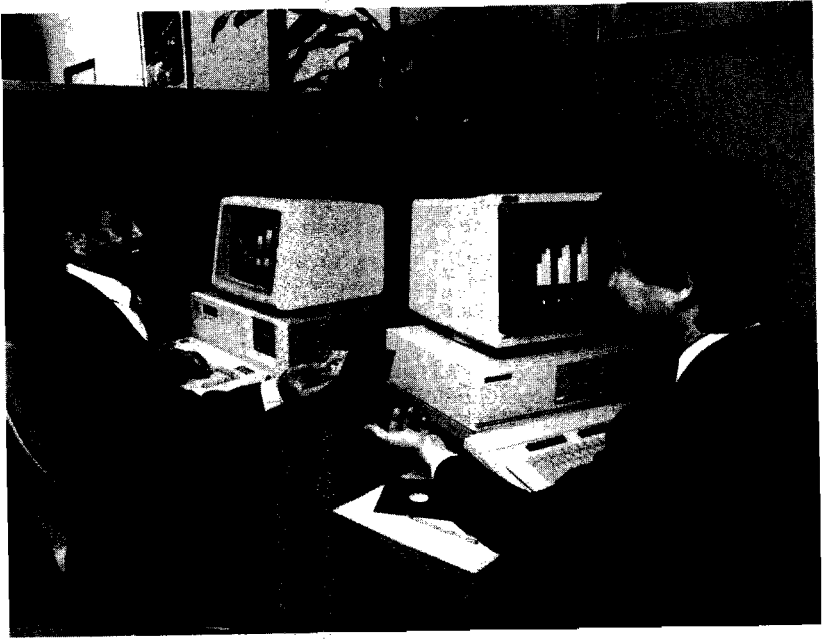
- Classroom training is available to supplement the documentation that accompanies your product. Courses can help first-time computer users rapidly build confidence and gain new skills away from the distractions of the day-to-day job. As HP training courses are developed, they are listed in the *HP PC Communicator*.

These courses can be taught at your facility using your own systems. Also, training to suit your specific needs can be designed and given through HP's computer consulting service.

Many dealers and value-added resellers teach similar courses or can arrange for Hewlett-Packard to teach a course in your area. To discuss training, call your local dealer, VAR, or HP office.

- Consulting service, available from Hewlett-Packard by the hour or by the day, provides personalized assistance in system operation, recommendations for improved performance, or suggestions on application design. Your dealer or value-added reseller may also have consulting services available. To discuss consulting, call your dealer or HP office.





**Get in Touch**



To get in touch with Vectra PC, Touchscreen/150, HP 12x, and Portable owners in your area—and worldwide—join Interex, the International Association of Hewlett-Packard Computer Users. Interex is an independent group of HP computer users, with chapters and regional groups in 60 countries. If you join Interex, you will receive, at no cost, an assortment of *HP PC Communicator* back issues which pertain to your computer model. (There is a limited supply for some computer models.)

**Start a Local Chapter**

Local Interex Personal Computer chapters are now forming. For details on joining or starting a group in your area, contact Interex headquarters and ask for the pamphlet "Starting a Regional User Group."

**Member Services**

**Standard Users Support Service** includes a subscription to *INTERACT* Magazine, a subscription to the *Interrupt* newsletter (Portable Users will receive *The Portable Paper*, instead of *INTERACT*), and an annual diskette from the Interex Contributed Software Library.

**Standard Users Support Service:**

- North America . . . . . \$70
- Outside North America . . . . . \$95

**How to Join**

To join, fill out the form on the next page.

For more information, contact:

Interex Member Services Department  
680 Almanor Ave.  
Sunnyvale, CA 94086  
U.S.A.  
Telephone 408/738-4848  
Telex #4971527





Computer:

- The Portable (HP 110)  
 Portable Plus  
 HP Touchscreen/150

- HP 120 or HP 125  
 Vectra PC

Disc Format:  3½" single-sided  3½" double-sided  5¼"  
Please send my free *Communicator* back issues

Are you currently receiving Interex services for HP 9000, HP 1000, or HP 3000 computers?

No  Yes: ID # \_\_\_\_\_

Please send more information about Interex's other activities:

\_\_\_\_ HP 1000    \_\_\_\_ HP 3000    \_\_\_\_ HP 9000

I understand that payment will not be refunded after the contributed software library disc has been sent from Interex.

Signature \_\_\_\_\_ Date \_\_\_\_\_

**Send this page with your full payment to:**

Interex  
Bank File #61054  
P.O. Box 60000  
San Francisco, CA 94160  
U.S.A.

The HP Vectra Personal Computers are a family of high-performance PCs designed to provide hardware and software compatibility with industry standards. Members of the Vectra PC family include:

**The Vectra CS PC:** a 7.16 MHz 8086-compatible, is the entry-level member of the Vectra PC family that delivers exceptional value for basic office computing needs.

**The Vectra ES PC:** an 8 MHz Intel 80286 IBM PC/AT compatible that offers mainstream business users growth to the next generation operating systems (OS/2) at an economical price.

**The Vectra ES/12 PC:** based on the 12 MHz Intel 80286 processor, this system provides superior performance and IBM PC/AT compatibility for the demanding business user.

**The Vectra RS/16 PC:** combines the powerful performance of a 16 MHz Intel 80386 microprocessor with the flexibility of a floor-mount package.

**The Vectra RS/20 PC:** provides premium performance and expandability to meet the needs of the most demanding PC user with a 20 MHz Intel 80386 microprocessor in a floor mount design.

HP's Vectra PCs can also be purchased as a complete system in two popular configurations: the HP Vectra Publisher PCs for desktop-publishing applications and the HP StarLAN PCs which provide all the elements needed to link to a StarLAN network as a workstation or a server. Both preassembled systems offer ordering and assembly ease.



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**The HP Vectra  
Publisher PC**

Three configurations of the Vectra Publisher are available. Order the product number D1200A and three "Must Order" options to select a complete Vectra Publisher workstation based on either the Vectra ES PC or the Vectra ES/12.

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**Vectra Publisher PC D1200A**

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**Option 011: Vectra Publisher ES Model 21**

Includes 8 MHz 80286 processor, 640KB RAM, 1.2 Mbyte flexible disc drive, a 20 Mbyte internal hard disc, and a Multimode Video Adapter.

**Option 051: 12-inch Monochrome Monitor**

**Option ABA:** U.S. Vectra Publisher PC Personality Pack. Includes HP Vectra DOS 3.2, PC Kit with terminal emulation software, Enhanced Vectra PC Keyboard, MS Windows for the Vectra PC, Aldus PageMaker software, HP Mouse and customized user documentation.\*

**Option 017: Vectra Publisher ES/12 Model 22**

Includes 12 MHz 80286 processor, 640KB Ram, 1.2 Mbyte flexible disc drive, a 20 Mbyte internal hard disc and an Enhanced Graphics Video Adapter.

**Option 052: 13-inch EGA Video Display**

**Option ABA:** U.S. Vectra Publisher PC Personality Pack

**Option 014: Vectra Publisher ES/12 Model 42**

Includes 12 MHz 80286 processor, 640KB Ram, 1.2 Mbyte flexible disc drive, a 40 Mbyte internal hard disc and an Enhanced Graphics Video Adapter.

**Option 052: 13-inch EGA Video Display**

**Option ABA:** U.S. Vectra Publisher PC Personality Pack

\*International language versions are available. See your dealer or HP sales representative for more information.

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**The Vectra CS PC**

The Vectra CS may be purchased in a variety of configurations for flexibility in assembling specific systems.

Each of the following models includes a 7.16 MHz processor, compatible with the Intel 8086, 640 Kbytes RAM, both a serial and parallel I/O interface, the HP Terminal Program, HP Vectra Disc Cache Program, the Enhanced Vectra PC keyboard, user documentation, and video adapter cards and disc storage as indicated.

**D1110A Vectra CS Model 10\***

Includes one 5.25-inch 360 Kbyte flexible disc drive.

**D1111A Vectra CS Model 11\***

Includes two 5.25-inch 360 Kbyte flexible disc drive and Multimode Video Adapter (monochrome).

**D1112A Vectra CS Model 12\***

Includes two 5.25-inch 360 Kbyte flexible disc drive and Enhanced Graphics Video Adapter (color).

**D1120A Vectra CS Model 20\***

Includes one 5.25-inch 360 Kbyte flexible disc drive and a 20 Mbyte hard disc.

**D1121A Vectra CS Model 21\***

Includes one 5.25-inch 360 Kbyte flexible disc drive, a 20 Mbyte hard disc and Multimode Video Adapter.

**D1122A Vectra CS Model 22\***

Includes one 5.25-inch 360 Kbyte flexible disc drive, a 20 Mbyte hard disc and Enhanced Graphics Video Adapter.

\*Must Order Language Option. Option ABA is U.S. English. International language versions are available. See your dealer or HP sales representative for more information.

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## The Vectra ES PC

The Vectra ES may be purchased in a variety of configurations for flexibility in assembling specific systems.

Each of the following models includes an 8 MHz Intel 80286 processor, 640 Kbytes RAM, a flexible and hard disc controller, both a serial and parallel I/O interface, an HP-HIL port, the HP Terminal Program, HP Vectra Disc Cache Program, the Enhanced Vectra PC keyboard, user documentation, and video adapter cards and disc storage as indicated.

### **D1210A Vectra ES Model 10\***

Includes one 5.25-inch 1.2 Mbyte flexible disc drive.

### **D1220A Vectra ES Model 20\***

Includes one 5.25-inch 1.2 Mbyte flexible disc drive and a 20 Mbyte hard disc.

### **D1221A Vectra ES Model 21\***

Includes one 5.25-inch 1.2 Mbyte flexible disc drive, a 20 Mbyte hard disc and Multimode Video Adapter.

### **D1222A Vectra ES Model 22\***

Includes one 5.25-inch 360 Kbyte flexible disc drive, a 20 Mbyte hard disc and Enhanced Graphics Video Adapter.

\*Must Order Language Option. Option ABA is U.S. English. International language versions are available. See your dealer or HP sales representative for more information.

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**The Vectra ES/12 PC**

The Vectra ES/12 may be purchased in a variety of configurations for flexibility in assembling specific systems.

Each of the following models includes a 12 MHz Intel 80286 processor, 640 Kbytes RAM, a flexible and hard disc controller, both a serial and parallel I/O interface, an HP-HIL port, the HP Terminal Program, HP Vectra Disc Cache Program, the Enhanced Vectra PC keyboard, user documentation, and video adapter cards and disc storage as indicated.

**D1310A Vectra ES/12 Model 10\***

Includes one 5.25-inch 1.2 Mbyte flexible disc drive.

**D1320A Vectra ES/12 Model 20\***

Includes one 5.25-inch 1.2 Mbyte flexible disc drive and a 20 Mbyte hard disc.

**D1321A Vectra ES/12 Model 21\***

Includes one 5.25-inch 1.2 Mbyte flexible disc drive, a 20 Mbyte hard disc and Multimode Video Adapter.

**D1322A Vectra ES/12 Model 22\***

Includes one 5.25-inch 1.2 Mbyte flexible disc drive, a 20 Mbyte hard disc and Enhanced Graphics Video Adapter.

**D1340A Vectra ES/12 Model 40\***

Includes one 5.25-inch 1.2 Mbyte flexible disc drive and a 40 Mbyte hard disc.

**D1341A Vectra ES/12 Model 41\***

Includes one 5.25-inch 1.2 Mbyte flexible disc drive, a 40 Mbyte hard disc and Multimode Video Adapter.

**D1342A Vectra ES/12 Model 42\***

Includes one 5.25-inch 1.2 Mbyte flexible disc drive, a 40 Mbyte hard disc and Enhanced Graphics Video Adapter.

\*Must Order Language Option. Option ABA is U.S. English. International language versions are available. See your dealer or HP sales representative for more information.

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**The Vectra RS/16 and RS/20 PCs**

The Vectra RS PCs may be purchased in a variety of configurations for flexibility in assembling specific systems.

The RS/16 and RS/20 models include a 16 MHz and 20 MHz microprocessor respectively. In addition both offer a flexible and hard disc controller, a serial and parallel I/O interface, an HP-HIL port, the HP Terminal Program, the HP Vectra Disc Cache program, HP Expanded Memory Manager/386, HP Disc Volume Expander/386, the Enhanced Vectra PC keyboard, system documentation and system memory and disc storage as indicated.

**D1500A Vectra RS/16 Model 40\***

Includes 1 Mbyte of system memory, one 5.25" 1.2 Mbyte flexible disc drive and a 40 Mbyte ST-506 hard disc.

**D1600A Vectra RS/20 Model 40\***

Includes 1 Mbyte of system memory, one 5.25" 1.2 Mbyte flexible disc drive and a 40 Mbyte ST-506 hard disc.

**D1602A Vectra RS/20 Model 100\***

Includes 2 Mbyte of system memory, one 5.25" 1.2 Mbyte flexible disc drive and a 103 Mbyte ESDI hard disc.

**D1603A Vectra RS/20 Model 150\***

Includes 2 Mbyte of system memory, one 5.25" 1.2 Mbyte flexible disc drive and a 155 Mbyte ESDI hard disc.

**D1604A Vectra RS/20 Model 300\***

Includes 2 Mbyte of system memory, one 5.25" 1.2 Mbyte flexible disc drive and a 310 Mbyte ESDI hard disc.

**D1606A Vectra RS/20 Power User PC\***

Includes 4 Mbyte system memory, 5.25" 1.2 Mbyte and 3.5" 1.44 Mbyte flexible disc drives, 103 Mbyte ESDI hard disc, 3 serial/1 parallel port, 80387 Numeric Coprocessor, Enhanced Graphics Adapter card and monitor, 40 Mbyte Tape Backup Mechanism, flexible disc expander, HP Mouse, Vectra DOS 3.2, and Microsoft Windows/386 Presentation Manager.

**\*Must Order Language Option.** Option ABA is U.S. English. International language versions are available. See your HP dealer or sales representative for more information.

To determine which U.S. products are recommended for use with localized computers, check with your dealer or HP sales office.

A worldwide corporate site licensing program offering customers up to 75 percent savings is now available for large quantity purchases of specified software. Below, these products are marked with a "+" sign. Contact your HP sales office for specifics.

| Name  | HP Product Number | Version            | Special Requirements  |
|---|-------------------|--------------------|---|
| <b>COMMUNICATIONS:</b>  |                   |                    |   |
| AdvanceLink*†<br>AdvanceMail†   | 45431A<br>27534A  | A.04.04<br>A.01.00 | Requires HP DeskManager B.00.00 or later on the HP 3000<br>Requires HP Desk Manager A.03.01 on the HP 3000                  |
| HPMessage†  | 36568A            |                    |   |
| IBM 3278 Term. Emul. Acces.*  | 45641B            |                    |   |
| HP ThinLAN Server Kit   | 50907A            |                    | Dedicated network server, 512K memory required<br>512K memory required  |
| HP ThinLAN User Link Kit  | 50908A            |                    |   |
| HP ThinLAN Server Software for HP Touchscreen PCs   | 50913A            |                    | Software, 512K memory required  |
| HP ThinLAN User Software for HP Touchscreen PCs   | 50914A            |                    | Software, 512K memory required  |
| HP ThinLAN User PC Configuration & Diagnostics Package/ Touchscreen                                 | 50929A            |                    |   |
| SERIAL Network PC User Configuration & Diagnostics Package/ Touchscreen                             | 50930A            |                    |   |
| HP OfficeShare Network Server Software Upgrade to HP ThinLAN Server Software for HP Touchscreen PCs | 50915A            |                    | Includes HP ThinLAN Server and PC Config and Diagnostics Software and License for PCs; must return OfficeShare master discs |

\*Uses HP Touch

†Corporate Site Licensing also available

| Name  | HP Product Number | Version | Special Requirements   |
|---|-------------------|---------|--|
| HP OfficeShare Network User Software Upgrade to HP ThinLAN User Software for HP Touchscreen PCs | 50916A            |         | Must return OfficeShare master discs   |
| HP SERIAL Network User Link Software for HP Touchscreen PCs                                     | 50910A            |         |  |
| Print Central† PC Software  | 36890A            | A.02.00 | For use with the HP 3000 Computer  |
| VT100 Terminal Emulator   | 45412A            |         |  |
| Office Talk (Phone Voice Mgmt.)   | 24520A            | A.01.02 | 512K   |
| <b>ENVIRONMENT MANAGER:</b>   |                   |         |  |
| Microsoft Windows   | 45875A            |         | DOS 3.2, 384K memory (512K is recommended), dual flexible disc system (one 710K byte disk is needed) or single flexible disc (260K or 710K) with hard disc |
| <b>DATA BASE MANAGEMENT:</b>  |                   |         |  |
| Executive Card Manager*†  | 45421A            | A.02.02 |  |
| ECM: Templates*   | 45441D            | A.01.02 |  |
| R:Base 5000   | 45563A            | 1.01    | 512K   |
| <b>ENGINEERING DESIGN:</b>  |                   |         |  |
| AutoCAD   | 47956A            |         | 512K   |
| <b>GRAPHICS:</b>  |                   |         |  |
| Charting Gallery†   | 45513A            | B.03.00 |  |
| Drawing Gallery†  | 45411A            | B.03.00 | 384K, Mouse req'd.   |
| HPDraw Figures Portfolio  | 45571A            | A.01.00 |  |
| Office Activities Portfolio   | 45568A            | A.01.00 |  |
| Business Mgmt. Portfolio  | 45570A            | A.02.00 |  |
| Chemical/PetroChemical Portfolio  | 45569A            | A.01.00 |  |

\*Uses HP Touch

†Corporate Site Licensing also available

| Name  | HP Product Number | Version   | Special Requirements |
|---|-------------------|---|----------------------|
| The Graphics Gallery Collection*†                           | 45437A            |   | 384K                 |
| HP Graphics Curator/3000 (36926R gives you "right to copy") | 36926A or 36926R  | For use with HP 3000.<br>Curator RTU 36926A<br>S/3X #310<br>S/5X #320<br>S/7X #330<br>Curator RTC 36926R<br>S/3X #310<br>S/5X #320<br>S/7X #330 |                      |
| <b>INTEGRATED SOLUTIONS:</b>                                |                   |   |                      |
| ExecuDesk—U.S.*   | 45444A            | A.03.00   |                      |
| Symphony from Lotus*  | 45498A            | 1.1   | 384K                 |
| <b>PROGRAMMING LANGUAGES AND DEVELOPMENT TOOLS:</b>         |                   |   |                      |
| BASIC by Microsoft  | 45445D            |   |                      |
| BASIC Programmer's Library                                  | 45310A            |   |                      |
| COBOL by Microsoft  | 45448A            |   |                      |
| Compiled BASIC by Microsoft                                 | 45446D            |   |                      |
| Cross Reference Utility                                     | 92248BA           |   |                      |
| Forms Master*   | 45443A            |   |                      |
| FORTRAN by Microsoft  | 45449D            |   |                      |
| GW-BASIC by Microsoft*                                      | 45450D            |   |                      |
| ICON Design System*   | 45311A            |   |                      |
| Lattice C Compiler  | 45452D            |   |                      |
| Pascal by Microsoft   | 45447D            |   |                      |
| Programmer's Tools  | 45435A            |   |                      |
| <b>SPREADSHEETS:</b>  |                   |   |                      |
| Lotus 1-2-3*  | 45566A            | 2.01  | 384K                 |
| <b>UTILITIES:</b>   |                   |   |                      |
| HP PLCPak   | 33406A            |   |                      |

\*Uses HP Touch

†Corporate Site Licensing also available



| Name                      | HP Product Number | Version | Special Requirements                        |
|---------------------------|-------------------|---------|---|
| <b>WORD PROCESSING:</b>   |                   |         |   |
| HPWORD/150 U.S. English*† | 27505A            | A.00.00 | 512K  |
| Executive MemoMaker*†     | 45418A            | C.03.00 | 384K for text<br>512K for text and graphics |
| Microsoft WORD*           | 45474D            | 1.10    | Now includes Microsoft Spell                |
| MultiMate*                | 45424A            | 3.29    |   |
| WordStar Professional     | 45427D            | 3.34    | 384K + dual double sided disk drive         |



\*Uses HP Touch

†Corporate Site Licensing also available

**U.S. Vectra Family PC Software** Marilyn Ruel, Pam Peterson,  
**Available from HP** Leslie Imai

To determine which U.S. products are recommended for use with localized computers, check with your dealer or HP office.

A worldwide corporate Site Licensing Program offering customers up to 75 percent savings is now available for large quantity purchases of specified software. Below these products are marked with a "+" sign. Contact your HP sales office for specifics.

★NEW—Software available in 3½-inch media for the HP Vectra.Computers and IBM and compatibles. Order Option 003. Software that is available on 3½-inch media is indicated with a "★" beside the product number.

| Name   | HP Product Number | Version | Special Requirements                                 |
|--|-------------------|---------|--|
| <b>COMMUNICATIONS:</b>                             |                   |         |  |
| AdvanceLink†<br>HP IRMA<br>IBM3278/79<br>Term Emul | ★68333F<br>50920A | B.01.00 |  |
| HPMessage†   | 36569E            |         | Requires HPDesk<br>Message A.03.01 on<br>the HP 3000 |
| Print Central/<br>Vectra†                          | 36890F            | A.02.01 | Corresponding 3000<br>software required              |
| AdvanceMail†                                       | ★27535F           | B.00.00 | Requires HPDesk<br>Manager on the<br>HP 3000         |
| AdvancePrint<br>Network                            | ★32583F<br>50923F | A.00.00 |  |
| Services-User<br>Services/<br>Vectra PC            |                   |         |  |
| 10 user license                                    | 50923F            | #OA9    |  |
| 50 user license                                    | 50923F            | #OAA    |  |
| HP StarLAN   | 50923F            | #OCJ    |  |
| User Upgrade<br>Kit                                |                   |         |  |
| HP ThinLAN<br>User Upgrade<br>Kit                  | 50923F            | #OCK    |  |
| HP SERIAL User<br>Upgrade Kit                      | 50923F            | #OCL    |  |
| Net!PC/RPM<br>Development<br>Package               | 50924F            |         |  |

†Corporate Site Licensing also available

| Name   | HP Product Number | Version | Special Requirements |
|--|-------------------|---------|----------------------|
| PC ServerSoftware/<br>Vectra PC  | 50925F            |         |                      |
| HP StarLAN<br>Server<br>Upgrade Kit  | 50925F            | #OCJ    |                      |
| HP ThinLAN<br>Server<br>Upgrade Kit  | 50925F            | #OCK    |                      |
| HP StarLAN/<br>Vectra PC<br>Link   | 50926F            |         |                      |
| HP ThinLAN/<br>Vectra PC<br>Link   | 50927F            |         |                      |
| HP SERIAL<br>Network/<br>Vectra PC<br>Link Software  | 50928F            |         |                      |
| HP ThinLAN<br>User PC<br>Configuration<br>& Diagnostics<br>Package/<br>Touchscreen<br>10 user license  | 50929A            | #OA9    |                      |
| 50 user license  | 50929A            | #OAA    |                      |
| LAN PC User<br>Configuration<br>& Diagnostics<br>Package/<br>Vectra PC<br>10 user license              | 50929F            | #OA9    |                      |
| 50 user license  | 50929F            | #OAA    |                      |
| HP ThinLAN/<br>StarLAN<br>Config<br>Upgrade Kit  | 50929F            | #OCN    |                      |
| HP SERIAL<br>Network PC<br>User Config.<br>& Diagnostics<br>Package/<br>Touchscreen<br>10 user license | 50930A            | #OAA    |                      |
| 50 user license  | 50930A            | #OCN    |                      |

| Name  | HP Product Number | Version | Special Requirements           |
|---|-------------------|---------|--------------------------------|
| HP SERIAL Network PC User Config. & Diagnostics Package/<br>Vectra PC | 50930F            |         |                                |
| 10 user license   | 50930F            | #OAA    |                                |
| 50 user license   | 50930F            | #OCN    |                                |
| HP Serial Config Upgrade Kit  | 50930F            | #OCL    |                                |
| HP 150 ThinLAN Server Kit   | 50907A            |         |                                |
| HP 150 ThinLAN User Link Kit  | 50908A            |         |                                |
| HP 150 SERIAL User Link Software                                      | 50910A            |         |                                |
| HP ThinLAN Server Software for HP Vectra PCs                          | 50913F            |         | Software, 512K memory required |
| HP ThinLAN User Software for HP Vectra/ IBM PCs                       | 50914F            |         | Software, 512K memory required |

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DESKTOP PUBLISHING:

|                  |        |  |                     |
|------------------|--------|--|---------------------|
| iPrint           | 35188D |  |                     |
| Vectra PageMaker | 45964A |  | MS Windows required |

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ENVIRONMENT MANAGER:

|                   |        |  |  |
|-------------------|--------|--|--|
| Vectra MS Windows | 45954A |  |  |
|-------------------|--------|--|--|

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DATA BASE MANAGEMENT:

|                                |         |         |                      |
|--------------------------------|---------|---------|----------------------|
| Executive Card Manager (ECM)*† | ★68331F | A.01.08 |                      |
| ECM: Templates*                | 68335F  | A.01.02 |                      |
| R:Base 5000                    | 68336F  | 1.01    | 512K memory required |
| R:Base System V                | 68328F  | 1.1     | 512K memory required |


\*Uses HP Touch

†Corporate Site Licensing also available

| Name  | HP Product Number | Version | Special Requirements  |
|---|-------------------|---------|---|
| <b>GRAPHICS:</b>  |                   |         |   |
| Drawing Gallery*†   | 68351F            | B.03.00 | 384K memory and mouse required  |
| Charting Gallery*†  | 68350F            | B.03.00 |   |
| The Graphics Gallery Collection*†                           | ★68352F           | B.03.00 | 384K memory and mouse required  |
| Office Activities Portfolio*                                | ★68324F           | A.01.00 |   |
| Business Mgmt. Portfolio*                                   | ★68326F           | A.01.01 |   |
| Chemical/PetroChemical Portfolio                            | ★68325F           | A.01.00 |   |
| HPDraw Figures Portfolio for Drawing Gallery                | ★68327F           | A.01.00 |   |
| HP Graphics Curator/3000 (36926R gives you "right to copy") | 36926A or 36926R  |         | For use with HP 3000.<br>Curator RTU 36926A<br>S/3X #310<br>S/5X #320<br>S/7X #330<br><br>Curator RTC 36926R<br>S/3X #310<br>S/5X #320<br>S/7X #330 |
| <b>INTEGRATED SOLUTIONS:</b>                                |                   |         |   |
| Lotus Symphony  | 68339F            | 1.2     | 384K memory required  |
| <b>PROGRAMMING LANGUAGES AND DEVELOPMENT TOOLS:</b>         |                   |         |   |
| Vectra GW BASIC Interpreter                                 | 45952A            | 3.11    |   |
| <b>SPREADSHEETS:</b>  |                   |         |   |
| Lotus 1-2-3   | ★68340F           | 2.01    |   |

\*Uses HP Touch

†Corporate Site Licensing also available

| Name   | HP Product Number | Version | Special Requirements  |
|--|-------------------|---------|---|
| <b>UTILITIES:</b>                              |                   |         |   |
| HP PLC PAK                                     | 33406B            |         |   |
| LaserControl<br>100***                         | 35190J            | Rev. 3  |   |
| Laserplotter                                   | 35188A            |         |   |
| <b>WORD PROCESSING:</b>                        |                   |         |   |
| AdvanceWrite<br>Plus†                          | ★27546F           | F.02.00 |   |
| Executive<br>MemoMaker*†                       | ★68330F           | A.03.00 |   |
| <b>PRINTER UTILITIES:</b>                      |                   |         |   |
| iPrint   | 35188D            |         |   |
| Jetplotter                                     | 35190P            |         |   |
| <b>OFFICE SOFTWARE PACKS:</b>                  |                   |         |   |
| HP Vectra PC<br>Office<br>Professional<br>Pack | 68300F            |         |  |
| HP Vectra PC<br>Office<br>Assistant Pack       | 68301F            |         |   |
| HP Vectra PC<br>Office Entry<br>Pack           | ★68306F           |         |   |

□

\*Uses HP Touch

\*\*\*Manufacturer Supported

†Corporate Site Licensing also available



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Small, faint markings or artifacts located in the middle-left area of the page.

## Localized HP 150/Touchscreen Software Available from HP

Harry Cruickshank

Here is a summary of the software that has been localized for the HP 150/Touchscreen. To order contact your local dealer (for some products) or sales representative. Some products may not be available or may not be supported in all countries.

| Name                 | HP Product Number | Country       | Revision |
|----------------------|-------------------|---------------|----------|
| AdvanceLink          | 45431AD           | German        | A.04.00  |
| AdvanceMail/150      | 27534AD           | German        | A.01.02  |
| AdvanceMail/150      | 27534AF           | French        | A.01.02  |
| AdvanceMail/150      | 27534AX           | Finnish       | A.01.02  |
| AdvanceMail/150      | 27534AY           | Danish        | A.01.02  |
| AdvanceMail/150      | 27534AZ           | Italian       | A.01.02  |
| Charting Gallery     | 45513AD           | German        | B.02.00  |
| Charting Gallery     | 45513AF           | French        | B.02.00  |
| Drawing Gallery      | 45411AD           | German        | A.02.01  |
| Drawing Gallery      | 45411AF           | French        | A.02.01  |
| Exec. Card Manager   | 45421AD           | German        | A.02.01  |
| Exec. Card Manager   | 45421AZ           | Italian       | A.02.01  |
| ExecuDesk            | 45444AD           | German        | A.02.00  |
| ExecuDesk            | 45444AE           | Spanish       | A.02.00  |
| ExecuDesk            | 45444AF           | French        | A.02.00  |
| ExecuDesk            | 45444AS           | Swedish       | A.02.00  |
| ExecuDesk            | 45444AZ           | Italian       | A.02.00  |
| ExecuDesk            | 45444AX           | Finnish       | A.02.00  |
| Executive MemoMaker  | 45418AD           | German        | C.02.00  |
| Executive MemoMaker  | 45418AF           | French        | C.02.00  |
| Executive MemoMaker  | 45418AX           | Finnish       | C.02.00  |
| Executive MemoMaker  | 45418AZ           | Italian       | C.02.00  |
| Gallery Collection   | 45437AD           | German        | B.02.00  |
| Gallery Collection   | 45437AF           | French        | B.02.00  |
| Gallery Collection   | 45437AX           | Finnish       | B.02.00  |
| Gallery Collection   | 45437AZ           | Italian       | B.02.00  |
| Gallery Pic.Lib. VII | 45433AF           | French        | A.01.00  |
| HP Access            | 36898AD           | German        | A.01.01  |
| HPMessage            | 36568DA           | German        | DA.00.01 |
| HP Word              | 27505AB           | U.K.          | A.02.00  |
| HPWord Corp Lic.     | 27505QB           | U.K.          | A.02.00  |
| HPWord Disc Pack     | 27505SB           | U.K.          | A.02.00  |
| HPWord Doc Pack      | 27505TB           | U.K.          | A.02.00  |
| MemoMaker            | 45420AV           | Arabic        | A.01.01  |
| MemoMaker            | 45420AV #ZAG      | Arabic/French | A.01.02  |
| MemoMaker            | 45420AT           | Hebrew        | A.01.01  |
| VisiCalc II          | 45405AF           | French        | B.01.02  |

□





**Localized HP Vectra Software  
Available from HP**

Lisa Byrne  
Harry Cruickshank  
Miles Mikasa

Below is a list of the HP Vectra software that has been localized. To order contact your dealer (for some products) or sales representative. Not all products are available or are supported in all countries.

| <b>Name</b>                           | <b>HP Product Number</b> | <b>Country</b> | <b>Revision</b> |
|---------------------------------------|--------------------------|----------------|-----------------|
| AdvanceMail Site Lic.                 | 27535LF                  | French         |                 |
| AdvanceMail Site Lic.                 | 27535LD/<br>QD/SD/TD     | German         |                 |
| AdvanceMail/Vectra                    | 27535FD                  | German         | A.01.02         |
| AdvanceMail/Vectra                    | 27535FF                  | France         | A.01.02         |
| AdvanceMail/Vectra                    | 27535FS                  | Swedish        | A.01.02         |
| AdvanceMail/Vectra                    | 27535FX                  | Finnish        | A.01.02         |
| AdvanceMail/Vectra                    | 27535FY                  | Danish         | A.01.02         |
| AdvanceMail/Vectra                    | 27535FZ                  | Italian        | A.01.02         |
| AdvanceWrite Site Lic.                | 27508QD                  | German         |                 |
| AdvanceWrite III                      | 27508FD                  | German         | F.01.02         |
| AdvanceWrite III                      | 27508FF                  | French         | F.01.02         |
| AdvanceWrite III                      | 27508FE                  | Spanish        | F.01.03         |
| AdvanceWrite III                      | 27508FH                  | Dutch          | F.01.03         |
| AdvanceWrite III                      | 27508FN                  | Norwegian      | F.01.03         |
| AdvanceWrite III                      | 27508FS                  | Swedish        | F.01.03         |
| AdvanceWrite III                      | 27508FX                  | Finnish        | F.01.03         |
| AdvanceWrite III                      | 27598FY                  | Danish         | F.01.03         |
| AdvanceWrite III                      | 27508FZ                  | Italian        | F.01.02         |
| Charting Gallery                      | 68350FD                  | German         | A.01.00         |
| Charting Gallery                      | 68350FF                  | French         | A.01.00         |
| Drawing Gallery                       | 68351FD                  | German         | A.01.00         |
| Drawing Gallery                       | 68351FF                  | French         | A.02.03         |
| Executive CardManager                 | 68331FZ                  | Italian        | A.01.06         |
| Executive CardManager                 | 68331FD                  | German         | A.01.06         |
| Executive CardManager                 | 68331FF                  | French         | A.01.06         |
| Executive CardManager                 | 68331FE                  | Spanish        | A.01.06         |
| Executive CardManager                 | 68331FH                  | Dutch          | A.01.06         |
| Executive CardManager                 | 68331FN                  | Norwegian      | A.01.06         |
| Executive CardManager                 | 68331FX                  | Finnish        | A.01.08         |
| Executive CardManager<br>Site License | 68331LD/<br>QD/SD/TD     | German         |                 |
| Executive MemoMaker                   | 68330FE                  | Spanish        | A.02.03         |
| Executive MemoMaker                   | 68330FF                  | French         | A.02.03         |
| Executive MemoMaker Site Lic.         | 68330LF/QF/<br>SF/TF     | French         |                 |
| Executive MemoMaker                   | 68330FH                  | Dutch          | A.02.03         |
| Executive MemoMaker                   | 68330FS                  | Swedish        | A.02.03         |
| Executive MemoMaker                   | 68330FX                  | Finnish        | A.02.03         |
| Executive MemoMaker                   | 68330FY                  | Danish         | A.02.03         |
| Executive MemoMaker                   | 68330FB                  | Eur. English   | A.02.03         |
| Executive MemoMaker                   | 68330FD                  | German         | A.02.03         |

| Name                | HP Product Number    | Country           | Revision |
|---------------------|----------------------|-------------------|----------|
| Executive MemoMaker | 68330FN              | Norwegian         | A.02.03  |
| Executive MemoMaker | 68330FZ              | Italian           | A.02.03  |
| Gallery Collection  | 68352FD              | German            | A.01.00  |
| Gallery Collection  | 68352FH              | Dutch             | A.01.00  |
| Gallery Collection  | 68352FX              | Finnish           | A.01.00  |
| Gallery Collection  | 68352FY              | Danish            | A.01.00  |
| Gallery Collection  | 68352FZ              | Italian           | A.01.00  |
| Gallery Collection  | 68352FE              | Spanish           | A.01.00  |
| Gallery Collection  | 68352FF              | French            | A.01.00  |
| Gallery Collection  | 68352FN              | Norwegian         | A.01.00  |
| Gallery Collection  | 68352FS              | Swedish           | A.01.00  |
| Gallery Collection  | 68352FX              | Finnish           | A.01.00  |
| Gallery Site Lic.   | 68352LD/<br>QD/SD/TD | German            |          |
| Gallery Site Lic.   | 68352LF/QF/<br>SF/TF | French            |          |
| HPWord Site Lic.    | 27536LF/QF/<br>SF/TF | Eur. English      |          |
| HPWord PC/Vectra    | 27536FB              | U.K.              | A.02.00  |
| HP Access Vectra    | 36898FD              | German            | F.01.01  |
| Lotus 1-2-3         | 68340FB              | Eur. English      | 2.01     |
| Lotus 1-2-3         | 68340FD              | German            | 2.01     |
| Lotus 1-2-3         | 68340FE              | Spanish           | 2.00     |
| Lotus 1-2-3         | 68340FF              | French            | 2.01     |
| Lotus 1-2-3         | 68340FS              | Swedish           | 2.01     |
| Lotus 1-2-3         | 68340FZ              | Italian           | 2.01     |
| Microsoft Windows   | 45954BD              | German            | 2.0      |
| Microsoft Windows   | 45954BE              | Spanish           | 2.0      |
| Microsoft Windows   | 45954BF              | French            | 2.0      |
| Microsoft Windows   | 45954BZ              | Italian           | 2.0      |
| MS-DOS              | *45951CD             | Germany           | 3.2      |
| MS-DOS              | *45951CE             | Spanish           | 3.2      |
| MS-DOS              | *45951CF             | France            | 3.2      |
| MS-DOS              | *45951CH             | Netherlands       | 3.2      |
| MS-DOS              | *45951CM             | Latin<br>America  | 3.2      |
| MS-DOS              | *45951CN             | Norwegian         | 3.2      |
| MS-DOS              | *45951CP             | Swiss-<br>German  | 3.2      |
| MS-DOS              | *45951CQ             | Swiss-<br>French  | 3.2      |
| MS-DOS              | *45951CS             | Sweden            | 3.2      |
| MS-DOS              | *45951CU             | United<br>Kingdom | 3.2      |
| MS-DOS              | *45951CW             | Belgium           | 3.2      |
| MS-DOS              | *45951CX             | Finland           | 3.2      |

\*3½-inch disc format.

| Name                  | HP Product Number | Country      | Revision |
|-----------------------|-------------------|--------------|----------|
| MS-DOS                | 45951BD           | German       | 3.2      |
| MS-DOS                | 45951BE           | European     | 3.2      |
|                       |                   | Spanish      |          |
| MS-DOS                | 45951BF           | French       | 3.2      |
| MS-DOS                | 45951BH           | Dutch        | 3.2      |
| MS-DOS                | 45951BM           | Latin Am     | 3.2      |
| MS-DOS                |                   | Spanish      | 3.2      |
| MS-DOS                | 45951BN           | Norwegian    | 3.2      |
| MS-DOS                | 45951BP           | Swiss-       | 3.2      |
|                       |                   | German       |          |
| MS-DOS                | 45951BQ           | Swiss-       | 3.2      |
|                       |                   | French       |          |
| MS-DOS                | 45951BS           | Swedish      | 3.2      |
| MS-DOS                | 45951BU           | United       | 3.2      |
|                       |                   | Kingdom      |          |
| MS-DOS                | 45951BW           | Flemish      | 3.2      |
| MS-DOS                | 45951BX           | Finnish      | 3.2      |
| MS-DOS                | 45951BY           | Danish       | 3.2      |
| MS-DOS                | 45951BZ           | Italian      | 3.2      |
| PageMaker             | 45964AD           | German       |          |
| PageMaker             | 45964AF           | French       |          |
| PageMaker             | 45964AE           | Spanish      |          |
| PageMaker             | 45964AZ           | Italian      |          |
| PageMaker             | 45964AS           | Swedish      |          |
| Symphony              | 68339FB           | Eur. English | A.01.2   |
| Vectra Office Assist. | 68301FB           | Eur. English |          |
| Vectra Office Assist. | 68301FF           | French       |          |
| Vectra Office Assist. | 68301FZ           | Italian      |          |
| Vectra Office Assist. | 68301FD           | German       |          |
| Vectra Office Assist. | 68301FH           | Dutch        |          |
| Vectra Office Assist. | 68301FY           | Danish       |          |
| Vectra Office Assist. | 68301FS           | Swedish      |          |
| Vectra Office Assist. | 68301FX           | Finnish      |          |
| Vectra Office Assist. | 68301FE           | Spanish      |          |
| Vectra Office Assist. | 68301FN           | Norwegian    |          |
| Vectra Office Prof.   | 68300FB           | Eur. English |          |
| Vectra Office Prof.   | 68300FF           | French       |          |
| Vectra Office Prof.   | 68300FZ           | Italian      |          |
| Vectra Office Prof.   | 68300FD           | German       |          |
| Vectra Office Prof.   | 68300FH           | Dutch        |          |
| Vectra Office Prof.   | 68300FY           | Danish       |          |
| Vectra Office Prof.   | 68300FS           | Swedish      |          |
| Vectra Office Prof.   | 68300FX           | Finnish      |          |
| Vectra Office Prof.   | 68300FE           | Spanish      |          |
| Vectra Office Prof.   | 68300FN           | Norwegian    |          |





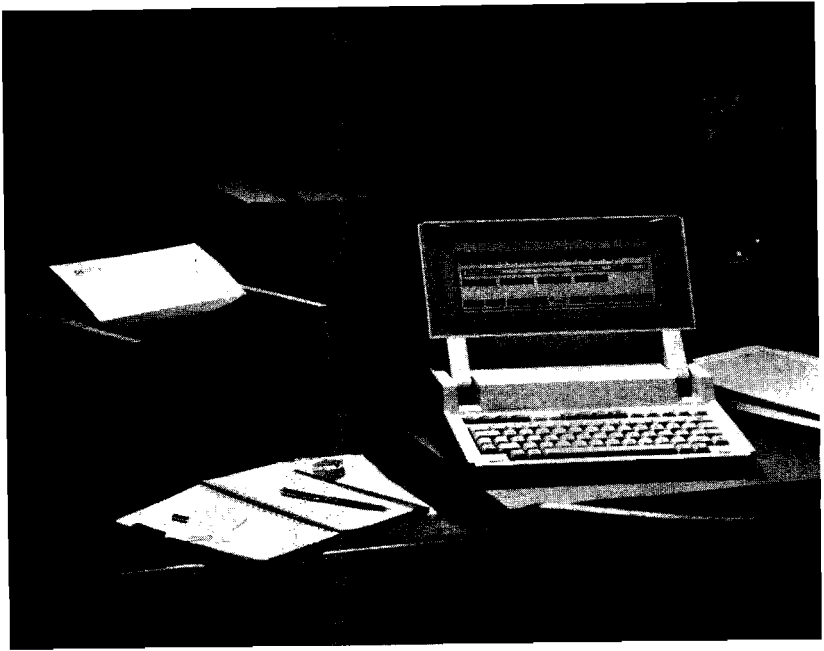
**Asian Vectra Software  
Available from HP**

Jenny Chiang

**For Asian countries only:**

| <b>Name</b>  | <b>HP Product Number</b>   | <b>Special Requirements</b> |
|--|----------------------------|-----------------------------|
| <b>COMMUNICATIONS:</b>   |                            |                             |
| Japanese AdvanceLink 2392<br>Traditional Chinese<br>AdvanceLink 2392 | 68333WJ<br>68333W Opt. ZAA | Minimum 384K Memory         |
| Korean AdvanceLink 2392  | 68333W Opt. ZAB            | Minimum 384K Memory         |
| <b>SPREADSHEETS:</b>   |                            |                             |
| Japanese Executive<br>Spreadsheet                                    | 68332WJ                    |                             |
| Traditional Chinese<br>Executive Spreadsheet                         | 68332W Opt. ZAA            | Minimum 384K Memory         |
| Korean Executive<br>Spreadsheet                                      | 68332W Opt. ZAB            |                             |
| <b>WORD PROCESSING:</b>  |                            |                             |
| Traditional Chinese<br>Executive MemoMaker                           | 68330W Opt. ZAA            | Minimum 384K Memory         |
| Korean Executive<br>MemoMaker  | 68330W Opt. ZAB            |                             |
| <b>GRAPHICS:</b>   |                            |                             |
| Asian Drawing Gallery  | 68351W                     |                             |
| Asian Drawing Gallery<br>English Extension                           | 68351W Opt. ZAN            |                             |
| Traditional Chinese<br>Drawing Gallery Fonts<br>(Taiwan version)     | 79308A Opt. ZAA            |                             |
| Asian Drawing Gallery<br>Korean Extension                            | 68351W Opt. ZAB            |                             |
| Korean Drawing Gallery<br>Fonts                                      | 79308A Opt. ZAB            |                             |
| Asian Graphics Gallery<br>(Taiwan version)                           | 68352W Opt. ZAA            |                             |

□



# Portable/Portable Plus Software Available from HP

Debbie Williams

To determine which U.S. products are recommended for use with localized computers, check with your dealer or HP office.

| Name  | HP Product Number | Portable | Portable Plus |
|---|-------------------|----------|---------------|
| <b>COMMUNICATIONS:</b>                              |                   |          |               |
| REFLECTION 1 (ROM)                                  | 82863K            |          | •             |
|   | Opt. 400          |          |               |
| YTerm   | 82867K            |          | •             |
|   | Opt. 630          |          |               |
| <b>DATA BASE MANAGEMENT:</b>                        |                   |          |               |
| Executive Card Manager (ROM)                        | 45555K            |          | •             |
|   | Opt. 400          |          |               |
| <b>PROGRAMMING LANGUAGES AND DEVELOPMENT TOOLS:</b> |                   |          |               |
| BASIC by Microsoft                                  | 45445D            | •        |               |
| BASIC by Microsoft (ROM)                            | 82862K            |          | •             |
|   | Opt. 400          |          |               |
| Compiled BASIC by Microsoft                         | 45446D            | •        | •             |
| FORTRAN by Microsoft                                | 45449D            | •        | •             |
| GW-BASIC by Microsoft                               | 45450D            | •        | •             |
| Pascal by Microsoft                                 | 45447D            | •        | •             |
| Programmer's Tools                                  | 45419C            | •        | •             |
| Technical Reference Manual                          | 45559K            |          | •             |
| <b>SPREADSHEETS:</b>                                |                   |          |               |
| Lotus 1-2-3 V. 2.01                                 | 45539K            |          |               |
|   | Opt. 400          |          | ROM           |
| <b>WORD PROCESSING:</b>                             |                   |          |               |
| MemoMaker/Time Management (ROM)                     | 45504K            |          | •             |
|   | Opt. 400          |          |               |
| Microsoft SPELL                                     | 45556D            | •        | •             |
| Microsoft WORD                                      | 45474D            | •        |               |
| Microsoft WORD (ROM)                                | 45549K            |          |               |
|   | Opt. 400          |          | •             |
| MultiMate (ROM)                                     | 45554K            |          | •             |
|   | Opt. 400          |          |               |

□





**Replacement Media for Discontinued Software**

We are committed to sustain support for Hewlett-Packard products well after technology advances and market demand cause us to discontinue offering a product for sale.

It is HP corporate policy to ensure availability of parts and full support services for your computer for five years beyond discontinuance. Specifically, this means:

- Replacement Media Exchange Kits available for five years from date of last HP shipment for each product in the table below.

See the Software Exchange Kits article in this issue for information on the Kits.

- Availability of telephone assistance through Hewlett-Packard Help Line Response Centers.
- Continuing coverage in this magazine—the *HP PC Communicator*.

| Product Name            | Touchscreen/150: |                               |
|-------------------------|------------------|-------------------------------|
|                         | HP Product #     | Superseded by:                |
| <b>ACCOUNTING:</b>      |                  |                               |
| BPI General Accounting  | 45455A           | None                          |
| BPI Accounts Receivable | 45456A           | None                          |
| BPI Accounts Payable    | 45457A           | None                          |
| BPI Inventory Control   | 45460A           | None                          |
| BPI Job Cost            | 45461A           | None                          |
| BPI Payroll             | 45458A           | None                          |
| BPI Personal Accounting | 45459A           | None                          |
| <b>COMMUNICATIONS:</b>  |                  |                               |
| Dow Jones Spreadsheet   | 45511D           | None                          |
| PFS:File and Report     | 45488A           | None                          |
| Transend COMPLETE       | 45414A           | Available from Transend Corp. |
| <b>DATABASES:</b>       |                  |                               |
| DSN/Link—U.S. English   | 45425A           | AdvanceLink/150—45431A        |
| Condor 1                | 45415A           | Available from Condor Corp.   |
| Condor 1 to 3 Upgrade   | 45417A           | Available from Condor Corp.   |
| Condor 3                | 45416A           | Available from Condor Corp.   |
| dBASE II/150            | 45468A           | dBASE II—45468D               |
| Personal Card File/150  | 45422A           | Executive Card Manager—45421A |
| R:Base 4000             | 45545A           | R:Base 5000—45563A            |

| Product Name                                | Touchscreen/150: |  |
|---|------------------|--|
|   | HP Product #     | Superseded by:   |
| <b>GRAPHICS:</b>                            |                  |  |
| Charting Gallery/Executive MemoMaker Bundle | 45440A           | Sold separately: Charting Gallery—45513A and/or Executive MemoMaker—45418A |
| Series 100 Graphics—U.S.                    | 45410A           | Charting Gallery—45513A  |
| Graphplan by Chang Labs                     | 45467A           | Available from Chang Labs  |
| Graphwriter Basic Set                       | 45484A           | None   |
| PFS: Graph                                  | 45490A           | None   |
| <b>INTEGRATED SOLUTIONS:</b>                |                  |  |
| ExecuDesk System                            | 45442A           | ExecuDesk sold separately—45444A   |
| <b>SPREADSHEETS:</b>                        |                  |  |
| Context MBA/150                             | 45481A           | None   |
| Financial Calculator                        | 45423A           | None   |
| VisiCalc/150—U.S. English                   | 45405A           | None   |
| MicroPlan                                   | 45465A           | Available from Chang Labs  |
| MicroPlan Consolidation Module              | 45466A           | Available from Chang Labs  |
| Microsoft Multiplan/150                     | 45473A           | None   |
| Microsoft Multiplan                         | 45473D           | None   |
| Deluxe VisiCalc                             | 45405A           | None   |
| <b>WORD PROCESSING:</b>                     |                  |  |
| MemoMaker/150—U.S. English Touchscreen      | 45420A           | Executive MemoMaker/150—45418A   |
| PFS: Write                                  | 45489A           | None   |
| Microsoft Spell                             | 45556D           | Included in Microsoft Word (45474D)  |
| WordStar/150—U.S. English                   | 45400A           | WordStar—Professional—45427D   |
| MailMerge—U.S. English                      | 45401A           | Included in WordStar Professional—45427D                                   |

| <b>Product Name</b>                    | <b>HP Product #</b> | <b>Superseded by:</b>  |
|--|---------------------|--|
| SpellStar                              | 45402A              | SpellStar has been superseded by CorrectStar which is included in WordStar Professional—45427D. An Upgrade kit is available from CorrectStar to SpellStar for users with a dual single-sided disc drive. |
| WordStar/MailMerge/<br>SpellStar Combo | 45404A              | Superseded by WordStar Professional—45427D.  |
| WordStar                               | 45400D              | Included in WordStar Professional (45427D)   |
| WordStar Professional<br>Options       | 45429D              |  |

**HP Vectra PC and/or IBM PC/XT/AT:**

| <b>Product Name</b>         | <b>HP Product #</b> | <b>Superseded by:</b>                        |
|-----------------------------|---------------------|--|
| <b>DATA COMMUNICATIONS:</b> |                     |  |
| AdvanceLink                 | 45431E              | AdvanceLink—68333F                           |
| Monitor/IBM PC              | 45439A              | AdvanceLink—68333F                           |
| <b>DATABASES:</b>           |                     |  |
| Personal Card File          | 45422E              | Executive Card Manager—68331F                |
| <b>WORD PROCESSING:</b>     |                     |  |
| Memomaker/IBM PC            | 45420E              | Executive Memomaker—68330F                   |
| WordStar                    | 68345F              | Available from MicroPro, Inc.                |
| WordStar Professional       | 68346F              | Available from MicroPro, Inc.                |
| WordStar 2000               | 68341F              | Available from MicroPro, Inc.                |
| WordStar 2000 PLUS          | 68342F              | Available from MicroPro, Inc.                |
| MultiMate                   | 68338F              | Available from MultiMate International Corp. |
| MultiMate Advantage         | 68343F              | Available from MultiMate International Corp. |
| <b>SPREADSHEETS:</b>        |                     |  |
| Executive Spreadsheet       | 68332F              |  |

The Portable or the Portable Plus:

| Product Name                            | HP Product # | Superseded by:                   |
|---|--------------|----------------------------------|
| <b>COMMUNICATIONS:</b>                  |              |                                  |
| Dow Jones Spreadsheet                   | 45511D       | None                             |
| <b>SPREADSHEETS:</b>                    |              |                                  |
| Microsoft Multiplan                     | 45473D       | None                             |
| Rags to Riches /<br>general ledger      | 45520C #400  | None                             |
| Rags to Riches / sales                  | 45521C #400  | None                             |
| Rags to Riches /<br>accounts receivable | 45522C #400  | None                             |
| Rags to Riches /<br>accounts payable    | 45523C #400  | None                             |
| Lotus 1-2-3 Release 1A                  | 45548K #400  | 45539K #400<br>(1-2-3 ver. 2.01) |
| <b>DATABASES:</b>                       |              |                                  |
| DataFax                                 | 45408C       | None                             |

□

Here is a list of the most popular HP PC supplies and accessories.

A full list of HP computer supplies matched to your system for optimum performance appears in the *HP Computer User's Catalog*.

For ordering information—or to obtain a copy of the *User's Catalog*—refer to the "How To Order" section in this Current Information section.

**For Computers**

■ **The Portable**

- 13269K Vinyl replacement case
- 13269V System carrying case
- 13269Z Leather briefcase
- 82167A HP-IL cable (0.5 meters)
- 82167B HP-IL cable (1.0 meter)
- 92221M RS-232C modem cable (1.5 meters)
- 92221P RS-232C printer cable (1.5 meters)
- 92224F RS-232C gender converter (female)
- 92224M RS-232C gender converter (male)

■ **HP 120 Personal Computer**

- 13242H RS-232C cable (use 13242-60011 for replacement)
- 13269P Carrying case (for HP 120 with short keyboard plus 9121 disc drive; or HP 120 with extended keyboard)
- 92171C Keyboard drawer park
- 92171J Keyboard park—large
- 92171T System turntable
- 92240A Display tilt unit
- 92240B Display swivel unit
- 92220R Right-angle HP-IB cable (0.3 meters long)
- 92251P "Stacked" dust cover (for computer and disk drive)

■ **HP 125 Personal Computer**

- 92160A Thermal paper, blue print (box of 24 rolls)
- 92160B Thermal paper, black print (box of 24 rolls)
- 92171C Keyboard drawer park
- 92171T System turntable
- 92207A Anti-glare filter
- 92250B Dust cover

■ **HP 150 Touchscreen Personal Computer**

- 13242H RS-232C cable (use 13242-60011 for replacement)
- 13269BB Carrying case for Touchscreen
- 13269C Carrying case (for HP 150 and 9121 disc drive)
- 48296A Backup Power Supply
- 92160A Thermal paper, blue print (box of 24 rolls)
- 92160B Thermal paper, black print (box of 24 rolls)

|        |  |
|--------|--|
| 92165A | 2 plug surge suppressor  |
| 92165B | 4 plug surge suppressor  |
| 92165C | 6 plug surge suppressor  |
| 92165R | RS-232C surge protector  |
| 92171C | Keyboard drawer park   |
| 92171J | Large (extended) keyboard park   |
| 92171X | ThinkJet printer stand for top of display  |
| 92208A | Mobile PC Centre   |
| 92220R | Right-angle HP-IB cable (0.3 meters long)  |
| 92240A | Light-gray tilt unit   |
| 92240B | Light-gray swivel unit   |
| 92250F | Dust cover for 150   |
| 92250K | Dust cover for Touchscreen   |
| 92251P | Dust cover for Touchscreen "stacked"   |
| 92261R | ThinkJet paper catcher (use with 92171X printer stand)                                       |
| 92268A | 4 metre StarLAN cable. 8-pin connected/4 twisted pair unshielded cable with RJ45 connectors  |
| 92268B | 8 metre StarLAN cable. 8-pin connected/4 twisted pair unshielded cable with RJ45 connectors  |
| 92268C | 16 metre StarLAN cable. 8-pin connected/4 twisted pair unshielded cable with RJ45 connectors |
| 92268D | 32 metre StarLAN cable. 8-pin connected/4 twisted pair unshielded cable with RJ45 connectors |

#### ■ HP Vectra PC

|         |  |
|---------|--|
| 24542D  | Parallel printer cable for the Vectra PC (2 meters)                          |
| 24542G  | Serial printer/plotter cable for the Vectra PC (3 meters)                    |
| 24542H  | Serial plotter cable for Vectra PC to 7550 plotter (3 meters)                |
| 24542M  | U.S./European modem cable (3 meters) for the Vectra PC                       |
| 35178A  | Vectra PC three-piece carrying case  |
| 35184E  | Desk plotter software (allows DeskJet to do plotter graphics)                |
| 35188A  | LaserPlotter software (allows laser to do plotter graphics)                  |
| 35188D  | iPrint software (allows LaserJet to print & fill-in forms)                   |
| 35190J  | LaserControl software print Lotus sideways                                   |
| 35190P  | Jetplotter software (allows InkJet printers to emulate plotters)             |
| 45741A  | Monochrome video extension cable   |
| 45742A  | Color video extension cable  |
| 45986A  | Security System Lock   |
| 46296A  | Backup Power Supply  |
| 88140LC | 600' formatted/certified data cartridge, 67-Mb formatted capacity (box of 5) |
| 88140SC | 150' formatted/certified data cartridge, 16 Mb formatted capacity (box of 5) |
| 92165A  | 2 plug surge suppressor  |
| 92165B  | 4 plug surge suppressor  |
| 92165C  | 6 plug surge suppressor  |
| 92165R  | RS-232C surge protector  |
| 92166A  | Vectra PC keyboard park  |
| 92171X  | ThinkJet printer stand for top of display                                    |
| 92190A  | 5.25-inch flexible discs, 360 KB formatted capacity (box of 10 discs)        |

|        |  |
|--------|--|
| 92190X | High-capacity 5.25-inch flexible discs, 1.2 MB formatted capacity for use on the Vectra PC's high capacity internal disc drive (box of 10 discs) |
| 92192A | 3.5" micro flex discs, double-sided (box of 10)  |
| 92192X | 3.5" micro flex discs, high-density (box of 10)  |
| 92208A | Mobile PC Centre   |
| 92259A | Vectra PC dust cover for monochrome monitor and keyboard   |
| 92259B | Vectra PC dust cover for color/EGA monitor and keyboard  |
| 92261R | ThinkJet paper catcher (use with 92171X printer stand)   |
| 92268A | 4 metre StarLAN cable. 8-pin connectored/4 twisted pair unshielded cable with RJ45 connectors  |
| 92268B | 8 metre StarLAN cable. 8-pin connectored/4 twisted pair unshielded cable with RJ45 connectors  |
| 92268C | 16 metre StarLAN cable. 8-pin connectored/4 twisted pair unshielded cable with RJ45 connectors   |
| 92268D | 32 metre StarLAN cable. 8-pin connectored/4 twisted pair shielded cable with RJ45 connectors   |

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### For Disc Drives

#### ■ HP 9122C and 9153C 3.5-inch Disc Drives

|        |   |
|--------|---|
| 92192A | 3.5-inch micro flexible discs—double-sided (box of 10)                                |
| 92192N | 3.5-inch micro flexible discs—double-sided (box of 100)                               |
| 92192X | 3.5-inch high density microflexible discs (box of 10)                                 |
| 92191E | FlexFiles for 3.5-inch discs (Pkg. of 5 FlexFiles—each unit holds 10 discs)           |
| 92191F | Portable album file for 3.5-inch discs (capacity 20 discs)                            |
| 92191M | Micro carrying case pack for 3.5-inch discs (Pkg. of 3 cases—each case holds 5 discs) |
| 92191P | Hanging file pages for 3.5-inch discs (capacity 40 discs)                             |
| 92191Q | Compact file for 3.5-inch discs (capacity 25 discs)                                   |
| 92191T | Micro disc case for 3.5-inch discs (capacity 10 discs)                                |

#### ■ HP 82901M/S, 82902M/S, 9130A, 9135A 5.25-inch Disc Drives

|        |  |
|--------|--|
| 92190A | 5.25-inch flexible discs, double-sided (box of 10 discs)                     |
| 92190L | 5.25-inch flexible discs in Flex Files (box of 50 discs in Flex Files)       |
| 92190N | 5.25-inch flexible discs (box of 100 discs)                                  |
| 92193K | 5.25-inch flexible-disc drive-cleaning kit                                   |
| 92194A | Compact file for 5.25-inch discs (capacity 50 discs)                         |
| 92194E | FlexFiles for 5.25-inch discs (Pkg. of 5 FlexFiles—each unit holds 10 discs) |
| 92194G | Portable album file for 5.25-inch discs (capacity 20 discs)                  |
| 92194N | 5.25-inch rolltop file (capacity 120 discs)                                  |
| 92194P | Hanging file pages for 5.25-inch discs (Pkg. of 10—capacity 20 discs)        |
| 92251A | Dust cover (82901M/S)  |
| 92251B | Dust cover (82902M/S)  |



■ **HP 9121D/S, 9133A/B, 9133V/XV, 9134 3.5-inch Disc Drives; 9114A/B, 9122D, 9122S, 9123D, 9133D, and 9153A/B Disc Drives**

|        |   |
|--------|---|
| 13269T | Disc-drive case for 9121  |
| 92191A | 3.5-inch micro flex discs—single-sided (box of 10)                                    |
| 92192N | 3.5-inch micro flex discs—double-sided (box of 100 discs)                             |
| 92191D | 3.5-inch micro flex disc desktop file (capacity 50)                                   |
| 92191E | FlexFiles for 3.5-inch discs (Pkg. of 5 FlexFiles—each unit holds 10 discs)           |
| 92191F | Portable album file for 3.5-inch discs (capacity 20 discs)                            |
| 92191H | 3.5-inch micro flex disc album (capacity 20) (replaces 92191C)                        |
| 92191L | Package of 20 pages for use with 92191H   |
| 92191M | Micro carrying case pack for 3.5-inch discs (Pkg. of 3 cases—each case holds 5 discs) |
| 92191P | Hanging file pages for 3.5-inch discs (capacity 40 discs)                             |
| 92191Q | Compact file for 3.5-inch discs (capacity 25 discs)                                   |
| 92191T | Micro disc case for 3.5-inch discs (capacity 10 discs)                                |
| 92191R | 3.5-inch micro flex disc roll-top file (capacity 50)                                  |
| 92192A | 3.5-inch micro flex discs—double-sided (box of 10)                                    |
| 92192N | 3.5-inch micro flex discs—double-sided (box of 100)                                   |
| 92251D | Dust cover (9121 D/S)   |

■ **HP 45812A Internal 1.2 Mb 5.25-inch Disc Drive for the Vectra PC**

|        |  |
|--------|--|
| 92190X | 5.25-inch high capacity flexible disc (box of 10)                            |
| 92194A | Compact file for 5.25-inch discs (capacity 50 discs)                         |
| 92194E | FlexFiles for 5.25-inch discs (Pkg. of 5 FlexFiles—each unit holds 10 discs) |
| 92194G | Portable album file for 5.25-inch discs (capacity 20 discs)                  |
| 92194P | Hanging file pages for 5.25-inch discs (Pkg. of 10—capacity 20 discs)        |

■ **HP 45813A Internal 1.44Mb 3.5-inch Disc Drive for the Vectra PC**

|        |   |
|--------|---|
| 92192A | 3.5-inch micro flexible discs—double-sided (box of 10)                                |
| 92192N | 3.5-inch micro flexible discs—double-sided (box of 100)                               |
| 92192X | 3.5-inch high density microflexible discs (box of 10)                                 |
| 92191E | FlexFiles for 3.5-inch discs (Pkg. of 5 FlexFiles—each unit holds 10 discs)           |
| 92191F | Portable album file for 3.5-inch discs (capacity 20 discs)                            |
| 92191M | Micro carrying case pack for 3.5-inch discs (Pkg. of 3 cases—each case holds 5 discs) |
| 92191P | Hanging file pages for 3.5-inch discs (capacity 40 discs)                             |
| 92191Q | Compact file for 3.5-inch discs (capacity 25 discs)                                   |
| 92191T | Micro disc case for 3.5-inch discs (capacity 10 discs)                                |

■ **HP 9142A Cartridge Tape Drive**

|        |   |
|--------|---|
| 92242L | 600-foot data cartridge, 52 Mb formatted capacity (box of 5)              |
| 92242S | 150-foot data cartridge, 15 Mb formatted capacity (box of 5)              |
| 92167F | Storage tray for 92242L/S tapes (holds up to 10 tapes)                    |
| 92167L | Storage album for 88140LC/SC tapes (Pkg 5 albums—each holds 4 cartridges) |
| 92193E | Cleaning cartridge kit  |
| 92193P | Replenishment kit for 92193E cleaning cartridge kit                       |

■ **HP 9144A Cartridge Tape Drive**

|         |   |
|---------|---|
| 88140LC | 600-foot formatted/certified data cartridge, 67Mb formatted capacity (box of 5) |
| 88140SC | 150-foot formatted/certified data cartridge, 16Mb formatted capacity (box of 5) |
| 92167F  | Storage tray for 88140LC/SC tapes (holds up to 10 tapes)                        |
| 92167L  | Storage album for 88140LC/SC tapes (Pkg 5 albums—each holds 4 cartridges)       |
| 92193E  | Cleaning cartridge kit  |
| 92193P  | Replenishment kit for 92193E cleaning cartridge kit                             |

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**For Printers**

■ **HP 3630A PaintJet Color Graphics Printer**

|        |  |
|--------|--|
| 35190P | Jetplotter software (allows PaintJet to emulate plotter) |
| 51606A | Black ink print cartridge                                |
| 51606C | Color ink (cyan, magenta, yellow) print cartridge        |
| 51630P | Z-fold PaintJet printer paper (250 sheets)               |
| 51630Q | PaintJet transparency film (50 sheets with sleeves)      |
| 51630R | Z-fold PaintJet paper, A4 size (250 sheets)              |
| 51630S | PaintJet transparency film, A4 size (250 sheets)         |
| 51630Y | Cut-sheet PaintJet printer paper (250 sheets)            |
| 51630Z | Cutsheet PaintJet paper, A4 size (250 sheets)            |
| 92261G | Paper catcher for 92269A printer stand                   |
| 92250Z | PaintJet printer dust cover                              |
| 92269A | Desktop stand for PaintJet Printer                       |

■ **HP 2225A/B/C/D ThinkJet Printer**

|        |  |
|--------|--|
| 35178C | Carrying Case  |
| 35190P | Jetplotter software (allows ThinkJet to emulate plotter)   |
| 51604A | Black ink print cartridge for text printing on plain paper   |
| 51605B | Individual printhead ink cartridge (blue)  |
| 51605G | Individual printhead ink cartridge (green)   |
| 51605R | Individual printhead ink cartridge (red)   |
| 35190P | Jetplotter software (allows ThinkJet Printer to emulate plotter)   |
| 51630A | Fan-fold ink jet paper (500 sheets/box)  |
| 51630J | Cut-sheet ink jet paper (500 sheets/box)   |
| 51630L | Pressure sensitive ink jet labels (2 across, 2000/box)   |
| 92171X | Terminal top ThinkJet printer stand for 239X series terminals  |
| 92250V | Dust cover   |
| 92261A | Individual printhead ink cartridge (black)   |
| 92261D | Accessory Kit (2 print heads, 500 sheets fanfold paper, 500 sheets cut paper, 1 dust cover, and 1 printer stand) |
| 92261N | Fan-folded ink-jet paper (five 500-sheet packs)  |
| 92261R | Paper catcher for use with 92261S and 92171X stands  |
| 92261S | Desktop Thinkjet printer stand   |

■ **HP 2227A/B QuietJet/QuietJet Plus**

|        |   |
|--------|---|
| 51604A | Black ink print cartridge for text printing on plain paper  |
| 51605B | Individual printhead ink cartridge (blue)   |
| 51605G | Individual printhead ink cartridge (green)  |
| 51605R | Individual printhead ink cartridge (red)  |
| 51630B | Z-fold wide paper for QuietJet Plus (500 sheets)  |
| 51630D | Z-fold wide paper for QuietJet plus (2500 sheets)   |
| 92250X | QuietJet dust cover   |
| 92250W | QuietJet Plus dust cover  |
| 92261A | Individual printhead ink cartridge (black)  |
| 92261G | Paper catcher for 92261T/U printer stands   |
| 92261P | QuietJet Plus accessory kit (1 each black, blue, green, and red printhead cartridges, printer stand, dust cover, printer paper) |
| 92261T | QuietJet Plus printer stand   |
| 92261U | QuietJet printer stand  |
| 35190P | Jetplotter software (allows QuietJet to emulate plotter)  |

■ **HP 2235A/B/C/D RuggedWriter Printer**

|        |   |
|--------|---|
| 92156S | Ribbon cartridges (box of 3 cartridges)                         |
| 92166A | Desktop printer stand   |
| 92157A | Printer paper, fan-folded (box of 2400 sheets)                  |
| 92157C | Printer paper, microperforated, fan-folded (box of 2400 sheets) |

■ **HP 2932A/2934A Dot-Matrix Printer**

|        |  |
|--------|--|
| 92154B | Print head   |
| 92155L | Ribbon cartridges (box of 3 cartridges)                              |
| 92155M | OCR ribbon cartridge—for bar code applications (box of 3 cartridges) |
| 92157A | Printer paper, fan-folded (box of 2400 sheets)                       |
| 92157C | Printer paper, microperforated, fan-folded (box of 2400 sheets)      |
| 92211C | Mobile sound enclosure cabinet                                       |
| 92214P | Mobile printer stand   |

■ **HP 2276A DeskJet Printer**

|        |  |
|--------|--|
| 22707A | 128K RAM cartridge for use with soft fonts   |
| 22707E | Epson FX-80 printer emulation cartridge  |
| 22708A | TmsRmn/Helv soft font (requires additional 128K or 256K RAM, depending on application) |
| 35184E | Deskplotter software (allows DeskJet to emulate graphics printers)                     |
| 51608A | Black print cartridge  |
| 92250R | DeskJet printer dust cover   |

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**Font Cartridges for HP 2276A DeskJet Printer:**

|         |                     |
|---------|---------------------|
| 22706A  | Courier             |
| 22706B  | Prestige Elite      |
| 22706C  | Letter Gothic       |
| 22706D  | TmsRmn 8 & 10 Point |
| 22706E  | TmsRmn 12 Point     |
| 22706F  | TmsRmn 14 Point     |
| 22706G  | Helv 8 & 10 Point   |
| 22706H  | Helv 12 Point       |
| 22706J  | Helv 14 Point       |
| 22706M* | Presentations       |
| 22706P* | TmsRmn ASCII        |
| 22706Q* | Helv ASCII          |

\*This font cartridge contains ASCII characters only and may not be suitable for use in countries requiring non-English characters and symbols.

**■ HP 2686A LaserJet Printer**

|        |  |
|--------|--|
| 35188A | LaserPlotter software (allows LaserJet to do full page plotter slides) |
| 35190J | LaserControl software (to drive LaserJet)                              |
| 92211B | Mobile printer cabinet   |
| 92215F | RS232C extension cable (15 meters)                                     |
| 92215T | RS232C extension cable (30 meters)                                     |
| 92219H | RS232C cable to HP 150 (5 meters)                                      |
| 92219J | RS232C cable to IBM PC (5 meters)                                      |
| 92285A | Toner (EP) cartridge—black   |
| 92285B | 8.5" x 11" paper tray  |
| 92285C | 8.5" x 14" paper tray  |
| 92285D | Metric A4-size paper tray  |
| 92285E | Metric B5-size paper tray  |
| 92285F | LaserJet forward collator  |
| 92285G | Toner (EP) cartridge—brown   |
| 92285P | Font Organizer   |
| 92295C | Dust cover   |

**■ HP 33440A LaserJet Series II Printer**

|        |   |
|--------|---|
| 35188A | LaserPlotter software (allows Inkjet printers to be plotters) |
| 35190J | LaserControl software (to drive LaserJet)                     |
| 92211B | Mobile printer cabinet  |
| 92259G | Dust cover  |
| 92295A | Toner (EP-s) cartridge  |
| 92295B | 8.5" x 11" paper tray (letter/standard size)                  |
| 92295C | 8.5" x 14" paper tray (legal size)                            |
| 92295D | A4 paper tray (metric size)                                   |
| 92295E | 7.25" x 10.5" paper tray (executive size)                     |

## ■ HP LaserJet/LaserJet Series II Printer Fonts

|        |  |
|--------|--|
| 92286A | Plug-in type-font cartridge (Courier and Line Printer, compressed) |
| 92286B | Plug-in type-font cartridge (Proportional Spacing)                 |
| 92286C | Plug-in type-font cartridge (International Courier)                |
| 92286D | Plug-in type-font cartridge (Prestige Elite)                       |
| 92286E | Plug-in type-font cartridge (Letter Gothic)                        |
| 92286F | Plug-in type-font cartridge (Proportional Spacing II)              |
| 92286G | Plug-in type-font cartridge (Legal Elite)                          |
| 92286H | Plug-in type-font cartridge (Legal Courier)                        |
| 92286J | Plug-in type-font cartridge (Math Elite)                           |
| 92286L | Plug-in type-font cartridge (Courier and Line Printer)             |
| 92286M | Plug-in type-font cartridge (Prestige Elite P + L)                 |
| 92286N | Plug-in type-font cartridge (Letter Gothic P + L)                  |
| 92286P | Plug-in type-font cartridge (TMS Rmn P + L)                        |
| 92286Q | Plug-in type-font cartridge (Memo 1)                               |
| 92286R | Plug-in type-font cartridge (Presentations 1)                      |
| 92286T | Plug-in type-font cartridge (Tax)                                  |
| 92286U | Plug-in type-font cartridge (Forms, "portrait"-style)              |
| 92286V | Plug-in type-font cartridge (Forms, "landscape"-style)             |
| 92286X | Plug-in type-font cartridge (EAN/UPC/OCR-B)                        |
| 92286Y | Plug-in type-font cartridge (PC Courier 1)                         |
| 92286Z | Plug-in type-font cartridge (Microsoft 1)                          |

## HP Soft Fonts for HPMS-DOS—3.5-inch discs (HP Touchscreen I/II)

|         |   |
|---------|---|
| 33411AC | Soft font (TMS Rmn/Helv Base Set—USASCII)     |
| 33411AD | Soft font (TMS Rmn/Helv Base Set—ROMAN 8)     |
| 33411AF | Soft font (TMS Rmn/Helv Supplemental—ROMAN 8) |
| 33411DA | Soft font (Letter Gothic Base Set)            |
| 33411EA | Soft font (Prestige Elite Family)             |

## HP Soft Fonts for MS-DOS—5.25-inch discs (HP Vectra/IBM/IBM compatibles)

|         |   |
|---------|---|
| 33412AC | Soft font (TMS Rmn/Helv Base Set—USASCII)     |
| 33412AD | Soft font (TMS Rmn/Helv Base Set—ROMAN 8)     |
| 33412AF | Soft font (TMS Rmn/Helv Supplemental—ROMAN 8) |
| 33412DA | Soft font (Letter Gothic Base Set)            |
| 33412EA | Soft font (Prestige Elite Family)             |
| 33412RA | Soft font (Garamond)                          |
| 33412SA | Soft font (Century Schoolbook)                |
| 33412TA | Soft font (Zaph Humanist)                     |
| 33412UA | Soft font (Headline Typeface, Collection 1)   |

## ■ HP LaserJet 500 Plus Printer

|        |                                   |
|--------|-----------------------------------|
| 92211B | Mobile printer cabinet            |
| 92287B | Paper Cassette Tray (Letter Size) |
| 92287C | Paper Cassette Tray (Legal Size)  |
| 92287D | Paper Cassette Tray (A4 Size)     |
| 92287E | Paper Cassette Tray (B5 Size)     |

■ **HP 82905A/B Dot-Matrix Printer**

|        |  |
|--------|--|
| 92154P | Print head                                     |
| 92156A | Ribbon cartridges (box of 2 cartridges)        |
| 92157A | Printer paper, fan-folded (box of 2400 sheets) |
| 92157C | Printer paper, microperforated, fan-folded     |
| 92250T | Dust cover                                     |
| 92269A | Desktop printer stand                          |

■ **HP 82906A Dot-Matrix Printer**

|        |  |
|--------|--|
| 92154N | Print head   |
| 92156A | Ribbon cartridges (box of 2 cartridges)                            |
| 92157A | Printer paper, fan-folded<br>(box of 2400 sheets)                  |
| 92157C | Printer paper, microperforated, fan-folded (box of 2400<br>sheets) |
| 92171N | Forms tractor unit   |
| 92269A | Desktop printer stand  |

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**For HP ColorPro, 7470A, 7475A and 7550A Plotters**

■ **Non-Glossy Plotter Paper**

|        | Size/Sheets |
|--------|-------------|
| 17800P | A/50        |
| 17801P | A/250       |
| 17802P | A4/50       |
| 17803P | A4/250      |
| 17804P | B/50        |
| 17805P | B/250       |
| 17806P | A3/50       |
| 17807P | A3/250      |

■ **Glossy Plotter Paper**

|        | Size/Sheets |
|--------|-------------|
| 17900G | A/100       |
| 17901G | A4/100      |
| 17902G | B/100       |
| 17903G | A3/100      |

■ **Non-Glossy Paper and Pen Kits**

|         | Size |
|---------|------|
| 17820PK | A    |
| 17821PK | A4   |

■ **Transparency Plotter Film**

|        | Size/Sheets           |
|--------|-----------------------|
| 17700T | A/50 (7440/70)        |
| 17701T | A4/50 (7440/70)       |
| 17702T | A/50 (7475 + others)  |
| 17703T | A4/50 (7475 + others) |

■ **Transparency Plotter Kits**

|         | Size/Plotter     |
|---------|------------------|
| 17715TK | A/7440 + 7470    |
| 17716TK | A4/7440 + 7470   |
| 17717TK | A/7475 + others  |
| 17718TK | A4/7475 + others |

■ **Fiber-Tip Paper Pens**

| .3mm   | .7mm   | Single-color<br>(5 pens/pkg) |
|--------|--------|------------------------------|
| 17825P | 17826P | Black                        |
| 17827P | 17828P | Green                        |
| 17829P | —      | Aqua                         |
| 17831P | 17832P | Blue                         |
| 17833P | —      | Violet                       |
| 17835P | —      | Brown                        |
| 17837P | —      | Yellow                       |
| 17839P | —      | Orange                       |
| 17841P | 17842P | Red                          |
| 17843P | —      | Red-Violet                   |
| 17845P | 17846P | Multi-color                  |
| 17847P | 17848P | Std Assort                   |
| 17849P | 17850P | Cool Assort                  |
|        |        | Warm Assort                  |

■ **Fiber-Tip Transparency Pens**

| .3mm   | .7mm   | Single-color<br>(5 pens/pkg) |
|--------|--------|------------------------------|
| 17725T | 17726T | Black                        |
| 17727T | 17728T | Green                        |
| 17729T | —      | Aqua                         |
| 17731T | 17732T | Blue                         |
| 17733T | —      | Violet                       |
| 17735T | —      | Brown                        |
| 17737T | —      | Yellow                       |
| 17739T | —      | Orange                       |
| 17741T | 17742T | Red                          |
| 17743T | —      | Red-Violet                   |
| 17745T | 17746T | Multi-color                  |
| 17747T | 17748T | Std Assort                   |
| 17749T | 17750T | Cool Assort                  |
|        |        | Warm Assort                  |

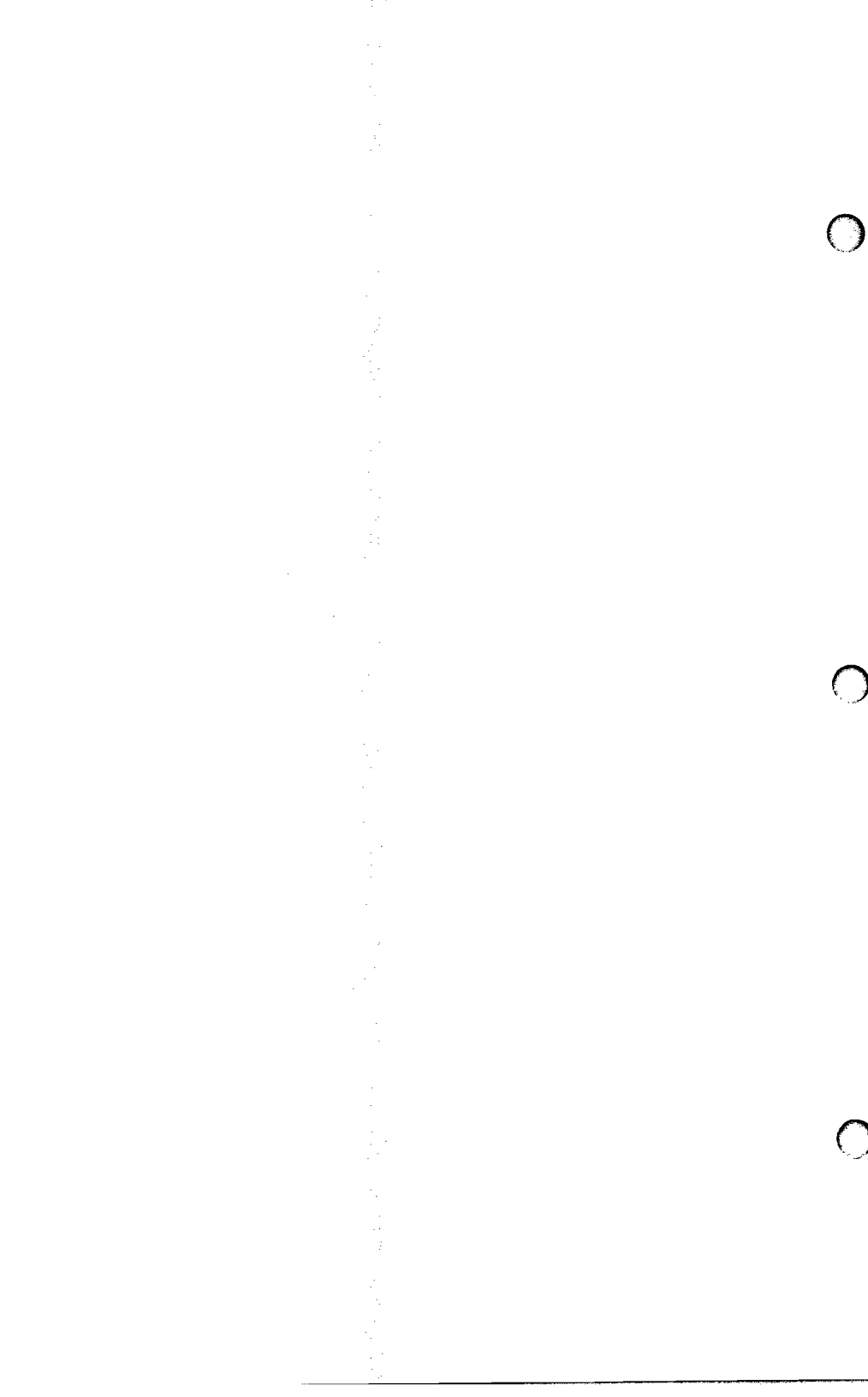
■ **Accessories**

|             |  |
|-------------|--|
| 07550-60210 | Dust cover (7550A)   |
| 07440-60006 | Dust cover (Color Pro)   |
| 07475-60010 | Dust cover (7475A)   |
| 92166E      | Plotter sound enclosure (for ColorPro, 7470A & 7475A<br>plotters only) |
| 92177V      | Personal Plotter-pen organizer (for fiber-tip pens)                    |
| 92177T      | Plotter-pen organizer (for short pens)                                 |
| 92177U      | Plotter-pen organizer (for tall pens)                                  |
| 92177W      | ColorPro (7440A) graphics organizer                                    |
| 92177X      | 7475A graphics organizer   |
| 92214P      | Mobile support stand (7475)  |
| 92250N      | Dust cover (7470A)   |
| 92269A      | Desktop stand (7470A, ColorPro)  |

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Hewlett-Packard personal business computers and their application programs are designed for ease of use and ease of learning. Classroom training courses can help first-time computer users rapidly build confidence and gain new skills in a supportive environment away from the day-to-day job.

**HP-Conducted  
Introductory Courses**

Hewlett-Packard provides Series 100 training courses at HP Customer Training Centers using HP-provided equipment; they can also be taught by HP at your facility using your own systems. To order, call your HP sales and service office.

■ *Getting Started—Vectra*

This class is designed to acquaint the novice Vectra PC user with the machine's many capabilities. Topics covered include installing applications, P.A.M., MS-DOS commands, disc formatting, file management, and system configuration.

HP 72401A (1 day)

■ *Getting Started—The Portable*

This class teaches new computer users to operate the Portable using P.A.M., to write and save a memo, and to dial an electronic information service. You will also gain an understanding of compatibility issues between desktops and The Portable.

HP 45689A (1 day)

■ *Getting Started—The Touchscreen*

This workshop was created especially for beginners—so your first experience with your new computer will be a positive one. You'll learn how to define basic computer terms, start up the system, handle discs properly, prepare new discs, and install application software.

HP 35036B (1 day)

This course, or equivalent knowledge, is a prerequisite for all applications and programming training on the HP 150.

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**HP-Conducted  
Application Courses**

We have structured the curriculum for maximum flexibility. You can attend whatever functional area course you want—spreadsheet analysis, word processing, data base management, or integrated software—without having to go through material you are not interested in. For further efficiency, *WordStar/150* and *Condor/150* are each divided into two modules, allowing you to choose the depth of understanding you wish to attain.

All of these classes stress hands-on work with the HP 150 during class time for maximum effectiveness.

■ *Lotus 1-2-3*

This introductory workshop familiarizes you with the features, worksheet, and command structure of Lotus 1-2-3. Using hands-on practice, you will learn how to create and format a spreadsheet; save a worksheet and print a report; create and use a database; and create, print, and plot a graph.

HP 45688A (1 day)

■ *VisiCalc/150*

A solid introduction to the elements of a VisiCalc worksheet is provided in this workshop. Participants will learn to create, edit and print worksheets, identify and use 16 commands, activate the function keys, and store and load worksheets.

HP 35125A (1 day)

■ *WordStar®/150*

The WordStar® workshop will help you get started with word processing and its many capabilities. By the end of the workshop you will know how to start WordStar, create a new document, and then edit, save and print documents.

HP 35123B (1 day)

■ *MailMerge and SpellStar/150*

As a follow-on to WordStar, this workshop shows you how to merge files with MailMerge™ as well as proof your text using the SpellStar™ 20,000 word dictionary. In practice sessions, you will learn how to create a mailing list database and then combine this with text files to print customized letters and memos. The majority of WordStar's dot commands are explained and illustrated.

HP 35123C (½ day)

- *WordStar/150 and MailMerge/SpellStar/150* are available as a single unit.

HP 35123A (1½ days)

- *Condor/150 20-1 and 20-2*

This workshop will introduce you to Condor™—an easy-to-use, yet powerful database management system. After you understand what a database system is you'll learn how to use one by designing a form for entering data, creating a simple dataset, editing information, sorting and creating simple reports, and reorganizing a dataset.

HP 35124B (1 day)

- *Condor/150 20-3*

The Condor 20-3 workshop will provide you with in-depth experience using Condor's advanced database management and report writing capabilities including indexing a new or existing dataset, joining unlike datasets, creating, printing and revising reports, and creating and running a help screen and command procedure.

HP 35124C (1 day)

- *Condor/150 20-1 and 20-3* can be ordered as a single unit.

HP 35124A (2 days)

- 
- *HP 150 Integrating Applications*

Because you may use the same information in different ways, this workshop was created to teach you how to pass information from one software application to another. The following applications are covered: Condor, PCF, MailMerge, MemoMaker, SpellStar, Graphics, and WordStar.

HP 35037A (½ day)

- 
- *Advanced Lotus 1-2-3*

This class teaches Lotus 1-2-3 users advanced 1-2-3 features such as Data Sort, Data Query and Data Table commands, database statistical functions, keyboard macros, programming with the /X command, and advanced file commands.

HP 05097A (1 day)

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■ *MultiMate*

This class is designed for secretaries and clerks with little or no prior word processing experience. You will learn how to create, edit, format, and print documents.

HP 51400A (1 day)

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■ *MS Word*

This class is designed for business professionals, word processing specialists and clerical personnel. You will learn to create, edit, format and print documents. In addition, you will learn to create multi-columnar documents, to set up glossaries and to understand the use of windowing.

HP 51401A (1 day)

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■ *AdvanceWrite Plus Course 1*

Provides AdvanceWrite Plus users with an introduction to the basic features of AdvanceWrite Plus. Students develop expertise in creating, editing and formatting documents. Students will also be introduced to file use and directories.

HP 27542A

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■ *AdvanceWrite Plus Course 2*

Provides AdvanceWrite Plus users with the ability to use the mailmerge facility to produce standard letters, to use Wordbase Manager, to create tables of contents and indices, to use the spreadsheet feature, and to use other advanced features of AdvanceWrite Plus.

HP 27543A

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■ *AdvanceWrite Plus Course 3*

Provides AdvanceWrite Plus users with an overview & understanding of the major new product features. Students will practice the integration of graphic images into a document, using advanced formatting capabilities, and using the printing options available in AdvanceWrite Plus.

HP 27544A

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■ *AdvanceWrite Plus*

Covers the material in HP 27542A, HP 27543A and HP 27544A for DOS-compatible keyboards. HP 27547A

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■ *AdvanceWrite Plus Advanced Features*

Covers the material in HP 27543A & HP 27544A. HP 27548A

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**HP Customized Training**

These courses can be taught at your facility using your own systems—or training to suit your specific needs can be designed and given through HP's Personal Computer Applications Engineering Consulting Service. Contact your HP sales and service office for details.

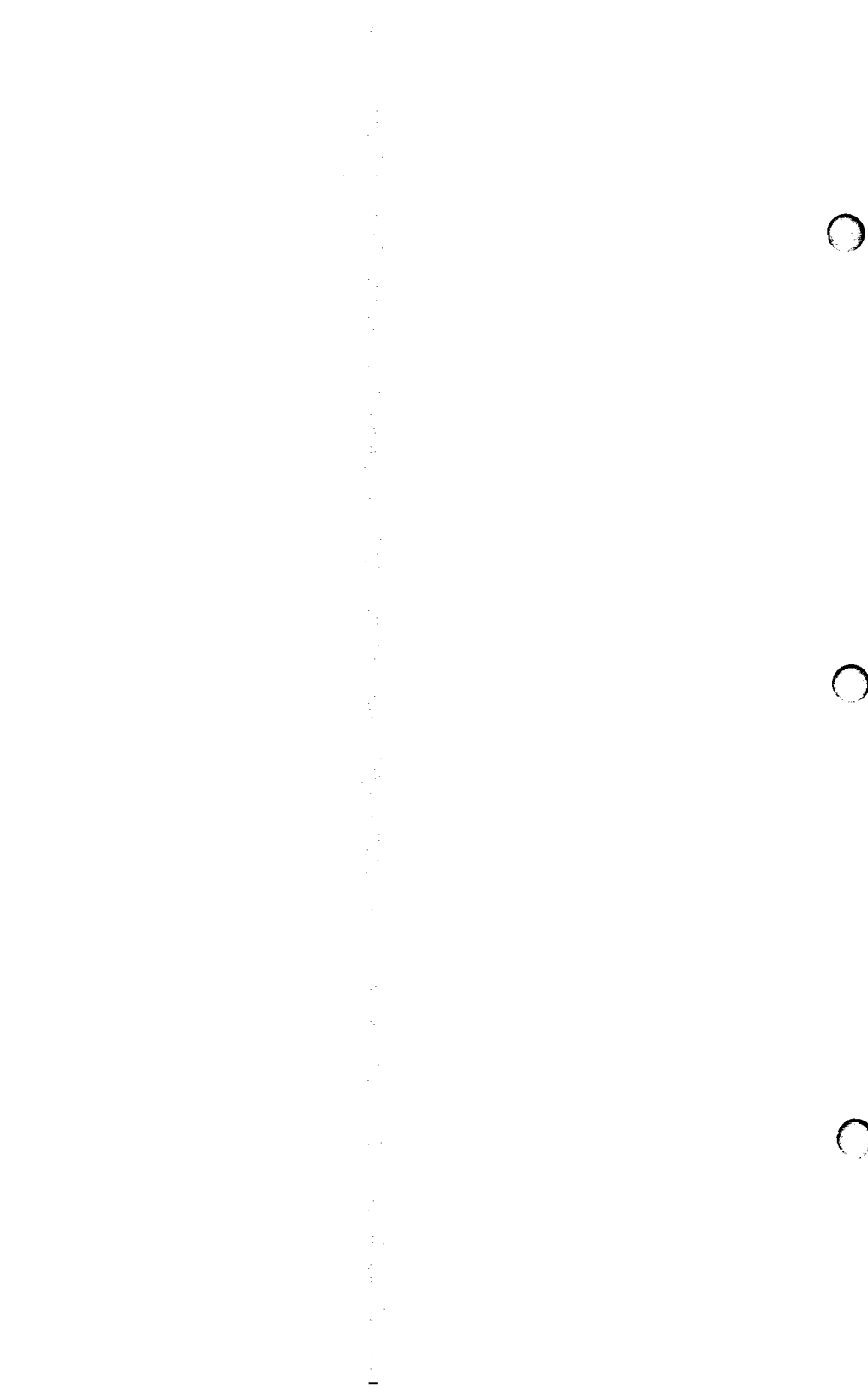
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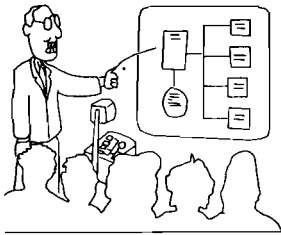
**Dealer-Conducted Courses**

Many HP personal computer dealers teach similar courses or arrange for a Hewlett-Packard instructor to teach courses in your area. Contact your dealer for details.

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The Classroom Learning Pack is a new concept expressly designed for the instructor of a classroom course on personal computer software. We've developed ready-to-use materials—an instructor's guide, overhead transparencies, and student activity sheets—so that you can quickly prepare for a course. And the course is easy to teach because the focus is on extensive hands-on practice with the software.

Classroom Learning Packs are offered for:

**Executive Card Manager/Vectra and IBM PC/XT/AT** ..... HP 89913F

**The Gallery Collection/Vectra and IBM PC/XT/AT** includes both Drawing and Charting Gallery and 1 Student Training Disc (CBT) ..... HP 68352V

Each course may be taught in approximately four hours. During most of this time the students will be actually using the software and the instructor will be serving as a coach, not a lecturer.

To help you prepare for your role in leading the class, each Classroom Learning Pack includes the corresponding HP FastTrak Guide for expert users. FastTrak is self-study, modular training on such topics as installation, configuration, demonstrations, software features, and integration with other software. You'll be well prepared to answer any questions that come up during class.

Not only will the students practice with the software, they'll also practice using the documentation that accompanies the product. After they leave the class they will be able to find valuable information in the manuals when they need it.



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**Gallery Collection**

The focus of the Gallery Collection Learning Pack is intensive hands-on practice with the software. This is accomplished with instructor-guided exercises as well as self-instructional worksheets. One student training disc (CBT) is included with the Pack. CBT may also be used as self-paced training for an individual user at his/her workstation. A package of five training discs is available as product number 68351P. Topics covered include: using the Drawing Gallery discs and manuals; additional uses of Drawing Gallery; basic charting concepts, using the Charting Gallery manuals, and creating pie, bar, and line charts.

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**Executive Card Manager**

The Executive Card Manager Learning Pack includes lessons on creating a cardfile; adding, updating and deleting cards; finding cards; and creating reports. This course may be used for teaching Executive Card Manager on the HP Vectra PC or an IBM PC/XT/AT.

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**Ordering Information**

To order Classroom Learning Packs or Student Training Discs, contact your local dealer or HP office.

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HP FastTrak is comprehensive self-study training for user support personnel and expert users. Developed for Hewlett-Packard support personnel, FastTrak guides are now available for any user that desires information beyond the scope of the software documentation.

If you provide support services for personal computer users in your organization, HP FastTrak will make your job easier by helping you learn the ins and outs of the software quickly. Topics covered in each guide include product overview, supported configurations, features and uses, demo tips, integration with other personal computer applications, installation, performance, and technical tips. And, FastTrak is completely modular so you can learn what you want, when you want.

FastTrak can help you provide several software services: product evaluation, installation, configuration, and user support. Experienced end-users will also appreciate a copy for handy reference. The format is consistent with the software documentation to simplify the learning process.

HP FastTrak guides are now available for five software applications:

**Executive MemoMaker** (HP 89915F)

**Executive Card Manager** (HP 89916F)

**AdvanceLink** (HP 89918F)

**Gallery Collection** (HP 68352X)

(includes Charting and Drawing Gallery FastTraks)

Each guide covers the Touchscreen/150 and Vectra versions of software. FastTrak for Executive MemoMaker, Executive Card Manager, and Gallery Collection also include diskettes—one in 3½" format and one in 5¼" format—of demonstration files.

The HP Vectra Office FastTrak PLUS is available to provide training on integrating, customizing, and automating your Vectra Office products. This FastTrak PLUS contains information and labs that are designed to help office automation specialists who provide application level programming, training and general consulting to HP 3000/workstation users.

This self-paced course will enable the student to demonstrate the flow of data from application to application within the Vectra Office; customize and automate this flow of data for specific user needs; and provide custom solutions, tightly integrating Vectra Office with the HP 3000 and HP DeskManager.

The HP Vectra Office FastTrak PLUS includes product integration training on AdvanceWrite, Executive MemoMaker, AdvanceLink, AdvanceMail, Executive Card Manager, Lotus 1-2-3, Graphics Gallery, and HP DeskManager B. Included also is a data disc in 5¼-inch format that contains sample batch jobs automating various real-life scenarios used in the labs, and command files for automating and customizing Vectra 3000 and HP DeskManager B. HP Vectra Office FastTrak PLUS—HP Part Number 68321F.

If you desire technical user level information beyond the scope of the Microsoft Windows User's Guide, a Windows HP ExpertGuide is available for version A.01.03 of Windows. The **Windows HP ExpertGuide** is a self-study reference and learning tool composed of readings, labs, examples, and quick reference information for Windows on the HP 150 and Vectra. Microsoft Windows ExpertGuide—  
HP Part Number 5958-7685.

To order any of these products, contact your local dealer or sales office.

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## **Vectra PC Fundamentals: A Computer-Based Tutorial**

Vicki Ludwick

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### **The First Step Toward Effective Vectra Use**

**Vectra PC Fundamentals: A Computer-Based Tutorial** is a computer-based software package designed to introduce the new Vectra PC user to the system as well as to provide more in-depth lessons for the more experienced user. This tutorial is highly interactive and its modular format permits users to learn at their own pace and at their own convenience.

This computer-based tutorial is an ideal way to come up to speed on Vectra PC basics and to obtain efficiently the solid background necessary to be a productive applications user. Upon completion of the four-to-six hour tutorial, users will have gained:

- An understanding of basic microcomputer terms and concepts;
- An understanding of how to start and stop the Vectra PC;
- Experience in the use of the keyboard;
- An understanding of the components of the computer and their functions;
- The ability to differentiate between an operating system and application software;
- The ability to use PAM to perform basic file management and directory management tasks; and
- An ability to use sixteen of the most essential MS-DOS commands.

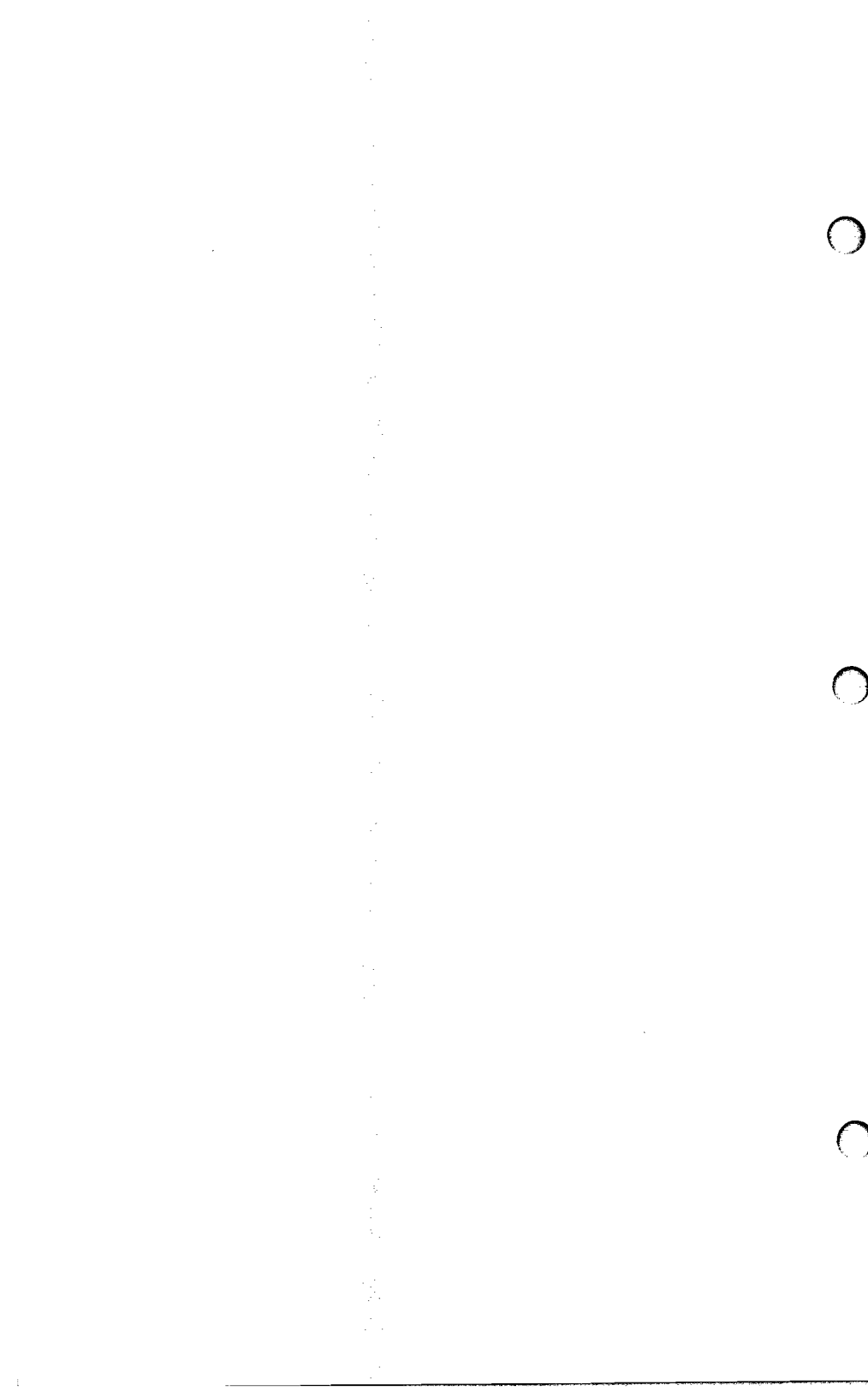
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### **To Order**

To order Vectra PC Fundamentals, contact your local dealer or sales office and request HP product number 51410A.

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If you can't wait long for answers to questions about application software and hardware configurations, you should know about HP's Personal Computer Assistance services. They give you access to experts at HP Response Centers, five days a week. Utilizing state-of-the-art telecommunications and knowledge databases, these professionals can quickly pinpoint solutions.

HP offers two Personal Computer Assistance services for the mid- to large-size company with an internal support staff.

- **Workgroup Coordinator Assistance—Business Software** provides designated staff members with unlimited telephone assistance for application software used on a variety of HP personal computers. With a response time of two hours or less, this service makes sure you receive the prompt and expert attention your business demands. You also receive a subscription to this magazine, the bi-monthly *HP PC Communicator*.

- **Workgroup Coordinator Assistance—Vectra Office** provides workgroup coordinators with unlimited telephone support, specifically for the HP Vectra office software used on HP Vectra PCs. You also receive a subscription to *HP PC Communicator*.

HP also offers support services for the small business or individual user:

- **PC User Assistance** makes the same Response Center specialists available to individual users interested in peak productivity. Unlimited telephone assistance and a two-hour response time ensure that you are getting the most from our popular software packages. The *HP PC Communicator* subscription is included with this service also.

- **HelpLine** provides you with a pay-as-you-go alternative for software support. If you don't often need assistance, this service may be right for you. You receive direct access to Response Center specialists with the same two-hour response time. Special certificates let you purchase assistance in advance or you can charge the toll-free call to your personal or company credit card. (Available U.S. and Canada only.)

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**Ordering  
Information**

To order the personal computer software support that best meets your support requirements, call HP's Support Telemarketing Center at (800) 835-HPHP in the U.S., or call your local HP sales office. All contractual services must be purchased for a minimum of three months coverage. All PC software support services apply only to software classified as HP-supported. Listed below is ordering information for some of the telephone assistance products.

**Telephone Assistance for Internal Support Personnel:**

- Workgroup Coordinator Assistance—  
Business Software  
Response Center caller plus  
one alternate HP 99062A + D00  
Each additional caller HP 99062A + P00
- Workgroup Coordinator Assistance—  
Vectra Office  
Response Center caller plus  
one alternate HP 99090A + D00  
Each additional caller HP 99090A + P00

**Telephone Assistance for the End-User:**

- PC User Assistance  
Vectra Pre-Assembled Personal Computer  
Systems:  
HP Vectra Publisher PC HP D1200A + E00  
HP Vectra CS StarLAN PC HP D1201A + E00  
HP Vectra ES/12 StarLAN PC HP D1202A + E00  
Vectra CS Personal Computers:  
Vectra CS Model 10 HP D1110A + E00  
Vectra CS Model 11 HP D1111A + E00  
Vectra CS Model 12 HP D1112A + E00  
Vectra CS Model 20 HP D1120A + E00  
Vectra CS Model 21 HP D1121A + E00  
Vectra CS Model 22 HP D1122A + E00  
Vectra ES Personal Computers:  
Vectra ES Model 10 HP D1210A + E00  
Vectra ES Model 20 HP D1220A + E00  
Vectra ES Model 21 HP D1221A + E00  
Vectra ES Model 22 HP D1222A + E00

**Vectra ES/12 Personal Computers:**

|                       |                 |
|-----------------------|-----------------|
| Vectra ES/12 Model 10 | HP D1310A + E00 |
| Vectra ES/12 Model 20 | HP D1320A + E00 |
| Vectra ES/12 Model 21 | HP D1321A + E00 |
| Vectra ES/12 Model 22 | HP D1322A + E00 |
| Vectra ES/12 Model 40 | HP D1340A + E00 |
| Vectra ES/12 Model 41 | HP D1341A + E00 |
| Vectra ES/12 Model 42 | HP D1342A + E00 |

**Vectra RS Personal Computers:**

|                            |                 |
|----------------------------|-----------------|
| HP Vectra RS/16 Model 40   | HP D1500A + E00 |
| HP Vectra RS/20 Model 40   | HP D1600A + E00 |
| HP Vectra RS/20 Model 100  | HP D1602A + E00 |
| HP Vectra RS/20 Model 150  | HP D1603A + E00 |
| HP Vectra RS/20 Model 300  | HP D1604A + E00 |
| HP Vectra RS/20 Power User | HP D1606A + E00 |

**Portable Vectra CS Personal Computers:**

|                       |                 |
|-----------------------|-----------------|
| Portable Vectra CS    | HP D1001A + E00 |
| Portable Vectra CS 20 | HP D1009A + E00 |

**Portable Plus Personal Computers:**

|               |                 |
|---------------|-----------------|
| Portable PLUS | HP 45711E + E00 |
|---------------|-----------------|

**The Touchscreen Personal Computers:**

|                |                 |
|----------------|-----------------|
| Touchscreen II | HP 45851A + E00 |
|----------------|-----------------|

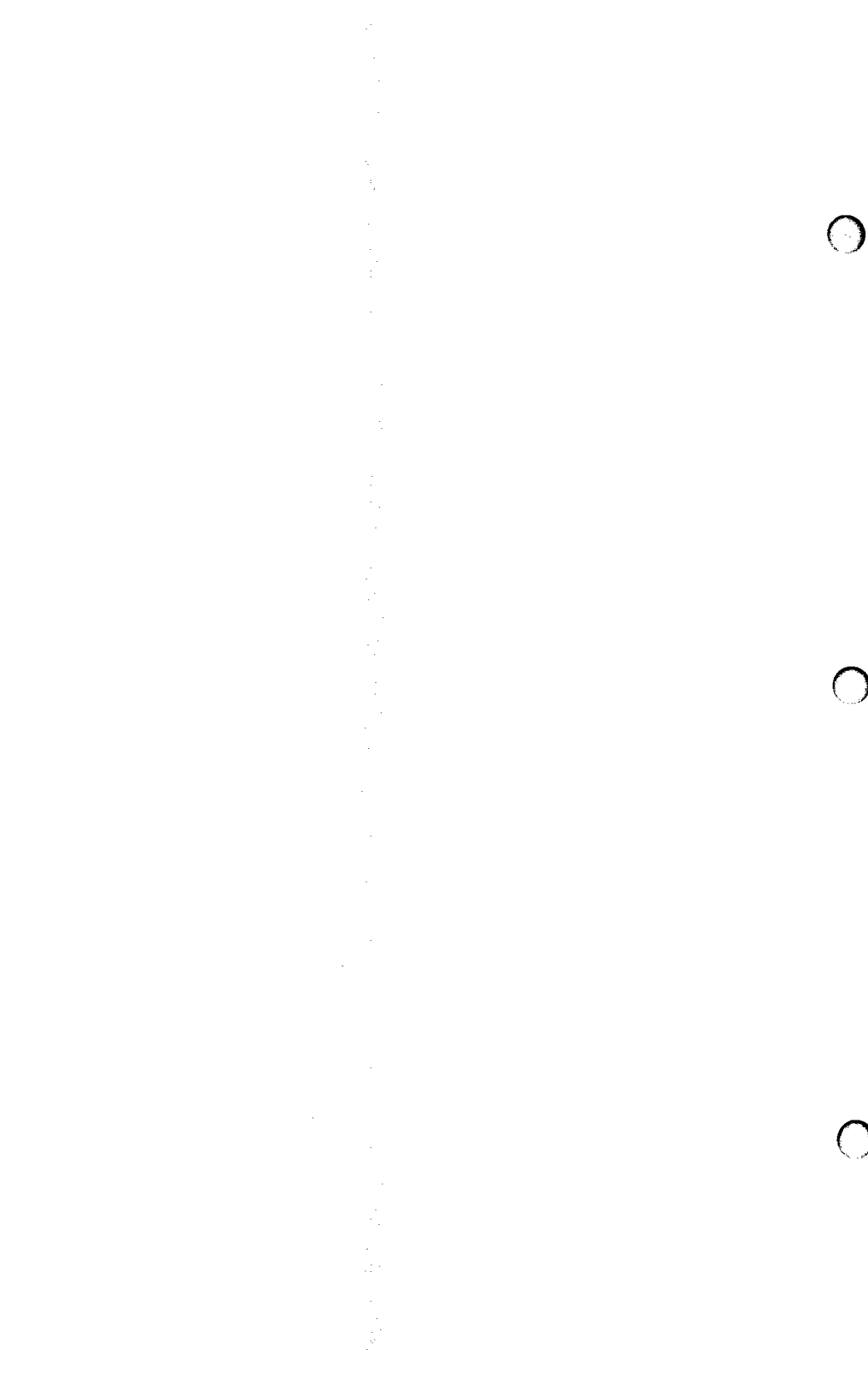
■ **HelpLine\*:**

Individual support calls may be charged to personal or company credit cards by calling (800) 858-8857. In addition, users may prepay for five calls by purchasing HelpLineCall Certificate Packs (HP 35159A) from HP DIRECT at (800) 538-8787.

\*HelpLine services are available in the U.S. and Canada only.







## Ordering *HP PC Communicator* Back Issues

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The application information, operational tips, and programming techniques included in the *HP PC Communicator* make back issues valuable—to increase your productivity and improve your system knowledge.

To order, refer to the “How to Order” section at the end of this insert.

Listed below are the major articles of the “white pages” of each issue. The Encyclopedia articles of past issues are listed in the Encyclopedia Index in this issue. There is no index for Newline and Bugline column items which appear in each issue.

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### HP 120 and HP 125

Issues #1 through #6 cover primarily the HP 12x. (8½" x 11" page size)

#### **Issue #1 includes the following major articles:**

- “Single and Multi-line Page Headings with Word”
- “Searching for Enhanced Text in Word”
- “Making Invisible Characters Visible in Word”
- “Directory Scrolling in VisiCalc”
- “Sending Escape and Control Codes to a Printer from VisiCalc”
- “Warning: PASCAL”
- “Things You Should Know About Random Access Files”
- “HP 9895 to HP 9135 File Transfer”
- “Electronically Reading a Disc Reference Number”

*Series 100 Communicator* Issue #1 . . . . . 5955-3937

#### **Issue #2 includes the following major articles:**

- “Making Graphs from VisiCalc Worksheets”
- “Word and VisiCalc Go Together”
- “Printing Formulas from VisiCalc Worksheets”
- “Printing Multiple Copies From Word”
- “More on Search and Replace in Word”
- “Chaining from One Executable Program File to Another”
- “A BASIC Subroutine Library”
- “Sort and Back Up Operations with Large Data Bases”
- “Using COPY DISC to Back Up Data Files on Drive B”
- “Computing Internal Rate of Return in VisiCalc”

*Series 100 Communicator* Issue #2—U.S. . 5955-3943

*Series 100 Communicator* Issue #2—Intl. . 5955-3947

**Issue #3 includes the following major articles:**

- “Disc Formats on the HP Series 100”
- “Non-HP 12x CP/M Programs—Will They Run?”
- “Long Documents with Series 100/Word”
- “Series 100/Word: Y Table Gymnastics”
- “Using Graphics to Your Advantage”
- “Condor Tips”
- “Adding Your Application Program to the WELCOME Menu”
- “Using Softkeys on Non-HP Systems”
- “Changing Printer Characters”
- “Using The HP 2121 Disc Drive with Your HP 125A”

*Series 100 Communicator Issue #3* . . . . . 5957-6213

**Issue #4 includes the following major articles:**

- “International System Summary”
- “Condor News”
- “Comparing BPI and Peachtree Accounting”
- “Printing Mailing Labels from Condor”
- “More on HPMail and the Series 100”
- “File Transfers Using PIP”
- “Accessing a Plotter from BASIC”

*Series 100 Communicator Issue #4—U.S.* . 5957-6204

*Series 100 Communicator Issue #4—Intl.* . 5957-6214

**Issue #5 includes the following major articles:**

- “Enhanced Installation Program Available”
- “Video Display Interface for the HP 125”
- “Comparing Condor and dBASE II”
- “Sending Escape Codes to Printers from WordStar and Condor”
- “Interchangeability of Word and WordStar Text”
- “Two-Column Print in WordStar”
- “WordStar Quick Tips and Defaults”
- “Getting VisiCalc to Round Dollar Values to Two Places”
- “Word: Wandering HP 2601A Printer Margins with the Sheet Feeder”
- “DSN/Link: Enhanced File Transfer Capabilities over Link/125”
- “Connecting Two Series 100 Systems for ASCII File Transfer”
- “Transferring IMAGE/3000 Data to a Condor Database”
- “Transferring Data to the HP 2700 Color Graphics Terminal”
- “Installing the Operating System on Your Fixed Disc”

-“Using the HP 2631B HP-IB Printer with Series 100”

-“Programming Challenge—Bypassing WELCOME”

*Series 100 Communicator Issue #5—U.S. . 5957-6205*

*Series 100 Communicator Issue #5—Intl. . 5957-6215*

**Issue #6 includes the following major articles:**

-“CSC Graphics Available on the Series 100”

-“New Auto Shutter for 3½ inch Micro Flexible Discs”

-“Introducing Enhanced DSN/Link”

-“Microsoft BASIC Compiler”

-“Using Block/Format on the Series 100”

-“Correction—Printing Mailing Labels From Condor”

-“WordStar/100 Multiple Column Print Update”

-“Remote Access to the HP 125”

-“Using the 92911A Bar Code Reader on the HP 125”

-“Configuring the Series 100 for use with the Diablo 630 Printer”

-“An Alternative to ALPHASORT for Series 100/Word”

*Series 100 Communicator Issue #6—U.S. . 5957-6206*

*Series 100 Communicator Issue #6—Intl. . 5957-6216*

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**HP 150 Touchscreen and HP 120 and 125**

Issues #7 and #8 cover primarily the HP 150 Touchscreen and HP 120 and 125. (5½" x 8½" page size)

**Issue #7 includes the following major articles:**

-“Transferring Files Between the HP 12x and HP 150”

-“Data Compatibility Between HP 12x and HP 150 Applications”

-“HP 12x: PIP, COPY, and BACKUP”

-“Comparing VisiCalc and MicroPlan”

-“WordStar Microspace Justification”

-“Configuring WordStar/150 for your Printer”

-“Condor Tips”

-“Correction: Remote Access to the HP 120/125”

-“BASIC/150: Block Mode Transfers”

-“HP 12x BASIC Compared to HP 150 BASIC”

-“Subtle Difference: HP 12x/150 BASIC and Other BASICs”

*Series 100 Communicator Issue #7—U.S. . 5957-6207*

*Series 100 Communicator Issue #7—Intl. . 5957-6217*

**Issue #8 includes the following major articles:**

- “HP 150 Goes Worldwide”
- “HP 12x Fixed Disc Support Now Available”
- “Future Plans for the HP 120 and HP 125”
- “Using Plotters with the HP 150”
- “Installing dBASE II on the HP 150”
- “Three-Column Print in Word/12x”
- “Plotting Condor Data with HP Graphics”
- “Transferring Data Between a Series 100 Computer and an IBM PC”
- “Accessing Plotters from BASIC/150”
- “BASIC: How Do You Make RND More Random?”
- “Install Your BASIC/150 Application in PAM”
- “Decrease BASIC/150 Debugging Time with Cross Reference Utility

*Series 100 Communicator Issue #8 . . . . . 5957-6218*

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**Portable, HP 150  
Touchscreen, HP 120  
and 125**

Issues #9 and onward cover the Portable, HP 150 Touchscreen, and HP 120 and 125. (5½" x 8½" page size)

**Issue #9 includes the following major articles:**

- “PIPPing Files on Your HP 12x”
- “From Numbers to Charts on the HP 150: dBASEII to Series 100 Graphics”
- “HP 150 Graphics: From the Screen to Your Printer”
- “Using Lotus/150 1-2-3 with the 7475A Plotter and B-size Paper”
- “Running Applications from MS-DOS on Your HP 150”
- “Word/12x: Rapid Returns”
- “Localizing Your HP 150”
- “Using Record Mode on the HP 150”
- “Escaping in High-Level Languages”
- “Access to the Touchscreen via MS-Pascal/150”
- “So You Want to Write Programs for the HP 150”
- “Introducing PFS:File and PFS:Report for the HP 150”
- “GraphPlan: New Integrated Spreadsheet and Graphics Software”
- “New Simulations—and a Chess Game—for the HP 150”
- “Challenging New Recreational Software for Series 100 PC Users”

- “The Portable: Desktop Capability in a Notebook-Sized Package”
- “The Portable: Compatibility with the HP 150”
- “Battery-Powered Peripherals for The Portable”
- “dBASEII for The Portable ... and a New Version for the HP 150”

*Series 100 Communicator Issue #9 . . . . . 5957-6219*

**Issue #10 includes the following major articles:**

- “Removing Soft Hyphens in WordStar/12x”
- “Adding Data Points to Linear Charts in Graphics/12x”
- “Internal Rate of Return: Using the Iteration Option in Multiplan”
- “Lotus 1-2-3: Disc Drives, Peripherals, and Data Bases”
- “Setting User-Defined Function Keys in dBASE II”
- “A ‘Help’ Menu for CP/M Utilities”
- “Transferring Fixed-Length ASCII Records via DSN/Link”
- “A Feature-by-Feature Comparison of the HP 150 and HP 2623A Terminals”
- “Saving HP 150 Screen Graphics”
- “BAT/150: A Fast, Easy Way to Obtain an .EXE File”
- “Graphics on the HP 150: Filling Polygonal Areas”
- “The Newest Members of the HP 150 Family”
- “Two New Programming Tools for HP 150 Users”
- “Double-Sided Disc Drives for the HP 150B”
- “Announcing the EtherSeries/150 Local-Area Network”
- “The HP 150B and the IBM PC Speak to Each Other”
- “Enhanced Condor Software Now Available for the HP 150”
- “Enhanced MicroPlan for the HP 150”

*Series 100 Communicator Issue #10 . . . . . 5958-0250*

**Issue #11 includes the following major articles:**

- “Inverting the Order of Items on Lists in Word/12x”
- “Using Memory Effectively in Lotus 1-2-3”
- “Moving Blocks of Text in MemoMaker”
- “Headings and Footings in Word/12x”
- “Installing the ThinkJet Printer with WordStar”
- “Writing Your Own Menu Routines”
- “Using Escape Codes to Create Function Keys in COBOL”
- “Reads with Handshaking in HP 150 BASIC”
- “Double’s No Trouble”

- “Precision Problems in Microsoft Languages”
- “Presenting The Graphics Gallery”
- “Introducing Dow Jones Spreadsheet Link”
- “The BPI Family of Accounting Packages”
- “Turbo Pascal: A Hot Item”
- “Special Upgrade for Word/12x”
- “From Keyboard to Printer with Type-a-Line”
- “PFS: . . . for the HP 150”
- “MultiMate and Friends”
- “HP 125 Software Obsolescence”

*Series 100 Communicator Issue #11 . . . . . 5958-0251*

**Issue #12 includes the following major articles:**

- “The HP Personal Computer Assistance Program”
- “How to Use Diagraph”
- “Transferring Files from Condor to dBASE II”
- “File Transfers—Every Which Way—with The Portable”
- “MemoMaker on The Portable: Differences”
- “LaserJet Support under MultiMate and WordStar”
- “HP 120/125 Word and WordStar with the LaserJet”
- “Macros in WordStar”
- “File Transfers from VisiCalc to Condor”
- “What’s So Special about BASIC?”
- “Useful Functions in BASIC”
- “General-Purpose Input Routines”
- “BASIC Relational and Logical Operations”
- “Fun with the Calendar”
- “Introducing the Touchscreen II”
- “ExecuDesk and the ExecuDesk System”
- “New Personal Productivity Center Release”
- “Introducing Print Central”
- “HPWORD/150—HP 3000 Word Processing”
- “HPAccess/Touchscreen and HPAccess Central”
- “Data-Storage Solutions for HP PCs”
- “Microsoft Word”
- “MS-DOS Manual Update for Touchscreen II Owners”
- “Announcing Deluxe VisiCalc”
- “Introducing VT100 Emulation for the HP 150B”
- “The Touchscreen 3278 Emulation Upgrade”

*Series 100 Communicator Issue #12 . . . . . 5958-0252*

**HP Vectra PC, Portable,  
HP 150 Touchscreen,  
120 and 125**

**Issue #13 includes the following major articles:**

- "Condor/150: Computations Against Computed Values"
- "Condor/150: Sending Escape Sequences to Your Printer"
- "Diagraph and Picture Perfect: Positioning Multiple Pictures"
- "Lotus 1-2-3: Transferring Files to and from PCF"
- "MS Word: How to PRINT MERGE Data from dBASEII"
- "MS Word: How to PRINT MERGE Data from Condor"
- "WordStar: Installing Multiple Copies on One Fixed Disc"
- "WordStar: Installing Multiple Copies on One Flexible Disc"
- "Helpful Hints for Compiling BASIC Programs"
- "Double-Referencing Variables in Compiled BASIC"
- "The 64 Dollar/K Question"
- "BASIC Floating Point Internal Representation"
- "BASIC General Purpose Error-Handling Routines"
- "A Complete Guide to BASIC Strings"
- "Introducing the Vectra PC"
- "Upgrading Your HP 150A or Touchscreen to a Touchscreen II"
- "Independent Software Vendor Program Update"
- "Introducing Executive Card Manager"
- "Symphony for the Touchscreen/150"

*HP PC Communicator* Issue #13 . . . . . 5958-0253

**Issue #14 includes the following major articles:**

- "Word/12x: Printing the Unique Spanish Characters"
- "WordStar: Letter Quality Printing with an Okidata Printer"
- "WordStar: Underlining with an Okidata Printer"
- "Running the Vectra SETUP Program"
- "Programming Screen Enhancements on HP Vectra PC"
- "Video and the HP Vectra PC"
- "Graphing Data from Your BASIC Program"
- "Assembly Language Subroutines for BASIC Programs"
- "Introducing HP OfficeShare PC Local Area Network"



- “Introducing the New 1-2-3 for HP Vectra PC”
  - “The Executive Series”
  - “MicroPro Products for HP Vectra PC”
  - “New Supplies and Accessories”
- HP PC Communicator Issue #14 . . . . . 5958-0254*

**Issue #15 includes the following major articles:**

- “Condor and BASIC: Automatic Processing”
- “The Portable and the COPY CON Command”
- “The Portable: Creating a Backspace/Erase Key”
- “Condor: Using \*End in V2.11 Command Files”
- “Using Lattice C with the Portable”
- “Touchscreen/150: Serial Communications”
- “Introducing MultiMate for HP Vectra PC and IBM PC/XT/AT”
- “HP Graphics Curator/3000: Touchscreen/150 and Host Based Graphics”
- “Introducing Classroom Learning Packs”
- “Introducing HP FastTrak Self Study Packs”
- “Touchscreen/150: Upgrade from R:BASE 4000 to R:BASE 5000”

*HP PC Communicator Issue #15 . . . . . 5958-0255*

**Portable PLUS, Portable, HP 150 Touchscreen, HP 120 and 125**

**Issue #16 includes the following major articles:**

- “Touchscreen/150: Condor—Escapes Sequences to Your Printer”
- “Drawing Gallery: Creating Drop Shadow Boxes”
- “Terminal to System Connections: RS-232 vs. RS-422”
- “Touchscreen/150: Graphics Escape Sequence Programming”
- “Graphics Labels with Touchscreen/150 GW BASIC”
- “Date Functions for Series 100 BASIC Revisited”
- “Introducing the Enhanced Portable PLUS”
- “Update on HP’s Personal Computer Software Support”
- “WordStar 2000, Release 2 for Vectra”
- “PC Software Corporate Licensing Program Now Available”
- “MultiMate on the Portable PLUS”
- “Portable PLUS Localization Kits”
- “Portable PLUS: New MemoMaker/Time Management ROM”
- “Executive Card Manager for the Portable PLUS”
- “REFLECTION 1 for the Portable PLUS”
- “R.BASE 5000: Application Express in Depth”
- “1-2-3 Release 2 for the Touchscreen/150”

*HP PC Communicator Issue #16 . . . . . 5958-0256*

**Issue #17 includes the following major articles:**

- "Vectra: Creating Labels with AdvanceWrite/LaserJet"
- "Vectra: HP Access and GW BASIC"
- "Differences Between the Touchscreen/150 and Vectra"
- "Series 100 BASIC: Device Control and Printing Graphics"
- "Touchscreen/150: Hints for Compiling BASIC Programs"
- "Calling Assembler Subroutines from Interpretive BASIC"
- "Vectra: Announcing the Enhanced Graphics Display System"
- "Vectra: Welcome to the Graphics Gallery"
- "Vectra: Enhanced Executive MemoMaker Introduced"
- "Touchscreen/150/Vectra: New Learning Products"
- "Touchscreen/150/Vectra: Portfolios for Graphics Gallery"
- "Touchscreen/150: New LaserJet Drivers"

*HP PC Communicator Issue #17 . . . . .5958-0257*

**Issue #18 includes the following major articles:**

- "Vectra Mass Storage: New Options"
- "Bundled Vectra Systems Available"
- "Introducing Vectra 3000 and Vectra Office"
- "Introducing Shelp for the Portable PLUS"

*HP PC Communicator Issue #18 . . . . .5958-0258*

**Issue #19 includes the following major articles:**

- "Vectra: EX-BIOS and Keyboard Click"
- "Touchscreen/150: Using MS-DOS Load and Execute"
- "Getting Started with Turbo PASCAL"
- "FORMIO for the Touchscreen/150 Using Series 100 BASIC"
- "Accessing MS-DOS File Time-Stamps from Lattice C"
- "Vectra: Migration to Drawing Gallery Made Easy"
- "New Graphics Tablet Available"
- "Vectra: Microrim R:BASE System V"
- "Touchscreen/150: MS-DOS 3.2 Available"
- "Touchscreen/150: Expanded Memory Board Available"
- "1-2-3 Release 2.01 Available for Touchscreen/150"

- "Touchscreen/150: New Upgrades for MemoMaker and PCF"
  - "Touchscreen/150: ExecuDesk Enhanced"
- HP PC Communicator Issue #19* ..... 5958-7673

**Issue #20 includes the following major articles:**

- "Software Tested with the OfficeShare Networking Family"
  - "Operating HP-IB Peripherals with Vectra and IBM Family Computers"
  - "Understanding the 8088 Architecture"
  - "Touchscreen/150: Programming Function Keys Using Turbo Pascal"
  - "Touchscreen/150: Controlling Print Pitch on the HP 82906A Printer"
  - "The Vectra PC Publisher"
  - "Introducing HP-Enhanced Versions of Microsoft Windows"
  - "Hewlett-Packard Adds Value to Microsoft Windows"
  - "Touchscreen/150: Microsoft Windows"
  - "XENIX Operating System Available on Vectra"
  - "Vectra: Introducing Monochrome Plus Display System"
  - "QuietJet Printer Family: Special Characters Available"
  - "Symphony and 1-2-3 Enhanced by New Expanded Memory Board"
- HP PC Communicator Issue #20* ..... 5958-7674

**Issue #21 includes the following major articles:**

- "Vectra: WordStar 2000/2000+ Printers and Fonts"
- "Vectra and Touchscreen/150: LaserJet and R:BASE 5000"
- "Touchscreen/150: MS Word 150 and the LaserJet 500 Plus"
- "Hidden Features of MS Word for the Touchscreen/150"
- "Touchscreen/150: Executive MemoMaker and the LaserJet 500 Plus"
- "Microsoft Windows for the HP 150/Touchscreen and HP Vectra PC"
- "Extended Screen and Keyboard Control"
- "Vectra PC: How to Ensure Software, Peripheral and Accessory Compatibility"
- "Introduction to Programming the EGA Board"
- "Vectra Graphics Gallery Now Works with PageMaker"

- “Vectra Graphics Gallery Q&A”
- “New HP 150/Touchscreen System Documentation”
- “JetSeries Software Support”

*HP PC Communicator Issue #21* .....5958-7675

**Issue #22 includes the following major articles:**

- “How to Use Executive MemoMaker with PageMaker”
- “Desktop Publishing: Colors in PageMaker”
- “Outputting PageMaker to a Linotronic Typesetter”
- “Windows, Drivers, Fonts, and Applications”
- “Vectra: Booting from the Hard Disc”
- “What is HP StarLAN?”
- “HP Vectra 3000 PC: Frequently Asked Questions”
- “Portable Desktop Link Q&A”
- “Introducing Vectra HP BASIC Controller Bundles”
- “Announcing New AdvanceLink for HP Vectra PC”
- “Announcing New AdvanceLink FastTrak”
- “New Enhancements: HP Vectra 3000 PC”
- “Three Models of HP LaserJet 2000 Printer Introduced”
- “Now Available: HP LaserJet Series II Printer”
- “HP ScanJet Expands HP’s DTP Offering”
- “HP-IB QuietJet Plus Introduced”
- “HP’s New DraftMaster Duo”

**Portable Vectra CS,  
Portable PLUS,  
Portable, HP 150  
Touchscreen, HP 120  
and 125**

**Issue #23 includes the following major articles:**

- “Using Scanning Gallery”
- “Scanning Gallery: Preview vs. Final Scan”
- “Printer Timeout Tables”
- “Using the Correct Communication Port”
- “Vectra: Softfonts and the PCL/LaserJet Driver”
- “Vectra: Softfont Limits with the HPPCL.DRV Driver”
- “HP Vectra PC: Key Combination Chart”
- “Taking Care of Your Hard Disc”
- “Announcing the HP PaintJet”
- “Portable PLUS: Lotus 1-2-3 Version 2.01 Upgrade”
- “Introducing the New Portable Vectra CS”
- “iPrint: New Approach to Electronic Forms”
- “New Graphics Gallery—Version 2.0”

- "Asian Vectra: Announcing the Asian Graphics Gallery"
  - "QNX Operating System for HP Vectra and Industrial Vectra PC"
  - "New Vectra MS-DOS 3.1 Exchange Kit"
- HP PC Communicator Issue #23* ..... 5958-7677

**Vectra CS, ES, RS;  
Portable Vectra CS;  
Portable PLUS,  
Portable, HP 150  
Touchscreen, HP 120  
and 125**

**Issue #24 includes the following major articles:**

- "Compact vs. Quick Save in ECM"
- "PageMaker 1.0a Tips"
- "Using Disc Optimizer Programs with Lotus 1-2-3"
- "HP Vectra PC and HP-IB De-mystified"
- "InkJet Printers: Autostart Perforation Skip"
- "LaserJet Series II Help Sheet"
- "GW Basic with ThinLAN/StarLAN"
- "Introducing a New Family of HP Office Workstation Solutions"
- "The HP Vectra CS PC"
- "Introducing the HP Vectra ES and ES/12 PCs"
- "HP Vectra ES and ES/12 Disc Mechanisms"
- "3.5-Inch Internal Flexible Disc Drive for Vectra"
- "Expanded Memory for the HP Vectra ES and ES/12 PCs"
- "New Math Coprocessor for Vectra ES and ES/12 PCs"
- "HP Vectra ES and ES/12 PCs: What's Different?"
- "New HP Vectra PC Keyboards"
- "Original HP Vectra PC Discontinuation Plans"
- "Model 58 and 59 HP Vectra 3000 PCs Discontinued"
- "Ordering the New HP Vectra 3000 PC"
- "HP's Flagship PC: The Vectra RS"
- "Vectra RS Systems Use HP Disc Drives"
- "New HP Vectra MS-DOS 3.2"
- "HP Vectra PC and Microsoft Windows"
- "New HP Vectra Publisher PC's for Desktop Publishing"
- "New HP Vectra PC Bundles for HP StarLAN Users"
- "HP Terminal Program for the HP Vectra PC Family"
- "Software Support for the HP Rugged Writer 480 Printer"
- "New Font Offerings for HP's LaserJet Family"
- "Introducing AdvanceWrite Plus"

*HP PC Communicator Issue #24* ..... 5958-7678

**Issue #25 includes the following major articles:**

- "Finer Gray Scale with Graphics Gallery 2.0"
- "Sending Multiple Gallery Files to Plot"
- "Using TIF Files with PageMaker"
- "Printing Images and Graphics with AdvanceWrite Plus"
- "Protecting BPI Data"
- "AdvanceWrite Plus and Print Central"
- "Notes on the HP 82973A HP-IL Card (PDL)"
- "Opening Two MS-DOS Windows"
- "Using MS-DOS and Microsoft Windows"
- "How to Install a Logitech Mouse"
- "HP SketchPro—New RS-232-C Graphics Tablet"
- "Announcing Five PC-305/308 Instrument Controllers"
- "Everything You Need for the HP PaintJet Printer"

*HP PC Communicator Issue #25* ..... 5958-7679

**Issue #26 includes the following major articles:**

- "HP Vectra and PaintJet: Multi-Colored Printing with Executive MemoMaker"
- "HP Vectra: Executive MemoMaker and Extended Characters"
- "HP 150 and Vectra with Lotus 1-2-3: Using Macros to Enter Printer Setup Strings"
- "Exploring Text Features of Drawing Gallery 2.0"
- "Drawing Gallery Command File Interface"
- "AdvanceWrite: Printing in Landscape Mode"
- "Zip Command in R:BASE System V"
- "Printing in Scanning Gallery: Print vs. HP Direct Print"
- "Compression in Scanning Gallery"
- "AdvanceLink B.01.00 and Context Switching"
- "AdvanceLink: Questions and Answers"
- "AdvanceLink and X.25: Waiting for Remote Response"
- "HP Vectra CS PC: Selecting a Video Display Adapter"
- "Software for the HP DeskJet Printer"
- "Scanning Gallery Updated"
- "Scanning Gallery Version Comparison"
- "HP 150 and Vectra PCs: Executive Card Manager Upgrade"
- "Internal Tape Backup for the HP Vectra PC Family"

-“Expanded Memory for the HP Vectra ES and ES/12 PCs”

-“HP Vectra RS PC Can Now Be Ordered”

-“HP Vectra RS PC Accessories”

HP PC Communicator Issue #26 .....5958-7680

*Additional copies of this current issue are available:*

HP PC Communicator Issue #27 .....5958-7681



## Software Exchange Kits— Upgrades, Updates, and Replacements for Damaged Discs

Robert Millier

This section lists the software exchange kits available for The Portable, HP 120/125, Touchscreen/150, and HP Vectra PC. These kits contain the latest software and any manual updates issued since the original release.

**Exchange kits are provided at a nominal charge.** You return your original master disc as proof of purchase and continue operating as usual with your work copy of the software.

Software Exchange Kits are provided for several different purposes:

- **Updates.** Software is revised to add new features, to work with new peripherals, or to correct problems. You can update your program and manuals at a nominal cost by ordering the appropriate Software Exchange Kit.
- **Upgrades.** When major features are added to a software product, you can order a Software Exchange Kit at a low cost—"trading in" your older version for one with the latest capabilities and documentation.
- **Media Replacement.** The master-copy/work-copy technique used is designed to minimize the risk of damage to your master software due to handling or human error. If this happens, Software Exchange Kits are available at a nominal charge. If the product has been updated since your original purchase, the Exchange Kit contains the latest version and any manual updates issued since the original release.

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### Ordering

To order:

- In the U.S., Software Exchange Kits are available by mail from HP's Direct Marketing Division, using the form given later in this magazine.
- Outside the U.S., contact your dealer or HP sales office for details.

For each kit ordered, along with your payment submit one corresponding original master disc. This is the disc with the HP software product number and description printed on the label. **Be sure to make working copies before sending your master disc.**



To determine the price for a kit, contact your dealer or HP office—or call the HP telephone order number for your country. (See the “How to Order” section later in this Current Information insert.) HP cannot accept orders submitted without the correct master disc.

Refer to the tables on the next pages for Exchange Kit part numbers.

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**HP Internal Orders**

For HP Internal Orders of Software Exchange Kits, return the original master discs to:

Software Administrator, Building 78/3  
or Hewlett-Packard  
Attn: Software Administrator  
P.O. Box 60008  
Sunnyvale, CA 94088

Reference your HP Internal Order number on the package.

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**Replacement Media for Discontinued Software**

We are committed to sustain support for Hewlett-Packard products well after technology advances and market demand cause us to discontinue offering a product for sale.

It is HP corporate policy to ensure availability of parts and full support services for your computer for five years beyond discontinuance. Specifically, this means:

- Replacement Media Exchange Kits available for five years from date of last HP shipment, as indicated for each product in the “Discontinued Software” table in this section.
- Availability of telephone assistance through Hewlett-Packard Help Line Response Centers.
- Continuing coverage in this magazine—the *HP PC Communicator*. (By the way, you can help—share your tips and ideas with other users—just send a note to the *HP PC Communicator* editor.)

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**Products Not Listed**

Because entertainment software packages are low-priced, there are no exchange kits for these products. Re-order the original product to replace damaged discs.

For information on other products not listed, contact your dealer or HP sales and service office.

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**Touchscreen/150  
Software Exchange Kits**

| Product   | Version | Order<br>HP Part # | Notes |
|---|---------|--------------------|-------|
| <b>Touchscreen (HP 150B) Operating System and Utilities</b> |         | 45626-63007        | 2     |
| Sys Master Disc   |         |                    |       |
| MS-DOS  | 2.11    |                    |       |
| MS-DOS<br>COMMANDS  | 2.11    |                    |       |
| P.A.M.  | B.02.02 |                    |       |
| HPBIOS  | B.02.02 |                    |       |
| FORMAT  | B.02.00 |                    |       |
| DEV CONFIG  | B.02.00 |                    |       |
| Appl Master Disc  |         |                    |       |
| COPY/BACKUP   | B.02.02 |                    |       |
| INSTALL   | B.02.02 |                    |       |
| SET UP P.A.M.   | B.02.02 |                    |       |
| MS-DOS<br>UTILITIES   | B.02.03 |                    |       |
| <b>Touchscreen II Operating System and Utilities</b>        | 2.11    | 45847-63004        | 3     |
| MS-DOS  | 2.11    |                    |       |
| MS-DOS<br>COMMANDS  | 2.11    |                    |       |
| P.A.M.  | C.01.00 |                    |       |
| HPBIOS  | C.01.02 |                    |       |
| FORMAT  | C.01.00 |                    |       |
| DEV CONFIG  | C.01.00 |                    |       |
| EASY CONFIG   | C.01.00 |                    |       |
| COPY/BACKUP   | C.01.00 |                    |       |
| INSTALL   | C.01.00 |                    |       |
| SET UP  | C.01.00 |                    |       |
| SAVERAM   | C.01.01 |                    |       |
| MS-DOS<br>UTILITIES   | C.01.00 |                    |       |
| OP SYS  |         |                    |       |
| MASTER:   |         |                    |       |
| European Spanish  |         | 45847-63005        |       |
| French  |         | 45847-63006        |       |
| German  |         | 45847-63007        |       |
| Dutch   |         | 45847-63008        |       |
| Norwegian   |         | 45847-63010        |       |
| Swedish   |         | 45847-63011        |       |
| UK  |         | 45847-63012        |       |
| Finnish   |         | 45847-63013        |       |
| Danish  |         | 45847-63014        |       |
| Italian   |         | 45847-63015        |       |

| <b>Product</b>   | <b>Version</b> | <b>Order<br/>HP Part #</b> | <b>Notes</b> |
|--|----------------|----------------------------|--------------|
| <b>Touchscreen Operating System<br/>(upgrade)</b>        | 3.2            | 45849-63031                |              |
| <b>Touchscreen II Operating System<br/>and Utilities</b> |                | 45847-63017                |              |
| MS-DOS   | 3.2            |                            |              |
| MS-DOS   | 3.2            |                            |              |
| COMMANDS   |                |                            |              |
| P.A.M.   | E.01.01        |                            |              |
| HPBIOS   | E.01.01        |                            |              |
| FORMAT   | E.01.01        |                            |              |
| DEV CONFIG   | E.01.01        |                            |              |
| COPY/BACKUP  | E.01.01        |                            |              |
| INSTALL  | E.01.01        |                            |              |
| SET UP   | E.01.01        |                            |              |
| SAVERAM  | E.01.01        |                            |              |
| STORE CONFIG   | E.01.01        |                            |              |
| MS-DOS   | E.01.01        |                            |              |
| UTILITIES  |                |                            |              |
| <b>System Master Exchange Kit</b>                        |                | 45847-63030                |              |
| MS-DOS   | 3.2            |                            |              |
| MS-DOS   | 3.2            |                            |              |
| COMMANDS   |                |                            |              |
| P.A.M.   | E.01.01        |                            |              |
| HPBIOS   | E.01.01        |                            |              |
| FORMAT   | E.01.01        |                            |              |
| DEV CONFIG   | E.01.01        |                            |              |
| EASY CONFIG  | E.01.01        |                            |              |
| <b>Application Master Exchange Kit</b>                   |                | 45847-63031                |              |
| COPY/BACKUP  | E.01.01        |                            |              |
| INSTALL  | E.01.01        |                            |              |
| SET UP   | E.01.01        |                            |              |
| SAVERAM  | E.01.01        |                            |              |
| STORE CONFIG   | E.01.01        |                            |              |
| <b>Utility Master Exchange Kit</b>                       |                |                            |              |
| MS-DOS   | E.01.01        | 45847-63032                |              |
| UTILITIES  |                |                            |              |

| Product   | Version  | Order<br>HP Part # | Notes |
|---|----------|--------------------|-------|
| 3278 Emulation                                      | A.01.00  | 45641-63001        |       |
| AdvanceLink (upgrade)                               | A.04.04  | 45431-63002        |       |
| AdvanceLink (update)                                | A.04.04  | 45431-63001        |       |
| Application Master (150 B)                          | B.02.00  | 45626-63006        |       |
| Auto Cad  | A.02.01  | 47956-63001        |       |
| BASIC Interpreter                                   | *A.01.01 | 45445-63002        |       |
| BASIC Compiler                                      | A.01.00  | 45446-63002        |       |
| Charting Gallery                                    | A.01.00  | 45513-63001        |       |
| Charting Gallery Upgrade                            | B.03.00  | 45513-60001        |       |
| COBOL   | A.01.00  | 45448-63001        |       |
| Compiled BASIC                                      | A.01.00  | 45446-63002        |       |
| Condor 3  | *A.02.11 | 45416-63002        | 1     |
| CorrectStar (hard-disc upgrade)                     | V3.31    | 45429-63002        |       |
| CorrectStar to SpellStar Upgrade                    | 3.3.30   | 45429-63001        |       |
| CorrectStar   | 3.32     | 45427-63002        |       |
| dBASE II  | *A.02.41 | 45468-63001        |       |
| Drawing Gallery                                     | A.02.01  | 45411-63002        |       |
| Drawing Gallery Upgrade                             | B.03.00  | 45411-60001        |       |
| DSN/Link  | A.01.01  | 45424-63001        |       |
| EtherPrint  | 2.11     | 45646-13001        |       |
| ExecuDesk   | A.01.01  | 45444-63001        |       |
| Executive Card Manager (Upg/rp)                     | A.02.00  | 45421-63004        |       |
| Executive MemoMaker                                 | C.02.00  | 45418-63002        |       |
| Executive MemoMaker (replacement)                   |          |                    |       |
| Gold, Utility and Fonts master                      | C.03.00  | 45418-63005        |       |
| Set-up and Dictionary master                        | C.03.00  | 45418-63007        |       |
| Executive MemoMaker (C.02.00 to<br>C.03.00 upgrade) | C.03.00  | 45418-63006        |       |
| Forms Master  | A.01.00  | 45443-63001        |       |
| FORTRAN   | A.01.00  | 45449-63001        |       |
| FORTRAN Upgrade                                     | *A.01.00 | 45449-63003        |       |
| Gallery Collection Upgrade                          | B.03.00  | 45437-60001        |       |

| Product                                       | Version  | Order<br>HP Part # | Notes |
|---|----------|--------------------|-------|
| Gallery Collection                            |          |                    |       |
| Bar, Line & Pie Charts                        | B.03.00  | 45513-63001        |       |
| Basic Portfolio Discs 1 & 2                   | B.03.00  | 45411-63004        |       |
| Basic Portfolio Discs 3 & 4                   | B.03.00  | 45411-63005        |       |
| Business Management Portfolio<br>Discs 1-3    | B.03.00  | 45570-63001        |       |
| Gold Master                                   | B.03.00  | 5061-9914          |       |
| Set-up & Utility                              | B.03.00  | 5061-9917          |       |
| GraphWriter                                   | A.01.01  | 45484-63001        |       |
| GW BASIC                                      | *A.01.04 | 45450-63002        |       |
| HP Message to AdvanceMail (upgrade)           | A.00.02  | 27534-63007        |       |
| HP-IB Command Library (upgrade)               | B.01.00  | 14857-63002        |       |
| HP-IB Command Library for MS-DOS              | B.01.00  | 14857-63001        |       |
| HP Message                                    | A.00.02  | 36568-63001        |       |
| HP Message to AdvanceMail                     | A.01.02  | 27534-63007        |       |
| HP Terminal Program                           | A.00.01  | 24597-65002        |       |
| HP Word                                       | A.00.00  | 27505-63001        |       |
| Lattice C Compiler                            | A.01.00  | 45452-63001        |       |
| Lotus 1-2-3:                                  |          |                    |       |
| System Disc                                   | 2.01     | 45566-63001        |       |
| Help Disc, Install, and Print Graph           | 2.01     | 45566-63002        |       |
| Translate/View                                | 2.01     | 45566-63003        |       |
| System Disc                                   | 1A       | 45482-63001        |       |
| System Disc (including backup)                | 1A       | 45482-63004        |       |
| Utility                                       | 1A       | 45482-63002        |       |
| Tutorial 1&2                                  | 1A       | 45482-63003        |       |
| Printgraph                                    | 1A       | 45482-63005        |       |
| MailMerge                                     | A.03.30  | 45401-63001        |       |
| MemoMaker                                     | *B.01.02 | 45420-63001        |       |
| MemoMaker Time Manager                        | A.02.00  | 45504-64002        |       |
| MemoMaker to Executive MemoMaker<br>(upgrade) | C.02.00  | 45418-63003        |       |
| MS Spell                                      | A.01.00  | 45556-63001        |       |
| MS Word                                       | B.01.00  | 45474-63002        |       |
| MultiMate                                     | 3.29     | 45424-63001        |       |
| MultiPlan                                     | A.01.10  | 45473-63001        |       |

| Product                                 | Version  | Order<br>HP Part # | Notes |
|---|----------|--------------------|-------|
| OfficeShare Network                     | A.01.00  | 50902-69301        |       |
| Pascal                                  | *A.01.00 | 45447-63001        |       |
| Painter                                 | A.01.00  | 45540-63001        |       |
| PC Interface with HP 150                | A.01.00  | 61060-63001        |       |
| PCF                                     | B.01.02  | 45422-63001        |       |
| PCF to Executive Card Manager (upgrade) | A.02.01  | 45421-63005        |       |
| PFS: File & Report                      | A.02.41  | 45488-63001        |       |
| Print Central                           | A.01.01  | 36890-63001        |       |
| Print Central Upgrade                   | A.03.00  | 32593-63001        |       |
| R:Base 4000                             | 1.1      | 45545-63001        |       |
| R:Base 5000                             | 1.1      | 45563-63001        |       |
| R:Base 4000 to 5000                     | 1.1      | 45563-63002        |       |
| SpellStar                               | A.03.30  | 45402-63001        |       |
| Symphony                                | 1.1      |                    |       |
| Prog. Disc, Tutorial, Help              |          | 45498-63002        |       |
| Printgraph, Utility Discs               |          | 45498-63003        |       |
| Install Prog., Library Discs            |          | 45498-63004        |       |
| Tutorial1, Tutorial2 Discs              |          | 45498-63005        |       |
| Videotex                                | A.01.01  | 45314-63001        |       |
| VT100 Terminal Emulator                 | A.02.00  | 45412-63001        |       |
| VT100 Terminal Emulator                 | A.01.00  | 45412-63001        |       |
| Windows Kernal                          | A.01.03  | 45875-63001        |       |
| Windows Write/Paint                     | A.01.03  | 45875-63002        |       |
| X.21 Interface                          | 26.22    | 18154-17101        |       |

\* Revised since original release

† For each kit ordered, along with your payment submit one corresponding original master disc. This is the disc with the HP software product number and description printed on the label. Be sure to make working copies before sending your master disc.

**To determine the price for a kit**, contact your dealer or HP office, or call the HP telephone order number for your country. (See the "How to Order" section later in this Current Information Insert.) Orders submitted without the correct master disc cannot be accepted. If you want a kit with 5.25" discs, please indicate this preference on your order. Otherwise 3.5" disc will be shipped, regardless of the size of your returned master disc.

## Notes

- 1—Either a Condor 20-3 disc or a Condor-20-1-to-Condor-3 Upgrade disc can be exchanged for the Condor 3 disc.
  - 2—Three double-sided discs, written in single-sided format, to exchange for damaged HP 150A or Touchscreen (HP 150B) media. To upgrade an HP 150A to the **Touchscreen (HP 150B)** operating system, order this kit. To update an HP 150A or Touchscreen to the **Touchscreen II** operating system, order the Touchscreen II Upgrade Kit (45849-63006) from your dealer or HP office. The upgrade kit includes the new operating system disc and the ROM integrated circuits required by the new disc; it is not user-installable. (Refer to the article "Upgrading Your HP 150A or Touchscreen to a Touchscreen II" in *Communicator* Issue #13 for details).
  - 3—Double-sided exchange disc for damaged Touchscreen II media. To upgrade an HP 150A or Touchscreen (HP 150B) to the Touchscreen II operating system, order the Touchscreen II Upgrade Kit (45849-63006) from your dealer or HP office. The upgrade kit includes the new operating system disc and the ROM integrated circuits required by the new disc; it is not user-installable. (Refer to the article "Upgrading Your HP 150A or Touchscreen to a Touchscreen II" in *Communicator* Issue #13 for details.)
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**Vectra PC  
Software Exchange Kits**

| Product  | Version or<br>/Date Code | Order<br>Part #                           | Notes |
|--|--------------------------|---|-------|
| AdvanceWrite I to AdvanceWrite Plus<br>(Upgrade)     | F.02.00                  | 27546-60001                               |       |
| AdvanceWrite II to AdvanceWrite Plus<br>(Upgrade)    | F.02.00                  | 27546-60002                               |       |
| AdvanceWrite III to AdvanceWrite Plus<br>(Upgrade)   | F.02.00                  | 27546-60003                               |       |
| AdvLink Replacement                                  | B.01.00                  | 68333-65002                               |       |
| AdvLink (Upgrade)                                    | B.01.00                  | 68333-65001                               |       |
| ASYST Scientific                                     | A.02.50                  | 14858-61005<br>14858-61006<br>14858-61007 |       |
| BASIC Interpreter                                    | 2538                     | 45952A                                    | 1     |
| BASIC Interpreter<br>(Upgrade/Replacement)           | 3.22                     | 45952-63001                               |       |
| CAT Upgrade  |                          |   |       |
| 5.25"  | A.01.00                  | 14573-61001                               |       |
| 3.5"   | A.01.00                  | 14753-61003                               |       |
| CAT Replacement                                      |                          |   |       |
| 5.25"  | A.01.00                  | 14753-61002                               |       |
| 3.5"   | A.01.00                  | 14753-61004                               |       |
| Charting Gallery Upgrade                             | B.03.00                  | 68350-60002                               |       |
| Drawing Gallery Upgrade                              | B.03.00                  | 68351-60002                               |       |
| Executive Card Manager                               | A.01.03                  | 68331-65001                               |       |
| Executive MemoMaker Upgrade                          | A.03.00                  | 68330-60005                               |       |
| Executive MemoMaker<br>Application & Utility (5.25") | A.03.00                  | 68330-65002                               |       |
| Gold & Dictionary (5.25")                            | A.03.00                  | 68330-65003                               |       |
| Exec. Spreadsheet                                    | A.01.01                  | 68332-65001                               |       |
| Gallery Collection Upgrade                           | B.03.00                  | 68352-60001                               |       |
| Gallery Collection                                   |                          |   |       |
| Application Master (5.25")                           | B.03.00                  | 68351-65002                               |       |
| Application Master (3.5")                            | B.03.00                  | 68351-63001                               |       |
| Bar, Line & Pie Charts (5.25")                       | B.03.00                  | 68350-65001                               |       |
| Bar, Line & Pie Charts (3.5")                        | B.03.00                  | 68350-63001                               |       |
| Basic Portfolio Discs 1, 2 & 3 (5.25")               | B.03.00                  | 68351-65001                               |       |
| Basic Portfolio Discs 1 & 2 (3.5")                   | B.03.00                  | 68351-63002                               |       |
| Basic Portfolio Disc 3 (3.5")                        | B.03.00                  | 68351-63003                               |       |



| Product   | Version or /Date Code | Order Part # | Notes |
|---|-----------------------|--------------|-------|
| Business Management Portfolio Disc 1 (5.25")            | B.03.00               | 68326-65001  |       |
| Business Management Portfolio Disc 2 (5.25")            | B.03.00               | 68326-65002  |       |
| Business Management Portfolio Disc 3 (5.25")            | B.03.00               | 68326-65003  |       |
| Business Management Portfolio Discs I & II (3.5")       | B.03.00               | 68326-63001  |       |
| Business Management Portfolio Disc III (3.5")           | B.03.00               | 68326-63002  |       |
| Gold & Utility Master (5.25")                           | B.03.00               | 5061-9915    |       |
| Gold Master (3.5")                                      | B.03.00               | 5061-9919    |       |
| Set-up Master (5.25")                                   | B.03.00               | 5061-9916    |       |
| Graphics Gallery Update                                 | A.01.00               | 68352-65002  |       |
| HP-IB Command Library (Upgrade)                         |                       | 82990-65001  |       |
| HP Message  | A.00.02               | 36569-65001  |       |
| HP Message to AdvanceMail (Upgrade)                     | A.01.02               | 27535-65009  |       |
| HP Terminal Program                                     | A.00.01               | 24597-65001  |       |
| HP Terminal Program (3.5")                              | A.00.01               | 24597-65002  |       |
| MS-DOS Op Sys Disc                                      | A.01.02               | 45951-60001  |       |
| MS-DOS Op Sys Disc                                      | A.01.04               | 45951-63001  |       |
| MS-DOS Op Sys Disc                                      | B.01.01               | 45951-63017  |       |
| MS Macro Assembler                                      | 4.0                   | 45953-60001  |       |
| MS Windows (Upgrade, 5.25")                             | B.02.00               | 45954-60001  |       |
| MS Windows Kernel Set-up, Build & Display Discs (5.25") | B.02.00               | 45954-60002  |       |
| MS Windows Fonts & Utilities (5.25")                    | B.02.00               | 45954-60003  |       |
| MS Windows Applications & Write Discs (5.25")           | B.02.00               | 45954-60004  |       |
| MS Windows Kernel (3.5") Set-up, Build & Display Discs  | B.02.00               | 45954-60005  |       |
| MS Windows Fonts & Utilities (3.5")                     | B.02.00               | 45954-60006  |       |
| Multiple Character Set Utilities MCS                    | A.01.01               | 5061-8970    |       |
| Office Share Network Server                             | A.01.00               | 50902-69601  |       |
| Office Share Network User                               | A.01.00               | 50903-69601  |       |
| Office Talk   | A.01.02               | 24520-15001  |       |
| PageMaker   | 1.0a                  |              | 2     |
| PC Instrument Data Acquisition                          | A.02.00               | 14856-65001  |       |
| PC Instrument Data Acquisition (Upg.)                   | A.02.00               | 14856-61001  |       |

| Product   | Version or /Date Code | Order Part # | Notes |
|---|-----------------------|--------------|-------|
| PC Instrument System                            | B.01.00               | 61061-65001  |       |
| PC Instrument System                            | B.01.00               | 61061-65002  |       |
| Print Central                                   | A.01.00               | 36890-65001  |       |
| Print Central (Update)                          | A.03.00               | 32593-63001  |       |
| R:Base 5000                                     | 2537                  | 68336-65001  |       |
| R:Base Program Interface                        |                       | 68337-65001  |       |
| R:Base System V                                 | 1.1                   | 68328-65012  |       |
| Scanning Gallery                                | A.02.00               | 68357-65001  |       |
| Scanning Gallery<br>MS Windows Run-Time Version | A.01.00 &<br>A.02.00  | 88290-10150  |       |
| Symphony  | 2538                  | 68339-65001  |       |
| TextChart                                       | A.02.00               | 45406-65001  |       |
| VT 100 Terminal Emulator                        | A.02.00               | 45412-63001  |       |
| 1-2-3 by Lotus                                  | 2.01                  | 68340-65001  |       |

#### Notes

- 1—Because an exchange kit would be priced at approximately the same price as the original product, the order number is for the original product.  
 2—Aldus Corporation, 411 First Ave. South, Suite 200, Seattle, WA 98104 U.S.; (206) 622-5500.

#### Portable Software Exchange Kits

| Product   | Version | Order Part # | Notes |
|---|---------|--------------|-------|
| BASIC Interpreter   | A.01.01 | 45445-63002  |       |
| BASIC Compiler  | A.01.01 | 45446-63002  |       |
| Desktop Link Upgrade<br>(for use with HP-IL interface card) | E       | 82973-65001  |       |
| Lotus 1-2-3 Upgrade (ROM)                                   | 2.01    | 45539-64001  |       |
| Prog. Tools   | A.01.00 | 45419-63001  |       |
| *Revised since original release.                            |         |              |       |

**Discontinued Software  
Replacement Media Exchange Kits**

| Product (Notes)   | Version  | Order Part Number† | Exchange Available Through |
|---|----------|--------------------|----------------------------|
|   |          | 3.5" Disc          |                            |
| <b>Touchscreen/150:</b>   |          |                    |                            |
| BPI Gen. Acctg.   | A.01.00  | 45455-63001        | June, 1990                 |
| BPI Personal Acctg.   | A.01.11  | 45459-63001        | June, 1990                 |
| BPI Accts. Rec.   | A.01.11  | 45456-63001        | June, 1990                 |
| Condor 1/150  | A.02.11  | 45415-63002        | April, 1990                |
| Condor 3*   | A.02.11  | 45415-63002        | April, 1992                |
| Context MBA/150   | A.02.03  | 45481-63001        | April, 1990                |
| Diagraph  | A.03.01  | 45463-63001        | September, 1992            |
| Graphics<br>(bar disc, text disc, pie disc, line disc, examples disc) | A.03.01  | 45410-63001        | April, 1990                |
| GraphPlan   | 1.00.T2  | 45467-63001        |                            |
| <b>Lotus 1-2-3:</b>   |          |                    |                            |
| System Disc<br>(including backup)                                     | 1A       | 45482-63001        | April, 1992                |
| Utility   | 1A       | 45482-63004        | April, 1992                |
| Tutorial 1&2  | 1A       | 45482-63002        | April, 1992                |
| Printgraph  | 1A       | 45482-63003        | April, 1992                |
| MicroPlan   | 4.04.T2  | 45465-63001        | May, 1991                  |
| MicroPlan Consol.   | 4.04.T2  | 45466-63001        | May, 1991                  |
| Picture Perfect   | A.03.01  | 45462-63001        | September, 1992            |
| Transend COMPLETE   | A.01.00  | 45414-63001        | May, 1991                  |
| VisiCalc  | B.01.02  | 45405-63004        | April, 1990                |
| WordStar (HP 150)   | 3.34     | 45400-65031        | September, 1992            |
| WordStar (150/110)  | 3.34     | 45400-63030        | September, 1992            |
| <b>Portable/110:</b>  |          |                    |                            |
| DataFax   | A.01.01  | 45408-63001        | December, 1990             |
| dBaseII   | *A.02.41 | 45468-63001        | September, 1992            |
| PC 2622 (Reflection)  | 1.0      | 82861-64001        | March, 1991                |
| <b>Rags to Riches</b>   |          |                    |                            |
| Ledger  | A.01.00  | 45520-17301        | December, 1992             |
| Sales   | A.01.00  | 45521-17301        | December, 1992             |
| Receivables   | A.01.00  | 45522-17301        | December, 1992             |
| Payables  | A.01.00  | 45523-17301        | December, 1992             |
| Reflection  | 1.0      | 82861-64002        | March, 1991                |
| WordStar (HP 110)   | 3.34     | 45400-63030        | September, 1992            |

\* Revised since original release.

**Discontinued Software  
Replacement Media Exchange Kits**

| Product (Notes)                        | Version  | Order Part Number † |             |             |
|--|----------|---------------------|-------------|-------------|
|  |          | 3.5" Disc           | 5.25" Disc  | 8" Disc     |
| <b>HP 12x:</b>                         |          |                     |             |             |
| Exchange Available Through April, 1990 |          |                     |             |             |
| Op Sys/Util/12x                        | *A.02.00 | 45900-13810         | 45900-15810 |             |
| VisiCalc/12x                           | *A.02.01 | 45531-13800         | 45531-15800 | 45531-18800 |
| Graphics/12x                           | *A.01.03 | 45532-13800         | 45532-15800 |             |
| Word/12x                               | *A.02.03 | 45533-13800         | 45533-15800 | 45533-18800 |
| Link/12x (3)                           | A.02.00  | 45534-13800         | 45534-15800 |             |
| DSN/Link/12x                           | A.01.01  | 45534-13810         | 45534-15810 | 45534-18810 |
| BASIC/12x                              | A.05.21  | 45535-13800         | 45535-15800 | 45535-18800 |
| Programming/12x                        | A.01.00  | 45536-13800         | 45536-15800 | 45536-18800 |
| Condor 1/12x (5)                       | A.02.00  | 45550-13800         | 45550-15800 | 45550-18800 |
| Condor 3/12x (4)                       | *A.02.01 | 45550-13802         | 45550-15802 | 45550-18802 |
| BPI G/A/12x                            | A.01.00  | 45552-13800         | 45552-15800 | 45552-18800 |
| BPI Payroll/12x                        | A.01.00  | 45553-13800         | 45553-15800 |             |
| WordStar/12x                           | A.01.00  | 45560-13800         | 45560-15800 | 45560-18800 |
| SpellStar/12x                          | A.01.00  | 45561-13800         | 45561-15800 | 45561-18800 |
| MailMerge/12x                          | A.01.00  | 45562-13800         | 45562-15800 | 45562-18800 |
| MicroPlan/12x                          | A.01.00  | 45670-13800         | 45670-15800 |             |
| MicroPlan Cons./12x                    | A.01.00  | 45671-13800         | 45671-15800 |             |
| WordStar                               | 3.31     | n/a                 | 68345-65001 | May, 1992   |
| WordStar Professional                  | 3.31     | n/a                 | 68346-65001 | May, 1992   |

See notes on next page.

\*Revised since original release.

† For each kit ordered, along with your payment submit one corresponding original master disc. This is the disc with the HP software product number and description printed on the label. Be sure to make working copies before sending your master disc.

To determine the price for a kit, contact your dealer or HP office—or call the HP telephone order number for your country. (See the "How to Order" section later in this Current Information Insert.) Orders submitted without the correct master disc cannot be accepted.

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### Notes

- 3—This kit is to exchange your Link/125 disc for a Link/125 disc. (If you want to *upgrade* to Series 100 DSN/Link, order part number 45534-13810 or 45534-15810.)
- 4—A Condor 3 disc, a Condor 20-2 or 3 Upgrade disc, or a Condor 20-1 to 3 Upgrade disc may be exchanged for the Condor 3 disc.
- 5—A Condor 2 disc or a Condor 1 to 2 upgrade disc may be exchanged for the Condor 2 disc.

All of the items listed in this issue, except software update/upgrade kits and HP-conducted training courses, are available from your dealer or HP:

- Your local dealer can often provide immediate delivery. (To locate a dealer, call 800/FOR-HPCC in the U.S. or contact your local HP office—ask for “Personal Computer Dealer Sales.”)
- Your HP sales and service office will transmit your order to the appropriate HP distribution center.

**Ordering by Telephone from HP**

Except for systems, peripherals (such as disc drives and printers), and training courses, most items listed in this issue are also generally available by telephone from Hewlett-Packard:

- Australia ..... (03) 895-2645  
(03) 895-2615  
(03) 895-2815  
(03) 895-2861
- Austria ..... (0222) 2500-614  
(0222) 2500-615  
(0222) 2500-616
- Belgium/Luxembourg ..... (02) 761 31 11
- Canada  
Toronto local ..... (416) 671-8383  
Ontario..... 1-800-387-3417  
Quebec..... 1-800-387-3417  
British Columbia ..... 112-800-387-3154  
Other Provinces ..... 1-800-387-3154
- Denmark ..... 04 30 16 40
- Finland ..... (90) 887 2361
- France ..... (1) 69 28 83 90  
(1) 69 28 32 64
- Greece ..... (01) 672 6090
- Italy ..... (02) 9236 9702
- Middle East  
Athens ..... (01) 6828811
- Norway ..... (02) 24 60 90
- South Africa  
Johannesburg..... (011) 8025111  
Cape Town ..... (021) 537954
- Spain ..... 91-6374013  
91-6370011
- Sweden ..... (08) 7502400
- Switzerland ..... (057) 31 24 90

- The Netherlands . . . . . (020) 547 6606
- United Kingdom . . . . . (0734) 697201
- United States . . . . . 800-538-8787  
Alaska, California, and Hawaii . . . 408-738-4133
- West Germany . . . . . (0130) 3322

For countries not listed, call your local HP sales and service office.

**Ordering HP-Conducted Training Courses**

Hewlett-Packard provides personal computer training courses at HP customer training centers using HP-provided equipment; they can also be taught by HP at your facility using your own systems. To order, call your HP sales and service office.

**Ordering Software Update and Upgrade Kits**

Your original master disc must accompany an order for software update or upgrade kits. Therefore, they are available only through your local dealer or from HP by mail.

For ordering instructions, refer to the article "Software Exchange Kits" elsewhere in this Current Information section.

**HP Internal Users**

Have your purchasing department enter an I2 order on the supplying entity shown for the item on the Corporate Price List or the Parts Price List. If you are ordering a software exchange kit, return the original master disc to:

Software Administrator/Internal Orders,  
Building 78/5

or to:

Hewlett-Packard  
P.O. Box 60008  
Sunnyvale, CA 94088  
Attn: Software Administrator/  
Internal Orders

Reference your HP internal order number on the package.

**HP Employees**

Check with the Employee Computer Program Coordinator in your personnel or purchasing department for ordering instructions.



# Ordering *HP PC Communicator* Subscriptions



The *HP PC Communicator* is the heart of the support program for The Portable, the HP 150 Touchscreen, the HP 12x, and the Vectra PC.

This publication contains articles on how to best use your system—plus each issue includes sections of the “HP PC Encyclopedia.”

The “HP PC Encyclopedia” brings together all the current information you need, in addition to the manuals, for each of the software packages that you use. New and revised Encyclopedia articles are sent to you as part of the *HP PC Communicator*.

You can order a subscription just as you order supplies and accessories—through your dealer, by using HP’s special telephone orderlines, or through your local HP office. (See the “How To Order” section in this insert for the special HP telephone number for your area.)

*HP PC Communicator*—

U.S. . . . . 45530A

*HP PC Communicator*—

Canada/Mexico . . . . . 45530B

*HP PC Communicator*—

International . . . . . 45530C

(Subscriptions outside the U.S. are sent by accelerated mail.)

*Note: We are unable to start your subscription with an issue which has already been mailed; to complete your set of Communicator issues, order individual copies as described in the article “Ordering HP PC Communicator Back Issues” which is also in this Current Information section.*

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## Address Corrections for *HP PC Communicator* Subscribers

Change the information on the mailing label by sending us the Change of Address form which appears at the end of this Current Information Insert. Allow six to eight weeks for the change to take effect.

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## HP Internal Users

Have your purchasing department enter an I2 order on HP division A5 (DMK). For domestic orders only: Put user’s name in “Mark for” section.

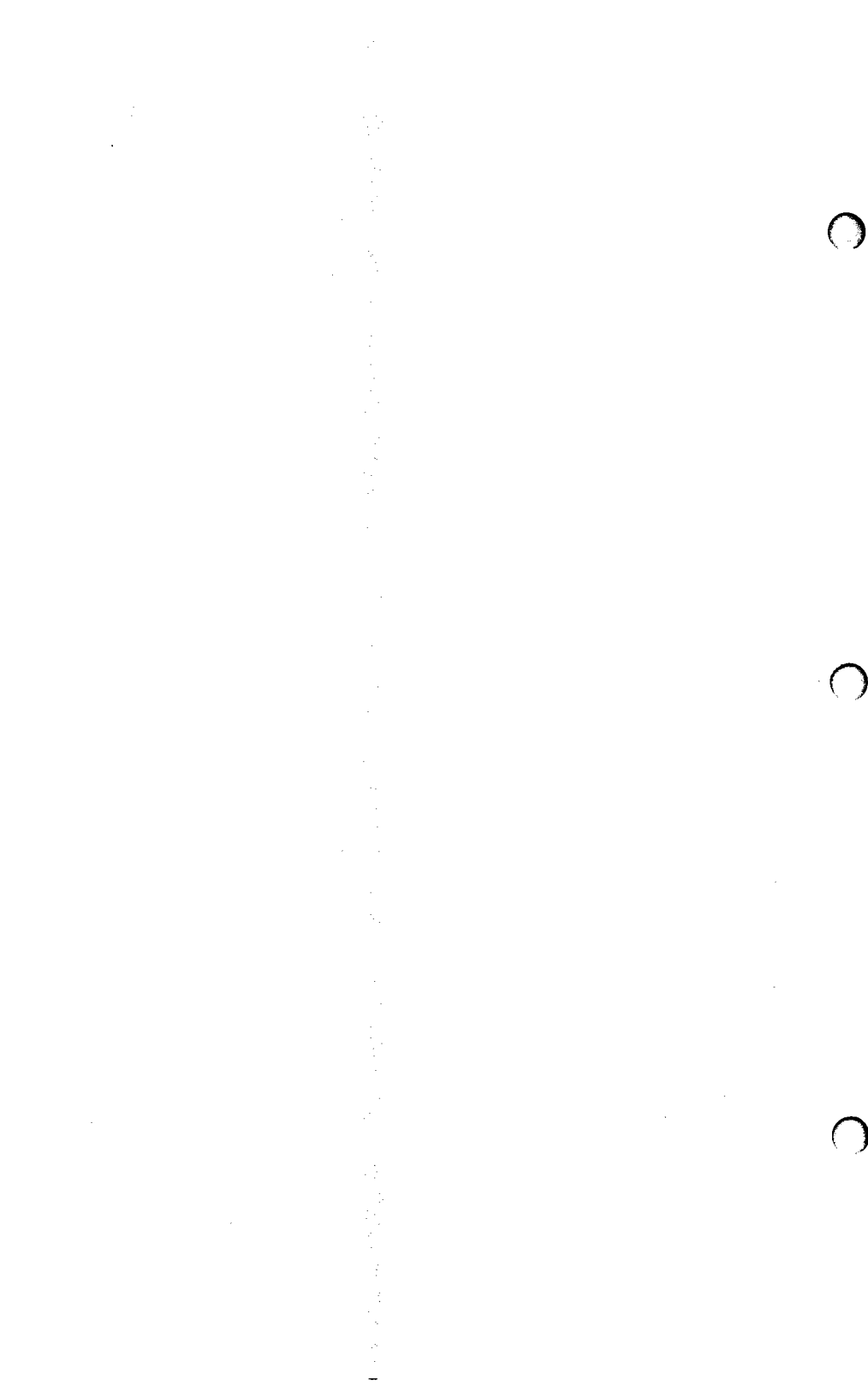
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## HP Employees

Check with the Employee Computer Program Coordinator in your personnel or purchasing department for Direct Marketing Division (DMK) ordering instructions.







# Mail Order Form for HP Personal/Desktop Computer Software Update Kits

Use this form only for HP Personal/Desktop Computer Software Update Kits. Supplies matched to your HP Computer System can be ordered with update kits.

Ordering instructions:

1. Print or type all requested customer information.
2. Order software update kit(s) for your HP Personal/Desktop Computer. The original disc must be sent to HP with your order for the software update kit; see instruction 7.
3. You may also order computer supplies using this form. Obtain current prices by calling toll-free 800-538-8787. In California, Alaska and Hawaii call (408) 738-4133 collect.
4. Compute state/local taxes on the total cost of items ordered (HP is required to collect taxes; their omission delays your order). If tax exempt, you must provide your tax exemption/resale number.
5. Fill in any special shipping instructions, as required. HP pays freight to U.S. addresses on mail orders, EXCEPT you will be charged extra for special expedited shipping methods; and you will be charged freight on heavy, bulky items weighing more than 30 lbs., such as furniture or printer paper.
6. Fill in credit card information or enclose cashier's check for fastest shipment. Payment by personal or company check will delay shipment up to 10 days. Make check payable to Hewlett-Packard Co. All orders subject to credit approval. **Do not send currency, coin, stamps or purchase orders.**

7. Before your software update kit(s) can be shipped, you must send with your order one original disc (containing the software being updated) for each update kit ordered. This is the disc with the HP software product number and description printed on the label. Be sure to make a working copy before sending the original.

8. Mail this form, along with credit card information (or check), and the original disc to:

HEWLETT-PACKARD DIRECT MARKETING  
Mail Order Dept., P.O. Box 60008, Sunnyvale, CA 94088

For carriers other than U.S. Mail, the address is:

HEWLETT-PACKARD DIRECT MARKETING  
Mail Order Dept., 1320 Kifer Road, Sunnyvale, CA 94086




**Thank you for your order!**

|           |             |      |                                   |
|-----------|-------------|------|-----------------------------------|
| Your Name | Phone ( ) - | Date | Disc Size: _____ 5.25" _____ 3.5" |
|-----------|-------------|------|-----------------------------------|

| Product Number | Description | Quantity | Unit Price        | Amount |
|----------------|-------------|----------|-------------------|--------|
| 1              |             |          | *                 | *      |
| 2              |             |          | *                 | *      |
| 3              |             |          | *                 | *      |
| 4              |             |          | *                 | *      |
| 5              |             |          | *                 | *      |
|                |             |          | Subtotal          | *      |
|                |             |          | State/Local Taxes | *      |
|                |             |          | <b>TOTAL</b>      | *      |

Tax Exempt?  No  Yes  
 Tax Exempt or Resale Number \_\_\_\_\_

|                   |   |
|-------------------|---|
| Subtotal          | * |
| State/Local Taxes | * |
| <b>TOTAL</b>      | * |

|  |  |  |  |
|--|--|--|--|
| <b>Ship To</b><br>Company _____<br>Attn Of _____ Bldg/Room _____<br>Street Address _____<br>City _____ State _____ Zip _____ |  | <b>Payment Method</b><br><input type="checkbox"/> Purchase Order (Number _____)<br><input type="checkbox"/> Check Enclosed (Payable to Hewlett-Packard Co.)<br><input type="checkbox"/> Credit Card (Check one, provide all information, and sign)<br><div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <input type="checkbox"/> <br/>           Account No _____<br/>           Expiration Date [ ] [ ] - [ ] [ ]         </div> <div style="text-align: center;"> <input type="checkbox"/> <br/>           Name on Card _____         </div> <div style="text-align: center;"> <input type="checkbox"/> <br/>           Address _____<br/>           Signature _____         </div> </div> |  |
| Standard Shipping Method is UPS Surface<br>Special Shipping Instructions _____   |  |  |  |

## Change of Address Form for *Communicator* Subscribers

If the information on your *Communicator* mailing label is no longer correct, please let us know. Fill in this form and mail it to Hewlett-Packard, Subscriptions Marketing Department, P.O. Box 60008, Sunnyvale, CA 94088 U.S.A. Allow 6-8 weeks for change to take effect.

*(please print)*

### **Old Address:**

**(attach mailing label or fill in information as it appears on mailing label)**

Name \_\_\_\_\_ (Title) \_\_\_\_\_

(Company) \_\_\_\_\_

Address \_\_\_\_\_ (Bldg No./Mail Stop) \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Country \_\_\_\_\_

### **New Address:**

**(exactly as it should appear on the mailing label)**

Name \_\_\_\_\_ (Title) \_\_\_\_\_

(Company) \_\_\_\_\_

Address \_\_\_\_\_ (Bldg No./Mail Stop) \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Country \_\_\_\_\_



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