November/December 1987

☐ New Vectra Family
☐ Lotus 1-2-3
☐ Scanning Gallery

For users of the Portable,
HP 12x, Touchscreen/150,
and Vectra computers

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Publication Data

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Notice

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The HP PC Newsline

The **Vectra Office Entry Pack** provides a software solution to meet basic office software requirements of users who need to work with financial, marketing or other data, whether on site, in a client's office, on the road, or at home.

The Entry Software Pack (HP 68306F) includes Lotus 1-2-3, Executive MemoMaker, and AdvanceLink. To get the software on 3 1/2-inch discs, which are required for use on the new HP Portable Vectra CS PC, order HP 68306F and Option #003.

You save 20 percent by buying the Vectra Office Entry Software Pack instead of purchasing the software packages individually.

Additionally, for users who require a more complete office software solution, there are the Vectra Office Professional (HP 68300F) and Vectra Office Assistant Software (HP 68301F) Packs. These packs contain 5 1/4-inch media only. Note: The media are available on 3 1/2-inch discs if you purchase the software packages individually.

The Vectra Office Professional Pack includes:

Graphics Gallery -- NEW version 2.0
Executive MemoMaker
Lotus 1-2-3
Executive CardManager
AdvanceMail
AdvanceLink

The Vectra Office Assistant Pack includes:

Graphics Gallery -- NEW version 2.0
AdvanceWrite PLUS -- NEW
Lotus 1-2-3
Executive CardManager
AdvanceMail
AdvanceLink

To order one of the three packs, contact your HP sales representative.

* * *

Picture Perfect (HP 45462A) and **Diagraph** (HP 45463A) for the HP Touchscreen PC have been discontinued by HP due to low demand.

Following standard HP policy, support and media replacement will be available for five years from beginning October 1, 1987. Discontinued software replacement media exchange kits are available from DMK. To order a kit follow the ordering instructions in the article "Software Exchange Kits" in the green pages of this issue. In the U.S., the Picture Perfect exchange kit is HP product number 45462-63001; the Diagraph exchange kit is HP 45463-63001.

You can continue to purchase Picture Perfect and Diagraph directly from the manufacturer, Computer Support Corporation:

Computer Support Corporation
Attn: Gail McCannon
2215 Midway Road
Carrollton, Texas 75006 USA
(214) 661-8960

<center>* * *</center>

Due to popular demand, the **Lotus 1-2-3** Release 2.01 Upgrade for the HP Touchscreen
PC has been extended. HP will continue to offer this upgrade as long as there is
sufficient demand.

The 1-2-3 Release 2.01 Upgrade for the HP Touchscreen PC (HP 45566-63004) can be
ordered from the Hewlett-Packard Direct Marketing Division (DMK) by mail order only.
To order follow the general ordering instructions in the article "Software Exchange Kits"
in the green pages of this issue.

If you plan to upgrade in excess of 100 units, or have participated in Lotus Development
Corporation's Major Account Upgrade Program for the Vectra/IBM version of 1-2-3,
please contact your HP sales representative.

<center>* * *</center>

For U.S. and Canada only:

ReadRight Optical Character Recognition (OCR) software (HP 88400A) for the **HP
ScanJet** is now available. ReadRight Software allows the HP ScanJet to read and convert
text into ASCII characters for future editing.

ReadRight Software uses a type of OCR technology called Feature Extraction. Feature
Extraction determines the characters by analyzing the features of the character. For
example, an "H" is viewed as two vertical bars with an interconnecting horizontal bar.

Once the text is stored, it can be transferred to a word processor for further editing.
ReadRight Software will format the scanned text directly into ASCII, WordStar, and
WordPerfect formats. Through a memory resident program included with ReadRight, it
will convert an ASCII image of the scanned text to the following word processing
formats:

> Symphony
> WordStar 2000
> PFS: Write
> PC-Write
> MultiMate
> Microsoft Word
> DisplayWrite
> CanonWriter

ReadRight recognizes a variety of fonts and point sizes. Fonts can be mixed on a page,
paragraph, or line. The user need not tell the system what font it is reading. ReadRight
can read a range of point sizes and pitches (6-12 points and 10-15 pitch). ReadRight
supports the following fonts:

Mono-Spaced

Courier
Pica
Elite
Prestige Pica
Prestige Elite
Letter Gothic
OCR-B
Bookface Academic
Prestige Renown/Style

Proportional Spaced

Bold
Cubic
Roman/Madeleine
Title
Modern
Thesis
Theme
Arcadia
Gothic/Victory
Majestic

ReadRight does not read documents which fall into the following categories:

- Typeset documents (books, magazines, brochures)
- Documents printed on a very open dot matrix printer (Epson printer)
- Poor photocopies

For more information, contact your dealer or HP sales office. ReadRight is not available through HP's Direct Marketing Division (DMK) or their phone lines.

* * *

The non-U.S. (localized) language versions of the Graphics Gallery/Vectra software products have been enhanced to integrate with PageMaker from Aldus Corporation.

Specifically, we have added a new TIFF (Tag Image File Format) driver to all of the Gallery products, enabling users to create high-resolution raster files for use in PageMaker. A PC Paintbrush driver has also been added to allow integration of Graphics Gallery/Vectra with Ventura Publisher from Xerox Corporation.

All foreign language versions of Graphics Gallery/Vectra products--Drawing Gallery, Charting Gallery and the Gallery Collection-- are now shipping with these capabilities.

If you purchased Graphics Gallery without the enhancements, you can order a single Gallery update disc to add these capabilities to your Gallery software. The language versions available are French, German, Dutch, Italian, Danish, and Finnish.

To obtain a copy of the Gallery update disc, please contact your HP sales representative.

* * *

On October 1, 1987 **AdvanceWrite I and II** began a six month plan for discontinuance which will be effective April 1, 1988. The new AdvanceWrite Plus is the replacement product and upgrade programs are in place. See your dealer or HP sales representative for the details.

* * *

A new Hewlett-Packard font cartridge, the HP 92290S1, is now available. This font cartridge was developed exclusively for use with the **LaserJet Series II** and **LaserJet 2000 printers.**

Below are some of the features:

- A full family of 10-point, 12-pitch Courier fonts allows 80 columns on A4 paper, useful for European customers.

- A 12-point Courier italic completes the Courier family that is internal to the printer.

- The PC-8 character set or IBM-US (as designated on the LaserJet Series II printer) allows the user to directly map all characters found on the IBM PC or compatibles to the LaserJet Series II printer.

- With the correct software, the LaserJet Series II and LaserJet 2000 printers can create all the HP-supported ISO symbol sets.

The HP LaserJet Series II and LaserJet 2000 printers understand the unique symbol mapping of the PC-8 character set. It is important to note that the LaserJet, LaserJet PLUS and LaserJet 500 PLUS printers do not understand this mapping. In other words, the HP 92290S1 is compatible only with the LaserJet Series II and LaserJet 2000 printers.

For further information, contact your dealer or HP sales office.

* * *

To use Windows on an HP Vectra CS PC, Microsoft Windows for the HP Vectra PC version B.02.00 (available first quarter 1988) is required.

Microsoft Windows version A.01.03 (HP 45954A) is not supported or recommended for use on the HP Vectra CS PC. Using this version can result in the loss of data.

If you have purchased the incorrect version of Windows, contact your local HP sales office. Unopened packages may be returned for a complete refund.

* * *

In the article "Vectra: Softfont Limits with the HPPCL.DRV Driver" on page 19 of Issue 23, the last bullet item should read "PageMaker with PCL/LaserJet (HPPCL.DRV) limitations:" rather than "PCL/LaserJet (HPPCL.DRV) version 1.02 limitations:"

* * *

Welcome to the *HP PC Communicator*

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.
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.
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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Current Information

Compact vs. Quick Save in ECM   Kristy Dees
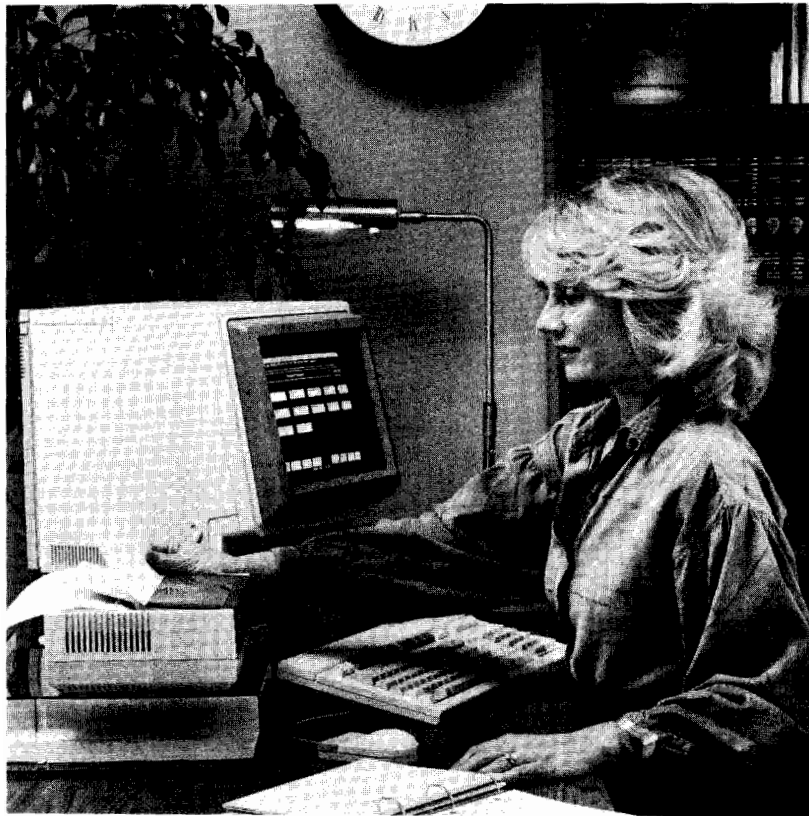
What is the difference between Compact Save and Quick Save in Executive Card Manager (ECM)? Basically, the Quick Save option is used to make a duplicate copy of your original cardfile. This is a quick method to backup your cardfile. The Compact Save option is used to make a copy of the cards in your cardfile with which you are currently working. For example, let's say your original cardfile contained 150 cards. If you delete 25 cards in the cardfile, you will now have 125 cards in your cardfile, but the number of bytes in your cardfile is still the same. This is due to the fact that the actual cardfile is not "cleaned" up until you do a Compact Save of the cardfile. Therefore, the Compact Save can be used to free up space on your hard disc by cleaning up your cardfiles.

The Compact Save option also comes in handy when working with worksets. For example, let's say you have a cardfile that contains 100 cards, and you create a workset of that cardfile which consists of 50 cards. If you use the Quick Save option to save your workset, you will get a new cardfile that contains all of your original 100 cards, but you can only see 50 of them. On the other hand, if you perform a Compact Save on the workset, you will get a new cardfile that contains only those 50 cards that were contained in your workset. As you can see, if you save a lot of worksets with the Quick Save option, you can use a lot of disk space unnecessarily.

So, use the Quick Save option when you want a copy of the entire cardfile, and the Compact Save option, when you want a copy of the active cards in your cardfile.
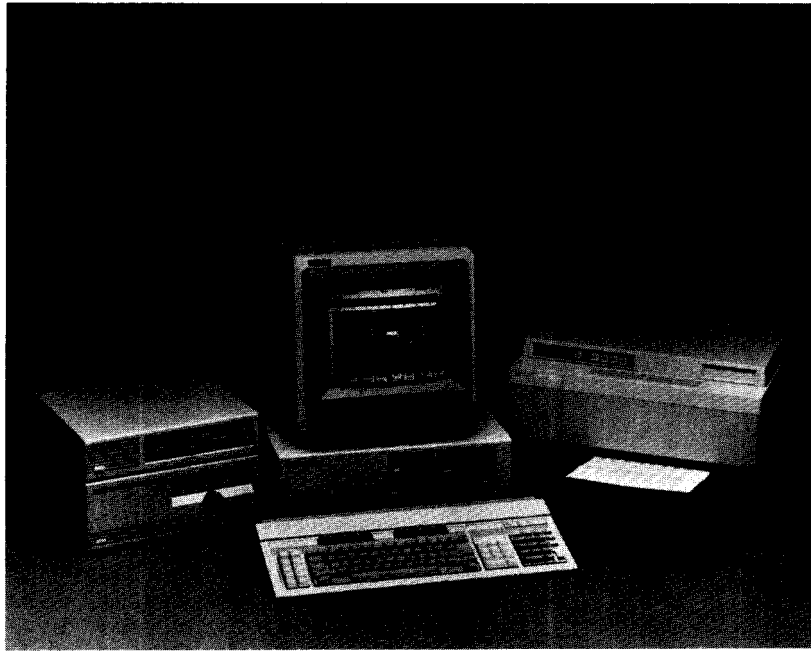
Here are some tips on the use of PageMaker 1.0a.

1. **LaserJet Series II font cartridge selection.**

   The 1.05 PCL driver lists the various memory-size configurations of the Series II in the menu. When you select a Series II configuration, the heading above the font cartridge menu changes to "2 max." How do you actually select two cartridges in that menu? There is no obvious way to drag or select with the mouse.

   To select the second font, you hold down the Shift key while clicking.

2. **Printer/font configuration included in saved document.**

   A document saved in PageMaker retains printer/font configuration information

   - Printer type (PCL or PostScript)
   - The port to which the printer is connected
   - The fonts available

   PageMaker will ask you if it should convert the document—this is a one-step process—sometimes lengthy. This can be irritating in system-to-system data transfer if the systems are not configured exactly the same. Of course, if the new system does not have the same fonts, you will need to use the Text Tool and the Type Menu to select from the fonts now available to you.

3. **Accented characters**

   With PCL drivers before version 1.05, the width-table information for accented characters is misinterpreted. Text with many accented characters—such as in a French- or Spanish-language document—will print out with an improperly aligned right-hand margin if the paragraph is right-justified. Since this effect is a small cumulative error across each individual line, text with only a few accented characters per line will not be noticeably misaligned.

   This is fixed in PCL driver version 1.05—which ships with 1.0a version of PageMaker.

☐

Use caution when using disc optimizer programs with Lotus 1-2-3 installed on your hard disc system.

There are some disc optimizer programs which cause problems with programs protected by Softguard (Lotus 1-2-3 and Symphony use this form of copy protection). Disc optimizer programs are designed to help clean up your hard disc by copying all files into contiguous blocks.

However, Softguard writes hidden files to your hard disc when you use the "Install 1-2-3 to a Hard Disk" option within the Lotus 1-2-3 Install program. When these files are copied over, they are purposely fragmented on your hard disc. In other words, the files are placed in noncontiguous blocks. If you use a disc optimizer, it will place these files in contiguous blocks and the Lotus program will no longer see the key that you have copied down to the hard drive. In essence, you have corrupted the key.

To avoid problems, make sure that you remove the key (or Softguard protection) by going into Lotus Install, the Advanced options menu and choosing the "Remove 1-2-3 from a Hard Disk," *before* you run a disc optimizer program.

The use of HP-IB peripheral devices with the HP Vectra PC requires special HP-IB hardware and software.

Hardware	The hardware requirement is an HP-IB Interface card. Installed in one of the expansion slots, one card is all that is necessary for any HP-IB device to be used on the Vectra. The switches must be set to the following settings regardless of what peripherals and software you will be using: Switches 1, 2 and 5 set to the UP/ON position Switches 3 and 4 set to the DOWN/OFF position
Software	Two software libraries are available for supporting two groups of peripherals—one for disc and tape drives and another for instruments, printers, and plotters.

Group	Software	Peripherals
Drives	Disc/Tape Command Library	HP-IB disc & tape drives, e.g. 9134, 9153B, 9122, 9142
Instruments	Instruments, Printer & Plotter Command Library	HP-IB Printers and Plotters, e.g. HP 2225A, 7550A.

■ **Disc/Tape Command Library**

This library contains software which allows access to most HP-IB disc and tape drives. (Specifically not supported are the HP 9133D, 9133L, 9153A, 9133H, 9133X, 9133XV, and 9121. However, some people have reported using the HP 9133D, 9133L, 9153A, and 9133H.) The software below is included in the Disc/Tape Command Library.

HPDISC.SYS and HPTAPE.SYS are device drivers that must be copied to the system disc and specified in your CONFIG.SYS configuration file. One or both of the following commands must be included as the last statement in your CONFIG.SYS file.

DEVICE = C:\DISKTAPE\HPDISC.SYS

DEVICE = C:\DISKTAPE\HPTAPE.SYS

These assume that the software has been loaded to the DISKTAPE subdirectory of the C: drive. The HPTAPE driver needs to be installed only if an HP 9142 will be used.

HPTAPE is used to initialize tape cartridges and to perform image copies between the tape and internal hard-disks.

HPFORMAT is used to format all HP-IB connected discs. This is the only program that can be used to format the HP-IB connected discs. If you attempt to use the MS-DOS FORMAT command to format your 3.5-inch flexible disc drive, you will be asked to confirm. If you respond "Yes" it will re-format your internal hard-disc, and all information on it will be lost.

HPTEST can be used to perform tests on the HP-IB card, cable, and peripherals in the event that problems occur.

■ **Instruments, Printer and Plotter Command Library**

This library contains programs which allow access to HP-IB instruments, printers, and plotters.

HPIB.SYS: A Vectra can support up to three logical devices, LPT1, LPT2, and LPT3. Any printer or plotter (HP-IB, Centronix, Serial, or network) must be associated with one of these devices. For HP-IB printers or plotters, this association is accomplished by adding the following line to your CONFIG.SYS configuration file:

DEVICE = C:\HPIB\HPIB.SYS LPT1 = 305

```
                                        | | |
Card address as set by the card     /  | |
   switches specified above.            | |
              Must be 0              /  |
HP-IB address of the device to be       / |
                                        |
```

used for this logical device.

This assumes the software has been loaded into the HP-IB subdirectory of the C: drive.

HPIBMODE is a program used dynamically to add or change logical device assignments. A line adding the HPIB.SYS device to the CONFIG.SYS file as shown in the example above must first be installed. Then to add an additional printer or plotter or to change an association, use an MS-DOS command like the following:

HPIBMODE LPT2 = 301

The 301 has the same meaning as in the CONFIG.SYS entry. In this case device LPT2 has been associated with the printer with HP-IB address 1.

This command may be placed in your
AUTOEXEC.BAT file, or may be issued
manually.

To Order	Software for either group of peripherals can be ordered with the HP-IB Interface card or separately if you already have the card.

HP Product	Description
88500A	Disc/Tape Command Library with HP-IB Interface cable and card
88500B	Disc/Tape Command Library alone
82990A	Instruments, Printer and Plotter Command Library with HP-IB Interface cable and card
82990E	Instruments, Printer & Plotter Command Library alone

To order contact your dealer or HP sales
representative.

□

A question I often receive is "How do you get the inkjet Printers to skip the page perforation when printing from HPDESKMANAGER or using log bottom when you do not have control over margins." With dot matrix printers you can turn on "Perforation Skip" by sending the control code Esc&l1L (Escape, &, lowercase l, #1, uppercase L).

Text is printed without regard to the actual perforation. Top of form determines the exact position of the perforation skip area. Six lines are skipped leaving a top and bottom margin of three lines, again, depending on where "TOP OF FORM" was determined when you turned on the printer or pressed the "TOP OF FORM" button. (For more details on printer control codes refer to your printer manual.)

You can send this escape sequence to your printer with a word processor that will allow you to embed escape sequences within the document, for example, in Executive MemoMaker for the HP 150 or IBM/Vectra PC, and MemoMaker for the Portable Plus. Create a string of characters with the proper control code (Escape, &, lowercase l, #1, uppercase L):

    [&l1L

When you press the ESC key in MemoMaker/ Executive MemoMaker it will appear as a left bracket in inverse video. Be sure to save this string of characters as a DOCUMENT FILE. For this example we'll save the file as PERFSKIP.

Next you will need to add the following line to your AUTOEXEC.BAT files so that it will send the control codes to your printer (the PRN device in this example):

    TYPE PERFSKIP >PRN

To check to see if "AUTOEXEC.BAT" exists on your system you can type from the MS-DOS prompt:

    TYPE x:AUTOEXEC.BAT (where x is the root
                             directory of your
                             system start-up
                             drive)

This command will type out the contents of the AUTOEXEC.BAT file or report that the file does not exist.

You can modify AUTOEXEC.BAT as an ASCII
file in MemoMaker/Executive MemoMaker or if
AUTOEXEC.BAT does not exist, following are two
methods to create it.

■ Create it as an ASCII MemoMaker/Executive
MemoMaker file with the name
AUTOEXEC.BAT.

■ Create it in MS-DOS with the following
procedure (<rtn> refers to the Return key on
the Portable Plus and HP 150 or the ENTER key
on the Vectra/IBM PC):

Turn "CAPS LOCK" ON
Type: COPY CON AUTOEXEC.BAT <rtn>
Type: TYPE PERFSKIP >PRN <rtn>
Press: the CTRL and the Z keys simultaneously

This will copy what you type on the console
(screen display) to a file named
AUTOEXEC.BAT.

Whenever you start your system, it looks for the
AUTOEXEC.BAT file and performs any of the
instructions you have in that file.

If you do not want to turn perforation skip on
each time you start your system, you can also
send the control codes to the printer at any time
by issuing the same MS-DOS command:

TYPE PERFSKIP >PRN

Note: Your printer must be on when you start
your system or when you are sending
control codes to it.

Note: Before using a PC application that sends
control codes of its own for top and bottom
margin (for example MemoMaker/Executive
MemoMaker), you will need to turn
perforation skip off with the control code
Esc&l0L (Escape, &, lowercase l, #0,
uppercase L), OR ... simply turn the printer
off and on again. Otherwise you will get
unexpected margins and pagebreaks.

□

LaserJet Series II fonts can be selected from an LCD menu display on the front panel of the LaserJet II as well as by sending escape sequences from the software application. The following help sheet may help make selection from the LCD menu display easier because you may not need to refer to the manual.

To Change Fonts	Select a font from the cartridges available.

■ **To insert a cartridge:**

1. Take LaserJet OFFLINE (Press [ONLINE] button so ONLINE light = off).

2. Remove or insert font cartridge from slots located beneath paper input tray.

3. Put LaserJet back ONLINE (Press [ONLINE] button so ONLINE light = on).

   Note: When a cartridge is removed while the LaserJet is turned on the LaserJet will change back to INTERNAL fonts if that drawer (left or right) was the current font selection. The previous settings will be applied to the INTERNAL fonts resulting in unpredictable output.

   To return to internal default settings, refer to the following instructions or reset (see **"To make changes"** below).

■ **To make your font selection:**

1. Take LaserJet OFFLINE.

2. Press [MENU] button	Display reads
Once	COPIES = XX
Again	MANUAL FEED OFF*
Again	FONT SOURCE = I = Internal Fonts
	R = Right Cartridge ⎤ When
	L = Left Cartridge ⎱ available
	S = Softfonts ⎦
	Press [+] or [−] button to change the selection Press [ENTER] once to make selection
Again	FONT NUMBER = xx
	Press [+] or [−] button to change the selection Press [ENTER] once to make selection
Again	FORM = 60 LINES*
Again	00 READY

*Indicates current selection

■ **To make changes take effect:**

1. Make sure you have cycled through the menu and the display reads **00 READY**

2. Press [CONTINUE/RESET] button—hold until display reads "07 RESET" (3 seconds +) and then release

Note: Font selection escape sequences included in your document or otherwise sent from your software application can override these selections or, when combined, can cause unexpected results.

The amber "ON LINE" light should be on and you can continue printing.

In a multiple user environment you can anticipate an enormous waste of paper if each person presses the "PRINT FONTS" button on the LaserJet II for the list that provides the "FONT NUMBER" that it needs to make their font selection. By taking the time once to print out the list for each font cartridge you will be able to make a handy reference for the user and save a tree at the same time.

Inserting each cartridge and pressing "Print Fonts" will provide you with a list of the appropriate FONT ID number but you may want to do some cutting and pasting from these lists:

First, each list will also provide you with the Internal Font Selections; these can be trimmed off each list except for one list for selecting internal fonts numbers.

Second, the FONT ID on the list will indicate L (Left) or R (Right) depending in which slot the cartridge was inserted when you made the "PRINT FONTS" selection. You should edit this to say "L(eft) or R(ight)."

Put these font selections in a binder with the help sheet and an index and you'll have a useful aid for using the LaserJet Series II.

⌐⌐

Using GWBasic to configure COMx: ports on your system may conflict with your ThinLAN/StarLAN software. The following is a description of the problem, the solution, and a detailed explanation of what happens when the problem occurs.

Problem: When using GWBasic to configure COMx: ports, GWBasic changes the interrupt mask (flags to show active/inactive interrupts) for INT 3 and INT 4 (INT 3 is the default used by ThinLAN/StarLAN). Once the masks are changed, the network transport is disabled and can no longer receive packets and the system locks.

Solution: Configure the ThinLAN or StarLAN interface cards at INT 5 or 7 if GWBasic (or other applications that configure COMx) will be used on the machine.

Detailed Explanation: GWBasic, in setting COMx ports, does not look at the pre-existing 8259 interrupt mask for INT 3 and INT 4. In the case sent to our support staff, configuring COM1 set INT 4 to on and shut off INT 3, which happens to be used by the ThinLAN/StarLAN Transport. This makes it impossible for the workstation to receive any packets, effectively removing the network functionality until the workstation software is reloaded (after rebooting). Since the ThinLAN/StarLAN transport can no longer receive inbound packets, any network activity that expects a remote response will cause the problems described below.

The differences in the drivers between StarLAN and ThinLAN make it appear that only StarLAN is affected by this. StarLAN's symptoms are to lock the machine if connections existed prior to using GWBasic to configure the COMx: port, or if no connections existed, to lock upon attempting a connection.

ThinLAN will not lock. However, upon exiting GWBasic with pre-existing connections, ThinLAN must time-out before the DOS prompt appears. Attempting connections will also cause a timeout with the error condition "Server not responding" due to the inability to handle inbound packets.

This difference between StarLAN and ThinLAN is due to driver implementation and is inconsequential to the final results. In either case, the user effectively is without a network until reboot/reload.

Note: While this problem was found with GWBasic, other applications that configure the COMx: ports may cause similar events.

Also note that stealing the interrupt can potentially cause other problems for existing connections. For example, existing virtual circuits are polled by the server. With the interrupt masked off, the workstation will not "see" the polling and the server will disconnect on the assumption the workstation is no longer present.

The work-around for all this is: If you are running programs that interact with the COM ports and you see these symptoms, set the ThinLAN/ StarLAN networking card interrupt to 5 or 7 to ensure that transport functionality is unaffected.
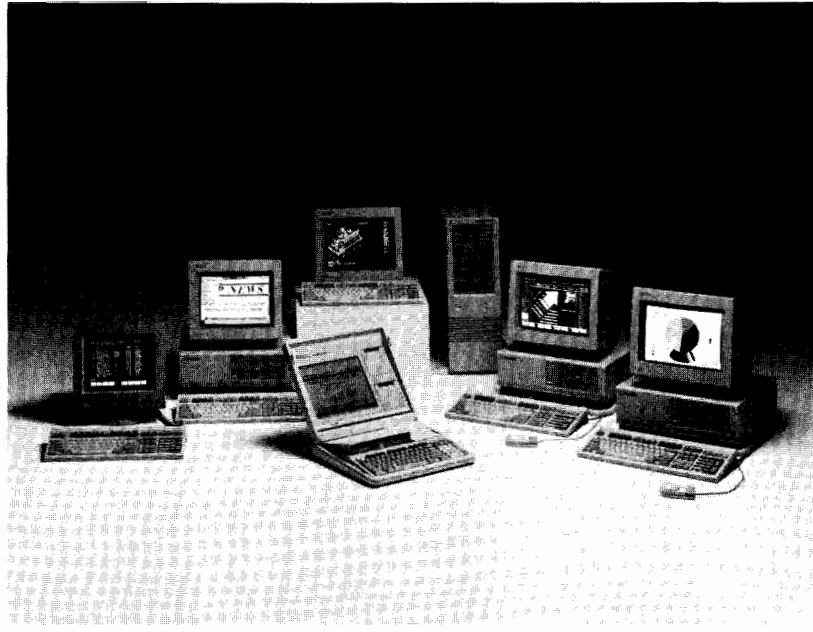
Introducing a New Family of
HP Office Workstation Solutions   Betsy Thomas

	HP has a new family of office workstation solutions to meet the different types of computing requirements, from workgroup communications to distributed data processing to individual office applications.
	The new HP workstations work well within an integrated systems environment. The HP 700 family of terminals sets the standard for performance with an HP 3000 system. All HP desktop personal computers come standard with terminal emulation software for links to host-based resources such as printers and databases.
	Each HP workstation is built on industry standards, for true compatibility throughout your office environment. And as new industry standards in software, video and networking emerge, such as Microsoft's OS/2 operating system, the HP office workstation will take advantage of them.
HP 700 Terminals	The new HP 700 family of terminals is designed with a high-quality 14-inch screen, a choice of phosphor screen colors and ergonomic details, such as excellent character resolution and a built-in tilt and swivel mechanism. The HP 700 terminal family fits into computing environments based on Hewlett-Packard, Digital Equipment Corporation, IBM and general-purpose systems.
HP Portable Vectra CS PC	An HP Portable Vectra CS personal computer offers IBM PC/XT software compatibility and the functionality of a desktop PC in a portable package. With a full-sized keyboard, built-in disc drives and a detachable PC-sized LCD screen, an HP Portable Vectra PC ensures that you do not sacrifice functionality for portability. The HP Portable Vectra CS PC is compatible with the other members of the HP Vectra personal computer family. With a wealth of choices, the HP Vectra desktop personal computers meet a broad range of computing needs, and a range of budgets.

HP Vectra Family	The HP Vectra PC family now includes the following desktop systems.
	The **HP Vectra CS PC** delivers IBM PC/XT compatibility.
	The **HP Vectra ES PC,** based on an 8 MHz Intel 80286 processor, provides IBM PC/AT compatibility.
	The **HP Vectra ES/12 PC,** with its 12 MHz Intel 80286 processor, offers IBM PC/AT compatibility to demanding business users.
	The **HP Vectra RS/16 PC,** based on the 16 MHz Intel 80386 processor, combines powerful performance with flexibility due to its floor-mount package.
	The **HP Vectra RS/20 PC** provides premium performance and expandability, with a 20 MHz Intel 80386 processor and a floor-mount design.
Preassembled HP Vectra Systems	HP's Vectra PCs can be ordered as preassembled HP Vectra systems. Two solution systems are available: the **HP Vectra StarLAN PC,** with all the elements to link to a StarLAN network, and the **HP Vectra Publisher PC** which equips you with all you need to create professional documents through desktop publishing. You can choose from a complete line of HP accessories, including memory, mass storage and display systems, to enhance your HP Vectra PC's performance.
State-of-the-Art Design	From keyboard design to system assembly, Hewlett-Packard engineers the latest advances into all its office workstations, and HP tests each component thoroughly.
Custom Support	You can choose from a variety of support plans or design your own.
	For more information, contact your dealer or HP sales office.

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Hewlett-Packard's Vectra CS Personal Computer, the entry-level member of the new HP Vectra PC family provides exceptional value for basic computing needs.

With an 8086-compatible processor, 640 Kbytes of standard memory, built-in serial and parallel ports, and a fast memory data path (16-bit memory bus), the HP Vectra CS PC is a solid choice for core office applications such as word processing and spreadsheets.

To protect your investment, the HP Vectra CS PC offers flexibility for growth. Seven expansion slots leave plenty of room for accessories. Three mass storage shelves accommodate up to two flexible disc drives and a hard disc drive.

The power of the HP Vectra CS PC extends beyond the desktop. It can be partnered with HP's minicomputers and networks. Every system includes HP Terminal Program software, which allows you to tap the resources of a host computer, such as large data bases, high-speed printers, and electronic mail. You can access information from the HP minicomputer or send messages quickly and conveniently to other people in your information network.

For more information contact your dealer or HP sales office.

New Accessories for the
HP Vectra CS PC   Eric Lewis

	Four new accessory products are available which add power and flexibility to the HP Vectra CS personal computer. These products expand the HP Vectra CS PC's memory, provide fast access to large amounts of data, speed up numeric calculations, and make it easy to connect an HP Mouse and other input devices.
Expanded Memory Card	The HP Vectra CS PC comes with 640 Kbytes of main memory, the maximum directly addressable under MS-DOS. The HP Vectra CS Expanded Memory Card adds up to two megabytes of expanded memory that can be used in several ways. With software that supports the Lotus/Intel/Microsoft Expanded Memory Specification (LIM EMS), such as Lotus 1-2-3 or Ashton-Tate's Framework II, you will be able to manipulate large spreadsheets and data bases quickly and easily. Some of the memory can also serve as an "electronic disc drive" or RAM disc. Many leading programs, including Microsoft Windows, will run more quickly with a RAM disc.
20 Mbyte Hard Disc Subsystem	Installing a hard disc greatly increases the data storage speed and capacity of a personal computer. This hard disc subsystem, with a 65 millisecond average access time and 2:1 interleave factor, enables the Vectra CS to access data faster than most systems in its class, including the IBM PS/2 Model 30.
Numeric Coprocessor	Many applications that do extensive calculations, such as spreadsheets and graphics programs, will run noticeably faster with the Vectra CS Numeric Coprocessor. The Intel 8087 coprocessor chip plugs into a special socket on the Vectra CS PC processor board.
HP-HIL Accessory Interface	A mouse or tablet makes programs such as the HP Gallery Collection and Microsoft Windows even easier to use. This plug-in card allows HP-HIL pointing devices, including the HP Mouse, HP Graphics Tablet, and HP Touch to be connected to the Vectra CS PC. A special HP-HIL connector is provided, so the standard serial port is left free for a printer, plotter, or communications link.

Ordering Information	HP Product Number	Description
	D1171A	Vectra CS HP-HIL Accessory Interface*
	D1172A	Vectra CS Numeric Coprocessor
	D1173A	Vectra CS 20 Mbyte Hard Disc Subsystem
	D1174A	Vectra CS Expanded Memory Card
	Option 001	1 Mbyte installed
	Option 002	2 Mbytes installed

To order contact your dealer or HP sales office.

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*The Vectra CS-HP-HIL Accessory Interface will be available in the first quarter of 1988.

Introducing the HP Vectra ES
and ES/12 Personal Computers

Miles Mikasa

**HP's New
80286-Based
AT Compatibles**

The HP Vectra ES and ES/12 Personal Computers are HP's new 80286-based AT-compatible offerings. The HP Vectra ES PC is an enhanced replacement for the HP Vectra PC. The HP Vectra ES/12 PC is a superior AT-class machine and offers excellent price/performance.

The HP Vectra ES and ES/12 PCs are designed to satisfy your high productivity needs. The HP Vectra ES PC, with its 8 MHz Intel 80286 microprocessor, easily handles most spreadsheet, data base, sophisticated word processing, and data collection applications. The HP Vectra ES/12 PC, with its 12 MHz Intel 80286 microprocessor, is excellent for more challenging applications, such as complex business graphics, large spreadsheets and data bases, or desktop publishing.

**Optional
HP Vectra
8 MHz 80287
Numeric
Coprocessor**

If you use applications supporting the Intel 80287 math coprocessor, then you will enjoy dramatic speed improvements with the optional HP Vectra 8 MHz 80287 Numeric Coprocessor. The optional HP Vectra ES Expanded Memory Card can give you up to 8 Mbytes of memory (running at 8 MHz in the ES, 12 MHz in the ES/12) for substantially increased performance with the many applications supporting the Lotus-Intel-Microsoft Expanded Memory Specification 4.0 (LIM EMS 4.0). LIM EMS 4.0 is the industry-standard way of allowing applications to break the 640 Kbyte memory limitation of MS-DOS 3.x, where x denotes part of the version number. Supported applications include Lotus 1-2-3 Release 2.0, Framework II, Microsoft Windows, and many others.

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

[ ]

Computer
Museum

All HP Vectra ES and ES/12 PCs include a new four function controller board which provides a floppy controller, serial and parallel ports and a hard disc controller. The hard disc controller cable and data cable are included standard as well. If you purchase an HP Vectra ES or ES/12 PC without a hard disc drive (HP Vectra ES Model 10 or Vectra ES/12 Model 10), and later want to upgrade your system, you need only buy the hard disc drive mechanism rather than purchase the complete disc subsystem: HP now offers the existing 20 Mbyte HP 45896M and 40 Mbyte HP 45897M IBM AT-compatible hard disc products structured with mechanisms only.

These new products are subsets of the existing HP 45896A and 45897B Vectra Internal Hard Disc Subsystems. (The 45896A and 45897B include a hard disc controller because there was not one included with the original HP Vectra PC system. Users with original HP Vectra PCs should order these products when they upgrade their systems.) The table below highlights the features of the new products as well as how they differ from the existing hard disc subsystems.

Features	20MB Drive Mechanism Product Number 45896M	40MB Drive Mechanism Product Number 45897M
Form Factor	Half-height, 5.25-inch	Half-height, 5.25-inch
Formatted Capacity	21.2 Megabytes	42.8 Megabytes
Typical Average Seek Time (Disc Performance Spec)	65 Milliseconds	28 Milliseconds
Shock, Operating Non-operating	10G's 40G's	10G's 40G's
MTBF (Mean Time Between Failure- Reliability Spec)	20,000 Power On Hours	20,000 Power On Hours
What's Included (How Similar to the 45896A and 45897B).	Hard Disc Mechanism, Installation Manual	Hard Disc Mechanism, Installation Manual
What's Not Included* (How Different from the 45896A and 45897B).	No Controller Card or Cables are Included with 45896M	No Controller Card, Cables or Multivoluming Utility are Included with the 45897M

*These pieces come standard with the New Vectra CS, ES and RS series PCs, except Multivoluming which comes standard with HP's MS-DOS 3.2.

For more information contact your dealer or HP sales office.

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Hewlett-Packard will offer a 3.5-inch internal flexible disc drive during the fourth quarter of 1987 that can be used as a second flexible drive on HP Vectra CS, ES, ES/12, RS/16, and RS/20 PCs.

The 3.5-inch drive is the ideal second flexible disc drive for your Vectra Family PC. With both 3.5-inch and 5.25-inch drives installed in your system, you can standardize on a flexible disc technology while at the same time maintaining a bridge to the other technology. And both drives mount inside the HP Vectra PC without sacrificing an expansion slot or desk space.

Vectra PC Family users will now be able to enjoy the benefits this drive and media have brought to HP Touchscreen, HP Portable, and IBM PS/2 PC users. The drive was built to work with the compact 3.5-inch flexible disc media. This disc is more reliable than the traditional 5.25-inch flexible disc and is being used by an increasing number of vendors. It comes enclosed in a hard plastic shell with a metal shutter that covers the actual media. The shutter opens and closes only when the disc is inserted into the drive. The media revolves on a special steel hub for more accurate centering. All this gives the media unequaled protection and reliability.

This new product (HP 45813A) will allow you to share 3.5-inch discs between HP Vectra and HP Touchscreen PCs that have HP 710 Kbyte double-sided flexible disc drives. It also will interchange 720 Kbyte discs with IBM XT, AT and PS/2 machines or 1.44 Mbyte discs with IBM PS/2s.

The product is intelligent; there are no special read/write commands for you to remember. All you need to do is insert a disc formatted to one of the three capacities described above and then read it and write to it—the system automatically adjusts to the format on the disc. And you can install the 3.5-inch drive into your HP Vectra PCs just as you would a standard 5.25-inch flexible disc drive. The standard HP Vectra PC floppy disc controller and cables support the product with no hardware changes required (except for HP Vectra CS PC systems which require simple jumper changes to the PC and to the drive itself). A Setup program and special software drivers are included that enable all HP Vectra PCs to take full advantage of the drive's multi-format capabilities.

HP Product Number	Description
	To order contact your dealer or HP sales office.
45813A	Vectra 3.5-inch Internal Flexible Disk Drive. Includes 3.5-inch mechanism mounted on a 5.25-inch adapter tray (edge connectors and mounting rails "plug compatible" to existing floppy cables and mass storage cage), utility software and Setup program on a 5.25-inch flexible disc, and installation documentation.
45813A Option #001	MS-DOS 3.2, version B.01.01 to version B.01.02 Upgrade Kit. Includes MS-DOS 3.2 version B.01.02 discs on 5.25-inch media, and new effective pages of MS-DOS 3.2 manual. (Option #001 is available only when purchased with the drive.)

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Expanded Memory for the
HP Vectra ES and ES/12 PCs

Marc Lowe

For many of today's software applications written for MS-DOS, 640 Kbytes of base memory just isn't enough. For this reason HP has made the HP Vectra ES Expanded Memory Card available for HP Vectra ES and ES/12 PC users.

Overcomes the 640 Kbyte Barrier	Hewlett-Packards's Vectra ES Expanded Memory Card overcomes the 640 Kbyte barrier so you can use software written to take advantage of the Lotus/Intel/Microsoft Expanded Memory Specification (LIM EMS), the industry standard for expanded memory. With expanded memory, you can store and manipulate large spreadsheets in a single file rather than splitting them into multiple files when the 640 Kbyte limit has been reached. In addition, expanded memory will increase the performance of the HP Vectra PC system when switching between multiple applications under Microsoft Windows.
Uses LIM EMS 4.0 Memory Specification	While fully compatible with the LIM EMS, revision 3.2, popularized by Intel's Above™ Board, the HP Vectra ES Expanded Memory Card goes beyond this standard by using the recently introduced LIM EMS 4.0 memory specification.
	The new specification runs all of the software supported by LIM 3.2 including Lotus 1-2-3, Symphony, Framework, and dBase III. In addition, LIM EMS 4.0 features up to 16 times as many memory swap areas as cards supporting the old specification and features the ability to swap executable code (computer instructions) as well as data. The benefits of LIM EMS 4.0 are most notable in applications supporting these features, such as Microsoft Windows 2.0 for the HP Vectra PC (HP 45954B).
The Most Expandable Card	The HP Vectra ES Expanded Memory Card is the most expandable card available from any vendor. A single card can be loaded with up to 8 Mbytes of memory. This high memory capacity is achieved by using Single-In-Line Memory Modules (SIMMs), the latest in memory packaging technology. Because the card plugs into the HP Vectra ES Expanded Memory Slot, included exclusively on the HP Vectra ES and ES/12 PC motherboards, none of the seven standard accessory slots need to be used for memory expansion.

Among the Fastest of Cards	The HP Vectra ES Expanded Memory Card is also among the fastest memory cards on the market today. When installed in the HP Vectra ES/12 PC, the HP Vectra ES Expanded Memory Card runs at 12MHz with one wait state, further enhancing the HP Vectra ES/12 PC's high speed performance.
Like Two Cards in One	Finally, the HP Vectra ES Expanded Memory Card is like having two memory cards in one. All or part of the Vectra ES Expanded Memory Card can be set up as extended memory for use in operating systems such as Xenix and Microsoft's OS/2.
Ordering Information	To order contact your dealer or HP sale office. Products below available first quarter 1988.

HP Product Number	Description
45944A	Vectra ES Expanded Memory Card
Option #001	2 Mbytes of memory installed standard
Option #002	4 Mbytes of memory installed standard
Option #003	8 Mbytes of memory installed standard
D1354A	2 Mbytes Expanded Memory Upgrade Kit

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New Math Coprocessor for
Vectra ES and ES/12 PCs

Marc Lowe

A new Vectra 8 MHz 80287 Math Coprocessor (HP D1387A) is now available.

The new coprocessor is an Intel 80287 Math Coprocessor chip rated for 8 MHz operation. This coprocessor runs at 8 MHz in the Vectra ES and ES/12 PCs or 50 percent faster than the 5.33 MHz coprocessor used in the original Vectra PC.

The new coprocessor also serves as the replacement for the current Vectra PC coprocessor (5.33 MHz) (HP 45987A). When run in the original Vectra PC, the new coprocessor will run at 5.33 MHz. No settings need to be changed nor adjustments made.

The High Speed Numeric Coprocessor (8 MHz) (HP 82965A) will continue to be marketed for the original Vectra PC. This product includes an 8 MHz 80287 coprocessor chip mounted on a small circuit card with the electronics to allow 8 MHz operation on the original Vectra PC. The HP 82965A High Speed Numeric Coprocessor will not operate in the Vectra ES and ES/12 PCs since its electronics have been built into the Vectra ES and ES/12 PCs.

To order the HP D1387A or HP 82965A coprocessor, contact your dealer or HP sales office.

HP Vectra ES and ES/12 PCs:
What's Different?
<div align="right">Debbie Williams</div>

	HP's new Vectra ES and ES/12 PCs provide you with improvements in several key areas at no additional cost, including: enhanced performance, increased compatibility, greater expandability, and better integration into HP 3000 environments.
Enhanced Performance	The Vectra ES/12 has a 12 MHz 80286 processor, which gives the ES/12 a 50 percent boost in CPU performance over today's Vectra PC as well as the Vectra ES. The increased speed addresses the needs of Desktop Publishing and PC-CAD users.
Increased Compatibility	By addressing all known compatibility problems with the HP Vectra PC but still providing as much backwards compatibility as possible, the Vectra ES and ES/12 PCs give you flexibility to expand your personal computer needs without abandoning existing hardware and software. Key compatibility issues resolved with the new PCs include: support of third-party DIN keyboards, Novell 286 Network Software support, and operation of off-the-shelf, unmodified Xenix from SCO.
	The Vectra ES and ES/12 PCs also support the new 3.5-inch Internal Flexible Disc Drive, making them compatible with IBM's new 1.44 MByte format introduced on the PS/2 product line, as well as the older IBM 720 KByte format and HP's 710 KByte 150/Touchscreen format. This increased interchange compatibility gives you the flexibility to operate in mixed PC environments.
Greater Expandability	Although the original Vectra PC package size has not been increased, changes in configuration allow greater expandability with the Vectra ES and ES/12 PCs. By incorporating a serial and parallel port with a floppy and hard disc controller on all systems, an additional I/O slot is available. In addition, up to 8 MBytes of memory can be supported on the Vectra ES and ES/12 PCs without using any additional accessory slots. The new Expanded Memory Card fits into a special HP proprietary Expanded Memory Slot, and allows up to 8 MBytes of extended or Expanded Memory on a single board.

Cost Reductions	The combination of incorporating VLSI (Very Large Scale Integration) and Surface Mount Technology onto the motherboards creates not only lower manufacturing costs, but provides increased reliability as well. Coupled with ongoing procurement efforts, this allows the Vectra ES and ES/12 to be priced the same as, or lower than, today's Vectra PC.
Better Integration into HP 3000 Environments	By including the HP Terminal Emulation Program with every Vectra ES and ES/12 PC kit, these systems are ideally suited for connectivity to HP mini-computers.
	For more information contact your dealer or HP sales office.

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The new HP line of Vectra Personal Computers use a new, industry-compatible keyboard called the "Enhanced HP Vectra PC Keyboard." It is the standard keyboard for the HP Vectra CS, ES, and RS families. The keyboard for the previous versions of Vectra PC used the HP-HIL interface; it will not be supported on the new line of Vectra PCs.

The Enhanced Vectra PC Keyboard has the same connector (DIN) and the same layout as the IBM Enhanced PC Keyboard. It is detachable, has 101 keys including 12 function keys, separate numeric and cursor keypads, and adjustable tilt. The full-travel, step-sculptured keys have quick response, tactile feedback and color-coded legends.

Some users need the previous Vectra PC Keyboard layout with the 103 keys, which has the 10 IBM-style function keys on the left and the 8 HP-style function keys on the top. For these users a transition keyboard is available which is supported only on the HP Vectra ES and Vectra ES/12 PCs. It has the 103-key layout, but has DIN connector and electronics.

You may need the older layout of the HP Vectra PC Keyboard/DIN if you:

■ Have Vectra PCs, and want to avoid retraining with a new keyboard layout.

■ Use HP Word. (HP Word will not support the new keyboard until Summer, 1988.)

■ Use AdvanceWrite. (While AdvanceWrite PLUS will support the new keyboard, the new layout has fewer function keys than the old layout.)

We recommend the new preassembled HP Vectra CS, ES, and RS Personal Computers, which include the CPU (the computer), a PC Kit with User Manuals, and the Enhanced HP Vectra PC Keyboard. If you need the HP Vectra PC Keyboard/DIN however, order:

1. Vectra ES CPU **OR** Vectra ES/12 CPU,

2. Vectra ES PC Kit (D1350A #Axx), and

3. Vectra PC Keyboard/DIN (C1406A #Axx).

(#Axx, the country option, must be ordered to specify the language of the User Manuals and Keyboard).

For additional information on the new keyboards, please contact your dealer or HP sales representative.

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On October 1, discontinuance of the original HP Vectra PC and selected accessories began. To smooth the transition, the discontinuance is being announced now and will occur in phases that will not be complete until April 1, 1988.

The HP Vectra PC has been replaced by the new HP Vectra ES and ES/12 PCs which became available October 1. The Vectra ES PC has the same performance as today's Vectra PC but offers greater expandability at a lower cost. The Vectra ES/12 PC has 50 percent faster performance and greater expandability for the same price as the current Vectra PC. See the article "HP Vectra ES and ES/12 PCs: What's Different?" elsewhere in this magazine for more details.

Listed below are the products that will be discontinued, their removal schedule and the replacement products. Even though some of today's Vectra models will remain available until January or April, 1988, all Vectra ES and ES/12 models became available on October 1, 1987.

HP Product Number	Description	Replaced By
October 1, 1987		
72458A 72459A	HP Vectra 3000 PC	All Vectra ES and ES/12 PCs now include HP Terminal Program for connection to HP 3000s
72496A 72497A	HP Vectra Publisher	Replaced by Vectra ES Publisher PC or Vectra ES/12 Publisher PC
72468A 72469A	HP Vectra StarLAN	Replaced by Vectra ES/12 StarLAN PC
45987A	Numeric Coprocessor (5.33 MHz Intel 80287)	Replaced by D1387A Intel 80287 High Speed Numeric Coprocessor: 8 MHz
January 1, 1988		
72425A	Vectra PC Model 25	Replaced by Vectra ES Model 10 or Vectra ES/12 Model 10
72450A	Vectra PC Model 50	Replaced by Vectra ES Model 20 or Vectra ES/12 Model 20
72460A	Vectra PC Model 60	Replaced by Vectra ES Model 40 or Vectra ES/12 Model 40
April 1, 1988		
72445A	Vectra PC Model 45	Replaced by Vectra ES Model 10 or Vectra ES/12 Model 10
45895A	IBM PC/AT-Compatible Hard Disc Controller Kit	
45896A	20 MByte, half-height, Hard Disc Subsystem	
45897B	40 MByte, half-height, Hard Disc Subsystem	
45971A	128 KByte Extended Memory Kit	

For additional information contact your dealer or HP sales office.

Model 58 and 59
HP Vectra 3000 PCs Discontinued   Dennis Shak

Due to the popularity of the HP Vectra 3000 PC (Model 58 and 59), all desktop and floor-mount members of HP's new Vectra PC family now include HP terminal emulation software to connect to the HP 3000. Like the HP Vectra 3000 PC, the new product structures include models that have factory-installed video cards and mass storage devices to retain the key HP Vectra 3000 PC benefits of ease-of-ordering and quick setup. Simply order the appropriate preconfigured SPU, appropriate monitor, and DOS—and you have the same key benefits that the HP Vectra 3000 PC provided. Note that the terminal emulation software does not include file transfer. Should you require this feature, include AdvanceLink in your order.

The preconfigured SPUs are available in a variety of flavors to give you a choice. With such a broad selection of workstations designed for HP 3000 environments, the HP Vectra 3000 PC has been discontinued and superseded by a new set of products. These new workstations add flexibility and have a greater price/performance range to satisfy a broad set of needs.

Discontinued Products

All versions of the HP Vectra 3000 PC (Model 58 and 59) have been discontinued.

New Products

HP's new Vectra PC family has been designed to connect easily to the HP 3000. Any five of the following systems can be configured as an HP Vectra 3000 PC. The five systems are:

- HP Vectra CS PC
- HP Vectra ES PC
- HP Vectra ES/12 PC
- HP Vectra RS/16 PC
- HP Vectra RS/20 PC

For ordering information, please refer to the following article "Ordering the New HP Vectra 3000 PC Configurations" also in this issue.

Differences	The following table compares the HP Vectra 3000 PC to an equivalent system configured from HP's new Vectra PC family. Like the Model 58 and 59, the Model 21 and 22 includes 640K RAM, a 20 MByte hard drive, a flexible drive, serial/parallel ports, a Multimode or EGA video card, the HP Terminal Program, and a keyboard.

	Vectra 3000 Model 58/59	Vectra CS Model 21/22	Vectra ES Model 21/22	Vectra ES/12 Model 21/22
SPU Speed	8 MHz	7.16 MHz	8 MHz	12 MHz
Communication	AdvanceLink	Terminal Program		
Video Adapter	Mono Plus or EGA	Multimode or EGA		
Display	Mono Included or EGA Included	Order 35731A Multimode or Order 35743A EGA		
DOS 3.2	Included	Order 45951B DOS 3.2		

The HP Vectra RS/16 and HP Vectra RS/20 can also be built-up to an HP Vectra 3000 PC configuration.

AdvanceLink is Optional	Since the HP Terminal Program is included with each system, AdvanceLink 68333F is optional and should be added to the order only when you require file transfer or command macro capabilities.

To Order	To order, contact your dealer or HP sales office.

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Ordering the New
HP Vectra 3000 PC Configurations   Dennis Shak

The HP Vectra 3000 PC (Model 58 and 59) has been so positively received that HP terminal emulation is now included with all desktop and floor-mount HP Vectra PCs. The key benefits of ease-of-ordering and quick setup have been preserved because the new product structures include models that have factory-installed video cards and mass storage devices. Simply order the appropriate preconfigured SPU, appropriate monitor, and DOS—and you have the same key benefits that made the HP Vectra 3000 PC so popular. Note that the terminal emulation software does not include file transfer. Should you require this feature, add AdvanceLink to the order.

The HP Vectra 3000 PC has been replaced by configurations from the new Vectra PC family to give you a choice. You should now order the HP Vectra CS, ES, ES/12, RS/16, or RS/20 PC to best match your needs. Each system includes the new HP Terminal Program (without file transfer) to easily connect to the HP 3000.

Four Simple Ordering Steps

The additional choices now available have prompted us to update the ordering process. To order a complete system, three product numbers and a language option need to be specified. The three product numbers describe:

- Vectra SPU with a country option
- Video display
- Vectra operating system

Step 1: Order the SPU:

You have the flexibility to choose a preconfigured SPU based on the HP Vectra CS, ES, and ES/12 PC Model 21 and 22. The Model 21 and Model 22 includes 640 Kbyte RAM, a 20 Mbyte hard drive, a flexible drive, serial/parallel ports, a Multimode or EGA video card, the HP Terminal Program, and a keyboard.

The HP Vectra RS/16 and RS/20 PC can also be built up to an HP Vectra 3000 PC configuration.

Step 2: Specify the Country Option:

The country option consists of three letters which together specify the country and language. While the list is extensive, the more common options include:

Opt.	Country	Language
ABA	U.S.	English
ABB	Europe (HPSA)	English
ABD	Germany	German
ABE	Spain	Spanish
ABF	France	French
ABH	Netherlands	Dutch
ABK	Intercon	English
ABM	Latin-America	Spanish
ABN	Norway	Norwegian
ABP	Switzerland	German
ABQ	Switzerland	French
ABS	Sweden	Swedish
ABU	United Kingdom	English
ABV	Multiple countries	Arabic/English
ABW	Belgium	Flemish
ABX	Finland	Finnish
ABY	Denmark	Danish
ABZ	Italy	Italian

Step 3: Order the display:

If a Model 21 is being ordered, then order a Multimode display. If a Model 22 is being ordered, then order an EGA display.

Step 4: Order the operating system:

The operating system of the new Vectra PC family is MS-DOS 3.2.

AdvanceLink is Optional

Included with each system is the HP Terminal Program. This software is nearly identical to the terminal emulation portion of today's AdvanceLink product. Unlike AdvanceLink, however, the HP Terminal Program does not have file transfer capabilities or command macros. If these communication features are required, then AdvanceLink will need to be added to the order (HP 68333F).

Examples   The following are examples of what to order to
                                obtain the new "Vectra 3000 PC" configurations
                                (U.S. version):

	EGA, U.S. versions			Monochrome, U.S. versions		
HP Vectra CS PC	D1122A 35743A 45951B	#ABA	Model 22 EGA Display MS-DOS 3.2	D1121A 35731A 45951B	#ABA	Model 21 Multimode Display MS-DOS 3.2
HP Vectra ES PC	D1222A 35743A 45951B	#ABA	Model 22 EGA Display MS-DOS 3.2	D1221A 35731A 45951B	#ABA	Model 21 Multimode Display MS-DOS 3.2
HP Vectra ES/12 PC	D1322A 35743A 45951B	#ABA	Model 22 EGA Display MS-DOS 3.2	D1321A 35731A 45951B	#ABA	Model 21 Multimode Display MS-DOS 3.2

To Order   To order, contact your dealer or HP sales office.

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The Hewlett-Packard Vectra RS/20 Personal Computers offer the highest performance possible in a personal computer today—using the 20 MHz Intel 80386 microprocessor and Hewlett-Packard designed and manufactured high performance disc drives. The Hewlett-Packard Vectra RS/16 computers provide the same 80386 functionality and expandibility with somewhat lower performance. Utilizing the power of the 80386 microprocessor in a floor-mounted package, both HP Vectra RS/20 and RS/16 systems have the power, functionality and expandability to meet the needs of the most demanding personal computer applications.

All HP Vectra RS models will begin shipping during the first calendar quarter of 1988—making them among the first of the second generation of 80386 PCs to ship. This article provides an overview of these systems.

Premium Performance— A Systems Approach

The quality HP Vectra RS/20 system performance results from a careful system optimization of subsystems and components. The microprocessor speed, memory subsystem and mass storage subsystems are particularly important. The HP Vectra RS/16 offers a lower performance at a lower price.

The HP Vectra RS/20 and RS/16 systems have the most powerful microprocessor in the PC industry, the Intel 80386, operating at 20 MHz and 16 MHz speeds respectively. They also employ an advanced interleaved page mode memory architecture featuring extremely fast memory to permit zero wait state memory accesses. Up to 16 MBytes of 32-bit memory can be supported on the processor board.

The extensive mass storage offering features Hewlett-Packard designed and manufactured, 17 millisecond 103 MByte, 155 MByte and 310 MByte discs using ESDI interfaces, as well as an entry-level 28 millisecond 40 MByte ST-506 system. Two hard discs are supported internally, for a maximum of 620 MBytes. An intelligent disc controller features 1:1 interleave factor and a full track buffer to further improve the performance of the ESDI mass storage subsystems.

Floating point computational performance can be enhanced with math coprocessors: The HP Vectra RS systems are compatible with both the optional Intel 80387 numeric coprocessor and the more specialized Weitek 1167 floating point accelerator (available from third parties).

The HP Vectra RS systems also have large, 330W peak (200 watt continuous) power supplies, six half-height mass storage shelves, and expansion potential to accommodate eight industry-standard accessory cards.

Industry Standards

The Vectra RS systems are designed to operate with the thousands of applications and accessory cards currently compatible with the IBM PC/AT. The Vectra RS systems run these existing applications significantly faster than 80286-based systems. Of course, these Vectra RS systems will also run Microsoft's OS/2 when it becomes available, and future applications written for OS/2 will continue to benefit from the power of these systems.

The HP Vectra RS is also compatible with third-party operating systems such as XENIX/386 and LAN server software such as Novell NetWare and Ungermann-Bass Net/One. These systems are also designed to operate with 80386 control programs to permit multi-tasking of DOS 3.x applications, where x denotes part of the version number. The HP Vectra RS systems have the power to benefit users of today's applications and they have the architecture to extend this benefit with future operating systems.

Solutions

The HP Vectra RS/20 and RS/16 systems provide solutions to meet varied needs: from PC-CAD to sophisticated personal productivity to LAN servers.

With Windows/386, multiple MS-DOS™ applications can be run at the same time, each with up to 640 KBytes of memory. Multiple MS-DOS applications can be simultaneously run in foreground or background, or in exclusive mode for dedicated system use and better application performance. Each MS-DOS application can be run in a window, allowing concurrent viewing with other Windows and MS-DOS applications—

especially useful for monitoring the status of background applications. Windows/386 implements the Lotus-Intel-Microsoft Expanded Memory Specification (LIM EMS) to permit use of extended memory as expanded "Above Board" memory. Windows/386 also includes a disc cache utility that improves hard disc performance when used with Windows or DOS 3.x applications.

The HP Vectra RS systems are part of a complete collection of HP business solutions, which include the HP LaserJet Series II and HP LaserJet 2000, the HP 7550A plotter and HP ScanJet Scanner as well as many other diverse peripherals and personal productivity software. They are also part of a complete collection of HP technical solutions, which include the HP DraftMaster and DraftPro plotters, the HP Graphics Tablet and HP SketchPro tablet, the HP Mouse plus many other peripherals and networking products.

HP Vectra RS/20 and RS/16 PC Configurations

All HP Vectra RS/20 PCs use a 20 MHz 80386 microprocessor and come with a 1.2 MByte flexible disc drive, one serial port and one parallel port.

Model	Hard Disc (MBytes)	Memory (MBytes)	Disc Interface
Model 40 PC D1600A	40	1	ST-506
Model 100 PC D1602A	103	2	ESDI
Model 150 PC D1603A	155	2	ESDI
Model 300 PC D1604A	310	2	ESDI

HP Vectra RS/16 PC Configuration

The HP Vectra RS/16 PC uses a 16 MHz 80386 microprocessor and comes with a 1.2 MByte flexible disc drive, one serial port and one parallel port.

Model	Hard Disc (MBytes)	Memory (MBytes)	Disc Interface
Model 40 PC D1500A	40	1	ST-506

For more information contact your dealer or HP sales representative.

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The hard discs in the Models 100, 150 and 300 Vectra RS/20 PCs are new mechanisms, designed and manufactured by HP.

These 5.25-inch Winchester drives feature 17 ms average seek time and come in 103, 155, and 310 megabyte sizes, making them the fastest large drives currently offered by any major PC vendor—including IBM and Compaq. They are teamed with an advanced ESDI interface giving the RS disc subsystems industry leading performance, which contributes greatly to the overall Vectra RS system performance.

Ruggedness and reliability of the disc mechanisms are also key benefits. Ruggedness is evident in its high tolerance to thermal variations and its ability to operate in the 0 to 50 degree C range, the widest operating temperature in the 5.25-inch class. The mechanism also boasts the highest reliability for a 5.25-inch mechanism with a rated 40,000 hour MTBF (Mean Time Between Failure) reliability specification.

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

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The new Vectra Disc Operating System, HP Vectra MS-DOS 3.2, revision B.01.02, U.S. English version (HP 45951B) is now available. The localized versions (HP 45951Bx, where x denotes localized versions) are also available in Europe and Latin America. The HP Vectra preassembled solutions (such as HP Vectra Publisher PC and HP Vectra ES/12 StarLAN PC) shipped on or after October 1 (October 19 for localized versions) include this new operating system. The HP Vectra MS-DOS 3.1 products (HP 45951Ax) will be discontinued on January 1, 1988.

Vectra MS-DOS 3.2 is a compatible superset of IBM PC-DOS 3.2. The product includes additional HP utilities to improve usability and functionality.

While IBM PC-DOS 3.2 will support IBM 720 Kbyte format, HP Vectra MS-DOS 3.2 will also support HP 710 Kbyte, double-sided format (used on the HP Touchscreen PCs) and the IBM 1.44 Mbyte format (used on the IBM PS/2 series). Note: The 1.44 Mbyte format is possible only with the new high density 3.5-inch flexible discs (identified by their black plastic shells).

Other HP pluses to the MS-DOS 3.2 product include the Personal Applications Manager, File Manager, Multi-Voluming Utility, and Multiple Character Set Utilities.

The Personal Applications Manager (PAM) and File Manager make computer use easier than using the "C>" MS-DOS prompt. The Multi-Voluming Utility allows use of hard discs larger than the 32 Mbyte limit imposed by MS-DOS. The Multiple Character Set Utilities allows translation of extended character sets (international, math, and line drawing characters) between the HP Vectra PCs (and IBM compatibles) and HP 3000s, HP Touchscreen PCs, and HP printers.

Other changes from MS-DOS 3.1 are the new FORMAT and SYS commands. The new FORMAT and SYS commands will no longer have the /P switch to transfer PAM onto work discs. Instead, the new PAMINSTL utility will install or remove PAM.

Programmers wanting detailed information about HP Vectra MS-DOS 3.2 may purchase the MS-DOS 3.2 Programmer's Reference (HP 5061-8971).

Note for users with the U.S. version: The U.S. version of HP Vectra MS-DOS 3.2, revision B.01.01, has been shipping since July 1. The new release, B.01.02, differs only in that it also supports the new 1.44 Mbyte format. Users who have B.01.01 and are purchasing the new HP 3.5-inch 1.44 Mbyte flexible disc drive (HP 45813A) may order the B.01.01 to B.01.02 upgrade (HP 45813A, option 001), which has a U.S. list price of $25. The upgrade consists of the MS-DOS 3.2 and supplemental discs and change pages to the manuals. Users who do not need the 1.44 Mbyte format do not need the DOS upgrade.

Product Information	MS-DOS 3.1 Versions Obsolete Jan. 1	New MS-DOS 3.2 Shipping Oct. 1	Language
	HP 45951A	HP 45951B	U.S. English
	HP 45951AD	HP 45951BD	German
	HP 45951AE	HP 45951BE	European Spanish
	HP 45951AF	HP 45951BF	French
	HP 45951AH	HP 45951BH	Dutch
	HP 45951AM	HP 45951BM	Latin Am Spanish
	HP 45951AN	HP 45951BN	Norwegian
	HP 45951AP	HP 45951BP	Swiss-German
	HP 45951AQ	HP 45951BQ	Swiss-French
	HP 45951AS	HP 45951BS	Swedish
	HP 45951AU	HP 45951BU	United Kingdom
	HP 45951AW	HP 45951BW	Flemish
	HP 45951AX	HP 45951BX	Finnish
	HP 45951AY	HP 45951BY	Danish
	HP 45951AZ	HP 45951BZ	Italian

To order contact your dealer or HP sales representative.

MS-DOS Executive

File View Special

A ⟨━⟩ C ⟨━⟩ D ⟨━⟩ D: \WINDOWS\ALDUS

DICT
PNTUT
SAMP
300L
ALDUS
ALDUS
CROPT
CROPT
DEBUG
ICON
PAGE
PM.CM
PM.EX
PM.HL
PM.SY
PMFON
PMFON
PMFON
PMFON
PMUS
PMUSP
PMUSU
POINTER
README.

PageMaker - D:\WINDOWS\ALDUS\SAMPLES\SAMPLE_A.PUB

File Edit Options Page Type Lines Shades

Calculator

Edit

Calendar - APPT.CA

File Edit View Show
Alarm Options

7:44 PM ← → Monday, Ju

9:00 AM
10:00   Board Meetin
11:00
12:00 PM
1:00
2:00
3:00
4:00
5:00

0.

MC 7 8 9
MR 4 5 6
M+ 1 2 3
M- 0 . ÷
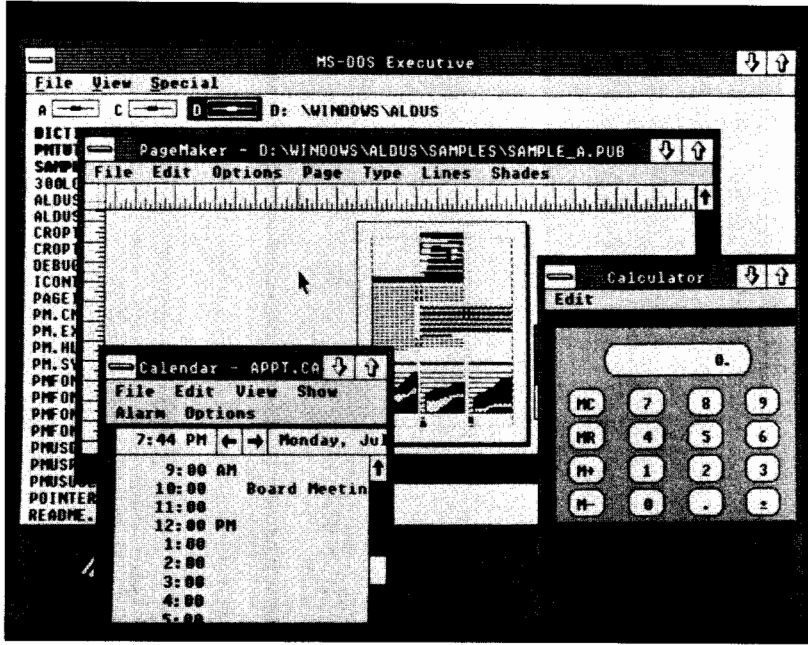
HP has introduced a new Microsoft® Windows generation for the HP Vectra PC family. Now there are two versions, Windows 2.0 and Windows/386, that provide all the current advantages of Windows, plus build a foundation for the future. Both versions feature the new and advanced Windows interface that looks and works exactly like the one that will be in the future applications for the OS/2 operating system.

Microsoft Windows 2.0

Microsoft Windows 2.0 is a more powerful version of the original Windows product. It is supported across the entire family of HP Vectra Personal Computers, including the new HP Vectra CS, ES, and RS PCs, as well as all original Vectra systems. (Windows 2.0 replaces the existing version of Microsoft Windows for the HP Vectra PC.)

A key addition to Windows 2.0 is the new Windows interface with overlapping Windows and enhanced keyboard and mouse capabilities. With Windows 2.0 you can also take full advantage of the Vectra expanded memory accessories. Use expanded memory to simultaneously run multiple Windows applications at their full performance, and to switch rapidly between MS™-DOS applications. Windows 2.0 also includes a disc cache program, that works with expanded (and extended) memory to reduce the number of times your system reads from the disc, improving your system performance.

Windows 2.0 is an excellent choice for Windows-based solutions, such as Desktop Publishing featuring PageMaker™ from Aldus, and as a general purpose MS-DOS application environment manager.

Microsoft Windows/386	Microsoft Windows/386 is an extended version of Windows that takes full advantage of 80386-based personal computers, like the new HP Vectra RS PCs.
	With Windows/386, multiple MS-DOS applications can be run at the same time, each with up to 640 KBytes of memory. Multiple MS-DOS applications can be simultaneously run in foreground or background, or in exclusive mode for dedicated system use and better application performance. Each MS-DOS application can be run in a window, allowing concurrent viewing with other Windows and MS-DOS applications—especially useful for monitoring the status of background applications.
	Windows/386 also includes a disc cache program and support for applications written to use the Lotus-Intel-Microsoft Expanded Memory Specification. The capabilities of the 80386 processor allow full implementation of the LIM EMS interface without the need for expanded memory hardware.
Features Common to Both	Both Windows 2.0 and Windows/386 offer the new Windows interface that is consistent with OS/2 Presentation Manager and provides full compatibility with earlier Windows application software. Disc caching to improve performance with both Windows and MS-DOS applications is also standard with both versions. And with Windows 2.0 and Windows/386 for the HP Vectra PC you can take advantage of complete Hewlett-Packard support.

Ordering **Information**	**Microsoft Windows 2.0** **Presentation Manager for the HP Vectra PC**
	HP 45954B (5.25-inch discs) Available 4th Quarter 1987 (For use with the HP Vectra CS, ES, or RS PC)
	HP 45954C (3.5-inch discs) Available 1st Quarter 1988 (For use with the HP Vectra Portable CS PC)
	Microsoft Windows/386 **Presentation Manager for the HP Vectra PC**
	HP D1651A option ABA (5.25-inch discs) Available 1st Quarter 1988 (For use with the HP Vectra RS PC)
	Microsoft Windows for the HP Vectra PC (HP 45954A), Version 1.03, was discontinued November 1, 1987. A Microsoft Windows 2.0 upgrade is available 4th Quarter 1987.
	To order the upgrade (HP 45954-60001), follow the general instructions in the article "Software Exchange Kits" in the green pages of this issue. To purchase the product for the first time contact your dealer or sales representative.

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New HP Vectra Publisher PC's
for Desktop Publishing

Lisa Byrne
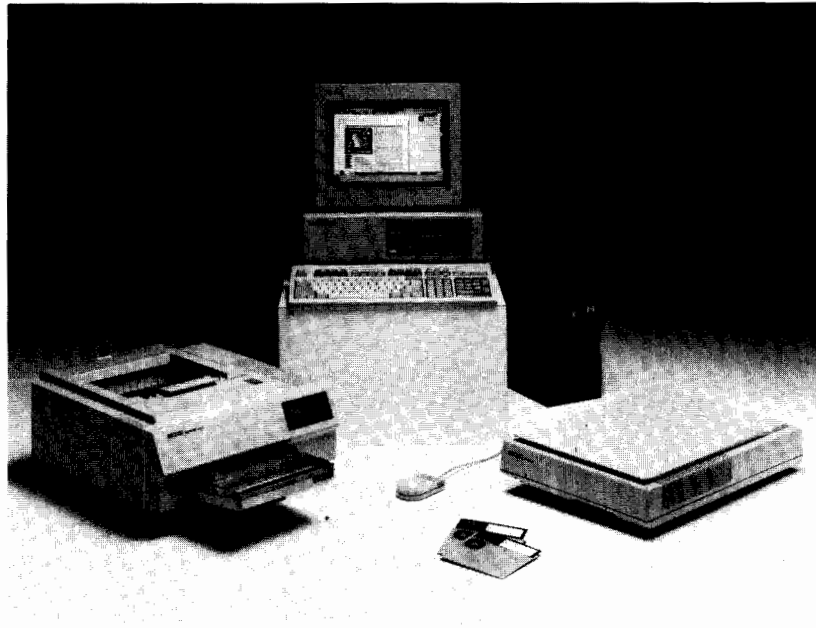
Three new Vectra Publisher PC bundles for desktop publishing are available. These new models replace HP product numbers 72496A and 72497A, which are no longer available.

The new bundles offer a broader range of desktop publishing solutions, which include increased performance, greater storage capacity for "power" users, and competitive pricing.

The three new configurations are as follows:

- **Vectra Publisher ES Model 21**
  The 8 MHz monochrome Vectra Publisher includes a 1.2 MByte flexible disc drive, a 20 MByte internal hard disc, a Multimode Video Display Adapter and Monitor, and a "Personality Pack" containing MS-DOS 3.2, PC Kit, Keyboard, MS Windows for the Vectra PC, Aldus PageMaker software, HP Mouse and customized user documentation.

- **Vectra Publisher ES/12 Model 22**
  Same as the Vectra Publisher Model 21, except includes 12 MHz Vectra ES/12 Model 22 PC and EGA Video Adapter and monitor.

- **Vectra Publisher ES/12 Model 42**
  Same as the Vectra Publisher Model 22, except includes Vectra ES/12 Model 42 PC and 40 MByte internal hard disc.

Ordering Information

In addition to making it easier to configure and order, the Vectra Publisher bundles cost less than buying the components individually. To order a Vectra Publisher PC choose the HP product number D1200A and the "must order" options which complete the system:

Vectra Publisher PC HP D1200A

Vectra Publisher ES Model 21:
Option 011	Vectra ES PC Model 21
Option 051	Multimode Monitor
Option ABA	U.S. Personality Pack*

Vectra Publisher PC ES/12 Model 22:
Option 017	Vectra ES/12 PC Model 22
Option 052	Enhanced Graphics Display
Option ABA	U.S. Personality Pack*

Vectra Publisher PC ES/12 Model 42:
Option 014	Vectra ES/12 PC Model 42
Option 052	Enhanced Graphics Display
Option ABA	U.S Personality Pack*

*International language versions available

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

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Bundled office solutions based on two new members of the HP Vectra family of PCs, the HP Vectra CS StarLAN PC and HP Vectra ES/12 StarLAN PC are available.

Both the Vectra CS and Vectra ES StarLAN PCs include:

- Preassembled CPU with 640 KByte RAM, single floppy (360 KByte for Vectra CS and 1.2 MByte for Vectra ES/12) and 20 MByte hard disc drives, Serial/Parallel ports, HP StarLAN interface card and choice of EGA or Multimode Monochrome video adapter

- EGA or Multimode Monochrome monitor Vectra StarLAN

- Vectra StarLAN Personality Pack which contains the new Enhanced Vectra Keyboard, PC Kit with documentation and HP Terminal Program software, HP StarLAN user software, Vectra DOS 3.2 and the customized installation guide.

The HP Vectra PC bundled solutions are now ordered with one system product number and three product options which must be ordered to complete the system:

HP Vectra StarLAN PC Bundles

HP D1201A Vectra CS StarLAN PC-Monochrome:

Option 001
Option 051
Option ABA (U.S.)*

HP D1201A Vectra CS StarLAN PC-EGA:

Option 002
Option 052
Option ABA (U.S.)*

HP D1202A Vectra ES/12 StarLAN PC-Monochrome:

Option 015
Option 051
Option ABA (U.S.)*

HP D1202A Vectra ES/12 StarLAN PC-EGA

Option 016
Option 052
Option ABA (U.S.)*

*International language versions available

These new bundles replace the current HP Vectra StarLAN PC Model 68 (HP 45968A) and Model 69 (HP 45969A).

HP Vectra CS StarLAN PC and Vectra ES/12 StarLAN PC will be available worldwide.

For further information contact your dealer or HP sales representative.

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HP Terminal Program for the
HP Vectra PC Family

Michel Bart

The HP Terminal Program is a terminal emulation software package which will be shipped standard with all HP Vectra Family PCs shipped after October 1.

The program enables HP Vectra Family PCs to access alphanumeric and graphics applications on the HP 1000, HP 3000, and HP 9000, including such programs as VPLUS/3000, HPDeskManager, Query/3000, DSG/3000, HPDraw and Graphics/1000-II. In addition, the HP Terminal Program features DEC VT100 terminal emulation allowing users to access applications written for DEC VT52 and VT100 terminals.

The HP Terminal Program provides all of the features normally found on HP block mode and color graphics terminals, plus PC-specific features like write to disc and read from disc.

The HP Terminal Program is also compatible with existing Vectra PCs and IBM PC/XT/ATs. So if you need it as an independent accessory, just order the HP 24597A HP Terminal Program.

To order, contact your dealer or HP sales representative.

Hewlett-Packard introduced the HP RuggedWriter 480 printer on October 1, 1987. The new printer is a high-performance, wide-carriage, 24-wire serial impact dot matrix printer that prints 480 characters per second (cps) draft quality and 240 cps letter quality.

Software support and compatibility are facilitated through the implementation of two built-in control modes, PCL III and Epson LQ 1000. Users with third-party or PC-based applications software will find compatibility through use of the switch-selectable Epson LQ-1000 emulation. For software applications with built-in PCL III drivers select PCL mode and chose the RuggedWriter 480 driver in the application. You can use this new printer with most software applications on the market using the two built-in drivers. The following list is a sampling of software applications that have been tested and were found to have excellent results, using the Epson LQ-1000 driver or using their built-in PCL III driver:

Lotus 1-2-3
Lotus Symphony
Microsoft Word
Framework II
Multimate and Multimate Advantage
Wordstar 2000
WordPerfect
AdvanceWrite Plus
The Gallery Collection (Executive MemoMaker, Drawing Gallery, Charting Gallery)
VolksWriter

The RuggedWriter 480 owner's manual contains additional information on software support in the application notes section.

To order contact your dealer or HP sales representative.

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New Font Offerings for
HP's LaserJet Printer Family

Keith Brown

A wide array of new LaserJet font offerings and utilities are now available. This article highlights an enhanced cartridge font, two new cartridge fonts, one soft font that adds new font capabilities to LaserJet printers, and new font utilities.

New 48-Point Soft Fonts for LaserJet Series II and LaserJet 2000

The Helv Headlines soft font, HP 33412AG, offers four new faces that are useful in many desktop publishing applications: Serifa,™ Helv Condensed Black, Helv Condensed Black Italic and Helv Outline. This is HP's first set of "hand-crafted" 36 and 48 point Bitmap fonts exclusively for the LaserJet Series II and LaserJet 2000 printers. All LaserJet family printers (LaserJet PLUS, LaserJet 500 PLUS, LaserJet Series II and LaserJet 2000) can use the additional fonts in the following point sizes: 14, 18, 24 and 30 points.

Two utilities are included with the HP 33412AG product: MakeFont and FontLoad. MakeFont installs any selected typeface of the Helv Headline product onto a PC in the desired orientation, point size and symbol set. Roman-8, ECMA-94 Latin 1, PC-8, PC-8 D/N, Code Page 850, Legal, and several ISO symbol sets are supported. Note: Symbol set limitations exist for the LaserJet PLUS and LaserJet 500 PLUS.

FontLoad, a user-friendly font utility, makes it easy to download any installed soft font. Mouse control, soft keys and help menus make this program a snap to use.

FontLoad is also available as a separate product. The Helv Headlines soft font is available too and includes both utilities (PCLPak is not included).

New LaserJet Series II and LaserJet 2000 Font Family

Two new font cartridges, the HP 92290S1 and 92290S2, were developed for use exclusively with the LaserJet II and LaserJet 2000 printers.

The HP 92290S1, introduced earlier this year, completes the internal family of LaserJet fonts with a Courier Italic 12-point, 10-pitch font. A full family of 10-point, 12-pitch Courier (Roman, bold, and italic) offers European users an added bonus: 80 columns of information on A4 paper.

The HP 92290S2 offers the TmsRmn and Helv fonts in a LaserJet Series II and LaserJet 2000 printer format. It also includes fonts in 8, 12 and 14 point sizes.

	PC-8 (also referred to as IBM-US) and PC-8 D/N character sets map the characters found on existing IBM and compatible PCs directly to the HP 92290S1 and 92290S2 cartridges. Because the original LaserJet and LaserJet PLUS printers do not understand PC-8 symbol mapping, the 92290S1 and 92290S2 cartridges are only compatible with the LaserJet Series II and LaserJet 2000 printers.
Improved Microsoft Cartridge	The popular HP 92286Z Microsoft® 1 cartridge has been expanded. European users now have access to the most versatile selection of TmsRmn and Helv fonts available on a LaserJet cartridge. Based on HP's TmsRmn and Helv soft fonts, this cartridge continues to offer kerning for all LaserJet printers. Roman, bold and italic styles are available from 8-point Roman to 14-point bold. The international characters are found in the Roman-8 and 8 bit ECMA-94 Latin 1 symbol sets. The name has been slightly modified to "HP 92286Z Microsoft 1A." This cartridge is immediately available and supersedes the Microsoft 1 font cartridge. Because existing applications remain unchanged, there will not be a trade-in program.

Product Information	**HP Product**	**Description**
	92290S1	Courier Document 1
	92290S2	TmsRmn/Helv Report
	33412AG	Helv Headlines
	92286Z	Microsoft 1A
	33407B	FontLoad

If you need more information about these products, contact your dealer or HP sales office.

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Serifa is a trademark of Fundicion Tipographica Neufvilla, Sa.

AdvanceWrite Plus—the natural successor to AdvanceWrite I, II and III as Hewlett-Packard's comprehensive, full-featured word processing package, is now available.

With over 50 new features, including integrated text, graphics, and scanned images, AdvanceWrite Plus ranks among the top word processing packages like WordPerfect, MSWord and MultiMate Advantage. AdvanceWrite Plus has extra advantages such as a truly integrated spreadsheet and the ability to merge text with graphics and images without an expensive bridging program.

We have completely rewritten the user documentation with information and suggestions you have given to us. The user training has been revamped as well, taking into consideration the comments made by the thousands of AdvanceWrite I, II and III users already trained.

Image Integration

Imagine including pictures of the staff on your organization charts or having a map of the building site in the middle of your letter. It's easy to do: Simply create a .tif file using Scanning Gallery and the HP ScanJet (HP 9190A), then merge the file into an AdvanceWrite Plus document and print.

Graphics Integration

Use AdvanceWrite Plus with Graphics Gallery (HP 68352F) for very professional results. Any graphics file in .tif format may be merged with AdvanceWrite Plus text.

IBM PC/XT/AT and PS/2

We know that you may have other hardware in your workgroup environment so we have made sure that AdvanceWrite Plus will work on the IBM PC/XT/AT and the new PS/2, models 30, 50, 60 (3½ inch media).

New HP Vectra PCs	AdvanceWrite Plus is also supported on the newest members of the family of HP Vectra PCs: the ES, RS and CS, as well as the HP Vectra Portable CS and HP Vectra Portable CS model 20.
	AdvanceWrite Plus has two keyboard layouts— one for the original HP Vectra PC keyboard you are used to using with AdvanceWrite I, II and III and one which has been designed for IBM or HP's IBM-compatible keyboards. The original layout is known as the standard layout and the new one is known as the DOS-compatible layout. A real benefit to the new layout is that it allows you to use memory resident third party software like Turbo Lightning, SideKick and Inset to name a few you have asked about.
What else is new?	**Equations processing feature:** Now you can enter and edit multi-level chemical, mathematical and scientific equations on the screen. Greek/Math characters are seen as they will print.
	On-screen columns: You can have up to 10 columns on the screen in newspaper style or side by side. It's a better implementation of the original feature—much easier to set up and you see the columns on the screen while you type. It provides much greater flexibility for producing tables and columnar documents.
	Editable macros: User defined function keys enable you to store up to 1,000 keystrokes, saving time and effort. For example you can set up a memo and have the system pause when you need to type variable information, all with the press of two keys.
	Other features include table of contents and index generation, the document search facility (Wordbase Manager), zoom, glossary and section outline numbering.

AdvanceWrite Plus and HP Printers	Our most popular office printers are supported by AdvanceWrite Plus:
	HP 2225C ThinkJet—centronics interface, Epson or HP Mode
	HP 2225D ThinkJet—serial interface, Epson or HP Mode
	HP 2228A QuietJet
	HP 2227A QuietJet Plus
	HP 3603A PaintJet—letter quality text and color graphics inkjet printer
	HP 2235A RuggedWriter 480—dot-matrix draft/ letter quality printer
	HP 2601A Letter quality daisywheel printer
	HP 2603A Low-cost, letter quality, daisywheel printer
	HP 2684A LaserJet 2000
	HP 2686A LaserJet
	HP 2686A LaserJet + option 200 or 210
	HP 2686D LaserJet 500 PLUS
	HP 33440A LaserJet Series II
	HP 2932A General purpose dot matrix printer
	HP 2934A Letter quality dot matrix office printer
HP LaserJet Family Font Support	The following HP LaserJet printer font cartridges and soft fonts are supported by AdvanceWrite Plus:
	Cartridges: A B C D E F G H I J K L M N P Q R S T U V Y
	Soft fonts: AA AB AC AD AE AF DA EA RA SA TA UA

Ordering Information	To order AdvanceWrite Plus, contact your local dealer or HP sales representative and request HP 27546F.
	If you have AdvanceWrite I, II or III you can upgrade to AdvanceWrite Plus by purchasing one of the following kits:
	27546-60001 AdvanceWrite I to AdvanceWrite Plus 27546-60002 AdvanceWrite II to AdvanceWrite Plus 27546-60003 AdvanceWrite III to AdvanceWrite Plus
	To order these kits, follow the general ordering instructions in the "Software Exchange Kits" article in the green pages of this issue.
	Site license upgrades are also available. Please contact your HP sales representative or dealer for more information.

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AdvanceWrite Plus is jointly developed with Samna Corporation
Multimate® is a U.S. trademark of Multimate International Corp.
Turbo Lightning, SideKick and Inset are trademarks of Borland International.

Encyclopedia

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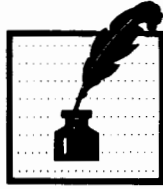
Welcome to the "Encyclopedia" section of the *HP PC Communicator*—bringing together all the news you need on each of the software packages and systems that you use.

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.

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:

- Product Description—a one- or two-sentence explanation of what the product does.
- Encyclopedia Articles—a reference to any other Encyclopedia articles in previous *HP PC Communicator* issues covering this product.
- Most Frequent Questions—with answers, based on the experience of HP's Response Centers around the world.
- 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.

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.

The Encyclopedia Index

*In This Issue

Running AdvanceMail through a modem is really fairly simple. It's just that there are more steps than in a direct connection setup. When you are using a direct connection, all of the work of establishing the connection for unattended transfer of mail can be done within AdvanceMail itself. When you use a modem, a dataswitch, X.25 connection or some other means that is not direct, you cannot use AdvanceMail alone to establish the connection. This is because AdvanceMail expects to be directly connected to a 3000, and looks for DC1 characters before going on to the next task.

However, you can get around this problem by using AdvanceLink or some other program to set up your connection first, and then run AdvanceMail. Chapter 13 of the *Getting Started with AdvanceMail* manual explains that you must alter several supplied files in order to use AdvanceLink or Reflection to establish the connection. However, it is a bit short on details. Be sure to read that section of the manual before going on here.

The Basic Steps

The steps that you need to take are as follows:

1. Run AdvanceLink to send the necessary commands to the modem to connect to the 3000. Let this program do all the connection work! Don't quit until you have the colon prompt (:).

2. Now run AdvanceMail and transfer any mail. When done, leave the program. Keep in mind that your connection is still established.

3. Run AdvanceMail again to log off, and to break the connection. This is very important where a modem is concerned, as not all host systems break the connection when you log off the system. You could find yourself with big phone bills otherwise!

It sounds like we no longer have an unattended situation, as three different programs need to be run. However, this problem can be overcome by placing the programs you need to run in a batch file, and running that instead. You will then see a sequence that looks something like this:

1. Choose batch file from the PAM screen.

2. Batch file runs AdvanceLink with an **&CHAIN** command in the INFO = string. AdvanceLink starts, immediately executes the command file listed in the INFO = string, and logs on to the HP 3000 by sending the appropriate commands to the modem. When the colon prompt (:) appears, the command file ends with an **&EXIT** command, but does not hang up the modem.

3. The Batch file takes back over, and runs AdvanceMail with -U -P and -B options in the command line. This will start AdvanceMail and begin mail transfer. If HPDESK is unavailable for some reason, it will enter that information in its log file, and quit. Otherwise it will transfer mail and then quit.

4. The Batch file gets control back, and executes AdvanceLink once again, with a different **&CHAIN** command in the INFO = string. AdvanceLink starts back up, and this time logs off, and hangs up the modem.

5. The Batch file gets control again, places a completion message on the screen, and quits.

| A Potential Problem | While this is not very likely to happen, the only real problem that might occur with this sequence is if the process ties itself up between establishing the connection and hanging up the modem. If anything occurs to stop execution, the modem would be left connected to the host, and long distance charges would mount up. As there is no way to detect this, there is no real way to protect against this from the PC side. If the host side has a "bouncer" program that hangs up after so many minutes of activity, that should solve the problem. |

The Files

The following files contain the sequence that I use to log on to a local HP 3000. Note that these are not the same as the files in the AdvanceMail product. These are meant as examples, and you will need to modify them to fit your system.
I am using AdvanceLink version B.00.01, and AdvanceMail version A.01.02, running on a Vectra PC. This is a delayed execution sequence that is started when I leave for the day, and does not actually dial up until 6:00 a.m. the next morning.

```
The BATCH file:  ADVMDEF.BAT

ECHO OFF
REM
REM CLEAR THE SCREEN
REM
CLS
REM
REM PURGE THE OLD ERROR FILE
REM
DEL D:\ADVLINK\ADVERR1

DEL D:\ADVLINK\ADVERR2
REM
REM START ADVANCELINK WITH &CHAIN COMMAND
REM
D:
CD \ADVLINK
RUNAL ADVLINK;LIB=TEMPOZ.LIB,ZVIDVR.LIB,SYSLIB.SLK;INFO="&CHAIN LOGDEF.CMD"
REM
REM CHECK FOR ERROR FILE
REM
IF EXIST D:\ADVLINK\ADVERR1 GOTO BATERR1
REM
REM BACK FROM ADVANCELINK, NOW START ADVANCEMAIL
REM LOG ON AS SELF, START TRANSFER OF MAIL IN BOTH DIRECTIONS
REM
CD \ADVMAIL
ADVMAIL -U RAMUTA -P PASS -B
REM
REM DONE WITH TRANSFER, USE ADVANCELINK TO LOG OFF
REM
:BATERR1
RUNAL ADVLINK;LIB=TEMPOZ.LIB,ZVIDVR.LIB,SYSLIB.SLK;INFO="&CHAIN LOGOFF.CMD"
REM
REM CHECK FOR THE EXISTENCE OF AN ERROR FILE
REM
IF EXIST D:\ADVLINK\ADVERR2 GOTO BATERR2
REM
REM CLEAR THE SCREEN AND LEAVE A MESSAGE
REM
CLS
ECHO MAIL TRANSFER COMPLETE...
GOTO QUIT
:BATERR2
ECHO WARNING!!!! - MODEM MAY STILL BE ONLINE!  EXAMINE ADVERRn FILES!
:QUIT
ECHO ON
```

The 1st AdvanceLink File: LOGDEF.CMD

```
&!
&! This file logs on to the 3000 via a modem.  It does not actually log
&! on until 6:00 am.
&!
&WAITCLOCK 6:00
&!
&! Don't wait for a DC1 (^Q)
&!
&TERMINATOR OFF
&WTIMEOUT 60
&!
&! Now wake up the modem
&!
&SEND "AT"
&WAITDC "OK"
&!
&! Dial the number.  NOTE:  Change this number to your system's dialup
&! If it fails, repeat at 5 minute intervals.  Try 20 times.
&!
&WTIMEOUT 30
&ASSIGN &MNUMBER,"XXXXXXX"
&ASSIGN &MPREFIX,"ATDT"
&ASSIGN &MSUFFIX,"^M"
&MCONNECT 5,20
&!
&! Wait for the connect
&!
&WAITDC "CONNECT"
&IF &TIMEDOUT,=,TRUE
    &GOTO "NODICE1"
&ENDIF
&!
&! Set the timeout parm to 3 seconds then try to get a colon prompt
&! Repeat 10 times then timeout with an error
&!
&LABEL "SENDRTN"
&WTIMEOUT 3
&SEND ""
&WAITDC ":^Q"
&IF &TIMEDOUT,=,TRUE
    &ADD &p1,1
    &IF &p1,=,10
        &GOTO "NODICE2"
    &ELSE
        &GOTO "SENDRTN"
    &ENDIF
&ENDIF
&!
&!
&! We got a colon, let's log on
&!
&TERMINATOR ^Q

&WTIMEOUT 60
&SEND "HELLO JOHN.ONLINE"
&SEND "ACCTPASS"
&SEND "USERPASS"
&!
&! Wait for system ID
&!
```

```
&WAITDC "MOTHER"
&IF &TIMEDOUT,=,TRUE
    &GOTO "NODICE3"
&ENDIF
&!
&! We got it
&!
&GOTO "QUITOK"
&!
&! We come here if the modem did not get connected.  As we haven't
established
&! a connection, we aren't being charged.
&!
&LABEL "NODICE1"
&DOPEN 1,ADVERR1,W
&ASSIGN &p2,"1"
&DWRITE 1,&p2
&ASSIGN &p2,"ERROR - Modem was unable to connect"
&DWRITE 1,&p2
&DCLOSE 1
&GOTO "QUITERR"
&!
&! We come here if the 3000 doesn't respond to repeated returns with a
&! colon
&!
&LABEL "NODICE2"
&DOPEN 1,ADVERR1,W
&ASSIGN &p2,"2"
&DWRITE 1,&p2
&ASSIGN &p2,"ERROR - Connection successful, but failed to get response
&ASSIGN &p3,"        from HP3000."
&DWRITE 1,&p2
&DWRITE 1,&p3
&DCLOSE 1
&GOTO "QUITERR"
&!
&! We come here if the logon string fails
&!
&LABEL "NODICE3"
&DOPEN 1,ADVERR1,W
&ASSIGN &p2,"3"
&DWRITE 1,&p2
&ASSIGN &p2,"ERROR - Connection successful, but failed to log on to the
&ASSIGN &p3,"        HP3000."
&DWRITE 1,&p2
&DWRITE 1,&p3
&DCLOSE 1
&GOTO "QUITERR"
&!
&! We come here if the command file failed
&!
&LABEL "QUITERR"
&EXIT "Program failed.  Check ADVERRn for more information."
&!
&! We come here if we were successful
&!
&EXIT "Program logged on successfully."
```

```
The Second AdvanceLink file:  LOGOFF.CMD

&!
&! This file logs off and hangs up
&!
&WTIMEOUT 30
&!
&! Make sure we are still connected and at the MPE Prompt
&! If not, break out and abort.  Write a message to the error log.
&!
&SEND " '
&WAITDC ":^Q"
&IF &TIMEDOUT,=,TRUE
    &DOPEN 1,ADVERR2,W
    &ASSIGN &p2,"4"
    &DWRITE 1,&p2
    &ASSIGN &p2,"Warning!  Not a MPE prompt when attempting logoff.
    &ASSIGN &p3,"Transfer of files may not have completed correctly."
    &DWRITE 1,&p2
    &DWRITE 1,&p3
    &SENDBREAK
    &SEND ""
    &WAITDC ":^Q"
    &IF &TIMEDOUT,=,TRUE
        &ASSIGN &P2,"5"
        &DWRITE 1,&P2
        &ASSIGN &P2,"Warning!  May not have been logged on to 3000."
        &ASSIGN &p3,"Transfer of files may not have completed."
        &DWRITE 1,&p2
        &DWRITE 1,&p3
        &GOTO "EXIT1"
    &ENDIF
    &SEND "ABORT"
&ENDIF
&SEND "BYE"
&LABEL "EXIT1"
&DCLOSE 1
&HANGUP
&EXIT
```

What if you don't have AdvanceLink?	It should be noted that there are other products out there that will get a modem to dial up, and you could use those to get connected to your HP 3000. You could also write your own programs to do the necessary connection work. However, none of these approaches would be supported by Hewlett-Packard. For this reason, you should give strong consideration to using AdvanceLink.

□

Current Information

Current Information

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.

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.

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.
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 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.

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.
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.

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.]

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.

☐
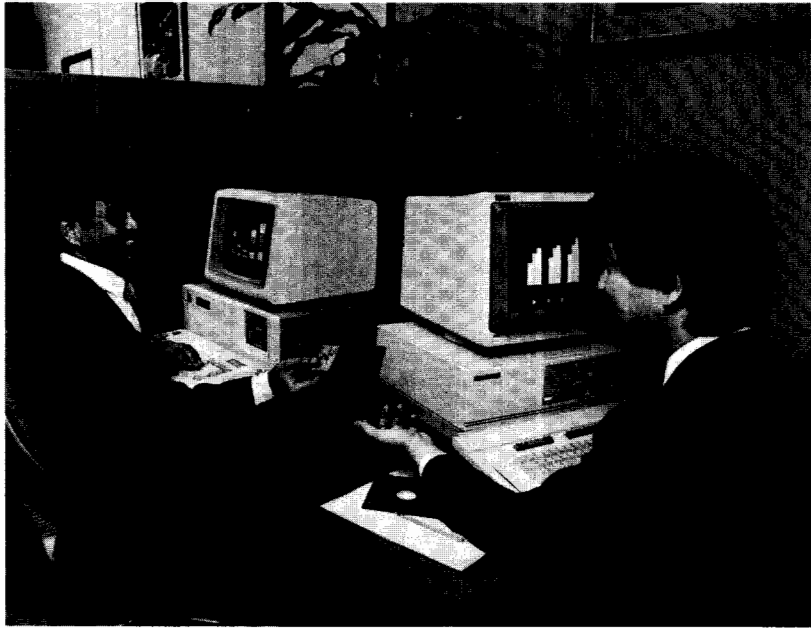
Get in Touch	To get in touch with Vectra PC, Touchscreen/150, HP 12x, and Portable owners in your area—and worldwide—join Interex, the International Association of Hewlett-Packard Computer Users. Interex is an independent group of HP computer users, with chapters and regional groups in 40 countries. 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, 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

Interex

The International Association
of Hewlett-Packard Computer Users

Application for
Personal Computer Services

Enclosed is my full payment for:

Standard Users Support Services

___ North America $70*

___ Outside North America $95*

*Of this amount, $39.50 is for a one-year, monthly subscription to INTERACT Magazine, and $30.50 is allocated annually for Interrupt Newsletter.

Payment Method:

☐ Check Enclosed   Check Number _____
                               (if a company check)

     Mastercard # _____

☐ Bill Visa # _____ Expires _____

☐ Bill MasterCard # _____

     Interbank # _____ Expires _____

HP User Information:

Name _____

(Title) _____

(Company) _____

Address _____

City _____ State _____ ZIP _____

Country _____

Telephone _____

Computer: ☐ The Portable (HP 110)   ☐ HP 120 or HP 125
                        ☐ Portable Plus   ☐ Vectra PC
                        ☐ HP Touchscreen/150

(over)

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 Computer
Systems and Personal Computers   Debbie Williams

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.

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.

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.

Vectra Publisher PC Product Number D1200A

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. 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.

The HP Vectra StarLAN PC

There are four HP Vectra StarLAN PC
configurations available depending upon
your system price/performance and video
requirements. Order the product number D120XA
and three "Must Order" options to select a
complete Vectra StarLAN PC solution based on
either the Vectra ES PC or the Vectra ES/12 PC.

Vectra CS StarLAN PC Product Number D1201A

**Option 001: Vectra CS StarLAN PC—
Monochrome**
Includes the Vectra CS SPU with 640KB RAM,
360 Kbyte flexible disc drive, a 20 Mbyte internal
hard disc, HP StarLAN Interface and a Multimode
Video Adapter.

Option 051: 12-inch Multimode Monitor

Option ABA: U.S. personality pack includes HP
Vectra DOS 3.2, PC Kit with Terminal Emulation
Program, Enhanced Vectra PC Keyboard, HP
StarLAN user software and customized user
documentation.

Option 002: Vectra CS StarLAN PC–EGA
Includes the Vectra CS SPU with 640KB RAM, 360
Kbyte flexible disc drive, a 20 Mbyte internal hard
disc, HP StarLAN Interface, an Enhanced
Graphics Video Adapter.

Option 052: 13-inch EGA Video Display

Option ABA: U.S. Vectra StarLAN PC Personality Pack

Vectra ES/12 StarLAN PC Product Number D1202A

Option 015: Vectra ES/12 StarLAN PC— Monochrome
Includes the Vectra ES/12 SPU with 12 MHz 80286 processor, 640KB Ram, 1.2 Mbyte flexible disc drive, a 20 Mbyte internal hard disc, HP StarLAN Interface and a Multimode Video Adapter.

Option 051: 12-inch Multimode Monitor

Option ABA: U.S. Vectra StarLAN PC Personality Pack

Option 016: Vectra ES/12 StarLAN PC–EGA
Includes the Vectra ES/12 SPU with 12 MHz 80286 processor, 640KB Ram, 1.2 Mbyte flexible disc drive, a 20 Mbyte internal hard disc, HP StarLAN Interface and an Enhanced Graphics Video Adapter.

Option 052: 13-inch EGA Video Display

Option ABA: U.S. Vectra StarLAN PC Personality Pack

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.

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 360 Kbyte flexible disc drive and a 20 Mbyte hard disc.

D1221A Vectra ES Model 21*
Includes one 5.25-inch 360 Kbyte 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.

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 360 Kbyte flexible disc drive and a 20 Mbyte hard disc.

D1321A Vectra ES/12 Model 21*
Includes one 5.25-inch 360 Kbyte flexible disc drive, a 20 Mbyte hard disc and Multimode Video Adapter.

D1322A Vectra ES/12 Model 22*
Includes one 5.25-inch 360 Kbyte flexible disc drive, a 20 Mbyte hard disc and Enhanced Graphics Video Adapter.

D1340A Vectra ES/12 Model 40*
Includes one 5.25-inch 360 Kbyte flexible disc drive and a 40 Mbyte hard disc.

D1341A Vectra ES/12 Model 41*
Includes one 5.25-inch 360 Kbyte flexible disc drive, a 40 Mbyte hard disc and Multimode Video Adapter.

D1342A Vectra ES/12 Model 42*
Includes one 5.25-inch 360 Kbyte 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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U.S. Touchscreen/150 Software Available from HP

Marilyn Ruel, Steve Martin, Alan Hirsch, Leslie Imai

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
COMMUNICATIONS:			
AdvanceLink*†	45431A	A.04.03	
AdvanceMail†	27534A	A.01.00	Requires HP DeskManager B.00.00 or later on the HP 3000
HPMessage†	36568A		Requires HP Desk Manager A.03.01 on the HP 3000
IBM 3278 Term. Emul. Acces.*	45641B		
HP ThinLAN Server Kit	50907A		Dedicated network server, 512K memory required
HP ThinLAN User Link Kit	50908A		512K memory required
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 Configuration and Diagnostics Software and License for PCs	50909A		
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

ENVIRONMENT MANAGER:

Name	HP Product Number	Version	Special Requirements
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

DATA BASE MANAGEMENT:

Name	HP Product Number	Version	Special Requirements
dBASEII	45468D	2.41	
Executive Card Manager*†	45421A	A.02.01	
ECM: Templates*	45441D	A.01.02	
HP Access*†	36898A	A.01.00	Corresponding 3000 software required

Name	HP Product Number	Version	Special Requirements
R:Base 5000	45563A	1.01	512K

ENGINEERING DESIGN:

Name	HP Product Number	Version	Special Requirements
AutoCAD	47956A		512K

GRAPHICS:

Name	HP Product Number	Version	Special Requirements
Charting Gallery†	45513A	B.02.00	
Drawing Gallery†	45411A	B.02.01	384K, Mouse req'd.
Gallery Pic. Library, Vol. II	45433A	A.01.00	
HPDraw Figures Portfolio	45571A	A.01.00	
Office Activities Portfolio	45568A	A.01.00	

*Uses HP Touch
†Corporate Site Licensing also available

Name	HP Product Number	Version	Special Requirements
Business Mgmt. Portfolio	45570A	A.02.00	
Chemical/PetroChemical Portfolio	45569A	A.01.00	
The Graphics Gallery Collection*†	45437A		384K
Painter*	45540A		
HP Graphics Curator/ 3000 (36926R gives you "right to copy")	36926A or 36926R		For use with HP 3000.

Curator RTU 36926A

S/3X	#310	
	#315	
S/5X	#320	
	#321	
	#325	
S/7X	#330	

Curator RTC 36926R

S/3X	#310	
	#315	
S/5X	#320	
	#321	
	#325	
S/7X	#330	

INTEGRATED SOLUTIONS:

Name	HP Product Number	Version	Special Requirements
ExecuDesk—U.S.*	45444A	A.03.00	
Symphony from Lotus*	45498A	1.1	384K

PROGRAMMING LANGUAGES AND DEVELOPMENT TOOLS:

Name	HP Product Number	Version	Special Requirements
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		

SPREADSHEETS:

Name	HP Product Number	Version	Special Requirements
Lotus 1-2-3*	45566A	2.01	384K

UTILITIES:

Name	HP Product Number	Version	Special Requirements
HP PLCPak	33406A		

*Uses HP Touch
†Corporate Site Licensing also available

Name	HP Product Number	Version	Special Requirements
WORD PROCESSING:			
HPWORD/150 U.S. English*†	27505A	A.00.00	512K
Executive MemoMaker*†	45418A	C.02.00	
Microsoft SPELL*	45556D	1.1	
Microsoft WORD*	45474D	1.1	Now includes Microsoft Spell
MultiMate*	45424A	3.29	
WordStar*	45400D	3.34	
WordStar Professional	45427D	3.34	384K + dual double sided disk drive
WordStar Professional Options	45429D	3.34	384K + dual double sided disk drive

*Uses HP Touch

†Corporate Site Licensing also available

U.S. Vectra PC Software Available from HP

Marilyn Ruel, Steve Martin, Alan Hirsch, 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.

Name	HP Product Number	Version	Special Requirements
COMMUNICATIONS:			
AdvanceLink†	68333F	B.00.01	
HP IRMA IBM3278/ 79 Term Emul	50920A		
HPMessage†	36569E		Requires HPDesk Message A.03.01 on the HP 3000
Print Central/Vectra†	36890F	A.02.01	Corresponding 3000 software required
AdvanceMail†	27535F	B.00.00	Requires HPDesk Manager on the HP 3000
HP StarLAN Server Kit for HP Vectra PCs	50904F		Dedicated network server, 512K memory required
HP StarLAN User Link Kit for HP Vectra/IBM PCs	50905F		512K memory required
HP ThinLAN Server Kit for HP Vectra PCs	50907F		Dedicated network server, 512K memory required
HP ThinLAN User Link Kit for HP Vectra/IBM PCs	50908F		512K memory required
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
HP StarLAN Configuration and Diagnostics Software and License for PCs	50906A		

†Corporate Site Licensing also available

Name	HP Product Number	Version	Special Requirements
HP ThinLAN Configuration and Diagnostics Software and License for PCs	50909A		
HP OfficeShare Network Server Software Upgrade to HP ThinLAN Server Software of HP Vectra PC	50915F		Includes HP ThinLAN Server and PC Config and Diagnostics Software and License for PCs; must return OfficeShare master discs
HP OfficeShare Network User Software Upgrade to HP ThinLAN User Software for HP Vectra/IBM PCs	50916F		Must return OfficeShare master discs
HP SERIAL Network User Link Software for HP Vectra/IBM PCs	50910F		
DESKTOP PUBLISHING:			
iPrint	35188D		
Vectra PageMaker	45964A		MS Windows required
ENVIRONMENT MANAGER:			
Vectra MS Windows	45954A		
DATA BASE MANAGEMENT:			
Executive Card Manager (ECM)*†	68331F	A.01.04	
ECM: Templates*	68335F	A.01.02	
HP Access*†	36898F	F.01.00	For use on the HP 3000
R:Base 5000	68336F	1.01	512K memory required
R:Base System V	68328F	1.1	512K memory required
GRAPHICS:			
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	

*Uses HP Touch

†Corporate Site Licensing also available

Name	HP Product Number	Version	Special Requirements
Business Mgmt. Portfolio*	68326F	A.01.01	
Chemical/ PetroChemical Portfolio	68325F	A.01.00	
HPDraw Figures Portfolio for Drawing Gallery	68327F	A.01.00	
TextCharts	45406E	A.02.00	
HP Graphics Curator/3000 (36926R gives you "right to copy")	36926A or 36926R		For use with HP 3000. Curator RTU 36926A

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                                    Curator RTU 36926A
                                      S/3X   #310
                                             #315
                                      S/5X   #320
                                             #321
                                             #325
                                      S/7X   #330

                                    Curator RTC 36926R
                                      S/3X   #310
                                             #315
                                      S/5X   #320
                                             #321
                                             #325
                                      S/7X   #330
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INTEGRATED SOLUTIONS:

Name	HP Product Number	Version	Special Requirements
Lotus Symphony	68339F	1.2	384K memory required

PROGRAMMING LANGUAGES AND DEVELOPMENT TOOLS:

Name	HP Product Number	Version	Special Requirements
Vectra GW BASIC Interpreter	45952A	3.11	

SPREADSHEETS:

Name	HP Product Number	Version	Special Requirements
Lotus 1-2-3	68340F	2.01	
Executive Spreadsheet	68332F	A.01.01	

UTILITIES:

Name	HP Product Number	Version	Special Requirements
HP PLC PAK	33406B		
Laser Control 100***	35190J		
Laser Plotter	35188A		

*Uses HP Touch
***Manufacturer Supported

Name	HP Product Number	Version	Special Requirements
WORD PROCESSING:			
AdvanceWrite I**	27506F		
AdvanceWrite II**	27507F		
AdvanceWrite III**	27508F		
Executive MemoMaker*†	68330F	A.03.00	

*Uses HP Touch
**All software except AdvanceWrite also runs on IBM PC and IBM PC compatibles

†Corporate Site Licensing also available

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Localized HP 150/Touchscreen
Software Available from HP
Arlette Cox

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
HP Word	27505AB	U.K.	A.00.02
HP Access	36898AD	German	A.01.01
HPTEL	45314A	Std. U.K./French	A.01.01
Drawing Gallery	45411AD	German	A.02.01
Drawing Gallery	45411AF	French	A.02.01
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
MemoMaker	45420AV	Arabic	A.01.01
MemoMaker	45420AV #ZAG	Arabic/French	A.01.02
Exec.Card Manager	45421AD	German	A.02.01
Exec.Card Manager	45421AZ	Italian	A.02.01
AdvanceLink	45431AD	German	A.04.00
Gallery Pic.Lib. VII	45433AF	French	A.01.00
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
ExecuDesk	45444AD	German	A.02.00
AdvanceMail/150	27534AD	German	A.01.02
AdvanceMail/150	27534AF	French	A.01.02
AdvanceMail/150	27534AH	Dutch	A.01.02
AdvanceMail/150	27534AM	Mexican	A.01.02
AdvanceMail/150	27534AN	Norwegian	A.01.02
AdvanceMail/150	27534AX	Finnish	A.01.02
AdvanceMail/150	27534AY	Danish	A.01.02
AdvanceMail/150	27534AZ	Italian	A.01.02

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Localized HP Vectra Software
Available from HP
Arlette Cox

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.

Name	HP Product Number	Country	Revision
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	27508FZ	Italian	F.01.02
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	
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	
Executive MemoMaker	68330FE	Spanish	A.02.03
Executive MemoMaker	68330FF	French	A.02.03
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
Executive MemoMaker	68330FN	Norwegian	A.02.03
Executive CardManager	68331FZ	Italian	A.01.06
Executive CardManager	68331FD	German	A.01.03
Executive CardManager	68331FF	French	A.01.06
Executive CardManager	68331FE	Spanish	A.01.06

Name	HP Product Number	Country	Revision
Executive CardManager	68331FH	Dutch	A.01.06
Executive CardManager	68331FN	Norwegian	A.01.06
Executive CardManager	68331FX	Finnish	A.01.08
Symphony	68339FB	Eur. English	A.01.2
Lotus 1-2-3	68340FB	Eur. English	A.02.01
Lotus 1-2-3	68340FD	German	A.02.01
Lotus 1-2-3	68340FE	Spanish	A.02.00
Lotus 1-2-3	68340FF	French	A.02.01
Lotus 1-2-3	68340FS	Swedish	A.02.01
Lotus 1-2-3	68340FZ	Italian	A.02.01
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.01.00
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
AdvanceMail/Vectra	27535FD	German	A.01.02
AdvanceMail/Vectra	27535FF	France	A.01.02
AdvanceMail/Vectra	27535FH	Dutch	A.01.02
AdvanceMail/Vectra	27535FM	Mexican	A.01.02
AdvanceMail/Vectra	27535FN	Norwegian	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

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Asian Vectra Software
Available from HP

Jenny Chiang

For Asian countries only:

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

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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
COMMUNICATIONS:			
REFLECTION 1 (ROM)	82863K Opt.400		•
YTerm	82867K Opt. 630		•
DATA BASE MANAGEMENT:			
Executive Card Manager (ROM)	45555K Opt. 400		•
PROGRAMMING LANGUAGES AND DEVELOPMENT TOOLS:			
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		•
SPREADSHEETS:			
Lotus 1-2-3 V. 2.01	45539K Opt. 400		ROM
WORD PROCESSING:			
MemoMaker/Time Management (ROM)	45504K Opt. 400		•
Microsoft SPELL	45556D	•	•
Microsoft WORD	45474D	•	
Microsoft WORD (ROM)	45549K Opt. 400		•
MultiMate (ROM)	45554K Opt. 400		•

Name	HP Product Number	Portable	Portable Plus
GAMES:			
Hitchhikers Gde.**	92244BA	●	●
Starcross**	92243DA	●	●
Suspended**	92243FA	●	●
Zork I**	92243QA	●	●

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**Manufacturer Supported

Discontinued Software

Marilyn Ruel, Jane Blando

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.*

	Touchscreen/150:	
Product Name	**HP Product #**	**Superseded by:**
ACCOUNTING:		
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
COMMUNICATIONS:		
Dow Jones Spreadsheet	45511D	None
PFS:File and Report	45488A	None
Transend COMplete	45414A	Available from Transend Corp.
DATABASES:		
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:
GRAPHICS:		
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
INTEGRATED SOLUTIONS:		
ExecuDesk System	45442A	ExecuDesk sold separately—45444A
SPREADSHEETS:		
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
WORD PROCESSING:		
MemoMaker/150— U.S. English Touchscreen	45420A	Executive MemoMaker/150—45418A
PFS: Write	45489A	None

Product Name	HP Product #	Superseded by:
WordStar/150—U.S. English	45400A	WordStar—45400D
MailMerge—U.S. English	45401A	Included in WordStar Professional—45427D or Professional Options—45429D
SpellStar	45402A	SpellStar has been superseded by CorrectStar which is included in WordStar Professional—45427D and/or Professional Options—45429D. An Upgrade kit is available from CorrectStar to SpellStar for users with a dual single-sided disc drive.
WordStar/MailMerge/ SpellStar Combo	45404A	Superseded by WordStar Professional—45427D.
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.

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

Product Name	HP Product #	Superseded by:
DATA COMMUNICATIONS:		
AdvanceLink	45431E	AdvanceLink—68333F
Monitor/IBM PC	45439A	AdvanceLink—68333F
DATABASES:		
Personal Card File	45422E	Executive Card Manager—68331F
WORD PROCESSING:		
Memomaker/IBM PC	45420E	Executive Memomaker—68330F

The Portable or the Portable Plus:

Product Name	HP Product #	Superseded by:
COMMUNICATIONS:		
Dow Jones Spreadsheet	45511D	None
SPREADSHEETS:		
Microsoft Multiplan	45473D	None
DATABASES:		
DataFax	45408C	None

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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
13269U	Carrying case—Leather
13269V	System carrying case
13269W	Attaché case
13269Z	Leather briefcase
82167A	HP-IL cable (0.5 meters)
82167B	HP-IL cable (1.0 meter)
92221M	RS232C modem cable (1.5 meters)
92221P	RS232C printer cable (1.5 meters)
92224F	RS232C gender converter (female)
92224M	RS232C 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
92250D	Dust cover
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)
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
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
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 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
35188A	LaserPlotter software (allows laser to do plotter graphics)
35190J	LaserControl software (to drive LaserJet)
35190P	Jetplotter software (allows InkJet printers to be plotters)
92165A	Two outlet surge suppressor
92165B	Four outlet surge suppressor
92165C	Six outlet surge suppressor
45741A	Monochrome video extension cable
45742A	Color video extension cable
45986A	Security System Lock
92165A	2 plug surge suppressor
92165B	4 plug surge suppressor
92165C	6 plug surge suppressor
92171X	ThinkJet printer stand for top of display
92171Z	Vectra PC keyboard park
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)
92208A	Mobile PC Centre
92259A	Vectra PC dust cover for monochrome monitor and keyboard
92259B	Vectra PC dust cover for color monitor and keyboard
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 |

For Disc Drives

■ 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
92194N	5.25-inch rolltop file (capacity 120 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, and 9133D 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)
92191H	3.5-inch micro flex disc album (capacity 20) (replaces 92191C)
92191R	3.5-inch micro flex disc roll-top file (capacity 50)
92192A	3.5-inch micro flex discs—double-sided (box of 10)
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) |

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

| 92192X | 3.5-inch high density microflexible discs (box of 10) |

■ 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)

■ 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)

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 printer paper (250 sheets)
51630Q	Transparency film (50 sheets with sleeves)
51630Y	Cut-sheet printer paper (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

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
13269TT	Carrying case

■ HP 2227A/B QuietJet/QuietJet Plus

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 stand
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 ThinkJet Printer)

■ HP 2235A/B/C/D RuggedWriter Printer

92156S	Ribbon cartridges (box of 3 cartridges)
92166S	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 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

■ 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

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
92171S	Desktop printer stand
92250T	Dust cover

■ HP 82240A Infrared Printer (For HP 18C + HP 28C)

82175A	Thermal paper
92169G	Leather carrying case (black)
92169H	Leather carrying case (brown)
92169J	Leather carrying case (burgundy)

■ HP 82906A Dot-Matrix Printer

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

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 (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
		Multi-color
17845P	17846P	Std Assort
17847P	17848P	Cool Assort
17849P	17850P	Warm Assort

■ Fiber-Tip Transparency Pens

.3mm	.7mm	Single-color (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
		Multi-color
17745T	17746T	Std Assort
17747T	17748T	Cool Assort
17749T	17750T	Warm Assort

■ Solvent

5060-6828	One ounce (29.6 ml) of solvent for refreshing dry transparency pens

■ Accessories

92166E	Plotter sound enclosure (for ColorPro, 7470A & 7475A 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)

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.

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)

- *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)

- *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)

- *AdvanceWrite III*

  This class is appropriate for all new users of AdvanceWrite. It covers all the major features of AdvanceWrite III, including creating and editing documents, producing customized letters, indices, tables of contents and glossary files, how to use spreadsheets in AdvanceWrite, and how to use the Wordbase Manager.

  27501A (3 days)

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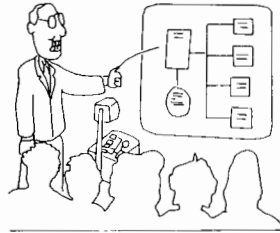
The Classroom Learning Pack is a new concept expressly designed for the instructor of a classroom course on personal computer software. We've developed ready-to-use materials—an instructor's guide, overhead transparencies, and student activity sheets—so that you can quickly prepare for a course. And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

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.

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

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HP FastTrak and ExpertGuide
Self-Study Packs

Linda Swett

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.

If you desire technical user level information beyond the scope of the Microsoft Windows User's Guide, a Windows HP ExpertGuide is available. 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

Jennifer MacIntyre

**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.

To Order

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

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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 are some of the telephone assistance products.

Telephone Assistance for Internal Support Personnel:

Workgroup Coordinator Assistance (HP 99062A + D00) provides your centralized staff with comprehensive coverage for application software being used on various HP personal computer models.

Telephone Assistance for the End-User:

PC users receive unlimited call coverage for software supported on a specific HP personal computer model through **PC User Assistance:**

Vectra Publisher	HP 72496A + E00
Vectra Publisher EGA	HP 72497A + E00
Vectra Model 45	HP 72445A + E00
Vectra Model 50	HP 72450A + E00
Vectra Model 58	HP 72458A + E00
Vectra Model 59	HP 72459A + E00
Vectra Model 60	HP 72460A + E00
Vectra Industrial PC	HP 72411A + E00
Touchscreen MAX	HP 45660B + E00
Touchscreen II	HP 45851A + E00
Portable	HP 45710A + E00
Portable PLUS	HP 45711E + E00

Per-call Services* for Infrequent Support Needs:

Individual support calls may be charged to personal or company credit cards by calling (800) 858-8867. In addition, users may prepay for five calls by purchasing HelpLine Call Certificate Packs **(HP 35159A)** from HP's Direct Marketing Division at (800) 538-8787.

*Per-call services are available in the U.S. and Canada only.

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Ordering *HP PC Communicator* Back Issues

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 Newsline and Bugline column items which appear in each issue.

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

HP 150 Touchscreen and HP 12x	Issues #7 and #8 cover primarily the HP 150 Touchscreen and HP 12x. (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

**Portable, HP 150
Touchscreen, HP 12x**

Issues #9 and onward cover the Portable, HP 150
Touchscreen, and HP 12x. (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,	**Issue #13 includes the following major articles:**
Touchscreen/150,	–"Condor/150: Computations Against Computed
Portable, 12x	Values"
	–"Condor/150: Sending Escape Sequences to Your
	Printer"
	–"Diagraph and Picture Perfect: Positioning
	Multiple Pictures"
	–"Lotus 1-2-3: Transferringt 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

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"

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

Additional copies of this current issue are available:

HP PC Communicator Issue #24 5958-7678

☐

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.

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.

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.
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.)
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.

Product	Version	Order HP Part #	Notes
Touchscreen (HP 150B) Operating System and Utilities		45626-63007	2
Sys Master Disc			
MS-DOS	B.02.02		
MS-DOS COMMANDS	B.02.02		
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 UTILITIES	B.02.03		
Touchscreen II Operating System and Utilities	2.11	45847-63004	3
MS-DOS	2.11		
MS-DOS 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 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	

Product	Version	Order HP Part #	Notes
Touchscreen Operating System (upgrade)	3.2	45849-63031	
Touchscreen II Operating System and Utilities		45847-63017	
MS-DOS	3.2		
MS-DOS COMMANDS	3.2		
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 UTILITIES	E.01.01		
System Master Exchange Kit		45847-63030	
MS-DOS	3.2		
MS-DOS COMMANDS	3.2		
P.A.M.	E.01.01		
HPBIOS	E.01.01		
FORMAT	E.01.01		
DEV CONFIG	E.01.01		
EASY CONFIG	E.01.01		
Application Master Exchange Kit		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		
Utility Master Exchange Kit			
MS-DOS UTILITIES	E.01.01	45847-63032	

Product	Version	Order 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	
Diagraph	A.03.01	45463-63001	
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 MemoMaker	C.02.00	45418-63002	
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	
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 Word	A.00.00	27505-63001	
Info Access	A.02.00	36898-63003	
Lattice C Compiler	A.01.00	45452-63001	

Product	Version	Order HP Part #	Notes
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 M	A.02.00	45504-64002	
MemoMaker to Executive MemoMaker (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	
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.00.02	45422-63001	
PCF to Executive Card Manager (upgrade)	A.02.01	45421-63005	
Picture Perfect	A.03.01	45462-63001	
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 4 K to 5 K	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	

Product	Version	Order HP Part #	Notes
Videotex	A.01.01	45314-63001	
VT100 Terminal Emulator	A.01.00	45412-63001	
Windows Kernal	A.01.03	45875-63001	
Windows Write/Paint	A.01.03	45875-63002	
WordStar (HP150)	*3.34	45400-63031	
WordStar (150/110)	*3.34	45400-63030	
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.)

Computer Museum

Vectra PC
Software Exchange Kits

Product	Version or /Date Code	Order Part #	Notes
AdvLink	B.01.00	68333-65002	
AdvLink (Upg.)	B.01.00	68333-65001	
ASYST Scientific	A.02.50	14858-61005	
		14858-61006	
		14858-61007	
BASIC Interpreter	2538	45952A	1
Charting Gallery Upgrade	B.03.00	68350-60002	
Drawing Gallery Upgrade	B.03.00	68351-60002	
Executive Card Manager	A.01.03	68331-65001	
Exec. MemoMaker	A.01.02	68330-65001	
Executive MemoMaker Upgrade	A.03.00	68330-60005	
Exec. Spreadsheet	A.01.01	68332-65001	
Gallery Collection Upgrade	B.03.00	68352-60001	
Graphics Gallery Update	A.01.00	68352-65002	
HP-IB Command Library (Upg.)		82990-65001	
HP Message	A.00.02	36569-65001	
HP Message to AdvanceMail (upgrade)	A.01.02	27535-65009	
MS-DOS Op Sys Disc	A.01.04	45951-63001	
MS-DOS Op Sys Disc	A.01.02	45951-60001	
Office Share Network Server	A.01.00	50902-69601	
Office Share Network User	A.01.00	50903-69601	
PC Instrument Data Acquisition	A.02.00	14856-65001	
PC Instrument Data Acquisition (Upg.)	A.02.00	14856-61001	
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	
Symphony	2538	68339-65001	
TextChart	A.02.00	45406-65001	
1-2-3 by Lotus	2.01	68340-65001	
WordStar	2538	68345-65001	
WordStar Professional	2538	68346-65001	

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.

Portable
Software Exchange Kits

Product	Version	Order Part #	Notes
BASIC Interpreter	A.01.01	45445-63002	
BASIC Compiler	A.01.01	45446-63002	
DataFax	A.01.01	45408-63001	
dBASEII	*A.02.41	45468-63001	
Lotus 1-2-3 Upgrade (ROM)	2.01	45539-64001	
PC 2622 (Reflection)	1.0	82861-64001	
Prog. Tools	A.01.00	45419-63001	
Reflection	1.0	82861-64002	
WordStar (HP110)	3.34 .	45400-63030	

*Revised since original release.

Discontinued Software
Replacement Media Exchange Kits

Product (Notes)	Version	Order Part Number†		Exchange Available Through
		3.5″ Disc	5.25″ Disc	
Touchscreen/150:				
BPI Gen. Acctg.	A.01.00	45455-63001	n/a	June, 1990
BPI Personal Acctg.	A.01.11	45459-63001	n/a	June, 1990
BPI Accts. Rec.	A.01.11	45456-63001	n/a	June, 1990
Condor 1/150	A.02.11	45415-63002	n/a	April, 1990
Condor 3*	A.02.11	45415-63002	n/a	April, 1992
Context MBA/150	A.02.03	45481-63001	n/a	April, 1990
Graphics (bar disc, text disc, pie disc, line disc, examples disc)	A.03.01	45410-63001	n/a	April, 1990
GraphPlan	1.00.T2	45467-63001		
Lotus 1-2-3:				
System Disc (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
Transend COMplete	A.01.00	45414-63001		May, 1991
VisiCalc	B.01.02	45405-63004	n/a	April, 1990

*Revised since original release.

Discontinued Software
Replacement Media Exchange Kits

Product (Notes)	Version	Order Part Number†		
		3.5" Disc	5.25" Disc	8" Disc
HP 12x: 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	

* 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.

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-HPPC 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) 2500-615
 (0222) 2500-616

■ Belgium/Luxembourg . . . . (02) 762 32 00

■ 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 . . . . (02) 816640-258

■ Finland . . . . (90) 887 2361

■ France . . . . (1) 692 83 264
 (1) 690 77 825

■ Greece . . . . (81) 6471673

■ Italy . . . . (02) 9236 9437
 (02) 9236 9478
 (02) 9236 9585

■ Middle East
 Athens . . . . (01) 6828811

■ Norway . . . . (02) 171180

■ South Africa
 Johannesburg. . . . . (011) 8025111
 Cape Town . . . . (021) 537954

■ Spain 91-6374013
 91-6370011

■ Sweden . . . . (08) 7502028
 (08) 7502027
 (08) 7502204

■ Switzerland . . . . (057) 31 22 54
(857) 31 22 53
(057) 31 22 59
■ 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.)

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HP PC Communicator—
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HP PC Communicator—
  Canada/Mexico ................... 45530B
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  International .................... .45530C
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(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.*

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.
HP Internal Users	Have your purchasing department enter an I2 order on HP division A5 (DMK). For domestic orders only: Put users name in "Mark for" section.
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		.
			TOTAL		.

Tax Exempt? ☐ No ☐ Yes

Tax Exempt or Resale Number _____

Ship To

Company _____

Attn Of _____ Bldg/Room _____

Street Address _____

City _____ State _____ Zip _____

Special Shipping Instructions _____

Standard Shipping Method Is UPS Surface

Payment Method

☐ Purchase Order (Number _____)
☐ Check Enclosed (Payable to Hewlett-Packard Co.)
☐ Credit Card (Check one, provide all information, and sign)

☐ MasterCard ☐ ☐ VISA

Account No. _____

Expiration Date _____

Name on Card _____

Address _____

Signature _____

Use this form for prepaid U.S. orders only

POD 1/84

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(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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