

May/June 1989

- HP Vectra QS/20
- HP DeskJet PLUS
- HP Intelligent Graphics Controller

For users of
HP Personal Computer
Products



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The HP PC Newsline

Late-breaking news on HP personal computer products

Two new **Windows printer drivers** are available -- HPPCL.DRV version 3.1, a PCL/LaserJet driver, and PSCRIPT.DRV version 3.1, a PostScript driver.

HPPCL.DRV includes the soft font installer used in version 3.0, and it now includes support for the new HP LaserJet IID printer. With PSCRIPT.DRV version 3.1, the problems that were experienced with mapping some extended characters in version 3.0 were fixed.

These drivers are available in a Drivers/Filters package from Aldus Corporation. To order, call Aldus Customer Support at (206) 628-2320 in the U.S. Outside the U.S., contact your local distributor.

You can now upgrade your **HP Vectra ES PC** to a Vectra ES/12 with a low cost upgrade which provides you with a 50 percent increase in processor clock speed (from 8 MHz to 12 MHz).

The upgrade includes on-site installation and a one-year warranty of the entire SPU (not just the upgraded parts). The term "entire SPU" includes HP video cards and hard disks. It does not include the monitor or any other accessories added to the original HP Vectra ES PC. To order the upgrade, HP product number D1335AH, call your dealer or HP sales office.

WordPerfect for the HP 150/Touchscreen PC is now available, thanks to Personalized Software, an independent HP150 PC software developer. WordPerfect for the HP 150 comes on a single-sided disk (HP 35190L), and a double-sided disk (HP 35190K). Please note that you need either a dual double-sided disk drive, or a hard disk and a minimum of 384 KB of memory to use the software.

Hewlett Packard is acting strictly as a distributor of this product and does not provide support for WordPerfect. If you have a problem with setting up the software, you should contact Personalized Software of Fairfield, Iowa, as indicated in the information shipped with the product. If you have questions on the software itself, contact WordPerfect.

You can order WordPerfect for the HP 150/Touchscreen PC in the U.S. only from HP DIRECT at (800) 538-8787.

An **Upgrade/Replacement Kit** is now available for the HP Vectra RS, QS, and ES SETUP and Utilities Disk. The kit includes version B.04.00 software and the new HPEMM/386 driver version A.01.02 on a 1.2 MB 5.25-inch flexible disk, along with a revised manual for the HPEMM/386 program. (Please note that the latest version of the SETUP and Utilities Disk is B.04.01. This version is necessary for support of ESDI drives on the HP Vectra QS/20 and is shipping with that product. For all other Vectras, version B.04.00 provides all the required features.)

To order the Upgrade/Replacement Kit (HP part number 5061-8987), contact your dealer or HP sales office, or call HP DIRECT. You will need to return your old SETUP disk. For more information on upgrade/replacement kits, refer to "Software Exchange Kits" in the green pages of this issue.

Did you know that you can send your **Graphics Gallery Version 3.0** picture files to MAGICorp, an independent graphics service bureau, and get professional quality slides overnight? Overheads, prints, and other media are also available. Just send in the MAGICorp coupon included in U.S. versions of Charting Gallery, Drawing Gallery, and the Gallery Collection, and you will receive free software and instructions for sending your files to MAGICorp by mail or modem.

For those of you outside the U.S. who have purchased the U.S. version of the Graphics Gallery Version 3.0 product family, special instructions will be sent to you if you return the MAGICorp coupon included with the software. If you have lost your coupon, you can write to MAGICorp at 50 Executive Blvd., Elmsford, N.Y. 10523 USA, or phone (800) 367-6244.



Latest information about HP PC questions, problems, and solutions

Here's a tip that works well with **PageMaker 3.0**. If you are working with a document that has a lot of Master Page information, you may get confused about what is page data versus Master Page information. If you have a color monitor, you can use this trick to help you decipher which part of the information displayed is Master Page information.

Go to the Master Page(s) and activate the Color Palette. Then activate all of the graphics and text information (use Text Tool) and assign a color such as blue. When you return to edit your pages, the Master Page information is now highlighted in another color. This won't affect the printing as long as you do not have Spot Color Overlays selected on your Print menu.

When using a **non-U.S. keyboard and MS-DOS 3.3** on an HP Vectra RS/20C or RS/25C, be sure to update your keyboard driver as instructed in your *Introduction to HP Vectra Utilities* manual included in the PC kit. Remember also that you should **not** use the [Ctrl][Alt][\] (or equivalent) keystrokes to switch between high and low speeds if you're using a non-U.S. keyboard. You should use the keyboard combinations shown in the *Vectra Software Utility: HPMODE Command* documentation included in the PC kit.

In the back of your *PageMaker 3.0 Reference Manual* there is a **PageMaker Quick Reference Guide** which is easily overlooked. It is on a perforated card, which can be removed, and answers questions like...

- o What key strokes are necessary to select a tool from the toolbox without using a mouse?
- o How do you move to another page without using your mouse to click on the page icons?
- o How can you use the cursor control keys to adjust the insertion point in a body of text?

If you are having problems formatting **high density (1.44 MB) 3.5-inch disks** on your HP Vectra PC, you may be using the wrong disks. HP Vectra PCs sense what type of disk is in the drive by the square holes on the bottom of the 3.5-inch disk. HP disks have two holes, one on each of the lower corners. Disks from other companies may have only one hole (for write-protect), and will then be sensed as low density disks by the Vectra.

Media following the hole-sensing standard are available from most major disk media vendors -- and, of course, from HP. The part number for HP's 1.44 MB 3.5-inch double-sided disks is 92192X. To order, contact your dealer, HP sales office, or call HP DIRECT. (Refer to "How to Order" in the green pages.)

If you are using **Microsoft Windows version 2.03** on an HP Vectra PC, can you print or plot to an HP-IB device? The answer is that although HP-IB devices are not supported with any version of Windows for the HP Vectra PCs, you may be able to print or plot from some Windows applications.

For example, if you place an HP-GL file in PageMaker, you can plot to an HP 7550A plotter, and you can print from Notepad to an HP-IB ThinkJet. You must have a physical port configured in order to reroute that port to the HP-IB device. That is, if you have only one physical parallel port on the Vectra, you must configure your HP-IB device as LPT1 in MS-DOS and Windows.

Whether or not a particular application will plot or print is dependent on the application and the device driver. Windows and the drivers were not written to output to HP-IB devices, and this configuration is therefore not supported.

Windows for the HP 150/Touchscreen PC does support the HP-IB ThinkJet printer (HP 2225A), the Daisywheel printer (HP 2603), the HP 7475A color desktop plotter, and the ColorPro plotter (HP 7440A).

If your **HP mouse** does not work with your software application, the mouse driver may not have been installed. Be sure that you have installed the HP-HIL mouse driver called MOUSE.SYS which is on the SETUP and Utilities disk that comes with your system.

Welcome to the *HP PC Communicator*



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

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

CompuServe

Articles appearing in the *HP PC Communicator* are carried in the HP PC Forum on the CompuServe Information Service. For more information, see "Answers to Your Questions" in the Current Information green pages.



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Recently I've received many questions regarding Microsoft® Windows/386. In this article I'd like to clear up the most common "myths" about Microsoft Windows/386.

Myth #1

For my HP Vectra RS or QS PC, I should use Windows/386, not Windows/286, because Windows/286 will not work on an 80386-based PC.

Although the name Windows/286 implies that you should run this product on an 80286-based PC (that is, the HP Vectra ES), it also runs on 8086- and 80386-based PCs. In fact, there are many reasons why you may choose Windows/286 instead of Windows/386:

- Windows/286 requires less memory.

1 MByte of memory on the HP Vectra RS or QS with Windows/286 allows you to run several DOS and Windows applications concurrently (if your PIFs are set correctly). You will not be able to multitask your DOS applications, but you will be able to switch between them without exiting any application.

Windows/386 requires 2 MBytes to load the system; to run DOS applications you will probably require even more memory. You may run only as many DOS applications as can fit into memory, since the applications cannot swap to disk. (More information on how much memory applications use under Windows/386 is included in Myth #2.)

Of course, the more memory you have for either Windows product, the better.

- Windows/286 runs better with networks.

Because networks can take up a fair amount of conventional memory (at least 120 Kbytes), many users prefer to run a network with expanded memory. If you run a network and Windows, expanded memory is almost mandatory. However, expanded memory is not available for networks with Windows/386.

Why? Networks must be run prior to running Windows/286 or Windows/386. Expanded memory is not available until Windows/386 is run, because Windows/386 includes its own Expanded Memory Manager (see Myth #3). With Windows/286, expanded memory is available for the network.

- Running one DOS application under Windows/386 is slower than running it under Windows/286.

Because of the amount of overhead of Windows/386, Windows/286 outperforms if only one DOS application is running. This isn't usually the case, but interesting to note.

There are times, of course, when Windows/386 is the better product for you. The best example is the need to multitask your DOS applications (make sure you have at least 4 MBytes). Most of you though, probably need only the ability to switch between applications, and Windows/286 provides this capability.

Myth #2

With Windows/386, 1 or 2 MBytes of memory should be fine. That's what the package says...

If you read the back of the Microsoft Windows/386 package, it states that 1 MByte is the **minimum** amount of memory necessary to run this product; at least 2 MBytes is recommended. HP includes a card in a packet on the outside of the package which says "A minimum of 2 Mbytes of system memory is required with Windows/386 on your HP Vectra PC. For best performance, 4 Mbytes or more is recommended."

Here's what we've found running Windows/386 on the HP Vectra RS or QS PC:

- 1 MByte of memory:
Windows/386 will not load.
- 2 MBytes of memory:
Windows/386 will run. You will be able to run two small DOS applications (<= 200 Kbytes) if you use PIFs and set "EMMSIZE = 0" in your WIN.INI file. You should also be able to run several small Windows applications (that is, **not** PageMaker or Excel).
- 4 MBytes of memory:
You should be able to run three or four normal sized (200-350 Kbytes) DOS applications if you use PIFs and set "EMMSIZE = 0" in your WIN.INI file. You should also be able to run Windows applications.

Remember that these tests do not allow you any expanded memory. If you want Windows/386 to use expanded memory (that's what the "EMMSIZE = " is for), you'll have to run fewer DOS applications.

Myth #3

I know I can't use HPEMM386.SYS as my Expanded Memory Manager (EMM), since Windows/386 has its own built-in EMM. If I turn HPEMM386.SYS to "Off" at the command line before running Windows/386, that should do the trick.

Turning HPEMM/386 to "OFF" at the command line will **not** do the trick in all cases. Sometimes Windows/386 will load fine, other times (for example, with a network), the system will lock up. When running Windows/386 you will need to take the "DEVICE = HPEMM386. . ." completely out of your CONFIG.SYS file, and then restart your system, before running Windows/386.

Myth #4

I can't monitor how Windows/386 uses memory. There's no way to tell what's being used as expanded, and what's being used as extended memory, since Windows/386 decides all of this for you.

Unfortunately there is some truth to this myth, but there are ways to help you in monitoring Windows/386's memory consumption.

One way is to look at some of the lines in the WIN.INI file.

In your WIN.INI file, look for the header [WIN386]. You'll see two lines:

**WINDOWMEMSIZE = 640
EMMSIZE =**

WINDOWMEMSIZE refers to the amount of memory reserved for Windows applications and the core of the Windows/386 code. If you run **only** DOS applications you can reduce this amount, but go no lower than 400. I recommend that you don't change this line unless you're desperate for memory and never run any Windows applications.

EMMSIZE refers to the amount of memory reserved for expanded memory. If you leave it blank (that's the default), up to half of the memory available after Windows/386 is loaded is reserved as expanded memory. If none of your applications use expanded memory, add a zero to the line. If you have applications that use expanded memory, define the specific amount you want set aside.



Q: Sometimes I have a problem when I try to use HIMEM.SYS* with Microsoft Windows/286 version 2.1. If I install Windows and correctly tell Windows that I have extended memory, the Windows Setup program runs MEMSET.EXE, which installs HIMEM.SYS and updates my CONFIG.SYS file. There is no problem.

But I've noticed that if I tell Windows I do not have extended memory (even though I really do) at setup time and attempt to run MEMSET on my own at a later time, I can't avoid an error message at Windows startup. The dialog box says:

MEMORY CONFIGURATION ALTERED

Your computer's memory configuration has been altered since you originally setup Windows. For better performance please re-install Windows by using the setup program.

I am tired of this message, especially since Windows Setup told me I could run MEMSET at any time later. It's time-consuming to re-install Windows completely. Users should be allowed to configure their extended memory and install HIMEM.SYS manually in CONFIG.SYS if they wish to.

Why does this happen, and how can I get rid of the dialog box, other than running Windows Setup again?

A: Windows/286 2.1 Setup loads one of two different user modules, depending on whether or not you have extended memory. One supports HIMEM.SYS and the other does not. If you are ever going to run MEMSET or install HIMEM, now or later, you must tell Windows that you have extended memory.

If you want to configure your extended memory manually, simply say "NO" (which is **not** the default) when Windows Setup asks you if you want to run MEMSET. Don't tell Windows you don't have extended memory. You will receive the error message until HIMEM.SYS is installed.

If, however, you told Windows you didn't have extended memory, and now you want to run MEMSET or install HIMEM.SYS, you will get the "Memory Configuration Altered" message. At this point, the only choice is to reinstall Windows.



*HIMEM.SYS is a driver you use with extended memory to provide approximately 50 Kbytes more conventional memory.

There are two issues with terminal emulators and Microsoft Windows/286 and Windows/386.

- The Terminal Desktop application program included with Windows 2.0 and Windows/386 is not a full terminal emulator program and does not include an HP data handshake protocol. For this reason, the Terminal application is not supported by HP as a terminal link to the HP 3000.
- Translation errors may occur with extended character sets when running HP AdvanceLink or HP Terminal Program under Windows 2.0 or Windows/386. This problem is discussed in detail below.

If you use an Enhanced Graphics Adapter Display System (EGA), you may experience difficulties when using Windows/286 or Windows/386 with HP AdvanceLink (versions B.00.01 and above), the HP Terminal Program, or other MS-DOS applications that use downloadable character sets.

When running these applications under Windows, errors can occur due to differences in the way characters are interpreted and displayed by the different software packages. These errors are explained below.

**Using Windows with
HP Terminal
Emulators**

HP terminal emulators support the use of two different downloadable character sets. These applications may be configured to run in either HP Mode, using the HP Roman8 character set, or in non-HP mode, using the standard PC-8 character set.

Windows, however, uses the PC-8 character set to display DOS applications, which can cause translation errors and incorrectly displayed characters. This situation applies only to those characters in the upper 128 character codes (that is, the "extended" characters, such as semigraphic figures, or characters used in non-English speaking countries) of these character sets.

Running HP Terminal Emulators in HP Mode

If you decide to configure HP AdvanceLink or HP Terminal Program to use HP Mode (that is, use the HP Roman8 character set), you could encounter the following:

- Some of the extended characters of the Windows Control menu may appear different than what is documented in the Windows User's Guide (for instance, the menu borders, or menu items when you use Windows' Mark, Copy, and Paste functions). Although the Control Menu may appear different, the menus will still be readable and work correctly.
- Some extended characters may transfer incorrectly when copying text from your HP terminal emulation program to another application using the Windows' Copy and Paste functions.

Running HP Terminal Emulators in Non-HP Mode

If you decide to configure HP AdvanceLink or HP Terminal Program to use non-HP Mode (that is, use the PC-8 character set), you could encounter the following:

- Some extended characters received by your terminal emulator from your host computer may be lost or displayed incorrectly. This problem is not unique to Windows. If you have chosen to run your terminal emulator using the PC-8 character set, you will experience these translations problems regardless of whether or not you are running the terminal application under Windows.
- Some extended characters may transfer incorrectly when copying text from your HP terminal emulation program to another application using the Windows' Copy and Paste functions.

Configuring Your HP Terminal Application

You can configure your HP terminal application for HP Mode or non-HP Mode through its Global Configurations Menu. Set the "Vectra Mode" (in AdvanceLink) or "HP Mode" (In HP Terminal Program) to "YES" to use the HP Roman8 character set. Set the field to "NO" to use the PC-8 character set. You may need to experiment with these configurations to determine the best setting for use with your application.



PageMaker 1.0

PageMaker 1.0 and 3.0 are capable of printing many characters which are not on the keyboard. You can display these 8-bit ANSI characters by using the **Alt** key along with the 3-digit or 4-digit ANSI code entered on the **numeric keypad**.

In PageMaker® 1.0, to use special characters:

1. Choose the "A" in the toolbox for text mode.
2. Move the bracket cursor to the position for the special character, and click.
3. Hold down the **Alt** key.
4. Enter the 3-character ANSI code on the numeric keypad.
5. Release the **Alt** key.

The character will appear **after** the **Alt** key is released.

Here is a list of commonly used special characters, their ANSI code, and which standard fonts support them. Please note that since not all fonts support all special characters, it is recommended that you make a test print from PageMaker to confirm that the character is supported by the current font.

Here is a key to the characters and fonts.

Characters

- l/c = lower case
- u/c = upper case
- accent grave = `
- accent aigu = ´
- caret = ^
- cedilla = „,“ marking under a letter as in French "garçon"
- umlaut = Two dots above a letter as in German "schön"
- circle = Small circle centered above, as in "ångstrom"

Fonts

- Tms = Roman
- Scr = Script
- Mod = Modern
- Cou = Courier
- Lpt = Line printer

001					156	£	•
002		037 %	First character		157	¥	•
003		038 &	is without		158	ƒ	•
004	•	039 ' (leading zero		159	p	•
005	—	040)			160	á	•
006	—	041)		123 {	161	í	•
007	—	042 *		124	162	ó	•
008		043 +		125 }	163	ú	•
009		044 ,		126 ~	164	ñ	•
010	“	045 -		127 •	165	N	•
011	”	046 .		128 Ç	166	ª	•
012		047 /		129 ü	167	°	•
013		048 0		130 é	168	¿	•
		049 1		131 â	169	—	•
014		050 2		132 ä	170	¬	•
015		051 3		133 à	171	•	•
016		052 4		134 å	172	•	•
017		053 5		135 ç	173	•	•
018		054 6		136 è	174	•	•
019		055 7		137 ë	175	•	•
020		056 8		138 è	176	•	•
021		057 9		139 ï	177	•	•
022		058 :		140 î	178	•	•
023		059 ;		141 ì	179	•	•
024	3	060 <		142 Å	180	•	•
025		061 =		143 Ä	181	•	•
026		062 >		144 Ë	182	•	•
027		063 ?		145 æ	183	•	•
028		064 @		146 Æ	184	•	•
029		065 A		147 ô	185	•	•
		066 B		148 ö	186	•	•
030		065-122 are		149 ò	187	•	•
031		A-Z and a-z		150 û	188	•	•
032				151 ù	189	•	•
033	!			152 ÿ	190	•	•
034	“			153 Ö	191	•	•
035	#			154 Ü	192	•	•
036	\$			155 ø	193	•	•

Times Roman

<u>Code</u>	<u>Character</u>	<u>Tms</u>	<u>Scr</u>	<u>Mod</u>	<u>Cou</u>	<u>Lpt</u>
127	l/c o, accent grave				x	
128	u/c C, cedilla	x	x	x	x	x
129	l/c u, umlaut	x	x	x	x	x
130	l/c e, accent ague	x	x	x	x	x
131	l/c a, caret	x	x	x	x	x
132	l/c a, umlaut	x	x	x	x	x
133	l/c a, accent grave	x	x	x	x	x
134	l/c a, circle	x	x	x	x	x
135	l/c c, cedilla	x	x	x	x	x
136	l/c e, caret	x	x	x	x	x
137	l/c e, umlaut	x	x	x	x	x
138	l/c e, accent grave	x	x	x	x	x
139	l/c i, umlaut	x	x	x	x	x
140	l/c i, caret	x	x	x	x	x
141	l/c i, accent grave	x	x	x	x	x
142	u/c A, umlaut	x	x	x	x	x
143	u/c A, circle	x	x	x	x	x
144	u/c E, accent aigu	x	x	x	x	x
145	l/c ae (single char.)				x	x
146	u/c AE (single char.)				x	x
147	l/c o, caret	x	x	x	x	x
148	l/c o, umlaut	x	x	x	x	x
149	l/c o, accent grave	x	x	x	x	x
150	l/c u, caret	x	x	x	x	x
151	l/c u, accent grave	x	x	x	x	x
152	l/c y, umlaut	x	x	x	x	x
153	u/c O, umlaut	x	x	x	x	x
154	u/c u, umlaut	x	x	x	x	x
155	cent symbol	x	x	x	x	x
156	British Pound symbol	x	x	x	x	x
157	Japanese Yen symbol				x	x
158	l/c p	x	x	x	x	x
159	l/c f	x	x	x	x	x
160	l/c a, accent aigu	x	x	x	x	x
161	l/c i, accent aigu	x	x	x	x	x
162	l/c o, accent aigu	x	x	x	x	x
163	l/c u, accent aigu	x	x	x	x	x
164	l/c n, tilde	x	x	x	x	x
165	u/c n, tilde	x	x	x	x	x
166	l/c a, underline				x	x
167	l/c o, underline				x	x
168	upside-down “?”	x	x	x	x	x
169	----- no special character -----					
170	rubout character				x	x
171	1/2 symbol				x	x
172	1/4 symbol				x	x
173	upside-down “!”	x	x	x	x	x
174	<<				x	x
175	>>				x	x
176-178	----- no special character -----					
179	vertical bar	x	x	x	x	x

001	037 %	First	156	f	•
002	038 &	character	157	¥	•
003	039 '	is without	158	p	•
004	• 040 (leading	159	f	•
005	- 041)	zero	160	á	
006	- 042 *		161	í	•
007	043 +	123 {	162	ó	•
008	044 ,	124	163	ú	•
009	045 -	125 }	164	ñ	•
010	" 046 .	126 ~	165	Ñ	•
011	" 047 /	127 •	166	ª	•
012	048 0	128 Ç	167	º	•
013	049 1	129 ü	168	¿	•
	050 2	130 é	169	©	•
014	051 3	131 â	170	¬	•
015	052 4	132 ä	171	•	•
016	053 5	133 à	172	•	•
017	054 6	134 å	173	i	•
018	055 7	135 ç	174	«	•
019	056 8	136 è	175	»	•
020	057 9	137 ë	176		•
021	058 :	138 è	177		•
022	059 ;	139 ì	178		•
023	060 <	140 î	179		•
024	5 061 =	141 ï	180	+	•
025	062 >	142 Ä	181	+	•
026	063 ?	143 Å	182	+	•
027	064 @	144 É	183	+	•
028	065 A	145 æ	184	+	•
029	066 B	146 Æ	185	+	•
	065-122	147 ô	186		•
030	are	148 ö	187	+	•
031	A-Z and a-	149 ò	188	+	•
032	z	150 û	189	+	•
033	!	151 ù	190	+	•
034	"	152 ÿ	191	+	•
035	#	153 Ö	192	+	•
036	\$	154 Ü	193	+	•
		155 ç			•

Courier

<u>Code</u>	<u>Character</u>	<u>Tms</u>	<u>Scr</u>	<u>Mod</u>	<u>Cou</u>	<u>Lpt</u>
180-224	----- no special character -----					
225	l/c Greek beta	x	x	x	x	x
226-229	----- no special character -----					
230	l/c Greek micron (u)	x	x	x	x	x
231-240	----- no special character -----					
241	+ / - symbol				x	x
242-247	----- no special character -----					
248	superscripted circle	x	x	x	x	x
249	solid square				x	x
250	solid square				x	x
251	----- no special character -----					
252	l/c n	x	x	x	x	x
253	rubout character				x	x
254	umlaut				x	x
255-256	----- no special character -----					

Standard keyboard characters are ANSI codes 64-127. Characters below 65, which include the paragraph symbol (20), will display on the screen in Pagemaker 1.0 if two leading zeros are added to the code, but they will not print.



PageMaker 3.0

PageMaker 3.0, or PageMaker 1.0 with version 3.0 printer drivers, allows you to print even more special characters which are listed below. These require a leading zero, making a 4-digit Alt code. A list of these can be found in your *PageMaker 3.0 Reference Manual, Appendix D*.

Please note that most of the following special characters will display but not print with PageMaker version 1.0 printer drivers.

<u>Code</u>	<u>Character</u>
0161	upside-down "!"
0162	cent sign
0163	British Pound sign
0164	Registration mark
0165	Japanese Yen sign
0166	fence (pipe symbol)
1067	Section symbol
0168	Umlaut
0169	Copyright symbol
0170	l/c a
0171	<<
0172	upper right corner
0173	underline
0174	Registered trademark symbol
0175	em dash
0176	circle, centered
0177	+/- sign
0178	"2" superscript
0179	"3" superscript
0180	accent aigu
0181	Greek mu
0182	Paragraph symbol
0183	period
0184	comma
0185	number 1
0186	circle superscript
0187	>>
0188	1/4
0189	1/2
0190	3/4
0191	upside-down "?"
0192	u/c A, accent grave
0193	u/c A, accent aigu
0194	u/c A, carat

<u>Code</u>	<u>Character</u>
0195	u/c A, tilde
0196	u/c A, umlaut
0197	u/c A, circle
0198	u/c AE, single character
0199	u/c C, cedilla
0200	u/c E, accent aigu
0201	u/c E, accent grave
0202	u/c E, carat
0203	u/c E, umlaut
0204	u/c I, accent aigu
0205	u/c I, accent grave
0206	u/c I, carat
0207	u/c I, umlaut
0208	u/c D, dash
0209	u/c N, tilde
0210	u/c O, accent grave
0211	u/c O, accent aigu
0212	u/c O, carat
0213	u/c O, tilde
0214	u/c O, umlaut
0215	long dash
0216	u/c null sign
0217	u/c U, accent aigu
0218	u/c U, accent grave
0219	u/c U, carat
0220	u/c U, umlaut
0221	u/c Y, accent aigu
0222	u/c Greek Rho
0223	no special character
0224	l/c a, accent grave
0225	l/c a, accent aigu
0226	l/c a, carat
0227	l/c a, tilde
0228	l/c a, umlaut
0229	l/c a, circle
0230	l/c ae, single char
0231	l/c c, cedilla
0232	l/c e, accent aigu
0233	l/c e, accent grave
0234	l/c e, carat
0235	l/c e, umlaut
0236	l/c i, accent aigu
0237	l/c i, accent grave
0238	l/c i, carat
0239	l/c i, umlaut

127	ò	156	£	185	+	214	+	243	-
128	ç	157	¥	186		215	+	244	-
129	ü	158	p	187	+	216	+	245	-
130	é	159	f	188	+	217	+	246	-
131	â	160	á	189	+	218	+	247	-
132	ä	161	í	190	+	219		248	°
133	à	162	ó	191	+	220		249	■
134	á	163	ú	192	+	221		250	■
135	ç	164	ñ	193	+	222		251	-
136	ê	165	Ñ	194	+	223		252	n
137	ë	166	•	195	+	224	-	253	■
138	è	167	◊	196	-	225	B	254	..
139	ï	168	¿	197	+	226	-	255	
140	í	169	-	198	+	227	■	256	
141	ì	170	■	199	+	228	-		
142	Ä	171	¼	200	+	229	-		
143	Å	172	½	201	+	230	u		
144	É	173	;	202	+	231	-		
145	æ	174	«	203	+	232	-		
146	Æ	175	»	204	+	233	-		
147	ô	176		205	=	234	-		
148	ö	177		206	+	235	-		
149	ò	178		207	+	236	-		
150	ú	179		208	+	237	-		
151	ù	180	+	209	+	238	-		
152	ÿ	181	+	210	+	239	-		
153	Ö	182	+	211	+	240	-		
154	Ü	183	+	212	+	241	±		
155	ç	184	+	213	+	242	-		

Font:
Courier 12

Code	Character
0240	l/c o, upside-down ""
0241	l/c n, tilde
0242	l/c o, accent grave
0243	l/c o, accent aigu
0243	l/c o, accent aigu
0244	l/c o, carat
0245	l/c o, tilde
0246	l/c o, umlaut
0247	bullet
0248	l/c null sign
0249	l/c u, accent aigu
0250	l/c u, accent grave
0251	l/c u, carat
0252	l/c u, umlaut
0253	l/c y, accent aigu
0254	l/c Greek Rho



PageMaker Questions and Answers

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Q: When I'm generating fonts with Fontware for PageMaker, what sizes and type styles do you recommend for my screen and printer fonts?

A: We recommend making screen fonts in sizes 8, 9, 10, 12, 14, 18 and 24 points for each typeface you plan to use. You need to make the fonts in the Roman face only. However, for PageMaker, if you use this version to simulate Bold, Italic, and Bold Italic, you'll save disk space.

In general, you should generate printer fonts only in the typefaces and specific sizes you will use. To save on disk and printer space, make only Roman and Italic versions, because the Windows printer driver can use them to simulate Bold and Bold Italic.

Q: When I edited the definition of one text style, many other styles changed throughout the publication too. Why?

A: You edited a "parent" style that had other styles based on it. Here's the quickest way to return all the styles to their original attributes:

1. Edit the parent style back to its original setting.
2. Edit each of the styles you don't want directly linked to the parent by deleting the parent from the "Based on" text box in each style's "Edit style" dialog box.
3. Edit the parent style so that it now has the attributes you want. At this point, editing the parent won't affect the styles formerly based on it.

Q: Does PageMaker 3.0 support WordPerfect 5.0 files?

A: Yes. Aldus offers a Drivers/Filters package, and one of the things it includes is a WordPerfect 5.0 filter. To order, call Aldus Customer Support at (206) 628-2320 in the U.S. In the meantime, you can import WordPerfect 5.0 files by saving them in the WordPerfect 4.2 format, which PageMaker does accept.

Q: When would I want to create and install Fontware fonts using the ASCII, rather than the ANSI, character set?

A: The ASCII character set has fewer characters than the ANSI set, so it takes up less space on your hard disk. Use the ASCII character set if you're short of hard disk space and if you don't need all the extended characters of the ANSI set. For a complete listing of what's in each character set, see Appendix B of "Fontware for PageMaker," which came with your PageMaker Fontware package.

[Be sure to send your PageMaker registration card so that you will receive the Master Pages newsletter.]



Here are some commonly asked questions and answers on the 3.5-inch drive and the INDSKBIO.SYS driver that is shipped with it.

Q: Do I need the INDSKBIO.SYS driver in order to use the 3.5-inch drive?

A: In order to read, write, and format disks with the 3.5-inch drive, you need to install the 3.5-inch driver **only** if you have a pre-ES Vectra PC. The only time you need to install the driver for the HP Vectra CS, ES, RS, or QS PCs is to read and write HP150 disks (ROM version D or later). You should note that the 3.5-inch drive is supported only as the B drive in the pre-ES Vectras.

Q: I seem to have trouble accessing my B drive when I have the 3.5-inch drive as the A drive, and the 5.25-inch as the B drive.

A: If you are **not** using the 3.5-inch drive as the B drive, **do not** use 35INSTAL. 35INSTAL assumes the 3.5-inch drive is the B drive. You need to manually install the INDSKBIO.SYS driver by doing the following:

1. Copy INDSKBIO.SYS to your hard disk.
2. Type the following into your CONFIG.SYS file:

```
drivparm=/d:X /f:7 /t:80 s:18 /h:2 /c
device = indskbio.sys /d:X
```

where X is 0 if the 3.5-inch drive is drive A
where X is 1 if the 3.5-inch drive is drive B

Below is an explanation of the parameters in the DRIVPARM statement:

```
/d  physical drive type
/f  device type 0 160/180 or 320/360K drive
           1 1.2 MB drive
           2 720K drive
           7 1.44MB drive
/t  number of tracks per side
/s  number of sectors per track
/h  maximum number of heads
/c  indicates changeline (whether door of
    disk drive is open or closed)
```


Q: Do I need to install the INDSKBIO.SYS driver for certain versions of MS-DOS?

A: If you have MS-DOS 3.2 version B.01.01 or later, and have a pre-ES Vectra PC, then you need to install the driver in order to read, write, or format disks with your 3.5-inch drive. 3.5-inch drives are not supported with MS-DOS 3.1 or earlier.

Q: I can't format 720Kbyte disks on my 3.5-inch drive.

A: The first issue here is whether you have a CS, ES, RS, or QS PC. If you do, remove the DRIVPARM and DEVICE = INDSKBIO.SYS statements from CONFIG.SYS. This will solve the problem.

If you have a pre-ES Vectra PC, check the version number of the INDSKBIO.SYS driver. If you have version B.01.01, then you need to get either the new version of the driver (B.01.02), or insert "/at0" after DEVICE = INDSKBIO.SYS in CONFIG.SYS as follows.

DEVICE = INDSKBIO.SYS /at0
(where 0 = zero)

Q: When I format my 1.44Mbyte disk on my pre-ES Vectra PC, the system tells me that I have only 1.2 MB on the disk.

A: The main cause of this problem is that the INDSKBIO.SYS driver is either not installed, or that the DRIVPARM statement in CONFIG.SYS is not correct. Refer to your installation guide to make sure that the DRIVPARM statement is correct.



Communicator reader Vivek Mehta sent a letter concerning an attempt to gain access to the MS-DOS command line from his Compiled BASIC program. Typically, the command line is used to pass information to a program which requires very little input to run. An example of this would be a disk copying program. Rather than having the program prompt you for the drive letters, it scans the command line for the information. For example: DISKCOPY A: B:

Vivek included a sample subroutine (which he referred to as a "juvenile attempt"), and it was very close to fully operational. It did have a couple of design problems though, which made it somewhat unreliable.

The first problem I discovered was that he was passing a return string of 80 characters to hold the information being passed back. This is all right, but a command line can actually expand to 128 characters. His version would probably blow up if it was passed anything of extensive length. But this was really a minor problem.

The only other problem I saw concerned finding the command line in memory. This is the tricky part. He made the assumption that the base address of the Program Segment Prefix (described later) is always 256 bytes below the current value in the CS register. This will probably work for most programs written with his particular compiler, but may not remain constant from version to version or machine to machine.

Well, he asked for help; so here we go...

The Program Segment Prefix

When a program is loaded into memory for execution, the system precedes it with a special area called the Program Segment Prefix (PSP). This area holds overhead values, tables, interrupt vectors, a couple of file buffers, and so on. Basically, it is used by the system to help the program run.

Included within this area, starting at the 80H position, is a copy of the command line used to start the program executing. Anything typed after the program name is copied into this area. The first byte of this area reflects how many characters are found, and the following bytes hold the actual text. The maximum size of the text line is 128 bytes.

This is all well and good, but how do you find the Program Segment Prefix in memory? Many programmers assume that it will always be 256 bytes in length and directly precede the first byte of code. Going on these assumptions, they would subtract 10H (16 paragraphs, 256 bytes) from the CS register (start of the code segment) to locate it. This is rather dangerous if CS has been altered, or MicroSoft changes the length of the PSP area.

Is there a better way to find it? Yes, and no. There is an MS-DOS function you can call in assembly language via Interrupt 23H which will return the address of the PSP, no matter what value is in CS or what size the PSP was set to. This is not documented in your Programmer's Reference manual. The bad news is that MicroSoft will not support the use of functions included in the operating system, but not documented. The good news is that their utility programs make extensive use of them, which means that they will have to work (virtually) forever!

Code Samples

Below you will find three source listings. The first is a simple Assembly Language subroutine which returns the command line text to a Compiled BASIC program. (It wouldn't make sense to use this under the interpreter because the RUN command does not allow the passing of text.) The second is a sample BASIC program which calls the procedure and displays what it finds. The third is the same BASIC program, with a copy of the assembled code within it, just in case you don't own a copy of the assembler.

[This article and the source code, and all Communicator articles are available in the HP Forum on the CompuServe Information Service. For more information on CompuServe, refer to "Answers to Your Questions" in the green pages.]

Assembly Language Subroutine

```
page      60,132
title     GET COMMAND LINE STRING
;         © Copyright 1986 by Brian Rainie
.lall
.lfcond
;*****
;* Define enter and exit macros. Format when entering procedure is to *
;* use ENTERBP [<number of parameters>]. If the number of parameters *
;* is not specified, the BP register is not stored for safekeeping. To return *
;* from the procedure, simply use RETBP. *
;*****

enterbp macro   parmcnt
               ifidn  <parmcnt>, <>
                 parms = 999
               else
                 parms = parmcnt
                 push  bp
                 mov   bp,sp
                 add   bp,parms*2+4
               endif
                 push  ds
                 push  es
               endm

retbp macro
               pop   es
               pop   ds
               if    parms ne 999
                 pop  bp
                 ret  parms*2
               else
                 ret
               endif
               endm

;*****
;* Define parameter equates. The enterbp macro sets up the BP reg in such *
;* a way as to make parameter referencing much easier. Most people use *
;* [bp+6] to reference the last param, [bp+8] to reference the second *
;* from the last, and so on. This is hard to read and is difficult to update *
;* when the number of parameters must be changed. By enterbp and the *
;* following equates, parameters are now referenced by the using names *
;* parm1, parm2, etc. (e.g.: mov ax,parm3). *
;*****

parm1 equ [bp]
parm2 equ [bp-2]
parm3 equ [bp-4]
parm4 equ [bp-6]
parm5 equ [bp-8]
parm6 equ [bp-10]
parm7 equ [bp-12]
parm8 equ [bp-14]
```

```

;*****
;* Define getsdbd macro. This macro will load the cx and di reg.s with      *
;* the length and address of the string specified by a parameter name.      *
;* As an example, "getsdbd parm1" would load the SDB of the string        *
;* variable passed as parameter 1 into cx and di.                          *
;*****
getsdbd macro paramspec
    mov     di,paramspec
    mov     cx,[di]
    mov     di,[di+2]
    endm

code      segment byte public 'code'
          public cmdline
          assume cs:code
;*****
;* CALL CMDLINE(<return string>,<new length>)                               *
;* This routine copies the contents of the command line parameter list     *
;* into the return string, and passes back the number of bytes the string  *
;* should be truncated to.                                                 *
;* The return string should be set to 128 blanks before the call!         *
;* The integer variable new-length value will be overwritten.             *
;*****
cmdline   proc     far
          enterbp 2
          getsdbd parm1      ;Get len/addr of str into cx,di
          push  ds           ;Set es = ds
          pop   es           ;
          cld                ;Forward copying
          mov  ah,51H        ;Function: Get seg prefix addr
          int  21H          ;Call UNDOCUMENTED function
          mov  ds,bx         ;Point ds at seg prefix area
          mov  si,80H        ;Point si at formatted line
          xor  ch,ch         ;Clear hi byte of cx
          mov  cl,[si]       ;Get length into low byte of cx
          push cx            ;Save copy of length on stack
          inc  si            ;Point si at start of text
          rep  movsb         ;Copy the command line text
          push es            ;Set ds = es
          pop  ds           ;
          mov  bx,param2     ;Get addr of newlen var into bx
          pop  [bx]         ;Store the length
          retbp
cmdline   endp
code      ends
end

```

Sample BASIC Program

```
10 PRINT "This program prints out the command line passed to it."
20 PRINT
30 GOSUB 1000 ' Get command line
40 WRITE CMDLINE$
50 END
1000 REM
1010 REM Subroutine: Get command line
1020 REM
1040 CMDLINE$=SPACE$(128)
1050 CALL CMDLINE(CMDLINE$,NEWLEN%)
1060 CMDLINE$=LEFT$(CMDLINE$,NEWLEN%)
1070 RETURN
```

BASIC Program Plus Assembled Code

```
10 PRINT "This program prints out the command line passed to it."
20 PRINT
30 GOSUB 1000 ' Get command line
40 WRITE CMDLINE$
50 END
1000 REM
1010 REM Subroutine: Set up ASM sub to get command line, then call it
1020 REM
1030 DIM CMDLINE.CODE%(24) : CMDLINE.CODE%=0
1040 FOR I=0 TO 24
1050   READ TEMP1$,TEMP2$
1060   CMDLINE.CODE%(I)=VAL("&H"+TEMP2$+TEMP1$)
1070 NEXT I
1080 REM The following is code for an assembly language sub which
1090 REM returns the command line text to a string variable.
1100 DATA 55,8B,EC,83,C5,08,1E,06,8B,7E,00,8B,0D,8B,7D,02,1E,07,FC,B4
1110 DATA 51,CD,21,8E,DB,BE,80,00,32,ED,8A,0C,51,46,F3,A4,06,1F,8B,5E
1120 DATA FE,8F,07,07,1F,5D,CA,04,00,00
1130 REM The following statements call the sub to get the command line
1140 CMDLINE$=SPACE$(128)
1150 CMDLINE.CODE%=VARPTR(CMDLINE.CODE%(0))
1160 CALL ABSOLUTE(CMDLINE$,NEWLEN%,CMDLINE.CODE%)
1170 CMDLINE$=LEFT$(CMDLINE$,NEWLEN%)
1180 RETURN
```

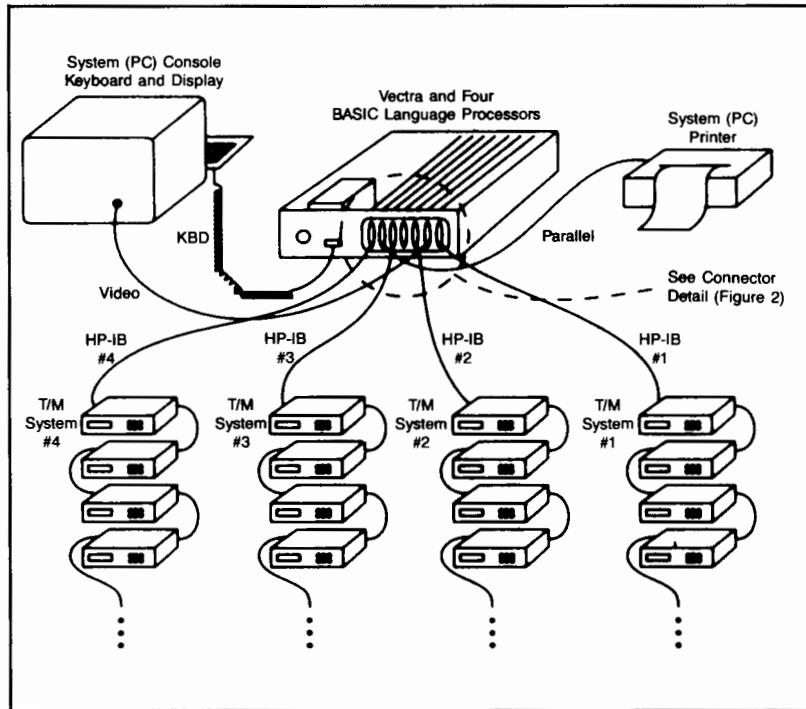
□

Since the introduction of the HP BASIC language processor (HP 82300), many of you have asked if more than one language processor could operate simultaneously within one PC.

Last year, HP development engineers verified that up to four language processors could, in fact, run simultaneously in one HP Vectra PC. All cards were operating in "background," each driving its own exclusive HP-IB and sharing the HP Vectra PC parallel printer. While this was going on, the HP Vectra PC was performing a normal PC-DOS task, such as word processing.

While limitations certainly exist, this represents a tremendous breakthrough in controller cost, where multiple controllers are needed for test and measurement applications. A minimum host environment would include, for example, an HP Vectra CS PC Model 15, VGA display adapter, and a monochrome display. Add to this four HP BASIC language processors, and you now have four independent controllers sharing a keyboard, display, and mass storage (see figure below).

Multiple Language Processor Cards

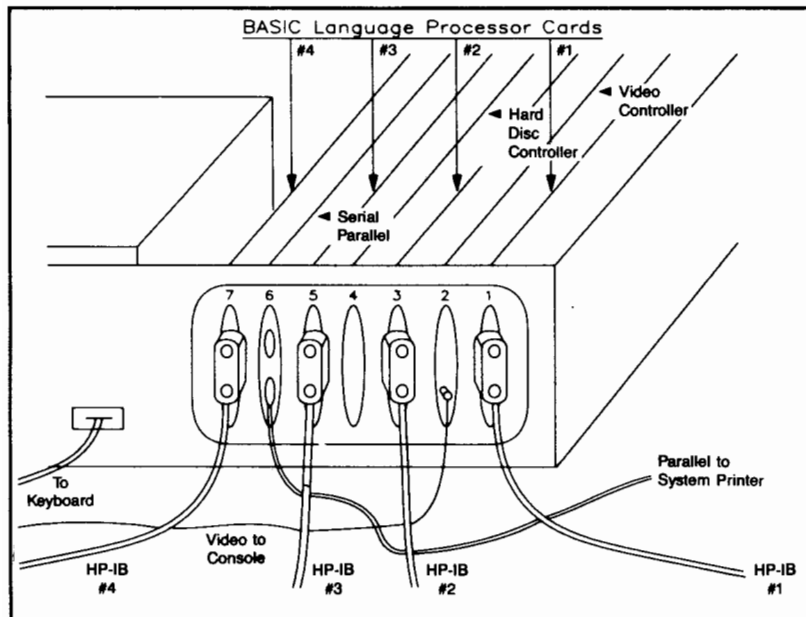


The major constraint you will face in this environment is expansion slot space within the PC (and the associated PC interrupt levels). We conducted our tests on a pre-ES HP Vectra PC rather than the newer HP Vectra PCs. The accessory card configuration for an HP Vectra ES, ES/12, QS, or RS PC will be slightly different than what we tested. Our configuration consisted of four language processor cards, one full-length monochrome multimode video card, one half-length and one full-length hard disk controller. The tested configuration had three language processor cards with 512 Kbytes and one with 1 Mbyte of RAM.

In some configurations, you could have up to three language processor cards with RAM or ROM daughter boards installed. Power consumption will not be a problem since the language processor card draws about five watts, which is well below the rated capacity of each HP Vectra PC expansion slot.

We placed the cards in alternating HP Vectra PC expansion slots to accommodate the HP-IB connectors and cables more easily. Typically, this means you will have to move the hard disk controller from where it is usually located to another slot. This poses no problem. Refer to the next figure for the card layout and cabling detail.

Cabling and Layout for Multiple Language Processor Configuration



Note: The above configuration is for an HP Vectra CS PC. On the HP Vectra ES, ES/12, QS and RS PCs, the hard disk controller cables may not be long enough.

The greatest operational restriction will be that the BASIC application program must run in the background. This presents no problem with HP-IB control or data transfer, since each language processor contains its own HP-IB interface. With the exception of the HP Vectra PC beeper and parallel printer, however, the language processor is prevented from accessing HP Vectra PC resources unless the individual language processor card is "attached" to the foreground. This attachment process is simple (it can be done with one keystroke) and fast (two or three seconds), but you can be attached to only one language processor card at a time.

Each language processor card must have a unique interrupt level and I/O address. Refer to the Appendix in the HP 82321 Language Processor Installation Instructions (P/N 82321-90007) for information on how to change these settings. We used the following in our configuration:

Card	Interrupt level	I/O address
1	7	250 (factory setting)
2	5	280
3	4	330
4	3	390

Each language processor card must also have its own home directory on the HP Vectra PC disk, such as c:\hpw, c:\hpw2, c:\hpw3, and c:\hpw4. Each of these directories will have a configuration file that will correspond to one of the language processor cards.

To install the software for multiple language processor cards, follow the normal installation procedure for the first card. Install the software for this first card in directory c:\hpw. Once the installation is complete, copy all the files from c:\hpw to the other subdirectories, c:\hpw2, c:\hpw3, and c:\hpw4. For example,

```
copy c:\hpw \*. *c:\hpw2
```

and so on. Now set up the configuration files so that each file will correspond to only one of the language processor card addresses and interrupt settings described above. If you configured the first card as we did, you won't have to do anything further.

Use the "conf" program to configure the software for the remaining cards. You must run the conf program from each of the remaining directories: For example,

```
cd \hpw2  
conf
```

Change the interrupt level and I/O address and save the configuration. Exit conf and go on to the next directory:

```
cd \hpw3  
conf
```

Once you've completed this process for each of your language processor cards, you're ready to re-start your system and run HP BASIC. To make life easier, you can create DOS batch files called basic1.bat, basic2.bat, and so forth. These batch files do a Change Directory (cd) to the appropriate directory and run BASIC.

For more information, contact your local HP sales office.



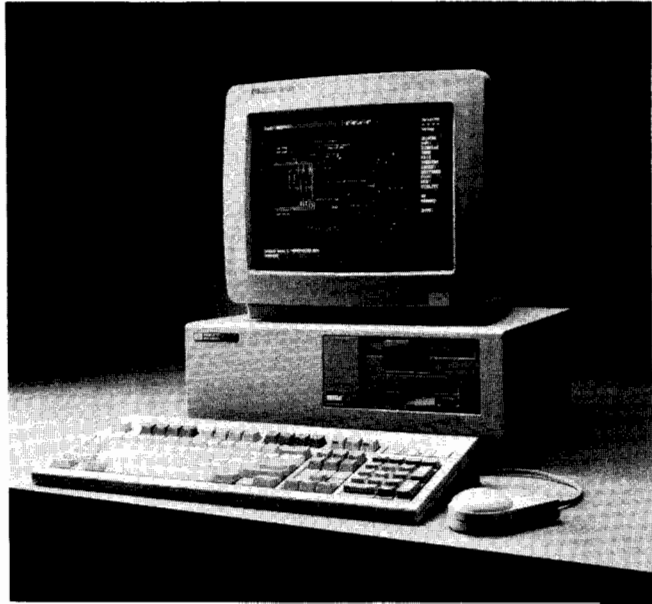
Q: How can I dump both text and Lotus 1-2-3® graphs from my HP Vectra PC screen to my printer? The PRINT SCREEN key doesn't seem to work.

A: First, you need to load the MCS (Multiple Character Set) utility onto your Vectra. In the MS-DOS 3.2 set of Master disks, MCS comes on a separate disk. In DOS 3.3, it's in the \MCS subdirectory of the HP+ disk. In either case, you need to put the appropriate master disk into the A: drive, get into MS-DOS commands, change the DOS pointer to the A: drive and the directory where the MCS INSTALL.EXE program resides (A:\ for DOS 3.2, A:\MCS for DOS 3.3), and type INSTALL. There are three parts of MCS you can install, but you need only part 2: PSCREEN. The installation will copy the PSCREEN files to your disk and modify the AUTOEXEC.BAT file to load PSCREEN when you start your system.

After you've installed PSCREEN and restarted your Vectra, you should be able to dump text from your screen to your printer by pressing SHIFT + Prt SC on the HP Vectra PC or Print Screen on the HP Vectra ES/12 and QS/16. This works because the Automatic Video mode is correct for text. However, it doesn't work for graphics on an EGA monitor.

After pressing Print Screen, there's a five-second delay during which you can change the Video Mode. We found that Mode 16 works best with EGA graphics in Lotus. To set this mode, hold down the ALT key and type 16 on the numeric keypad during the five-second delay. To dump a text screen again, hold down ALT and press A during the delay.

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Introducing the HP Vectra QS/20 PC

Yves de la Kethulle,
Marjorie Cannon

The most powerful desktop member of the HP Vectra PC family, the HP Vectra QS/20 PC, is now available. This computer combines the electronics of the award-winning HP Vectra RS/20 (*PC Magazine*, "Editor's Choice" June 28, 1988) with the Vectra desktop package. Combining HP's reliability and expandability, the HP Vectra QS/20 PC will satisfy your most demanding needs.

The new HP Vectra QS/20 PC is ideal for complex business applications such as large spreadsheets, database or presentation graphics, for desktop publishing, and for entry-level CAD/CAE applications. The QS/20 with its 20 MHz 80386 processor has the power to speed through the most sophisticated personal computer solutions.

Technology

Both the hardware and the system software reflect the HP Vectra QS/20 PC's use of state-of-the-art technology.

- High speed 108- and 152-MB ESDI hard disk subsystems with less than 17 ms seek times have been developed for the HP Vectra QS/20 PC to provide superior performance and reliability.
- The use of surface-mount and VLSI technology saves space and promotes reliability.
- A dual-bus architecture provides a dedicated 20 MHz 32-bit path for fast memory access and an industry standard (ISA) bus for I/O accessories.*
- Single In-Line Memory Modules (SIMMS) allow full system memory expansion up to 16 MB without taking up an I/O slot.
- The Intel 80387 math co-processor running at 20 MHz is supported for calculation intensive applications.
- Disk caching provides superior performance for disk intensive applications.
- Lotus®/Intel/Microsoft® Expanded Memory Specification (LIM EMS 4.0) enables MS-DOS applications written for LIM EMS to broaden the capability of memory installed.
- Terminal emulation offers easy connectivity to the HP 3000 and other computer systems.

*Available second calendar quarter 1989.

Tested Compatibility	The HP Vectra QS/20 PC has been thoroughly tested for compatibility, so you can use virtually any of the many applications and accessory cards currently available for the IBM PC/AT industry standard architecture. Operating systems that are fully compatible include MS-DOS 3.3, SCO XENIX, Microsoft OS/2 1.0 Version A, and Microsoft Windows/386.
Solution Platforms	<p>The HP Vectra QS/20 PC is particularly well suited for complex applications in the office, large-scale business application, and CAD/CAE environments.</p> <ul style="list-style-type: none"> ■ Power Office Users: With its large memory capacity and built-in support for LIM EMS 4.0 expanded memory, the HP Vectra QS/20 PC is an ideal platform for Microsoft Windows, Microsoft Excel, HP NewWave Environment, and all the Windows-compatible applications. When coupled with the HP ScanJet scanner and HP LaserJet series II printer, the HP Vectra QS/20 PC provides a high throughput desktop publishing solution. ■ Business Applications: With its 20 MHz 80386 processor, memory extension up to 16 MB, and high capacity, high speed half-height drives in a small package, the HP Vectra QS/20 PC is the ideal workstation for handling large spreadsheets and for manipulating huge databases. ■ CAD/CAE Applications: When combined with an HP plotter and HP graphics tablet, the HP Vectra QS/20 PC significantly boosts the productivity of small engineering enterprises.

Ordering Information

All HP Vectra QS/20 PCs come standard with 1 MB of user memory, a flexible disk controller, an ESDI or ST-506 hard disk controller, a serial port, and a parallel port. All systems include a keyboard and a QS PC kit. A language option must be specified when ordering. To order, contact your local dealer or HP sales representative.

Model Number	Product Number	Flexible Disk Size	Hard Disk (Mbytes)	Hard Disk Controller	Video Adapter
10e	D1420A	5.25-inch	none	ESDI	none
15e	D1427A	3.5-inch	none	ESDI	none
46	D1422A	5.25-inch	40	ST-506	VGA
47	D1424A	3.5-inch	40	ST-506	VGA
100e	D1425A	5.25-inch	108	ESDI	none

The following accessories are also available:

Product Number Description

D1640A	1 MB, 80 ns memory upgrade kit
D1642A	4 MB, 80 ns memory upgrade kit
D1440A	Memory expansion adapter
D1670A	Intel 80387 coprocessor
D1445A	108 MB ESDI hard disk drive*
D1446A	152 MB ESDI hard disk drive*



*Available second calendar quarter 1989.

HP recently introduced the HP Intelligent Graphics Controller (HP 82328A). This product is the first member in a family of high resolution graphics cards.

The HP Intelligent Graphics Controller gives PC and PC-AT compatible personal computer users the resolution and performance necessary to run CAD and other graphics-intensive applications. Coupled with compatible monitors such as HP Color Displays, HP High Resolution Color Monitors, or other industry standard monitors, the Intelligent Graphics Controller allows an extensive array of software packages to be displayed at 1024 by 768 non-interlaced resolution in 16 colors. An optional EGA Emulation Module provides EGA compatibility for those applications which do not use the high resolution mode.

Product features

Based on the Texas Instruments TMS34010 graphics system processor, the controller provides high-speed vector, polygon, and circle generation, and offers these features:

- Extensive software compatibility. The board was originally designed to operate with ME10. A comprehensive set of software drivers is now available for the HP Intelligent Graphics Controller. These drivers provide support for a wide variety of applications including AutoCAD,™ VersaCAD DESIGN, Personal Designer, Micro Cadam Cornerstone, DataCAD, P-CAD, Conception 3D, GBG, and Word Perfect. Support for Microsoft Windows/286, GEM, and GSS CGI provides access to over 200 other applications.

The optional EGA Emulation Module provides compatibility with over 5000 EGA applications. This module features "daughterboard" construction—it is built onto the controller card so the entire set requires only one slot. This product meets the needs of users who do not already own a standard PC video interface, or users who prefer to use a single monitor for their standard and high-resolution applications.

- **Industry Standard Hardware Compatibility.**
The HP Intelligent Graphics Controller was designed with configuration flexibility in mind. PC and PC-AT bus personal computers as well as monitors from HP, Hitachi, NEC, and Mitsubishi can be used to create the CAD system which best meets your needs.
- **Optimized For High Performance 2D Graphics.**
The HP Intelligent Graphics Controller provides PC and PC-AT bus personal computers with the non-interlaced 1024 by 768 resolution and the performance that is needed for demanding 2D graphics applications. It also provides 16 colors from a palette of 4,096. The controller comes with 896 KB of on-board memory. A portion of the dynamic RAM (512 KB) is available for other uses such as storing program code for direct execution by the TMS34010. You can expand this to a total of 2 MB, using the 512 KB RAM expansion kit, (HP 82303A).

Ordering Information	Product Number	Description
	83238A	HP Intelligent Graphics Controller
	82329A	Emulation Module
	D1188A	HP Color Display (16-inch)
	D1187A	HP Color Display (20-inch)
	98785A	16-inch High Resolution Color Monitor
	98751A	19-inch High Resolution Color Monitor
To order, contact your dealer or HP sales representative.		



As part of Hewlett-Packard's continuing effort to provide you with the software support your business demands, we have enhanced our personal computer software support program.

We have combined Work Group Coordinator Assistance and Personal Computer User Assistance into HP ResponseLine software support for personal computers.

HP ResponseLine

HP ResponseLine software support service for PCs provides centralized support for your personal computer software. This service includes telephone assistance with software problem resolution, software installation, hardware configuration, and clarification of documentation. You receive telephone assistance on HP and popular third-party PC software. You also receive access to HP SupportLine, a subscription to the *HP PC Communicator*, and first time purchasers receive a copy of *HP Vectra PC Family Fundamentals: A Computer-based Tutorial*.

HP ResponseLine support for PCs is available on all HP and Vectra compatible personal computers.

HP SupportLine is an electronic support tool for accessing information and contacting the HP Response Center. HP SupportLine gives you access to valuable information such as engineering notes, new product announcements, and software problem fixes. Its powerful keyword search and browse capabilities make it easy for you to locate the appropriate information. If you don't find the information you need in the HP SupportLine databases, you can place a call to the HP Response Center with the electronic call submittal feature. You may request either a two hour phone response or a next business day written response.

Integrated PC Office Applications

In addition to HP ResponseLine software support for PCs, we have added an integrated PC office application support option to our HP 3000 support services. Through purchase of this option you can expand the HP TeamLine or HP ResponseLine support of your HP 3000 to your personal computers. The integrated PC office application option provides a cost effective way for you to integrate the support of your office workstations into your overall HP software support contract.

For Information

For further information about the HP support services available for your personal computers, contact your local HP sales office.





Hewlett-Packard has introduced a new printer, the HP DeskJet PLUS, HP 2277A. The HP DeskJet PLUS prints laser-quality (300 dpi) text and graphics two to five times faster than the original DeskJet printer and is still priced affordably. Based on a third generation of inkjet technology, the HP DeskJet PLUS printer offers a superior alternative to 24-wire printers.

The speed advances of the HP DeskJet PLUS printer PLUS are due to a faster microprocessor, a more efficient print head movement, and a faster paper motor and pickup mechanism. In addition to being faster, the HP DeskJet PLUS offers built-in landscape mode printing, larger fonts (now up to 30 points), more internal fonts (6 portrait, 4 landscape), and improved font spacing in proportionally pitched fonts.

For more information on the HP DeskJet PLUS printer, HP 2277A, contact your local dealer or HP sales representative.



With HP's new 16- and 20-inch high resolution Color Displays, you can bring CAD, DTP and windowing environments to life.

If you need a large screen and/or high resolution display, the 16- and 20-inch Color Displays are the solution, with their vivid colors and brightness, sharply focused characters and images, and crisp, straight lines which frame the image. The Color Displays, along with HP's new Intelligent Graphics Controller (HP 82328A), provide HP Vectra and other PC-AT compatible users with a high quality 1024x768 resolution video solution. [See the article on "Intelligent Graphics Controllers" in this issue.]

Also available are custom-fit, tilt and swivel bases for both the 16- and 20-inch Color Displays. These bases offer you control of the display's viewing angle, which allows adjustments for room lighting.

Product Features:

- Multiscanning (multiple resolution) capability ranging from 640x480 (VGA) through 1280x1024—(30–64 kHz).
- Analog display with RGB interface.
- Superior display performance:
 - Dynamic Focus Control for improved corner focus
 - Brightness and contrast control for vivid colors
 - Front panel controls and power on/off for easy access

- Automatic synchronization. The display automatically senses and synchronizes on one of the four most popular resolutions pre-programmed into the digital, microprocessor-controlled memory (additional settings easily added).
- Digital Controls provide repeatability and accuracy of adjustments.

Ordering Information	Product Number	Description
	D1188A	16-inch Color Display
	D1190A	Tilt and Swivel Base for 16-inch Color Display
	D1187A	20-inch Color Display
	D1189A	Tilt and Swivel Base for 20-inch Color Display
To order, contact your dealer or HP sales representative.		



HP has introduced a new HP PaintJet color graphics printer transparency film. Our new film is designed to provide full-page printing, trouble free image centering, and easier alignment.

We accomplished this by adding a one inch "leader" of film and backing sheet to our standard film. This leader fits up under the paper bail to provide an extra inch of printing space. Because the film leader is actually a separate piece, it provides a clear "top-of-form" indicator during loading and then removes easily after printing.

We have also reduced the width of A size film from 8.5 to 8.4 inches to facilitate easier loading and alignment. Now film can be fed into the HP PaintJet without having to adjust the right sprocket wheel.

Available from your dealer or HP DIRECT, specify part number 51630Q for A size or 51630S for A4 size. (Refer to the "How to Order" section in the green pages.)

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As previously announced in the *HP PC Communicator*, the HP150/Touchscreen II Personal Computer and Terminal were discontinued May 1, 1989. Although you will not be able to purchase this product after May 1989, it will still be supported by HP for 10 years after discontinuance.

In order to support our large installed base of HP Touchscreen PC users, critical subsystems and accessories of the HP Touchscreen PC system will continue to be available for at least six months beyond the HP Touchscreen PC discontinuance, or in the case where they are used on other computer systems, even longer.

Below is a list that shows the discontinuance date of all the HP Touchscreen products and accessories. Please use this information to help plan for the discontinuance. If you need more information about the products listed below, contact your Hewlett-Packard sales representative or your local dealer.

HP Product	Product Description	Discontinuance Date	Comment
System Software			
45875A	Microsoft Windows	May, 1990	
45849-63024	150A/150B Firmware Upgrade	May, 1990	
45849-63031	Operating System Upgrade	May, 1990	
45846A	Terminal Upgrade Kit	May, 1989	
Data Storage			
9123D	Dual 710KB disk drive	May, 1989	
9153C	Hard disks (various options)	Remain	
9127A	5.25" disk drive	May, 1990	Tentative date
9153M	Hard disk upgrade mechanism	Remain	
9144A	67MB tape drive	Remain	
92192A	710 KB flexible disks (box of 10)	Remain	
92192N	710 KB flexible disks (box of 100)	Remain	
92192X	1.44 MB flexible disks (box of 10)	Remain	
92190A	360 KB 5.25" flex. disks (box of 10)	Remain	
88140LC	67 MB tape cartridge (box of 10)	Remain	
88140SC	16 MB tape cartridge (box of 10)	Remain	
Interfaces and Enhancements			
27208A	HP ThinLan interface	Sep, 1990	Tentative date
35723A	Touch accessory	Remain	
45890A	512 KB expanded memory	May, 1990	
45891A	256 KB upgrade kit for 45890A	May, 1990	
45632A	384 KB memory board	May, 1990	
45637A	256 KB language accessory	May, 1989	
45885A	Numeric coprocessor	May, 1990	
45640A	Internal modem	May, 1989	
45641B	IBM 3278 emulation card	May, 1990	
45641U	Upgrade for 45641B to allow 3174	May, 1990	
45643A	I/O accessory card	May, 1990	

HP Product	Product Description	Discontinuance Date	Comment
HP-HIL Accessories			
45911A	HP graphics tablet	Remain	
45914A	HP-HIL accessory board	May, 1989	
45915A	HP-HIL access with 384 KB	May, 1989	
46060A	HP mouse	Remain	
46080A	HP-HIL extension module	Remain	
46087A	A-size digitizer tablet	Discontinued	
46088A	B-size digitizer tablet	Discontinued	
92916A	HP-HIL bar code reader	Remain	
92241A	HP-HIL cable	May, 1989	
Miscellaneous Accessories			
13269BB	Cordura carrying case	May, 1989	
13269C	Vinyl carrying case	May, 1989	
92171J	Keyboard park	TBD	
92240B	Swivel base	TBD	
92250K	Dust cover	May, 1989	
HP Office Share Networking			
50907A	HP ThinLAN server kit	May, 1990	
D1803A	HP StarLAN 10 user kit	May, 1990	
D1804A	HP StarLAN 10 server kit	May, 1990	
50908A	HP ThinLAN user link	May, 1990	
50910A	HP serial network user link	May, 1990	
50929A	ThinLAN configuration and diagnostics	May, 1990	
50930A	Serial network configuration and diagnostics	May, 1990	
50915A	Upgrade to HP ThinLAN server	May, 1990	
50916A	Upgrade to HP ThinLAN user	May, 1990	
50913A	HP ThinLAN server software	May, 1990	
0914A	HP ThinLAN user software	May, 1990	

HP Product	Product Description	Discontinuance Date	Comment
Cables and Connectors			
92268A	4m StarLAN cable	Remain	
92268B	8m StarLAN cable	Remain	
92268C	16m StarLAN cable	Remain	
92268D	32m StarLAN cable	Remain	
92227A	1m ThinLAN cable	Remain	
92227B	2m ThinLAN cable	Remain	
92227C	4m ThinLAN cable	Remain	
92227D	8m ThinLAN cable	Remain	
92227E	16m ThinLAN cable	Remain	
92227F	32m ThinLAN cable	Remain	
92227G	64m ThinLAN cable	Remain	
92227H	128m ThinLAN cable	Remain	
92227J	PVC jacket	Remain	
92227K	FEP jacket	Remain	
92227L	ThinLAN connector pair	Remain	
92227M	ThinLAN cable tool kit	Remain	
92227N	ThinLAN BNC "T" connector	Remain	
92227P	ThinLAN terminal pair	Remain	
92227Q	ThinLAN loopback connector	Remain	
92227R	ThinLAN BNC "T" connector cover	Remain	
10833A	1m HP-IB cable	Remain	
10833B	2m HP-IB cable	Remain	
13242A	Centronics cable	Discontinued	
13242G	25-pin M 25-pin M cable (.5m)	Remain	
17255D	25-pin M 25-pin F cable	Remain	
17255M	25-pin M 25-pin M cable (1.5m)	Remain	
82307A	GPIO cable	Remain	
13242N	Modem cable	Remain	
13242X	Serial cable for HP3000 ADCC	Remain	
13242P	Serial cable for ATP port	Remain	
13242N	Serial cable for ADCC or modem	Remain	
92224F	Female gender converter	Remain	
92224M	Male gender converter	Remain	
92951VM	Videotex cable	May, 1989	
92951VN	Videotex cable, Dutch	May, 1989	

HP Product	Product Description	Discontinuance Date	Comment
Documentation			
45624A	MS-DOS User's Guide	May, 1990	
45625A	Technical Reference Manual	Undetermined	
45848-60001	Terminal Manual	May, 1999	
45849-60202	MS-DOS 3.2 User's Guide	May, 1999	
45849-60204	HP150 Programmer's Reference	May, 1999	
45918A	HP-HIL Technical Reference Manual	Remain	
45919A	HP-HIL Developer's Tools	May, 1 989	
5061-8971	MS-DOS 3.2 Programmer's Reference	May, 1999	
Training-Fast Track Manuals			
89915F	Executive Memo Maker Manual	Discontinued	
89916F	Executive Card Manager Manual	Discontinued	
89918F	AdvanceLink Manual	May, 1989	
68352X	Gallery Collection Manuals	Discontinued	
5958-7685	Expert Guide for Windows	May, 1999	
Software Support Services			
50907A + S00	OfficeShare server subscription	May, 1991	
D1804A + S00	StarLAN server kit subscription	May, 1991	
50908A + S00	OfficeShare user subscription	May, 1991	
50910A + S00	Serial network subscription	May, 1991	
D1803A + S00	StarLAN user link subscription	May, 1991	
50929A + S00	ThinLAN user subscription	May, 1991	
50930A + S00	Serial network user subscription	May, 1991	

HP Product	Product Description	Discontinuance Date	Comment
Terminal Emulation/Communications			
45314A	Tel VTX term emulation	May, 1989	
45412A	VT-100 emulator	Oct, 1989	
45431A	AdvanceLink	Oct, 1989	
27534A	AdvanceMail	Nov, 1989	Tentative date
Database/File Management			
45421A	Executive Card Manager	Oct, 1989	
45563A	R:Base 5000	May, 1989	
Development/Utilities			
45445D	BASIC by Microsoft	May, 1989	
45310A	BASIC Programmer's Library	May, 1989	
45448A	COBOL by Microsoft	May, 1989	
45446D	Compiled BASIC by Microsoft	May, 1989	
92248BA	Cross Reference Utility	May, 1989	
45449D	FORTRAN by Microsoft	May, 1989	
45450D	GW BASIC by Microsoft	May, 1989	
45447D	PASCAL by Microsoft	May, 1989	
45953C	Macro Assembler	Discontinued	
45443A	Forms Master	May, 1989	
Application Software			
45566A	Lotus 1-2-3	Oct, 1989	
45437A	Gallery Collection	Oct, 1989	
45311A	ICON Design Systems	May, 1989	
32584A	AdvancePrint	Oct, 1989	
35184A	Sideways	May, 1990	
27505A	HP Word	Nov, 1989	Tentative date
45418A	Executive MemoMaker	Oct, 1989	
45474D	Microsoft Word	May, 1989	
45427D	WordStar	Discontinued	

HP Product	Product Description	Discontinuance Date	Comment
Keyboards			
46021A	Keyboard, US/English	Remain	Used on 9000s
46021AC	Keyboard, French-Canadian	Remain	
46021AD	Keyboard, German	Remain	
46021AE	Keyboard, European-Spanish	Remain	
46021AF	Keyboard, French	Remain	
46021AH	Keyboard, Dutch	Remain	
46021AJ	Keyboard, Katakana	Remain	
46021AL	Keyboard, English-Canadian	Remain	
46021AM	Keyboard, Latin/Spanish	Remain	
46021AN	Keyboard, Norwegian	Remain	
46021AP	Keyboard, Swiss/German	Remain	
46021AQ	Keyboard, Swiss/French	Remain	
46021AS	Keyboard, Swedish	Remain	
46021AT	Keyboard, Hebrew	Remain	
46021AU	Keyboard, United Kingdom	Remain	
46021AV	Keyboard, Arabic/English	Remain	
46021AW	Keyboard, Flemish	Remain	
46021AX	Keyboard, Finnish	Remain	
46021AY	Keyboard, Danish	Remain	
46021AZ	Keyboard, Italian	Remain	
46021W/ ZAA	Keyboard, ROC-Chinese	Remain	
46021W/ ZAB	Keyboard, Korean	Remain	
46021W/ ZAC	Keyboard, Chinese	Remain	
46021W/ ZAG	Keyboard, Arabic/French	Remain	
46021W/ ZAL	Keyboard, Japan-Kanji	Remain	

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Due to technological advances, the HP Portable Vectra CS and many of its accessories were discontinued on May 1, 1989. All of the remaining accessories will be discontinued on July 1, 1989. The Portable Vectra CS will be supported for five years after discontinuance.

HP recommends a migration to the recently introduced HP Vectra LS/12 Laptop PC. [For articles on the LS/12 Laptop PC, see Issues 31 and 32 of the HP PC Communicator.]

Discontinued Products	Description	Discontinuance Date
D1001A (Model 10) Options ABA, ABB, ABD, ABE, ABF, ABG, ABK, ABN, ABP, ABQ, ABR, ABS, ABU, ABY, ABZ, ACC, ACD, ACE	Portable Vectra CS Dual Flexible Drives	5/1/89
D1009A (Model 20) Options ABA, ABB, ABD, ABE, ABF, ABG, ABK, ABN, ABP, ABQ, ABR, ABS, ABU, ABY, ABZ, ACC, ACD, ACE	Portable Vectra CS 20 MB Hard Drive Version	5/1/89
D1002A	1200 Baud Modem	5/1/89
D1003A	2400 Baud Modem	7/1/89
D1004A	Dual Serial Card	7/1/89
D1004A Opt 001	Dual Serial Card With 1 MB EMS	7/1/89
D1004A Opt 002	Dual Serial Card With 2 MB EMS	7/1/89
D1006A	Technical Reference Manual	5/1/89
D1007A	Softcase	5/1/89
D1008A	1 MB EMS Kit	7/1/89
D1001-60009 BT	Replacement Battery Pack	5/1/89
5061-4335	Battery Charger	5/1/89

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**Current
Information**

Current Information

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Depending on where you purchased a software or hardware product, the best source of assistance for that product may be your own organization, your dealer or value-added reseller, the original developer, or Hewlett-Packard.

Is support provided from within your own organization?

If you work in an organization which has many personal computers, there is often one person who coordinates the purchase, set-up, and training. (For example, each HP division or office has an Office Automation Coordinator, usually part of the Information Systems Department.) Your internal support people have full knowledge of your organization's overall system: your internally-developed programs, your unique operating and networking procedures . . . and your specific configuration. Your experts, in turn, have access to special resources through your dealer or HP. Support services, such as consulting, can be purchased from HP or your dealer to supplement your internal capabilities.

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

If you purchased this product 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 by HP. 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 resources within HP . . . and, of course, you have access to HP's full range of support services as a supplement. By buying your hardware, software, accessories, and supplies from an authorized HP dealer or VAR who provides full support, you build up a continuing relationship—providing a local, personal, and uniquely-responsive support program customized for you.

Was this product provided by an independent vendor?	If the product was developed by an independent software vendor (ISV) or an independent hardware vendor (IHV), support—because of the specialized knowledge required—comes either directly from the original developer or through the dealer or value-added reseller from whom you purchased it.
Telephone assistance from HP	<p>You can obtain telephone assistance 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, we have arranged for support directly from the original developer—as indicated in the product data sheet and documentation.)</p> <p>You can obtain the telephone number of the closest Response Center from your local HP sales and service office.</p> <p>While specifics vary somewhat from country to country, here's how the U.S./Canada program works.</p> <ul style="list-style-type: none"> ■ The toll-free U.S./Canada HP HelpLine is open Monday through Friday from 7 a.m. to 9 p.m. Eastern Standard Time. ■ In the U.S. and Canada, calls are paid for by one of three means: <ul style="list-style-type: none"> —By identifying yourself under a specific support contract. To order, refer to the article "HP PC Software Support" later in this issue. —By quoting a unique "certificate number" from a Call Certificate. Certificate packs can be ordered as product number HP 35159A from HP DIRECT. —By providing a VISA, MasterCard, or American Express charge authorization. ■ When you call, a coordinator arranges for the appropriate HP person to call you within two hours. Using a full set of software and documentation—together with computer knowledge, problem-solving skills, and access to others via HP's worldwide telecommunications network—we work with you to answer your question.

Is the answer available through CompuServe?

Many of the answers to your questions about HP personal computers are available through the CompuServe Information Service—the largest electronic information service in the world.

Through CompuServe you can use the Hewlett-Packard PC Forum, which is maintained jointly by HP and HP users. HP maintains libraries on the Forum, containing questions and answers, application notes, and supported patches. The user community offers programs, utilities, and other information.

The Forum also provides an easy way for you to communicate with other users. By leaving a message, you can exchange information to help you resolve problems or make decisions.

To access the HP PC Forum, you must have an account with CompuServe, a modem, and communication software such as AdvanceLink. For information about the CompuServe Information Service and how to subscribe, you can talk to your HP Dealer, or call CompuServe at 1-800-848-8199 or 614-457-0802 in Ohio, U.S.A. Or you can write to CompuServe Inc., Telephone Sales, P.O. Box 20212, Columbus, Ohio 43220.

Training or consulting

Your need for support may be most efficiently and economically met by training or consulting:

- Training is available from your dealer, your VAR, or HP to supplement the documentation that accompanies your product. Courses can help users rapidly build confidence and gain new skills away from the distractions of their job. These courses can be taught at your facility using your own systems. Training to suit your specific needs can be designed and provided.
- Consulting service—available from your dealer, your VAR, or HP—provides personalized assistance in system operation, recommendations for improved performance, or suggestions on application design.





Get in Touch



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

Start a Local Chapter

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

Member Services

Personal Computer Service includes a subscription to *INTERACT* Magazine, a subscription to the *Interrupt* newsletter (Portable Users will receive *The Portable Paper*, and *INTERACT*), an annual diskette from the Interex Contributed Software Library, and the option to purchase other diskettes at only \$10.00 each. Ask for your free listing of Series 100 or Vectra programs.

Personal Computer Service: \$80

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
 FAX (408) 736-2156

Interex

*The International Association
of Hewlett-Packard Computer Users*

Application for Personal Computer Services

Enclosed is my full payment for:

Personal Computer Services. \$80

Payment Method:

Check Enclosed Check Number _____
(if a company check)

Mastercard # _____

Bill Visa # _____ Expires _____

Bill MasterCard # _____

Interbank # _____ Expires _____

HP User Information:

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(Title) _____

(Company) _____

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City _____ State _____ ZIP _____

Country _____

Telephone _____

(over)

Computer

Disk Format

- The Portable (HP 110) 3½-inch
- Portable Plus 3½-inch
- HP 120 or HP 125 3½-inch 5¼-inch
- HP Touchscreen/150 3½-inch single-sided 3½-inch double-sided
- HP Vectra 5¼-inch

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 disk has been sent from Interex.

Signature _____ Date _____

Send this page with your full payment to:

Interex
Department #1530
P.O. Box 61000
San Francisco, CA 94161
U.S.A.

Ref. 11

-
- 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 following:
- HP Vectra CS** **The HP 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.
- Each of the six available models includes a 7.16 MHz processor compatible with the Intel 8086, 640 Kbytes of RAM, both a serial and parallel I/O interface, the HP Terminal Program, the HP Vectra Disk Cache Program, the Enhanced Vectra PC keyboard, and user documentation. Some models include a VGA graphics card and a hard disk.
- HP Vectra ES** **The HP Vectra ES PC**, an 8 MHz Intel 80286 IBM PC/AT compatible, offers mainstream business users growth to the next generation operating systems (OS/2) at an economical price.
- Each of the five available models includes an 8 MHz Intel 80286 processor, 640 KB of RAM, a flexible and hard disk controller, both a serial and parallel I/O interface, an HP-HIL port, the HP Terminal Program, the HP Vectra Disk Cache Program, the Enhanced Vectra PC keyboard, and user documentation. Some models include VGA graphics card and hard disk.
- HP Vectra ES/12** **The HP Vectra ES/12 PC**, based on the 12 MHz Intel 80286 processor, provides superior performance and IBM PC/AT compatibility for the demanding business user.
- Each of the eight available models includes a 12 MHz Intel 80286 processor, 640 KB of RAM, a flexible and hard disk controller, both a serial and parallel I/O interface, an HP-HIL port, the HP Terminal Program, the HP Vectra Disk Cache Program, the Enhanced Vectra PC keyboard, and user documentation. Some models include a VGA graphics card and a hard disk.

HP Vectra LS/12 Laptop

The **HP Vectra LS/12 Laptop PC**, a 12MHz Intel 80L286 portable, offers industry standard compatibility, and is ideal for the professional who demands both performance and flexibility.

The HP Vectra LS/12 Laptop PC is available in a 20 MB and 40 MB hard disk configuration. Both of the models include a 12 MHz Intel 80L286 (low power NMOS) microprocessor, a 16 bit memory bus, 1 MB RAM memory (presently expandable to 2 MB RAM), one serial and one parallel port, connectors for an external flexible disk/tape drive, numeric keypad and RGB monitor, internal slots for a modem, memory expansion, 80C287 numeric coprocessor, and a full-function 79-key keyboard.

HP Vectra QS

The HP Vectra QS/16 and the new QS/20 PCs together are HP's most powerful desktop PC's for the office power user and for entry level CAD applications.

The HP Vectra QS/16 and QS/20 configurations have a 16 MHz (QS/16) and 20 MHz (QS/20) 80386 processor, 1 MB RAM, a combination flexible disk controller and hard disk controller with serial and parallel I/O interfaces, an HP-HIL port, the HP Terminal Program, HP Vectra Disk Cache Program, the Enhanced Vectra PC Keyboard, and user documentation. Some models include a VGA graphics card and a hard disk.

HP Vectra RS

The new **HP Vectra RS/20C and RS/25C PCs** offer all the benefits of the expandable, floor-mount RS/20 PC, but add a memory cache to gain even greater performance.

The HP Vectra RS/20C and RS/25C PC configurations have a 20 MHz (RS/20C) or 25 MHz (RS/25C) 80386 microprocessor, a 32 KB memory cache subsystem, a 1.2 MB, 5.25-inch flexible disk drive, a hard disk (ESDI) and a flexible disk controller, and one serial and one parallel port. They also include a system manual, software utilities, dual locks, and the 101-key PC/AT-type DIN keyboard.



**U.S. Touchscreen/150 Software
Available from HP**

Joni Kapeckas, Ray Rafiti,
Marilyn Ruel, Michael Weir

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

Name	HP Product Number	Version	Special Requirements
COMMUNICATIONS			
AdvanceLink*	45431A	A.04.04	
AdvanceMail	27534A	A.01.00	Requires HP DeskManager B.00.00 or later on the HP 3000
IBM 3278 Term. Emul. Acces.*	45641B		
VT100 Terminal Emulator	45412A		
Office Talk (Phone Voice Mgmt.)	24520A	A.01.02	512K

NETWORKING SOFTWARE

Services			
Network Services—	50923F+		
User Services			
Option OA9	50923F		
Network Services—			
User Services—			
License for 10 Users			
Option OAA	50923F		
Network Services—			
User Services—			
License for 50 Users			
Net IPC/RPM	50924F		
Development Package			
Links and Services			
HP ThinLAN Server Kit for HP Touchscreen PCs	50907A		Dedicated Network Server, 512K Memory Required
HP StarLAN 10 User Link Kit for HP Touchscreen PCs	D1803A		
HP StarLAN 10 Server Kit for HP Touchscreen PCs	D1804A		
HP ThinLAN User Link Kit for HP Touchscreen PCs	50908A		512K Memory Required
HP SERIAL Network User Link Software for HP Touchscreen PCs	50910A		

*Uses HP Touch

Name	HP Product Number	Version	Special Requirements
Configuration and Diagnostics			
LAN PC User Configuration and Diagnostics Package for Touchscreen PCs	50929A		
Option OA9 10 User License	50929A		
Option OAA 50 User License	50929A		
SERIAL Network PC User Config and Diagnostics Package for Touchscreen PC	50930A		
Option OA9 10 User License	50930A		
Option OAA 50 User License	50930A		
Upgrades for Earlier Versions of OfficeShare			
Upgrade for OfficeShare Server Software	50915A		Includes HP ThinLAN Server and PC Config and Diagnostics Software and License for PCs; Must Return OfficeShare Master Disks
Upgrade for OfficeShare User Software	50916A		Must Return OfficeShare Master Disks
Upgrade for HP 3Com Networks			
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
ENVIRONMENT MANAGER			
Microsoft Windows	45875A	1.03	DOS 3.2, 384K memory (512K is recommended), dual flexible disk system (one 710K byte disk is needed) or single flexible disk (260K or 710K) with hard disk

Name	HP Product Number	Version	Special Requirements
DATA BASE MANAGEMENT			
Executive Card Manager*	45421A	A.02.02	
GRAPHICS			
The Graphics Gallery Collection*	45437A		384K
HP Graphics Curator/3000 (36926R gives you "right to copy")	36926A or 36926R		For use with HP 3000. Curator RTU 36926A S/3X #310 S/5X #320 S/7X #330 Curator RTC 36926R S/3X #310 S/5X #320 S/7X #330
SHARED RESOURCES			
AdvancePrint	32584A		For use with HP 3000
SPREADSHEETS			
Lotus 1-2-3*	45566A	2.01	384K
UTILITIES			
HP PLCPak	33406A		
WORD PROCESSING			
HPWORD/150 U.S. English*	27505A	A.02.01	512K
Executive MemoMaker*	45418A	C.03.00	384K for text 512K for text and graphics

□

*Uses HP Touch

HP PC Communicator #33

Current Information—17

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.

★Software available in 3.5-inch media for the HP Vectra Computers (including the LS/12 Laptop PC and the HP Portable Vectra CS) and IBM and compatibles. Order Option 003 unless stated otherwise.

Name	HP Product Number	Version	Special Requirements
COMMUNICATIONS			
AdvanceLink† Opt. 100 AdvancePrint (5.25-inch media) Opt. 103 AdvancePrint (3.5-inch media)	★68333F	B.02.00	
HP IRMA IBM3278/79 Term Emul	50920A		
HPMessage†	36569E		Requires HPDesk Message A.03.01 on the HP 3000
AdvanceMail†	★27535F	B.00.00	Requires HPDesk Manager on the HP 3000

NETWORKING SOFTWARE★

Note: All networking software except HP Product D1805A comes with both 5.25-inch and 3.5-inch disks.

Services			
Network Services/ User Services	50923F		
Option OA9 Network Services/ User Services	50923F		
License for 10 Users			
Option OAA Network Services/ User Services	50923F		
License for 50 Users			

†Corporate Site Licensing also available

Name	HP Product Number	Version	Special Requirements
Net IPC/RPM Development Package	50924F		
PC Server Software for HP Vectra PCs	50925F		
Links			
StarLAN Vectra PC Link	50926F		
ThinLAN Vectra PC Link	50927F		
SERIAL Network Vectra PC Link	50928F		
StarLAN 10 Vectra PC Link	D1802A		
LAN Micro Channel PC Link Software	D1805A		
HP StarLAN 10 PC cards	D1808A		
Option 100 PC Link II (for AT machines)	D1808A		
Option 200 Micro Channel Link	D1808A		
Configuration and Diagnostics			
LAN PC User Configuration and Diagnostics for Vectra and IBM PCs	50929F		
Option OA9 10 User License	50929F		
Option OAA 50 User License	50929F		
SERIAL Network PC User Configuration and Diagnostics Package for Vectra and IBM PCs	50930F		
Option OA9 10 User License	50930F		
Option OAA 50 User License	50930F		
Upgrades for HP 3Com Networks			
HP ThinLAN Server Software for HP Vectra PCs	50913F		
HP ThinLAN User Software for HP Vectra PCs	50914F		

Name	HP Product Number	Version	Special Requirements
ENVIRONMENT MANAGER			
Microsoft Windows/286 5¼-inch media	D1318A	#ABA	
3½-inch media	D1318B	#ABA	
Microsoft Windows/386 includes 5¼-inch and 3½-inch media)	D1651A	#ABA	
DATA BASE MANAGEMENT			
Executive Card Manager (ECM)*†	★68331F	A.01.08	
GRAPHICS			
Drawing Gallery (includes 5.25" and 3.5" media)	★D1709A	C.00.00	384K memory and mouse required
Charting Gallery† (includes 5.25" and 3.5" media)	★D1710A	C.00.00	
The Graphics Gallery Collection† (includes 5.25" and 3.5" media)	★D1711A	C.00.00	384K memory and mouse required
Office Activities Portfolio	★68324F	A.01.00	
Business Mgmt. Portfolio	★68326F	A.01.01	
Chemical/ PetroChemical Portfolio	★68325F	A.01.00	
HPDraw Figures Portfolio for Drawing Gallery	★68327F	A.01.00	
HP Graphics Curator/3000 (36926R gives you "right to copy")	36926A or 36926R		For use with HP 3000. Curator RTU 36926A S/3X #310 S/5X #320 S/7X #330 Curator RTC 36926R S/3X #310 S/5X #320 S/7X #330

*Uses HP Touch

†Corporate Site Licensing also available

Name	HP Product Number	Version	Special Requirements
SHARED RESOURCES			
AdvancePrint	★32583F		For use with HP 3000
UTILITIES			
FontLoad	33407B	Version 1.0	
LaserControl 100***	35190J	Rev. 3	
Laserplotter	35188A		
WORD PROCESSING			
AdvanceWrite Plus† (includes 5.25" and 3.5" media)	D1712A	F.03.00	
Executive MemoMaker*†	★68330F	A.03.00	
PRINTER UTILITIES			
iPrint	35188D		
Jetplotter	35190P		
OFFICE SOFTWARE PACKS			
HP Vectra PC Office Professional Pack	★68300F		
HP Vectra PC Office Assistant Pack	★68301F		
HP Vectra PC Office Entry Pack	★68306F		
OPERATING SYSTEM			
Microsoft MS-DOS 3.3**			
5¼-inch media	45951D		
3½-inch media	45951E		



- *Uses HP Touch
- **MS-DOS products are not supported on non-HP personal computers
- ***Manufacturer Supported
- †Corporate Site Licensing also available

**HP Portable/Portable PLUS
Software Available from HP***

Ron Avignone

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		
AdvanceMail (ROM)	82870K		•
	Opt. 400		
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		•
WORD PROCESSING:			
Microsoft WORD	45474D	•	
Microsoft WORD (ROM)	45549K		•
	Opt. 400		
MultiMate (ROM)	45554K		•
	Opt. 400		

*For HP Portable Vectra CS and HP Vectra LS/12 Laptop PC software see "U.S. Vectra Family PC Software" elsewhere in the green pages.



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	

□

**Localized HP 150/Touchscreen
Software Available from HP**

Sue Nennemann, Nigel Upton

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

Name	HP Product Number	Country	Revision
AdvanceLink	45431AD	Germany	A.04.00
AdvanceMail/150	27534AD	Germany	A.01.02
AdvanceMail/150	27534AE	Spain	A.01.02
AdvanceMail/150	27534AF	France	A.01.02
AdvanceMail/150	27534AH	Netherlands	A.01.02
AdvanceMail/150	27534AN	Norway	A.01.02
AdvanceMail/150	27534AX	Finland	A.01.02
AdvanceMail/150	27534AY	Denmark	A.01.02
AdvanceMail/150	27534AZ	Italy	A.01.02
Charting Gallery	45513AD	Germany	B.02.00
Charting Gallery	45513AF	France	B.02.00
Exec. Card Manager	45421AD	Germany	A.02.01
Exec. Card Manager	45421AZ	Italy	A.02.01
Executive MemoMaker	45418AD	Germany	C.02.00
Executive MemoMaker	45418AF	France	C.02.00
Executive MemoMaker	45418AX	Finland	C.02.00
Executive MemoMaker	45418AZ	Italy	C.02.00
Gallery Collection	45437AD	Germany	B.02.00
Gallery Collection	45437AF	France	B.02.00
Gallery Collection	45437AX	Finland	B.02.00
Gallery Collection	45437AZ	Italy	B.02.00
Gallery Pic.Lib. VII	45433AF	France	A.01.00
HP Access	36898AD	Germany	A.01.01
HPMessage	36568DA	Germany	DA.00.01

Name	HP Product Number	Country	Revision
HPWord	27505AB	U.K.	A.03.00
HPWord	27505AC	Canada	A.02.01
HPWord	27505AD	Germany	A.02.01
HPWord	27505AF	France	A.02.01
HPWord	27505AH	Netherlands	A.02.01
HPWord	27505AN	Norway	A.02.01
HPWord	27505AX	Finland	A.02.01
HPWord	27505AY	Denmark	A.02.01
HPWord Doc Pack	27505TB	U.K.	A.02.00
MemoMaker	45420AV	Arabic	A.01.01
MemoMaker	45420AV #ZAG	Arabic/French	A.01.02
MemoMaker	45420AT	Hebrew	A.01.01
Info Access 10 User License	32596LY	Denmark	
VisiCalc II	45405AF	France	B.01.02



**Localized HP Vectra Software
Available from HP**

Sue Nennemann,
Miles Mikasa, Nigel Upton

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
AdvanceMail	★27535FY	Denmark	A.01.02
AdvanceMail	★27535FX	Finland	A.01.02
AdvanceMail	★27535FF	France	A.01.02
AdvanceMail	★27535FD	Germany	A.01.02
AdvanceMail	★27535FZ	Italy	A.01.02
AdvanceMail	★27535FH	Netherlands	A.01.02
AdvanceMail	★27535FN	Norway	A.01.02
AdvanceMail	★27535FE	Spain	A.01.02
AdvanceMail	★27535FS	Sweden	A.01.02
AdvanceMail	★27535FZ	Italy	A.01.02
AdvanceMail Site Lic.	27535LF	France	
AdvanceMail Site Lic.	27535LD	Germany	
AdvanceWrite III	27508FY	Denmark	F.01.03
AdvanceWrite III	27508FX	Finland	F.01.03
AdvanceWrite III	27508FZ	Italy	F.01.02
AdvanceWrite III	27508FH	Netherlands	F.01.03
AdvanceWrite III	27508FN	Norway	F.01.03
AdvanceWrite III	27508FE	Spain	F.01.03
AdvanceWrite III	27508FS	Sweden	F.01.02
AdvanceWrite Plus Site License	27546LF/ZF	France	F.02.01
AdvanceWrite Plus Site License	27546LD/ZD	Germany	F.02.01
Charting Gallery	68350FF	France	B.03.00
Charting Gallery	68350FD	Germany	B.03.00
Drawing Gallery	68351FF	France	B.03.03
Drawing Gallery	68351FD	Germany	B.03.00
Executive CardManager	★68331FF	France	A.01.06
Executive CardManager	★68331FD	Germany	A.01.06
Executive CardManager	★68331FE	Spain	A.01.06
Executive CardManager Site License	68331L*	All languages	
Executive MemoMaker	★68330FB	Eur. English	A.03.01
Executive MemoMaker	★68330FX	Finland	A.03.01
Executive MemoMaker	★68330FF	France	A.03.01
Executive MemoMaker	★68330FD	Germany	A.03.01
Executive MemoMaker Site Lic.	68330L*/Z*	All languages	

★Software available in 3½-inch media. Order Option 003.

Name	HP Product Number	Country	Revision
Gallery Collection	★68352FY	Denmark	B.03.00
Gallery Collection	★68352FX	Finland	B.03.00
Gallery Collection	★68352FF	France	B.03.00
Gallery Collection	★68352FD	Germany	B.03.00
Gallery Collection	★68352FZ	Italy	B.03.00
Gallery Collection	★68352FH	Netherlands	B.03.00
Gallery Collection	★68352FN	Norway	B.03.00
Gallery Collection	★68352FE	Spain	B.03.00
Gallery Collection	★68352FS	Sweden	B.03.00
Gallery Site Lic.	68352L*/Z*	All languages	
HPWord Site Lic.	27536LF	Eur. English	
HPWord Vectra	27536FC	Canada	A.03.00
HPWord Vectra	27536FY	Denmark	A.03.00
HPWord Vectra	27536FB	Eur. English	A.03.00
HPWord Vectra	27536FX	Finland	A.03.00
HPWord Vectra	27536FF	France	A.03.00
HPWord Vectra	27536FD	Germany	A.03.00
HPWord Vectra	27536FH	Netherlands	A.03.00
HPWord Vectra	27536FN	Norway	A.03.00
HP Access Vectra	36898FD	Germany	F.01.01
Info Access 10 User License	32596LY	Denmark	
MS-DOS	†45951DC	Canada-French	3.3
MS-DOS	†45951DD	Germany	3.3
MS-DOS	†45951DE	Spain	3.3
MS-DOS	†45951DF	France	3.3
MS-DOS	†45951DH	Netherlands	3.3
MS-DOS	†45951DM	Latin America	3.3
MS-DOS	†45951DN	Norway	3.3
MS-DOS	†45951DP	Switzerland-German	3.3
MS-DOS	†45951DQ	Switzerland-French	3.3
MS-DOS	†45951DS	Sweden	3.3
MS-DOS	†45951DU	United Kingdom	3.3
MS-DOS	†45951DW	Belgium	3.3
MS-DOS	†45951DX	Finland	3.3
MS-DOS	†45951DY	Denmark	3.3
MS-DOS	†45951DZ	Italy	3.3
MS-DOS	†#45951EC	Canada-French	3.3

★Software available in 3½-inch media. Order Option 003.

†MS-DOS products are not supported on non-HP personal computers.

#Software available in 3½-inch media. Do not specify Option 003.

Name	HP Product Number	Country	Revision
MS-DOS	†#45951ED	Germany	3.3
MS-DOS	†#45951EE	Spain	3.3
MS-DOS	†#45951EF	France	3.3
MS-DOS	†#45951EH	Netherlands	3.3
MS-DOS	†#45951EM	Latin America	3.3
MS-DOS	†#45951EN	Norway	3.3
MS-DOS	†#45951EP	Switzerland-German	3.3
MS-DOS	†#45951EQ	Switzerland-French	3.3
MS-DOS	†#45951ES	Sweden	3.3
MS-DOS	†#45951EU	United Kingdom	3.3
MS-DOS	†#45951EW	Belgium	3.3
MS-DOS	†#45951EX	Finland	3.3
MS-DOS	†#45951EY	Denmark	3.3
MS-DOS	†#45951EZ	Italy	3.3
Vectra Office Assist. Bundle	68301FB	Eur. English	
Vectra Office Prof. Bundle	68300FB	Eur. English	
Vectra Office Prof. Bundle	68300FF	France	
Vectra Office Prof. Bundle	68300FD	Germany	
Vectra Office Prof. Bundle	68300FH	Netherlands	
Vectra Office Prof. Bundle	68300FE	Spain	



†MS-DOS products are not supported on non-HP personal computers.
 #Software available in 3½-inch media. Do not specify Option 003.

Localized Software Exchange Kits—Upgrades

Sue Nennemann, Nigel Upton

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.

This section lists the localized software exchange kits available for the Touchscreen/150 and the 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 disk as proof of purchase and continue operating as usual with your work copy of the software.

To order, call HP DIRECT. For the appropriate phone number for your country, see "How to Order" in the green pages of this issue.

For each kit ordered, along with your payment submit one corresponding original master disk. This is the disk with the HP software product number and description printed on the label. **Be sure to make working copies before sending your master disk.**

Product	Country	Version	Order HP Part #
Touchscreen/150 Upgrade Kits			
HPWord/PC	Denmark	A.02.01	27505-60015
HPWord/PC	Finland	A.02.01	27505-60013
HPWord/PC	France	A.02.01	27505-60010
HPWord/PC	Germany	A.02.01	27505-60012
HPWord/PC	Netherlands	A.02.01	27505-60014
HPWord/PC	Norway	A.02.01	27505-60011
HP Vectra PC Upgrade Kits			
AdvanceWrite Plus	Eur. English		27546-60003
AdvanceWrite Plus	French		27546-60006
AdvanceWrite Plus	German		27546-60007
Executive MemoMaker	Danish		68330-60016
Executive MemoMaker	Europe	A.03.01	68330-60008
Executive MemoMaker	Finland	A.03.01	68330-60015
Executive MemoMaker	France	A.03.01	68330-60011
Executive MemoMaker	Germany	A.03.01	68330-60009
Executive MemoMaker	Italy	A.03.01	68330-60017
Executive MemoMaker	Netherlands	A.03.01	68330-60012
Executive MemoMaker	Norway	A.03.01	68330-60013
Executive MemoMaker	Spain	A.03.01	68330-60010
Executive MemoMaker	Swedish		68330-60014

Product	Country	Version	Order HP Part #
Gallery Collection	Denmark	B.03.00	68352-60012
Gallery Collection	Eur. English		68352-60001
Gallery Collection	Finland	B.03.00	68352-60011
Gallery Collection	France	B.03.00	68352-60007
Gallery Collection	Germany	B.03.00	68352-60005
Gallery Collection	Italy	B.03.00	68352-60013
Gallery Collection	Netherlands	B.03.00	68352-60008
Gallery Collection	Spain	B.03.00	68352-60006
Gallery Collection	Sweden	B.03.00	68352-60010
HPWord/PC	Denmark	A.02.01	27536-60007
HPWord/PC	Finland	A.02.01	27536-60005
HPWord/PC	France	A.02.01	27536-60002
HPWord/PC	Germany	A.02.01	27536-60004
HPWord/PC	Netherlands	A.02.01	27536-60006
HPWord/PC	Norway	A.02.01	27536-60003

□

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 at least five years beyond discontinuance. Specifically, this means:

- Replacement Media Exchange Kits available for five years from date of last HP shipment for each product in the table below.
See the Software Exchange Kits article in this issue for information on the Kits.
- Availability of telephone assistance through Hewlett-Packard Help Line Response Centers.
- Continuing coverage in this magazine—the *HP PC Communicator*.

Product Name	Touchscreen/150:	
	HP Product #	Superseded by:
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:		
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
DSN/Link—U.S. English	45425A	AdvanceLink/150—45431A
ECM Templates	45441D	Now included with Executive Card Manager

Product Name	HP Product #	Superseded by:
Personal Card File/150	45422A	Executive Card Manager—45421A
R:Base 4000	45545A	None
R:Base 5000	45563A	None
GRAPHICS:		
Charting Gallery/Executive MemoMaker Bundle	45440A	Sold separately: Charting Gallery—45513A and/or Executive MemoMaker—45418A
Charting Gallery	45513A	Graphics Gallery Collection—45437A
Drawing Gallery	45411A	Graphics Gallery Collection—45437A
HPDraw Figures Portfolio	45571A	None
Office Activities Portfolio	45568A	None
Business Mgmt. Portfolio	45570A	None
Chemical/PetroChemical Portfolio	45669A	None
Graphplan by Chang Labs	45467A	Available from Chang Labs
Graphwriter Basic Set	45484A	None
PFS: Graph	45490A	None
Series 100 Graphics—U.S.	45410A	Charting Gallery—45513A
INTEGRATED SOLUTIONS:		
ExecuDesk System	45442A	ExecuDesk sold separately—45444A
ExecuDesk System	45444A	None
Symphony from Lotus	45498A	None
SPREADSHEETS:		
Context MBA/150	45481A	None
Financial Calculator	45423A	None
MicroPlan	45465A	Available from Chang Labs
MicroPlan Consolidation Module	45466A	Available from Chang Labs
Microsoft Multiplan/150	45473A	None
Microsoft Multiplan	45473D	None
VisiCalc Deluxe	45405A	None
VisiCalc/150—U.S. English	45405A	None

Touchscreen/150:		
Product Name	HP Product #	Superseded by:
WORD PROCESSING:		
MemoMaker/150— U.S. English Touchscreen	45420A	Executive MemoMaker/150— 45418A
PFS: Write	45489A	None
Microsoft Spell	45556D	None
Microsoft Word	45974D	None
MultiMate	45424A	None
WordStar Professional	45427D	None
WordStar/150—U.S. English	45400A	WordStar—Professional— 45427D
MailMerge—U.S. English	45401A	Included in WordStar Professional—45427D
SpellStar	45402A	SpellStar has been superseded by CorrectStar which is included in WordStar Professional— 45427D. An Upgrade kit is available from CorrectStar to SpellStar for users with a dual single-sided disk drive.
WordStar/MailMerge/ SpellStar Combo	45404A	Superseded by WordStar Professional—45427D.
WordStar	45400D	Included in WordStar Professional (45427D)
WordStar Professional Options	45429D	

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:		
ECM Templates	68335F	Now included with Executive Card Manager
Personal Card File	45422E	Executive Card Manager—68331F
R:Base 5000	68336F	Available from Microrim, Inc.
R:Base System V	68328F	Available from Microrim, Inc.
INTEGRATED SOLUTIONS:		
Symphony from Lotus	68339F	Available from Lotus Development Corp.
WORD PROCESSING:		
Memomaker/IBM PC	45420E	Executive Memomaker—68330F
WordStar	68345F	Available from MicroPro, Inc.
WordStar Professional	68346F	Available from MicroPro, Inc.
WordStar 2000	68341F	Available from MicroPro, Inc.
WordStar 2000 PLUS	68342F	Available from MicroPro, Inc.
MultiMate	68338F	Available from MultiMate International Corp.
MultiMate Advantage	68343F	Available from MultiMate International Corp.
SPREADSHEETS:		
Executive Spreadsheet	68332F	

The Portable or the Portable Plus:

Product Name	HP Product #	Superseded by:
SPREADSHEETS:		
Lotus 1-2-3 Release 1A	45548K #400	45539K #400 (1-2-3 ver. 2.01)



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

■ 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
35178C	Vectra Portable carrying case
35178F	Vectra LS/12 carrying case
35184E	Deskplotter software (allows DeskJet to do plotter graphics)
35188A	LaserPlotter software (allows laser to do plotter graphics)
35190J	LaserControl software (print Lotus sideways)
35190P	Jetplotter software (allows InkJet printers to emulate plotters)
45986A	Security System Lock
46296A	Backup Power Supply
92165A	2 plug surge suppressor
92165B	4 plug surge suppressor
92165C	6 plug surge suppressor
92165R	RS-232C surge protector
92166A	Vectra PC keyboard park
92171C	Vectra PC keyboard park drawer
92171X	ThinkJet printer stand for top of display
92190A	5.25-inch flexible disks, 360 KB (formatted capacity), double-sided, unformatted (box of 10 disks)
92190X	High-capacity 5.25-inch flexible disks, 1.2 MB (formatted capacity), for use on the Vectra PC's high capacity internal disk drive, double-sided, unformatted (box of 10 disks)
92190Z	Box of 100, high capacity 5.25-inch flexible disks, 1.2 MB (formatted capacity), for use on the Vectra PC's high capacity internal disk drive, double-sided, unformatted
92192A	3.5-inch micro flex disks, 710/720 KB, (formatted capacity) double-sided (box of 10)
92192T	205' long formatted/certified mini data cartridge, 40 MB formatted (box of 5)
92192X	3.5-inch micro flex disks, high-density 1.42/1.44 MB (formatted capacity), double sided (box of 10)
92208A	Mobile PC Centre
92259A	Vectra PC, Vectra ES dust cover for monochrome monitor and keyboard

92259B	Vectra PC, Vectra ES dust cover for color/EGA monitor and keyboard
92259K	Vectra CS/ES/RS dust cover for monochrome monitor and C1405A keyboard
92259L	Vectra CS/ES/RS dust cover for EGA/VGA color monitor and C1405A keyboard
92259M	Vectra CS/ES/RS dust cover for monochrome VGA monitor and C1405A keyboard
92261R	ThinkJet paper catcher (use with 92171X printer stand)
92268A	4 metre StarLAN cable. 8-pin connected/4 twisted pair unshielded cable with RJ45 connectors
92268B	8 metre StarLAN cable. 8-pin connected/4 twisted pair unshielded cable with RJ45 connectors
92268C	16 metre StarLAN cable. 8-pin connected/4 twisted pair unshielded cable with RJ45 connectors
92268D	32 metre StarLAN cable. 8-pin connected/4 twisted pair shielded cable with RJ45 connectors
92299F	Compact workstation kit for Vectra PC

For Disk Drives

■ HP 9122C and 9153C 3.5-inch Disk Drives

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

■ HP 45812A Internal 1.2 MB 5.25-inch Disk Drive for the Vectra PC

92190X	5.25-inch high capacity flexible disk (box of 10)
92194A	Compact file for 5.25-inch disks (capacity 60 disks)
92194E	FlexFiles for 5.25-inch disks (Pkg. of 5 FlexFiles—each unit holds 10 disks)
92194G	Portable album file for 5.25-inch disks (capacity 20 disks)
92194P	Hanging file pages for 5.25-inch disks (Pkg. of 10—capacity 20 disks)

■ **HP 45813A Internal 1.44 MB 3.5-inch Disk Drive for the Vectra PC**

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

■ **HP D1671A Cartridge Tape Drive**

92192Q	Storage tray for 92192T tapes (holds up to 18 tapes)
92192T	205' formatted/certified mini data cartridge, 40 MB formatted (box of 5) for the Vectra D1671A tape drive

For Printers

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

17301A	PaintJet softfonts for Microsoft Windows
17305A	PaintJet printer interface kit for Macintosh computers. For Mac PLUS, SE or II, includes driver, soft fonts, and cable.
35190P	JetPlotter software (allows PaintJet to emulate plotter)
51606A	Black ink print cartridge
51606C	Color ink (cyan, magenta, yellow) print cartridge
51630P	Z-fold PaintJet printer paper (250 sheets)
51630Q	PaintJet transparency film (50 sheets with sleeves)
51630R	Z-fold PaintJet paper, A4 size (250 sheets)
51630S	PaintJet transparency film, A4 size (250 sheets)
51630Y	Cut-sheet PaintJet printer paper (250 sheets)
51630Z	Cutsheet PaintJet paper, A4 size (250 sheets)
92171X	Terminal top ThinkJet stand
92177Z	DeskJet organizer
92261G	Paper catcher for 92269A printer stand
92261S	ThinkJet printer stand
92261T	QuietJet PLUS printer stand
92261U	QuietJet printer stand
92250Z	PaintJet printer dust cover
92269A	Desktop stand for PaintJet Printer

■ **HP 2225A/B/C/D ThinkJet Printer**

35178C	Carrying Case
51604A	Plain paper ink cartridge (black)
51605B	Jet Paper ink cartridge (blue)
51605G	Jet Paper ink cartridge (green)
51605R	Jet Paper ink cartridge (red)
35190P	Jetplotter software (allows ThinkJet Printer to emulate plotter)
51630A	Fan-fold Jet Paper (500 sheets/box)
51630J	Cut-sheet 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	Jet Paper ink cartridge (black)
92261D	Accessory Kit (2 Jet Paper cartridges, 500 sheets fanfold paper, 500 sheets cut paper, 1 dust cover, and 1 printer stand)
92261N	Fan-folded Jet Paper (five 500-sheet packs)
92261R	Paper catcher for use with 92261S and 92171X stands
92261S	Desktop ThinkJet printer stand

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

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

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

35190R	Matrix Plotter software (allows RuggedWriter to do graphics at 180 x 360 D.P.I.)
92156S	Ribbon cartridges (box of 3 cartridges)
92166A	Desktop printer stand
92157A	Printer paper, fan-folded (box of 2400 sheets)
92157C	Printer paper, microperforated, fan-folded (box of 2400 sheets)

■ **HP 2276A DeskJet Printer**

22707A	128K RAM cartridge for use with soft fonts
22707E	Epson FX-80 printer emulation cartridge
22708A	TmsRmn/Helv soft font (requires additional 128K or 256K RAM, depending on application)
35184E	Deskplotter software (allows DeskJet to do graphics by emulating plotters)
35190J	Laser Control software (allows DeskJet to emulate IBM, Epson, or other printers)
51608A	Black print cartridge
92250R	DeskJet printer dust cover

Font Cartridges for HP 2276A DeskJet Printer:

22706A	Courier
22706B	Prestige Elite
22706C	Letter Gothic
22706D	TmsRmn 8 & 10 Point
22706E	TmsRmn 12 Point
22706F	TmsRmn 14 Point
22706G	Helv 8 & 10 Point
22706H	Helv 12 Point
22706J	Helv 14 Point
22706M*	Presentations
22706P*	TmsRmn ASCII
22706Q*	Helv ASCII
22707K	Landscape upgrade cartridge
22707L	Landscape fonts cartridge (must use with 22707K only)

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

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

35188A	LaserPlotter software (allows LaserJets to do graphics by emulating plotters)
35190J	LaserControl software (to control LaserJet fonts and paper handling)
92157K	1" labels (other sizes also available)
92211B	Mobile printer cabinet
92214	Universal support stand for LaserJet printer
92259G	Dust cover
92285J	Transparencies
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)
92286PC	Plug-in type font cartridge (ProCollection)
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 MS-DOS—5.25-inch disks (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)
35188A	LaserPlotter software (allows full page graphics output by emulating plotters)
35190J	LaserControl (allows font downloading and selection)
C2051A	Soft font (Type Director 3.5-inch and 5.25-inch)
Option ABA	
C2052A	Soft font (Premier Collection 5.25")
Option ABA	
C2054A	Soft font (Premier Collection 5.25")
Option ABA	
C2050A	Typefaces (CG Times 3.5" and 5.25")
Option D01	
C2050A	Typefaces (Univers 1 3.5" and 5.25")
Option D02	
C2050A	Typefaces (Decorative 1 3.5" and 5.25")
Option D03	

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

■ **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)

■ **Fiber-Tip Paper Pens**

		Single-color (5 pens/pkg)
.3mm	.7mm	
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

■ **Accessories**

07550-60210	Dust cover (7550A)
07440-60006	Dust cover (Color Pro)
07475-60010	Dust cover (7475A)
92166E	Plotter sound enclosure (for ColorPro, 7470A & 7475A 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
92177Y	7550 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 training courses at HP Customer Education 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 office or Education Center.

■ *Getting Started—HP Vectra PC*

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, disk 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 HP 150/Touchscreen PC computer will be a positive one. You'll learn how to define basic computer terms, start up the system, handle disks properly, prepare new disks, 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, database 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 provide hands-on work with the HP 150 during class time for maximum effectiveness.

■ *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 commands, 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 Plus Course 1*

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

HP 27542A

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- *AdvanceWrite Plus Course 2*
Provides AdvanceWrite Plus users with the ability to use the mailmerge facility to produce standard letters, to use Wordbase Manager, to create tables of contents and indices, to use the spreadsheet feature, and to use other advanced features of AdvanceWrite Plus.

HP 27543A

- *AdvanceWrite Plus Course 3*
Provides AdvanceWrite Plus users with an overview & understanding of the major new product features. Students will practice the integration of graphic images into a document, using advanced formatting capabilities, and using the printing options available in AdvanceWrite Plus.

HP 27544A

- *AdvanceWrite Plus*
Covers the material in HP 27542A, HP 27543A and HP 27544A for MS-DOS-compatible keyboards and the enhanced HP Vectra PC keyboards.

HP 27547A

- *AdvanceWrite Plus Advanced Features*
Covers the material in HP 27543A & HP 27544A.

HP 27548A

- *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)

- *Learning 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®/Word Processing*

The WordStar® workshop for the HP 150/ Touchscreen PC 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 20-1 and 20-2/150*

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)

■ *Learning Condor 20-3/150*

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

HP 35124A (2 days)

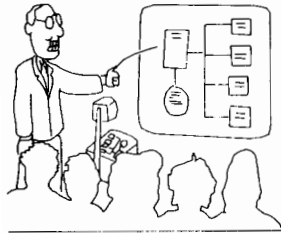
**HP Customized
Training**

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.





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. The course is easy to teach because the focus is on extensive hands-on practice with the software.

Classroom Learning Packs are offered for:

- AdvanceMail** (A.02.00)/Vectra and IBM PC/XT/AT includes materials for 10 students HP 27535V
- Additional Student Learners' Packs (10 pack) HP 27535W
- Executive Card Manager**/Vectra and IBM PC/XT/AT HP 89913F

During most of the course 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, the Executive Card Manager 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.



AdvanceMail

With the AdvanceMail Customer Education Trainer's Pack you can teach users the effective use of AdvanceMail version A.02.00, HP's electronic mail system.

The trainer's pack has a modular format which allows you to customize the course to your needs. The course provides guidance on selected modules and sample curricula for common training scenarios. Student Reference Cards provide seamless customization of student materials. In addition, you can personalize the course by editing the overhead slides using Graphics Gallery files supplied on disk.

The pack supports an initial class of 10 students. For subsequent classes you can order Learners' Packs (product number HP 27535W) which contain 10 sets of student materials.

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 and Student Learners' Packs, contact your local dealer or HP office.





HP FastTrak, FastTrak PLUS, and ExpertGuide are comprehensive self-study training packs for user support personnel and expert users.

If you provide support services for personal computer users in your organization, or if you need information beyond the scope of the software documentation, these self-study packs will make your job easier by helping you learn the ins and outs of the software quickly.

Topics covered include product overview, supported configurations, features and uses, demo tips, integration with other personal computer applications, installation, performance, and technical tips. The format is consistent with the software documentation to simplify the learning process. In addition, the guides are completely modular so you can learn what you want, when you want.

HP FastTrak

HP FastTrak guides are now available for the following 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 HP Vectra versions of software. FastTrak guides for Executive MemoMaker, Executive Card Manager, and Gallery Collection also include a 3½-inch and 5¼-inch disk of demonstration files.

**Windows HP
ExpertGuide for
Microsoft Windows**

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

Ordering Information

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



**The First Step
Toward Effective
Vectra Use**

Vectra PC Family Fundamentals: A Computer-Based Tutorial is a computer-based software package designed to introduce users of all Vectra PCs 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.

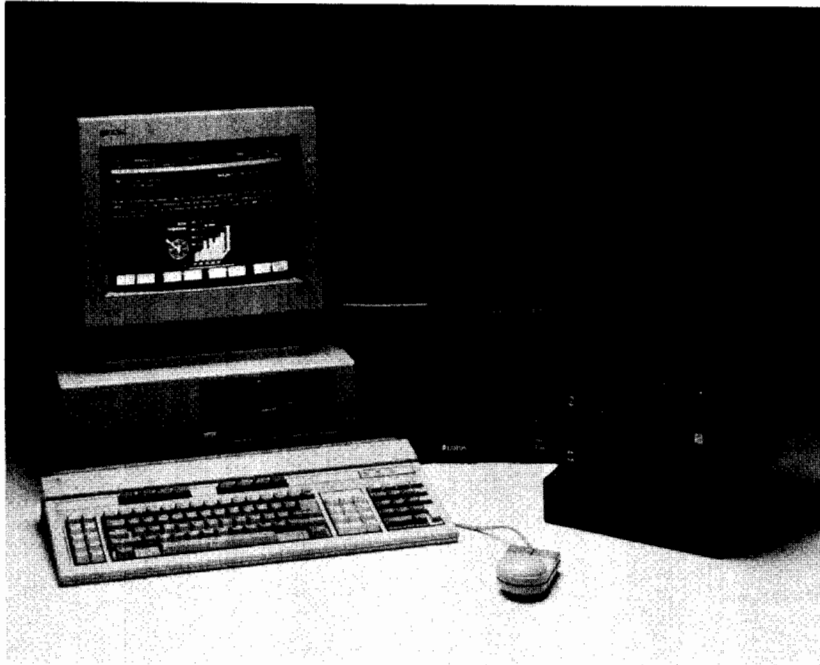
This computer-based tutorial is an ideal way to come up to speed on Vectra PC basics and to obtain efficiently the solid background necessary to be a productive applications user. Upon completion of the four-to-six hour tutorial, users will have gained:

- 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 Family Fundamentals, contact HP DIRECT or your sales office and request HP product number 51410B.





If you can't wait long for answers to questions about PC application software and hardware installation, you should know about HP's support services for personal computers. HP has two contractual services and a per incident service.

1. HP ResponseLine for PCs is a contractual service that supports stand-alone PCs and PC LANs
2. The Integrated PC Office Applications option of your HP 3000 TeamLine or ResponseLine support contract provides support for your PCs as part of your overall HP software support contract.
3. If you do not wish to purchase contractual support for your PCs, HP offers HP HelpLine, a pay-as-you-go alternative for software support.

All services guarantee a two hour response time or less to ensure that you receive the prompt and expert attention your business demands.

- **HP ResponseLine for Personal Computers** provides telephone assistance with software problem resolution, installation, hardware configuration, and clarification of documentation on HP and popular third-party PC software through the HP Response Centers. You also receive access to HP SupportLine. HP SupportLine provides you with electronic access to HP support and product information. In addition, you receive a subscription to the *HP PC Communicator*, and first time purchasers of HP ResponseLine for PCs receive a copy of the computer-based tutorial *HP Vectra PC Family Fundamentals: A Computer-based Tutorial*.
- **Integrated PC Office Applications Option** (available only with HP TeamLine and HP ResponseLine software support contracts on the HP 3000) provides a cost effective way for you to integrate the support of PCs into your overall HP software support contract. This option to your HP TeamLine or HP ResponseLine contract provides telephone assistance with software problem resolution, installation, hardware configuration, and clarification of HP and popular third-party PC software through the HP Response Centers. In addition, as part of HP TeamLine this option provides you with an additional Support Management Review.

- **HP HelpLine** (Available U.S. and Canada only) provides you with a pay-as-you-go alternative for software support. You receive direct access to Response Center specialists with a two hour response time. Special certificates let you purchase assistance in advance or you can charge the toll-free call to your personal or company credit card.

Ordering Information

To order the personal computer software support service that best meets your support needs, call your local HP sales office. All contractual services must be purchased for a minimum of three months. All PC software support services apply only to software classified as HP-supported. Listed below are ordering instructions for HP ResponseLine for PCs, HP HelpLine, and Integrated PC Office Applications Option.

HP ResponseLine

Software support for
business PCs

H2015A + H00

Choose number of PCs supported by the system manager:

Option #0JL 1 PC
Option #0JM 2-10 PCs
Option #0JN 11-50 PCs
Option #0JP >50 PCs

Additional service feature:

#0FB Additional HP Response Center Caller

HP HelpLine (Available U.S. and Canada only)

You can charge individual support calls to personal or company credit cards by calling the HP HelpLine at (800) 858-8857. In addition, you may prepay for five calls by purchasing HP HelpLine Call Certificate Packs (HP 35159A), from HP DIRECT at (800) 538-8787.

Integrated PC Office Applications Option

(Available only with HP TeamLine and HP ResponseLine software support contracts on the HP 3000.)

HP TeamLine H2000A + T00 Option #0F8
HP ResponseLine H2001A + H00 Option #0F8



The following is a list of manuals which can be ordered for the HP 150/Touchscreen PC and the HP Vectra PC family. To order, refer to the "How to Order" section in the "green pages" of this issue.

■ **HP Touchscreen/150**

- 45624A MS-DOS User's Guide for HP 150 (Includes binder and manuals 45624-90001, 90005, and 90006)
- 45625-90002 Technical Reference Manual Supplement
- 45625A HP 150 Technical Reference Manual (Includes 45625-90001 and 45625-90002)
- *45626-90003 More About Connecting HP Printers, Plotters, and Disk Drives
- *45626-90004 Using Your HP Touchscreen Personal Computer
- *45626-90005 Using Your HP Touchscreen Personal Computer as a Terminal
- 45643-90002 45643A Extended I/O Accessory Card Service Manual
- *45644-90002 45644A Etherlink/150 Accessory Service Manual
- 45847-60017 Using Your HP Touchscreen II as a Personal Computer Manual
- 45847-90001 Getting Started With Your HP Touchscreen II as a Personal Computer (150C)
- 45847-90044 Getting Started With Your HP Touchscreen II Personal Computer Manual
- 45847-90051 New Index—Using Your HP Touchscreen II Personal Computer
- 45847-90061 Using Your HP Touchscreen II Personal Computer Update
- 45848-60001 Using Your Touchscreen II as a Terminal (150C)
- 45848-90015 Using Your Touchscreen II as a Terminal Supplement
- 45849-60202 MS-DOS User's Guide for the HP 150/Touchscreen
- 45849-60204 HP 150 Programmer's Reference Manual
- 45849-90002 Touchscreen II Service Manual
- 45849-90046 Touchscreen II Personal Computer Operational Upgrade Instructions
- 45890-90002 HP 150 Expanded Memory Board Users and Installation Manual

*These manuals are for products or product versions that have been discontinued. You may receive a photocopy rather than an original manual.

■ HP Vectra PC Family

45897-90001	Vectra Hard Disk Multi Voluming Instruction Guide
45911-90002	45911A Graphics Tablet User's Manual
45918A	HP-HIL Technical Reference Manual
45932-90001	See Kit D1100-90001
*45934-90001	Setting Up Vectra
*45934-90002	Connecting Peripherals To Vectra
*45934-90004	Vectra Installing Internal Options Chart
*45935-90059	Vectra CE Handbook
45945-60031	Vectra System BIOS Technical Reference Manual Kit (contains manual 45945-90012 and binder)
45945-90011	See Kit 5061-8982
45945-90012	See Kit 45945-60031
45951-90066	MS-DOS 3.2 Condensed Reference Guide
5061-8971	MS-DOS 3.2 Programmer's Reference
5061-8982	HP Vectra ES Hardware Technical Reference Manual Kit (contains manual 45945-90011 and binder)
5061-8983	HP Vectra Accessories Technical Reference Manual Kit (contains manual 5959-6759 and binder)
5061-8986	Vectra RS Technical Reference Manual Kit (contains manual 5959-2654 and binder)
5062-5527	Vectra LS/12 Technical Reference Manual Kit (contains manual D1024-90010 and binder)
5062-5528	Vectra LS/12 Laptop PC Service Manual Kit (contains manual D1024-90011 and Binder)
5958-7599	HP Vectra RS/16, RS/20, RS/20C, and RS/25C PC Service Manual
5958-7685	HP Expert Guide for Microsoft Windows
5959-2650	HP Vectra RS Personal Computer Service Manual
5959-2654	See Kit 5061-8986
5959-6759	See Kit 5061-8983
D1024-90010	See Kit 5062-5527
D1024-90011	See Kit 5062-5528
D1001-90029	Setting Up the Portable Vectra CS Literature Pak
D1100-90001	HP Vectra CS PC Technical Reference Manual Kit (contains manual 45932-90001 and binder)
D1103-60005	Vectra CS PC Service Manual Kit—2nd Edition (contains manual D1103-90002 and binder)
D1103-90002	See Kit D1103-60005
D1211-60003	HP Vectra ES Personal Computer Service Manual Kit—2nd Edition (contains manual D1211-90002 and binder)
D1211-90002	See Kit D1211-60003
D1350-90104	Vectra ES Series Set Up and HP Mode Configuration Bulletin
D1410-90001	HP Vectra QS Service Manual
D1410-90002	HP Vectra QS Hardware Technical Reference Manual



*These manuals are for products or product versions that have been discontinued. You may receive a photocopy rather than an original manual.

Software Exchange Kits— Upgrades, Updates, and Replacements for Damaged Disks

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 disk 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 provided at the end of this article.
- 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 disk. This is the disk with the HP software product number and description printed on the label.

Be sure to make working copies before sending your master disk.

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 disk.

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 disks 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 at least 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 disks.

For information on other products not listed, contact your dealer or HP sales and service office.

**Touchscreen/150
Software Exchange Kits**

Product	Version	Order Part Number	Notes
Touchscreen (HP 150B) Operating System and Utilities		45626-63007	1
Sys Master Disk			
MS-DOS	2.11		
MS-DOS	2.11		
COMMANDS			
P.A.M.	B.02.02		
HPBIOS	B.02.02		
FORMAT	B.02.00		
DEV CONFIG	B.02.00		
Appl Master Disk			
COPY/BACKUP	B.02.02		
INSTALL	B.02.02		
SET UP P.A.M.	B.02.02		
MS-DOS	B.02.03		
UTILITIES			
Touchscreen II Operating System and Utilities	2.11	45847-63004	2
MS-DOS	2.11		
MS-DOS	2.11		
COMMANDS			
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	C.01.00		
UTILITIES			
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 Part Number†	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 Part Number†	Notes
AdvanceLink (upgrade)	A.04.04	45431-63002	
AdvanceLink (update)	A.04.04	45431-63001	
Application Master (150 B)	B.02.00	45626-63006	
BASIC Interpreter (replacement update)	*A.01.01	45445-63002	
BASIC Compiler	A.01.00	45446-63002	
COBOL (replacement)	A.01.00	45448-63001	
Compiled BASIC (replacement update)	A.01.00	45446-63002	
ExecuDesk (replacement)	A.01.01	45444-63001	
Executive Card Manager (upgrade/ replacement)	A.02.00	45421-63004	
Executive MemoMaker (replacement) Gold, Utility and Fonts master	C.03.00	45418-63005	
Set-up and Dictionary master	C.03.00	45418-63007	
Executive MemoMaker (C.02.00 to C.03.00 upgrade)	C.03.00	45418-63006	
Forms Master (replacement)	A.01.00	45443-63001	
FORTTRAN (replacement)	A.01.00	45449-63001	
FORTTRAN Upgrade	*A.01.00	45449-63003	
Gallery Collection (replacements)			
Bar, Line & Pie Charts	B.03.00	45513-63001	
Basic Portfolio Disks 1 & 2	B.03.00	45411-63004	
Basic Portfolio Disks 3 & 4	B.03.00	45411-63005	
Business Management Portfolio Disks 1-3	B.03.00	45570-63001	
Gold Master	B.03.00	5061-9914	
Set-up & Utility	B.03.00	5061-9917	
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 (replacement)	B.01.00	14857-63001	
HP Message (upgrade)	A.00.02	36568-63001	
HP Message to AdvanceMail (upgrade)	A.01.02	27534-63007	
HP Terminal Program (replacement)	A.00.01	24597-65002	
HP Word (replacement)	A.00.00	27505-63001	
HP Word/PC (upgrade)	A.03.00	27505-60016	
Lotus 1-2-3: (replacement)			
System Disk and Help Disk	2.01	45566-63001	
Install and Print Graph Disks	2.01	45566-63002	
Translate/View	2.01	45566-63003	

Product	Version	Order Part Number†	Notes
MemoMaker Time Manager (upgrade)	A.02.00	45504-64002	
MS Word (replacement)	B.01.00	45474-63002	
Pascal (replacement)	*A.01.00	45447-63002	
PCF to Executive Card Manager (upgrade)	A.02.01	45421-63005	
Print Central (replacement)	A.01.01	36890-63001	
Print Central Upgrade	A.03.00	32593-63001	
R:Base 5000 (replacement)	1.1	45563-63001	
R:Base 4000 to 5000 (upgrade)	1.1	45563-63002	
Symphony (replacements)	1.1		
Prog. Disk, Tutorial, Help		45498-63002	
Printgraph, Utility Disks		45498-63003	
Install Prog., Library Disks		45498-63004	
Tutorial1, Tutorial2 Disks		45498-63005	
VT100 Terminal Emulator (replacement)	A.02.00	45412-63001	
VT100 Terminal Emulator (replacement)	A.01.00	45412-63001	
Windows Kernal (replacement)	A.01.03	45875-63001	
Windows Write/Paint (replacement)	A.01.03	45875-63002	
X.21 Interface (update)	26.22	18154-17101	

(See Notes on next page)

*Revised since original release

†For each kit ordered, along with your payment submit one corresponding original master disk. This is the disk with the HP software product number and description printed on the label. Be sure to make working copies before sending your master disk.

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 disk cannot be accepted. If you want a kit with 5.25" disks, please indicate this preference on your order. Otherwise 3.5" disk will be shipped, regardless of the size of your returned master disk.

Notes

- 1—Three double-sided disks, 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 (45849-63024) from your dealer or HP office. The upgrade kit includes the new operating system disk and the ROM integrated circuits required by the new disk; 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).
 - 2—Double-sided exchange disk 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 (45849-63024) from your dealer or HP office. The upgrade kit includes the new operating system disk and the ROM integrated circuits required by the new disk; it is not user-installable. (Refer to the article "Upgrading Your HP 150A or Touchscreen to a Touchscreen II" in *Communicator* Issue #13 for details.)
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**Vectra PC
Software Exchange Kits**

Product	Version	Order Part Number	Notes
AdvanceMail (upgrade) (5.25")	A.02.00	27535-60002	
AdvanceWrite I to AdvanceWrite Plus (Upgrade)	F.02.00	27546-60001	
AdvanceWrite II to AdvanceWrite Plus (Upgrade)	F.02.00	27546-60002	
AdvanceWrite III to AdvanceWrite Plus (Upgrade)	F.02.00	27546-60003	
AdvLink Replacement (5.25")	B.02.00	68333-65016	
AdvanceLink Replacement (3.5")	B.02.00	68333-63003	
AdvanceLink (upgrade) 5.25"	A.02.00	14753-61006	
3.5"	A.02.00	14753-61005	
AdvanceLink (upgrade) 5.25" & 3.5"	B.02.00	68333-60011	
BASIC Interpreter (upgrade/replacement)	3.22	45952-63001	
CAT Replacement 5.25"	A.02.00	14753-61006	
3.5"	A.02.00	14753-61005	
CAT Upgrade 5.25"	A.02.00	14573-61001	
3.5"	A.02.00	14753-61003	
Charting Gallery 3.0 (upgrade) (contains 3.5" and 5.25")	C.00.00	D1710-60001	
Charting Gallery 3.0 (replacement) Setup/Utility and Application/Gold (3.5")	C.00.00	D1710-63001	
Setup, Utility, Application, and Gold (5.25")	C.00.00	D1710-65001	
Drawing Gallery 3.0 (upgrade) (contains 3.5" and 5.25")	C.00.00	D1709-60001	
Drawing Gallery 3.0 (replacement) Setup/Utility and Application/Gold (3.5")	C.00.00	D1709-63001	
Portfolio 1 & 2 (3.5")	C.00.00	D1709-63002	
Set, Utility, Application and Gold (5.25")	C.00.00	D1709-65001	
Portfolio 1, 2, & 3 (5.25")	C.00.00	D1709-65002	

Product	Version	Order Part Number†	Notes
Executive Card Manager	A.01.03	68331-65001	
Executive Card Manager (upgrade) (5.25")	A.01.08	68331-65002	
Executive MemoMaker	A.01.02	68330-65001	
Executive MemoMaker (upgrade)	A.03.00	68330-60005	
Executive MemoMaker (replacements) Application & Utility (5.25")	A.03.00	68330-65002	
Gold & Dictionary (5.25")	A.03.00	68330-65003	
Gallery Collection 3.0 (upgrade) (contains 3.5" and 5.25")	C.00.00	D1711-60001	
Gallery Collection 3.0 (replacements) Setup/Utility and Application/Gold (3.5")	C.00.00	D1711-63001	
Portfolio 1, 2, & 3 (3.5")	C.00.00	D1711-63002	
Setup, Utility, Application, & Gold (5.25")	C.00.00	D1711-65001	
Portfolio 1, 2, 3, 4, & 5 (5.25")	C.00.00	D1711-65002	
Gallery Collection (replacements) Application Master (5.25")	B.03.00	68351-65002	
Application Master (3.5")	B.03.00	68351-63001	
Bar, Line & Pie Charts (5.25")	B.03.00	68350-65001	
Bar, Line & Pie Charts (3.5")	B.03.00	68350-63001	
Basic Portfolio Disks 1, 2 & 3 (5.25")	B.03.00	68351-65001	
Basic Portfolio Disks 1 & 2 (3.5")	B.03.00	68351-63002	
Basic Portfolio Disk 3 (3.5")	B.03.00	68351-63003	
Business Management Portfolio Disk 1 (5.25")	B.03.00	68326-65001	
Business Management Portfolio Disk 2 (5.25")	B.03.00	68326-65002	
Business Management Portfolio Disk 3 (5.25")	B.03.00	68326-65003	
Business Management Portfolio Disks I & II (3.5")	B.03.00	68326-63001	
Business Management Portfolio Disk III (3.5")	B.03.00	68326-63002	
Gold & Utility Master (5.25") (replacement)	B.03.00	5061-9915	
Gold Master (3.5") (replacement)	B.03.00	5061-9919	
Set-up Master (5.25") (replacement)	B.03.00	5061-9916	
Graphics Gallery Update	A.01.00	68352-65002	

Product	Version	Order Part Number	Notes
HP-IB Command Library (upgrade)		82990-65001	
HP Message (upgrade)	A.00.02	36569-65001	
HP Message to AdvanceMail (upgrade)	A.01.02	27535-65009	
HP Terminal Program (replacement/ upgrade)	A.00.03	24597-65010	
HP Word/PC (upgrade) (5.25")	A.03.00	27536-60008	
MS-DOS Op Sys Disk (replacement)	A.01.02	45951-60001	
MS-DOS Op Sys Disk (replacement)	A.01.04	45951-63001	
MS-DOS Op Sys Disk (replacement)	B.01.01	45951-63017	
MS-DOS 3.3 (5.25") (replacement)	C.01.01	45951-60029	
MS-DOS 3.3 (3.5") (replacement)	C.01.01	45951-60030	
MS Macro Assembler (replacement)	4.0	45953-60001	
MS Windows/286 2.1 (upgrade) (5.25")	B.02.10	D1318-65002	
MS Windows/286 2.1 (upgrade) (3.5")	B.02.10	D1318-63001	
Multiple Character Set Utilities MCS (replacement)	A.01.01	5061-8970	
Office Talk (replacement)	A.01.02	24520-15001	
PC Instrument Data Acquisition	A.02.00	14856-65001	
PC Instrument System	B.01.00	61061-65001	
Print Central (replacement)	A.01.00	36890-65001	
Print Central (update)	A.03.00	32593-63001	
R:Base 5000 (replacement)	2537	68336-65001	
R:Base Program Interface (replacement)		68337-65001	
R:Base System V (replacement)	1.1	68328-65012	
Scanning Gallery (replacement)	A.02.00	68357-65001	
Scanning Gallery MS Windows Run-Time Version (replacement)	A.01.00 & A.02.00	88290-10150	
Scanning Gallery Plus (replacements)			
5.25"			
Applications & Installation	A.03.00	68358-65001	
Setup, Build, Display 1 & 2, Utilities 1-4	A.03.00	68358-65002	
3.5"			
Applications & Installation	A.03.00	68358-63001	
Setup & Build, Displays, Utilities 1 & 2, and Fonts	A.03.00	68358-63002	

Product	Version	Order Part Number†	Notes
Set-up/Utilities Disk Vectra CS (3.5") (replacement)	B.03.00	D1102-60041	
Set-up/Utilities Disk Vectra CS (5.25") (replacement)	B.03.00	D1102-60040	
Set-up/Utilities Disk Vectra ES (3.5") (replacement)	B.03.00	D1351-60053	
Set-up/Utilities Disk Vectra ES (5.25") (replacement)	B.03.00	D1351-60054	
Symphony (replacement)	2538	68339-65001	
1-2-3 by Lotus	2.01	68340-65001	

**Portable
Software Exchange Kits**

Product	Version	Order Part Number†	Notes
BASIC Interpreter	A.01.01	45445-63002	
BASIC Compiler	A.01.01	45446-63002	
Lotus 1-2-3 Upgrade (ROM)	2.01	45539-64001	
Prog. Tools	A.01.00	45419-63001	

†For each kit ordered, along with your payment submit one corresponding original master disk. This is the disk with the HP software product number and description printed on the label. Be sure to make working copies before sending your master disk.

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 Inset.) Orders submitted without the correct master disk cannot be accepted.

**Discontinued Software
Replacement Media Exchange Kits**

Product (Notes)	Version	Order Part Number†	Exchange Available
		3.5" Disk	Through
Touchscreen/150:			
3278 Emulation	A.01.00	45641-63001	September, 1989
BPI Gen. Acctg.	A.01.00	45455-63001	June, 1990
BPI Personal Acctg.	A.01.11	45459-63001	June, 1990
BPI Accts. Rec.	A.01.11	45456-63001	June, 1990
Charting Gallery	B.02.00	45513-63001	October, 1993
Condor 1/150	A.02.11	45415-63002	April, 1990
Condor 3	A.02.11	45416-63002	January, 1992
Condor 3*	A.02.11	45415-63002	April, 1992
Context MBA/150	A.02.03	45481-63001	April, 1990
CorrectStar	3.32	45427-63002	September, 1992
CorrectStar hard-disk upgrade	3.32	45429-63002	September, 1992
CorrectStar to SpellStar	3.32	45429-63001	September, 1992
Diagraph	A.03.01	45463-63001	September, 1992
Drawing Gallery	A.02.01	45411-63002	October, 1993
EtherMail	2.1	45639-63001	October, 1991
EtherShare	2.1	45645-63002	October, 1991
EtherShare/150 Server	1.0	45649-63002	October 1991
EtherLink	2.1	45844-63002	October, 1991
Gallery Picture Library Vol. II	A.01.00	45433-63001	September, 1992
Graphics (bar disk, text disk, pie disk, line disk, examples disk)	A.03.01	45410-63001	April, 1990
GraphPlan	1.00.T2	45467-63001	
GraphWriter	A.01.01	45484-63001	May, 1991
Lattice C Compiler	A.01.01	45452-63001	June, 1992
Lotus 1-2-3	1A		January, 1992
System Disk		45482-63001	
System Disk & Backup disk		45482-63004	
Utility		45482-63002	
Tutorial 1&2		45482-63003	
Printgraph		45482-63005	

**Discontinued Software
Replacement Media Exchange Kits**

Product (Notes)	Version	Order Part Number †	Exchange Available Through
		3.5" Disk	
MailMerge	A.03.30	45401-63001	March, 1990
MemoMaker	B.01.02	45420-63001	December, 1991
MicroPlan	4.04.T2	45465-63001	May, 1991
MicroPlan Consol.	4.04.T2	45466-63001	May, 1991
MS Spell	A.01.00	45556-63001	September, 1992
MultiMate	3.29	45424-63001	September, 1992
MultiPlan	A.01.10	45473-63002	May, 1991
Painter	A.01.00	45540-63001	September, 1992
PC Interface with HP 150	A.01.00	61060-63001	April, 1992
PCF	B.01.02	45422-63001	December, 1990
PFS: File & Report	A.02.41	45488-63001	May, 1991
Picture Perfect	A.03.01	45462-63001	September, 1992
R:Base 4000	1.1	45545-63001	December, 1991
SpellStar	A.03.30	45402-63001	March, 1990
Transend COMplete	A.01.00	45414-63001	May, 1991
VisiCalc	B.01.02	45405-63004	April, 1990
HP Vectra:			
CAT (5.25")	A.01.00	14753-61002	September, 1993
CAT (3.5")	A.01.00	14753-61004	September, 1993
Exec. Spreadsheet	A.01.01	68332-65001	September, 1992
MS Windows Kernal	A.01.03	45954-63001	November, 1993
MS Windows Write/ Paint	A.01.03	45954-63002	November, 1993
MS Windows 2.0 Kernal	B.02.00		December, 1993
5.25"		45954-60002	
3.5"		45954-60005	
MS Windows 2.0 Fonts & Utilities	B.02.00		December, 1993
5.25"		45954-60003	
3.5"		45954-60006	
MS Windows 2.0 Apple 5.25"	B.02.00	45954-60004	December, 1993
MultiMate	3.29	68338-65001	May, 1992
MultiMate Advantage	3.29	68343-65001	May, 1992
TextChart	A.02.00	45406-65001	August, 1990

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**Discontinued Software
Replacement Media Exchange Kits**

Product (Notes)	Version	Order Part Number† 3.5" Disk	Exchange Available Through
Portable/110:			
DataFax	A.01.01	45408-63001	December, 1990
dBaseII	*A.02.41	45468-63001	September, 1992
PC 2622 (Reflection)	1.0	82861-64001	March, 1991
Rags to Riches			
Ledger	A.01.00	45520-17301	December, 1992
Sales	A.01.00	45521-17301	December, 1992
Receivables	A.01.00	45522-17301	December, 1992
Payables	A.01.00	45523-17301	December, 1992
Reflection	1.0	82861-64002	March, 1991

*Revised since original release.



**Discontinued Software
Replacement Media Exchange Kits**

Product (Notes)	Version	Order Part Number†		
		3.5" Disk	5.25" Disk	8" Disk
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 (Note 1)	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 (Note 2)	A.02.00	45550-13800	45550-15800	45550-18800
Condor 3/12x (Note 3)	*A.02.00	45550-13802	45550-15802	45550-18802
BPI G/A/12x	A.01.00	45552-13800	45552-15800	45552-18800
BPI Payroll/12x	A.01.00	45553-13800	45553-15800	
WordStar/12x	A.01.00	45560-13800	45560-15800	45560-18800
SpellStar/12x	A.01.00	45561-13800	45561-15800	45561-18800
MailMerge/12x	A.01.00	45562-13800	45562-15800	45562-18800
MicroPlan/12x	A.01.00	45670-13800	45670-15800	
MicroPlan Cons./12x	A.01.00	45671-13800	45671-15800	
WordStar	3.31	n/a	68345-65001	May, 1992
WordStar Professional	3.31	n/a	68346-65001	May, 1992

See notes on next page.

* Revised since original release.

† For each kit ordered, along with your payment submit one corresponding original master disk. This is the disk with the HP software product number and description printed on the label. Be sure to make working copies before sending your master disk.

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 disk cannot be accepted.

Notes

- 1—This kit is to exchange your Link/125 disk for a Link/125 disk. (If you want to *upgrade* to Series 100 DSN/Link, order part number 45534-13810 or 45534-15810.)
- 2—A Condor 2 disk or a Condor 1 to 2 upgrade disk may be exchanged for the Condor 2 disk.
- 3—A Condor 3 disk, a Condor 20-2 or 3 Upgrade disk, or a Condor 20-1 to 3 Upgrade disk may be exchanged for the Condor 3 disk.

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 disk 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 disk (containing the software being updated) for each update kit ordered. This is the disk 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 disk 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			.	.

Tax Exempt? No Yes

Tax Exempt or Resale Number _____

Subtotal _____

State/Local Taxes _____

TOTAL _____

Ship To

Company _____

Attn Of _____ Bldg/Room _____

Street Address _____

City _____ State _____ Zip _____

Standard Shipping Method is UPS Surface




Special Shipping Instructions _____

Payment Method

Purchase Order (Number _____)

Check Enclosed (Payable to Hewlett-Packard Co.)

Credit Card (Check one, provide all information, and sign)

Account No. _____

Expiration Date _____

Name on Card _____

Address _____

Signature _____

Use this form for prepaid U.S. orders only POD 1/84 (Over)

All of the items listed in this issue, except software update/upgrade kits and HP-conducted training courses, are available from your dealer or HP:

- Your local dealer can often provide immediate delivery. (To locate a dealer, call 800/FOR-HPCC in the U.S. or contact your local HP office—ask for “Personal Computer Dealer Sales.”)
- Your HP sales and service office will transmit your order to the appropriate HP distribution center.

Ordering by Telephone from HP

Except for systems, peripherals (such as disk drives and printers), and training courses, most items listed in this issue are also generally available by telephone (HP Direct) from Hewlett-Packard:

- Australia (03) 895-2645
(03) 895-2615
(03) 895-2815
(03) 895-2861
- Austria (0222) 2500-614
(0222) 2500-615
(0222) 2500-616
- Belgium/Luxembourg (02) 761 31 11
- Canada (800) 387-3154
Toronto local (416) 671-8383
- Denmark 04 30 16 40
- Finland (90) 887 2361
- France (1) 69 86 17 25
- Greece (01) 672 6090
- Hong Kong 584 8756
- Italy (02) 9236 9702
- Mexico 676 7892
- Middle East
Athens (01) 6828811
- Netherlands 06-0501
- Norway (02) 24 60 90
- Singapore 279 8824
- South Africa
Johannesburg (011) 8025111
Cape Town (021) 537954
- Spain 91-6374013
91-6370011

- Sweden(08) 7502400
- Switzerland (057) 31 24 90
- The Netherlands (020) 547 6606
- United Kingdom (0734) 697201
(0734) 441212
- 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 disk 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 disk 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* 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.

All *HP PC Communicator* back issues are available. Some of the early issues may be supplied as photocopies.

To help you decide which issues you need, the table below shows which products are covered in each issue, and when each product line was introduced. Not all issues have articles on all products.

All articles, including the Encyclopedia articles of past issues, are listed in the *HP PC Communicator* Master Index in the "yellow pages" of this issue.

To order back issues, check the HP Product Number in the table below, and call HP DIRECT. For the phone number nearest you, see "How to Order" in the green pages.

Issue	Order Number	HP 120/125	HP 150	HP Portables	HP Vectras
1	5955-3937	X			
2	5955-3943 U.S. 5955-3947 Intl.	X			
3	5957-6213	X			
4	5957-6204 U.S. 5957-6214 Intl.	X			
5	5957-6205 U.S. 5957-6215 Intl.	X			
6	5957-6206 U.S. 5957-6216 Intl.	X			
7	5957-6207 U.S. 5957-6217 Intl.	X	X HP 150 introduced		
8	5957-6218	X	X		
9	5957-6219	X	X	X Portable introduced	
10	5958-0250	X	X	X	
11	5958-0251	X	X	X	
12	5958-0252	X	X	X	
13	5958-0253		X		X Vectra introduced



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SUBSCRIBERS

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HP Internal Users and HP Employees

Call (415) 372-6002 in the U.S., or complete the Subscription Order Form on the next page and mail it to the address given on the form. Then request reimbursement through petty cash. The Subscription Order Form can also be requested on HPDesk from Order Communicator/HP4200/02.

Due to the cost of processing, please use HP purchase orders for multi-subscription orders only.





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Personal Computer Group

HP PC Communicator
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Martinez, CA 94553

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