

March/April 1988

- AdvanceLink
- Drawing Gallery
- Executive MemoMaker
- Data Transfer

For users of
HP Personal Computer
Products



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The HP PC Newsline

Late-breaking news on HP personal computer products

Three add-on hard disc drive mechanisms for the HP Vectra RS PCs can now be ordered. Available in 103-, 155-, and 310-Mbyte storage capacities, these drive mechanisms are the ESDI drive mechanisms which are standard in the Vectra RS/20 Models 100, 150, and 300.

The add-on disc drive mechanisms can be used as second hard disc drives in Vectra RS/16 and RS/20 PCs already equipped with one ESDI drive. The add-on mechanisms enable you to configure a Vectra RS with up to 620 Mbytes of disc storage capacity. No additional cabling or controllers are required to install a second drive.

The add-on disc drives can also be used as replacement drives for users who wish to upgrade Vectra RS PCs with the 40 Mbyte ST-506 hard disc drive to the large capacity, ESDI drives. When used as an upgrade, the ESDI Four Function Controller (HP D1677A) must also be installed. The ESDI drives feature 17 millisecond average seek time and 40,000 hour MTBF, the highest reliability for a 5 1/4-inch mechanism.

To order, contact your dealer or HP sales representative.

Description (Product Number)

103 Mbyte ESDI Add-On Drive Mechanism (HP D1674A)
155 Mbyte ESDI Add-On Drive Mechanism (HP D1675A)
310 Mbyte ESDI Add-On Drive Mechanism (HP D1676A)
ESDI Four Function Controller (HP D1677A)



* * *

You can now order Windows 2.0 for your HP Vectra PCs. New features in Version 2.0 include:

o Consistency with OS/2 Presentation Manager Graphical User Interface

The graphical interface in Windows 2.0 is consistent with the forthcoming Presentation Manager, the user interface for version 1.1 of OS/2. This includes overlapping windows and redefined windows management functions, such as drop-down menus that remain displayed until closed, and new mnemonic keys to accomplish tasks in a single keystroke. These changes will simplify the interface for first-time users while enhancing its efficiency for experienced users.

o Improved Memory Utilization

Windows 2.0 supports the use of Expanded Memory, EMS LIM 4.0 specification, to run multiple Windows applications simultaneously at their full performance and to switch rapidly between MS-DOS applications. With the HP Vectra ES systems, Windows can take full advantage of the HP Vectra ES and ES/12 Expanded Memory Card. On HP Vectra RS systems, the HP Expanded Memory Manager/386 provides expanded memory functionality with extended memory. (Windows 2.0 also supports existing EMS 3.2 accessories.)

o "Hot Key" Switching Between Active Applications

Windows 2.0 provides added flexibility in switching between Windows and MS-DOS applications, allowing users to "hot key" directly between applications. With Windows you can now switch directly between MS-DOS applications such as Graphics Gallery and Lotus 1-2-3 without first returning to Windows.

o Enhanced Graphics Functionality and Performance

Windows 2.0 provides additional graphics and bitmap capabilities, including support within the Clipboard for larger images up to 128 Kbytes, especially useful with scanners. WYSIWYG (What You See Is What You Get) graphics performance is enhanced through faster screen displays of proportionally-spaced text and through more accurate screen representation of final output.

Foundation for HP NewWave Environment

The HP NewWave environment is an advanced application environment based on Windows 2.0. It provides a window, or view, into an organization's entire network of information and computing resources. Because NewWave builds upon Windows 2.0, it offers users and developers the benefits of the Windows industry-standard platform.

Complete Vectra PC Family Support

Microsoft Windows 2.0 for the HP Vectra PC is supported for the entire HP Vectra family of PCs, including the Portable Vectra CS, the Vectra CS, ES, and RS systems, as well as original Vectra systems. Windows 2.0 for the HP Vectra PC continues to support a broad selection of HP peripherals including the HP Mouse, the enhanced HP PCL driver for the LaserJet printer, and HP's entire line of plotter products.

The HP product supports Vectra-specific features, such as HP video solutions and HP-HIL input devices, that are not supported in the standard Microsoft product. HP Vectra users should continue to purchase Microsoft Windows for the HP Vectra PC for full Vectra support and optimum performance.

You can order the following products from your dealer or HP sales representative:

- o Microsoft Windows 2.0 Presentation Manager for the HP Vectra PC (5 1/4-inch discs)
HP 45954B
- o Microsoft Windows 2.0 Presentation Manager for the HP Vectra PC (3 1/2-inch discs)
HP 45954C

Users who purchased Microsoft Windows for the HP Vectra PC version 1.03 qualify for the Windows 2.0 Upgrade Package (HP 45954-60001) offered through HP DIRECT (5 1/4-inch discs only). To order the upgrade, follow the general ordering instructions in the article "Software Exchange Kits" in the green pages of this issue.

* * *

New font products for the LaserJet printer family:

A new **Bar Code 3-of-9** font cartridge, part number HP 92286W1, is now available. The "W1" replaces the HP 92286W cartridge which has been discontinued since it is incompatible with the new LaserJet Series II printer.

All fonts in the HP 92286W1 are compatible with the discontinued HP 92286W font cartridge except for the 9.3 pitch 3-of-9 bar code. It has been replaced with an 8.1 pitch font.

Contents	Style	Pitch	Point
Letter Gothic	Medium	16.66	9.5
Letter Gothic	Medium	10	14
OCR-A	Medium	10	12
Bar Code 3-of-9		4.6	12
Bar Code 3-of-9		8.1	12
Linedraw		10	12

To order, contact your dealer or HP sales representative.

The popular **Bitstream Soft Fonts** are now offered with HP's Roman8 symbol set. Now you can get the ITC Garamond(R), Century Schoolbook(R), Zapf Humanist(tm) and Headline font products in either Roman8 or ASCII symbol sets.

HP Part Numbers:	ASCII	HP Roman8
ITC Garamond	33412RA	33412RB
Century Schoolbook	33412SA	33412SB
Zapf Humanist	33412TA	33412TB
Headlines Typeface Col.	33412UA	33412UB

The Roman8 symbol set includes characters used in the International market and can also be used to create the ISO (International Standards Organization) symbol sets found in the LaserJet Series II and LaserJet 2000 printers. Because the Roman8 symbol set includes more characters, it takes up more disc space, and takes longer to download individual fonts. If the European characters are not needed, it may be best to purchase the ASCII versions of the Bitstream fonts. For further information on fonts, consult your local dealer, or your LaserJet User's Manual.

Note: HP's soft font products are not offered in the MS-DOS Version 3.2 (3 1/2-inch) disc format.

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Century Schoolbook is a registered trademark of Kingsley-ATF

Zapf Humanist is a trademark of Bitstream, Inc.

* * *

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.

Subscriptions and Back Issues

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

Becoming a Contributor

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

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Hewlett-Packard Company
P.O. Box 486
Sunnyvale, CA 94086 U.S.A.

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



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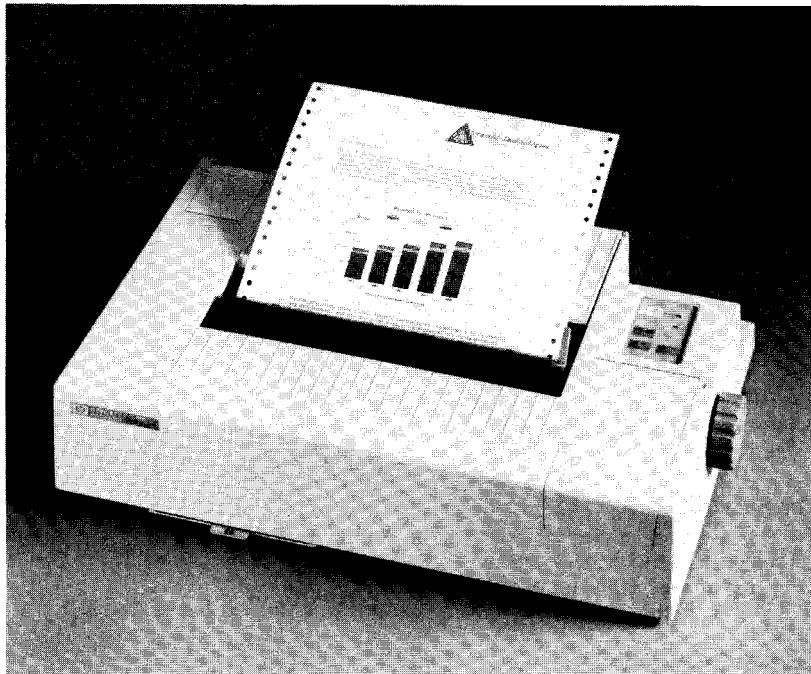
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The Encyclopedia

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Current Information

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HP Vectra PC and HP PaintJet Printer: MultiColored Printing with Executive MemoMaker

Mary Jo Taylor

Multi-color Without Embedded Escape Sequences

Now you can create output with multi-colored text using Executive MemoMaker (EMM) (A.03.00) and the HP PaintJet printer. By substituting escape sequences in DeviceID you can change text color in the document without having to embed escape sequences in the document.

For instance, if you want the body of your document to print in black and use red and blue for emphasis, you would:

1. Run DeviceID
2. Press Printer/Plotter
3. Highlight HP PaintJet
4. Press Modify Devices
5. Press Modify Esc Seq
6. Edit the escape sequences as follows:

Turn Bold Print On: Esc&v1S (Red)
Turn Bold Print Off: Esc&v0S (Black)
Turn Underline On: Esc&v4S (Blue)
Turn Underline Off: Esc&v0S (Black)

Then use the Enhance Bold and Enhance Underline keystroke sequences to specify red and blue print.

Using Bold or Underline

You can print in multiple colors and still use bold or underline. To use bold, for example, put the escape sequence for Bold (secondary) in the Printer Setup String (on the Print Menu) in EMM. Then do a "shift out" before the block of text to be printed in bold, and a "shift in" afterwards to return to normal type.

Bold (Secondary): Escs1B
Shift Out: Ctrl N
Shift In: Ctrl 0

You can use this process on a block of "color enhanced" text to get output which is both bold and colored. To use underline instead of bold, put the escape sequence for underline (secondary) in the Printer Setup String.

Another way to get bold/colored or bold/underlined text is to combine the escape sequences for both in the appropriate field in DeviceID. For instance, say you wanted all the red text to be printed in bold, you would edit the escape sequences as follows:

Turn Bold Print On: Esc(s1Besc&v1S
Turn Bold Print Off: Esc(s0Besc&v0S

If you don't want to print in black at all, but prefer to have the body of your document print in green, you could put the escape sequence for green in the Printer Setup String followed by the escape sequence for bold (or underline) as a secondary font. You could then print your document in green, have the two other colors you set up in DeviceID to use for emphasis, and be able to access bold (or underline) by shifting in and out.

You can install several versions of the HP PaintJet driver with DeviceID. In Modify Device you have the ability to edit the printer driver label. What this means is that you can have a device called HP PaintJet1 with one set of customized escape sequences, another called HP PaintJet2 with different escape sequences, and so on. Add to this, the ability to have several EMM format files, called Paint1.FMT, Paint2.FMT and so on, each with different margin settings, escape sequences, etc. The possibilities are many.

With a little creativity you can produce some very interesting output, particularly since graphic files brought from Gallery into EMM print out in full color.



Here are some tips for using extended characters with Executive MemoMaker (EMM) on the HP Vectra PC. The following information explains which character set (Roman8 or IBM8) is accessed when an extended character is entered in EMM, and how the Character Set field in DeviceID affects printed output.

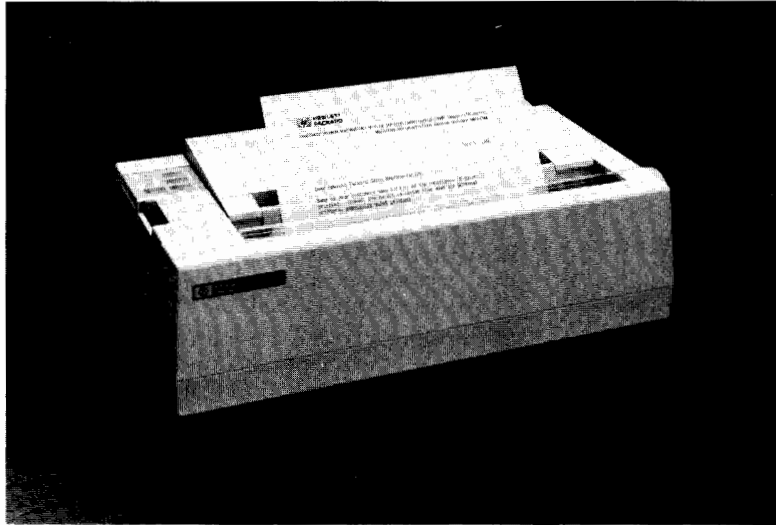
For instance, if you want to use the degree symbol (°) in your document, access it by holding down the Alt key while keying in 248 on the number pad. The decimal value for the extended character "°" degree symbol in the IBM8 character set is 248.

When printing your document, the information that gets sent to the printer depends on what you entered in the "Character Set" field in the Modify Device screen in DeviceID. If you are using an IBM printer, which supports only IBM8 characters, set the Character Set field to IBM8. The degree symbol will be sent to the printer as decimal 248. If you are using an HP printer, which supports only the Roman8 character set, make sure the Character Set field is set to Roman8. The degree symbol will be sent to the printer as decimal 179, which is the decimal value for the degree symbol in the Roman8 character set.

It's very important that the Character Set field in DeviceID coincide with the character set of your printer, otherwise you will get some rather confusing results. For example, if you are printing to an HP (Roman8) printer and the Character Set field in DeviceID indicates IBM8, instead of a degree symbol you will get one half (½). Note: If you are using a LaserJet II and you change the character set on the printer (e.g., from Roman8 to IBM8) you must do a printer reset before the change will become effective.

Not all of the characters in the IBM8 character set are available with EMM. Those characters (for example, line and box draw characters) which do not have an equivalent in the Roman8 character set are mapped to an asterisk (*). There are two reasons for this—first, to preserve "what you see is what you get," and second, because EMM/Vectra stores documents in Roman8 so that they will be compatible with EMM/150, which uses the Roman8 character set exclusively.





You can avoid repeatedly typing printer setup strings in Lotus 1-2-3 by automating the process with a macro. Here's an example.

Suppose you want to toggle between compressed print and normal print on the HP QuietJet printer. Set up the first macro as follows:

```
A
1 '/PPOS{esc}
2 '^027&k0S
3 Q
```

Then name the range \N. (**Type / R(ange) N(ame) C(reate)**, \N, range A1 . A3). This macro sets up the "Normal" print escape sequence. To execute it, type **[Alt] N** on the HP Vectra PC, or **[CTRL] [Shift] N** on the HP Touchscreen PC.

Set up the second macro as follows:

```
A
5 '/PPOS{esc}
6 '^027&k2S
7 Q
```

Then name this range \C. (**Type / R N C**, \C, range A5 . A7). This macro sets up the "Compressed" print escape sequence. To execute it, type **[Alt] C** on the HP Vectra PC, or **[CTRL] [Shift] C** on the HP Touchscreen PC.

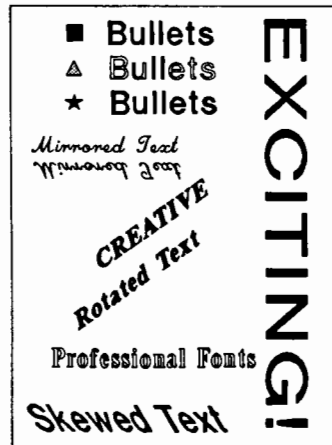
These macros simply type the keystrokes that you'd otherwise type by hand:

/ Print Printer Options Setup, the Escape Key, then the escape sequence, and finally, Quit to next menu.

□



Have you tried the new text features of Drawing Gallery version 2.0 that let you create the effects shown below?



With Drawing Gallery 2.0 you can:

■ **Bullet Text**

Use "Add Bullet" from the second level of the Edit menu. The bullet shape can be a shape from the Shapes menu, text character(s), or any object on your drawing board.

■ **Mirror Text**

To mirror text:

1. Enter the text string to be mirrored.
2. Copy that text, placing it directly below the original.
3. With the copy active, select "Stretch/Shrink" and grab the top middle handle and drag downward. As you drag down, the text box will become flat and then increase in height again as you drag further down.
4. Release the mouse button when the size of the mirrored (flipped) text box is the height of the original text.
5. You may need to make minor adjustments to the height of the mirrored text to match that of the original.

■ **Rotate Text**

Use Rotate from the second level of Edit menu to rotate any text. You can either visually rotate by dragging a handle, or you can rotate by entering an exact angle of rotation.

■ **Slant Text Path**

The Text Paths available on the second level of the Text menu let you select from Across, Up, Down, Slant Up, or Slant Down. Use these to specify a current path for any new text entered.

■ **Text Fonts**

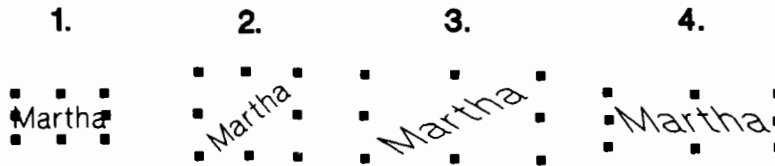
Drawing Gallery 2.0 provides 27 fonts including variations of Modern, Uniform, Classic, Script, and Gothic.

■ **Skew Text**

Skewed text can be created in a variety of heights and slants by first rotating, then stretching, and finally rotating back a line of text.

Use these steps:

1. Activate the text to skew.
2. Rotate the text.
3. Stretch/Shrink the rotated text.
4. Rotate the text back to its original zero degree angle.



As a general rule of thumb, a larger initial degree of rotation results in taller text; a greater stretch results in more skew (slant). Refer to the matrix below to see the effects of varying angles of rotation and amounts of stretch. Look along the top of the matrix to see the angle of rotation used and the direction of the subsequent stretch; look along the left side to see the amount of stretch. For example, the Martha in the upper left corner was produced by first rotating the text forty-five degrees, then stretching it horizontally two grid points, and finally rotating the text back to zero degrees.

Skewed Text

	Rotate 45° Stretch ←→	Rotate 45° Stretch ↓ **	Rotate 20° Stretch ←→	Rotate 75° Stretch ←→
Stretched 2 grid points	Martha	<i>Martha</i>	Martha	Martha
Stretched 5 grid points	Martha	<i>Martha</i>	Martha	Martha
Stretched 10 grid points	Martha	<i>Martha</i>	Martha	Martha

** Same effect can be achieved by rotating 315, then stretching ←→

Rule of Thumb: The greater the stretch, the more skewed/slanted; the greater the rotation, the taller, more elongated the text.





This discussion of the Command File Interface is an excerpt from the Drawing Gallery HP FastTrak (HP 68352X), which is described in the article "HP FastTrak, FastTrak PLUS and Expert Guide Self-Study Packs" in the green pages of this issue.

Drawing Gallery Command File Interface

Although not a supported feature of Drawing Gallery, the Command File Interface is useful in customizing and automating certain Drawing Gallery tasks. Therefore it is documented in this HP FastTrak for advanced users.

Because the Command File Interface is not a supported feature of the product, it is not documented in the end-user manual. This means that Hewlett-Packard Customer Support organizations will not supply assistance or consulting on this feature. HP does not plan to fix any bugs or problems that are found in the feature. Also, it is not absolutely guaranteed to be in future releases of Drawing Gallery.

This section explains the capabilities and use of Drawing Gallery Command File Interface. This section includes:

- Overview of the Command File Interface
- How To Use the Command File Interface Commands
- Lab—Using the Command File Interface

Overview of the Command File Interface

The Command File Interface allows you to automate tasks frequently used, or to batch prints or plots. First you place a sequence of commands into a command file. Then alter a copy of the batch file that executes Drawing Gallery, making the change to direct it to execute your command file.

You can use the Command File Interface to:

- Get a picture
- Print or plot a picture
- Redirect the plot or print to a disc file
- Get a Lotus 1-2-3 or Symphony worksheet graph
- Change the chart type for the above graph
- Set the default directory for getting and saving pictures
- Set the default template sets that are used in the Shapes menu
- Activate the automatic stretch feature



The Command File Interface does not do error handling. Therefore, if any error condition exists, results may be unpredictable. Some common error conditions are command files containing errors or incorrectly configured printers or plotters. In most cases, these errors cause the program to stop running and display a message on the screen. When this occurs you may need to reboot.

How to Use the Command File Interface

You may find it useful to skim this section, then do the lab called "Lab—Using the Command File Interface."

1. Create a command file according to these specifications:
 - The command file must be in simple ASCII file format. Create it using any word processor that can save ASCII files, or the MS-DOS COPY CON command.
 - Each command should be on its own line, terminated by a line feed.
 - A list of available commands is provided in the "Commands" section.
2. Make a copy of the batch file that runs the Drawing Gallery program, DRAWGAL.BAT, which is installed into the Gallery subdirectory. This batch file normally can be used to execute Drawing Gallery from DOS. You should make copies of this to edit.
3. Simplify and modify the batch file from step 2 (an ASCII file) to tell Drawing Gallery to execute the command file after the program is invoked. Append to the run command in this file the line:

```
;info="@<command filename>"
```

Note: Be sure to include the ampersand (@) before the command file name; otherwise Drawing Gallery will interpret this as the name of a picture file you want to read after Drawing Gallery is loaded.

For example, the batch file that executes Drawing Gallery contains the three run command lines:

```
echo off
cls
gal64.exe drawgal.b00;lib=pcaios.g04,gal2.v75
```

To modify these lines to execute your command file named MY.CMD alter the third line to read:

```
gal64.exe drawgal.b00;lib=pcaios.g04,gal2.v75;info="@my.cmd"
```

Notice that the only change is the additional "info" parameter.

To work properly, your batch file name must end in .BAT and be saved in ASCII format. It must also reside in the subdirectory where Charting Gallery is installed.

Note: You could also make a generic Drawing Gallery batch file in which you pass as a parameter the command file to execute; e.g., DRAW PLOTS would execute the command file PLOTS, whereas DRAW MY would execute the command file MY. To set this up, the batch file DRAW.BAT would contain the line:

```
gal64.exe drawgal.b00;lib=pcaios.g04,gal2.v75;info="@%1"
```

The %1 is the variable which you provide when invoking the batch file.

-
4. If you will be printing or plotting, run Drawing Gallery and confirm that all of the settings on the Device Control screen are appropriate. You cannot control these settings in your command file, so you need to adjust them before executing the command file. If you are drawing multiple pictures from one command file, they will all be drawn to the same device with the same orientation, margins, etc.
 5. To run Drawing Gallery with the command file, make sure you are in the subdirectory where both are installed; then enter the name of the new batch file and press **Enter**.
-

Commands

Here is a table of commands, their parameters, and examples of their use. The commands are defined in the "Glossary of Commands" on the pages that follow.

Command	Example
AUTO_STRETCH_ON (no parameters)	AUTO_STRETCH_ON
DRAW_TO_DEVICE (no parameters)	DRAW_TO_DEVICE
DRAW_TO_FILE <file name>	DRAW_TO_FILE PIC7550
EXIT_PROGRAM (no parameters)	EXIT_PROGRAM
GET_AND_PRINT <picture name>	GET_AND_PRINT PIC2.GAL
GET_GAL <picture name>	GET_GAL PIC3.GAL
GET_LOTUS <file name> <graph name>	GET_LOTUS SHEET.WK1 GRAPH 1
GET_TEMPLATE_SET <template filename>	GET_TEMPLATE_SET ARROWS.TPT
SET_DIRECTORY <path name>	SET_DIRECTORY C:
SET_GRAPH_TYPE <graph type>	SET_GRAPH_TYPE HORIZ_STACK

Example Command Files:

1. This command file directs Drawing Gallery to set the default directory for getting and saving to C:\GALLERY\PICS, to set **AutoStch On** and to include the arrows template set with the Basic on the shapes menu.

```
set_directory C:\GALLERY\PICS
auto_stretch_on
get_template_set ARROWS.TPT
```

2. This command file draws the three pictures PIC1.GAL, PIC2.GAL, and PIC3.GAL to the device last set on the Device Control menu of Drawing Gallery.

```
get_and_print A:\PIC1
get_and_print A:\PIC2
get_and_print A:\PIC3
exit_program
```

Note: This command file may be preferred over the batch plot capability from DOS (e.g. DRAWGAL A:*.GAL) because in this case the Drawing Gallery program is loaded only once for all the pictures drawn; however with the command file you cannot use wildcards.

3. This command file gets the current graph from a Lotus 1-2-3 worksheet, changes it to a vertical clustered type, plots it to the device last used, and then exits Drawing Gallery.

```
set_graph_type vert_clust
get_lotus A:\SHEET.WK1
draw_to_device
exit_program
```

Glossary of Commands:

AUTO_STRETCH_ON (no parameters)

- Turns **AutoStch On** on the Settings menu.
- Because of users accidentally stretching/shrinking objects they intended to move, the automatic stretch/shrink capability was made an option on the Settings menu; the default is **AutoStch Off**. This command lets you change that default.

DRAW_TO_DEVICE (no parameters)

- Draws a picture to the currently specified printer or plotter using the current Device Control settings.
- Can be used with the GET_GAL or GET_LOTUS commands to draw pictures or graphs. (Note that spooling multiple pictures requires that you plot a device with an automatic sheet feeder.)
- You **CANNOT** configure your output device from within a command file. Drawing Gallery uses device defaults from the last time that the application was run interactively.

DRAW_TO_FILE <file name>

- Redirects the printing or plotting of a picture to the indicated disc file name, using the current Device Control settings for device and output options.
- Can be used with the GET_GAL or GET_LOTUS commands to draw pictures or graphs.
- You **CANNOT** configure your output device from within a command file. Drawing Gallery uses device defaults from the last time that the application was run interactively.

EXIT_PROGRAM (no parameters)

- Exits the Drawing Gallery program after the previous commands have completed.

GET_AND_PRINT <picture name>

- Loads a picture file and prints (or plots) it to the device last used, as indicated on the Device Control menu.
- You cannot configure your output device from within a command file. Drawing Gallery uses device defaults from the last time that the application was run interactively.
- You must specify the entire file name, including subdirectory if different from the Drawing Gallery directory; or set the current subdirectory with SET_DIRECTORY.

GET_GAL <picture name>

- Loads a picture file; if no commands follow, you will be left on the Drawing Gallery Main screen with the picture displayed.
- You must specify the entire file name, including subdirectory if different from the Drawing Gallery directory; or set the current subdirectory with SET_DIRECTORY.

GET_LOTUS <file name> <graph name>

- Loads a graph from a Lotus 1-2-3 or Symphony worksheet (i.e. .WKS, .WK1, .WRK, .WR1).
- You must specify the entire file name, including file extension (e.g., .WK1) and subdirectory if different from the Drawing Gallery directory.
- The current graph in the worksheet is used if no graph name is included with the command.
- If the SET_GRAPH_TYPE command is specified before this one, the graph type will be converted as it is read in.
- This command will not read Lotus 1-2-3 or Symphony .PIC files (not a Drawing Gallery capability).

GET_TEMPLATE_SET <template filename>

- Loads a template file into the current Shapes menu, along with the default Basic template set.
- You must specify the entire file name, including file extension (.TPT) and subdirectory if different from the Drawing Gallery directory.
- Can be used multiple times (up to 8) to customize the default set of template shapes appearing on the Shapes menu.
- Specify template files in the order you want the shapes to appear on the Shapes menu.

SET_DIRECTORY <path name>

- Specifies default directory for the picture name field when getting, adding, or saving pictures.
- This default directory information is also used by the other commands that require file names (i.e. "GET_GAL" and "GET_LOTUS") if a subdirectory is not specified. However, it is not used for the GET_TEMPLATE.SET command.

SET_GRAPH_TYPE <graph type>

- Used optionally to change the graph type for any Lotus 1-2-3 or Symphony graphs later retrieved with GET_LOTUS.
- Graph type options are:
HORIZ_STACK
HORIZ_CLUST
VERT_STACK
VERT_CLUST
LINE
SCATTERGRAM
X.Y
PIE
DEFAULT
- Use this command before using the GET_LOTUS command.

**Lab—Using the
Command File
Interface**

In this lab you will:

- Create a command file.
 - Create a new .BAT file to run Gallery with your command file.
 - Set up Drawing Gallery to set the default directory and automatic stretch option and then get a picture. This could be a picture you always begin with as a model.
1. Create a command file.
 - Run any word processor that can save ASCII files, such as Executive MemoMaker.
 - Type in this text:
SET_DIRECTORY A:
AUTO_STRETCH_ON
GET_GAL <picture name> (enter a picture name you have, including subdirectory)
 - Save the text with the filename, TEST, in ASCII format, in the directory or drive that contains Drawing Gallery.

2. Create a new .BAT file to run Drawing Gallery with TEST

- Load a copy of DRAWGAL.BAT (name it DRAW2.BAT) into your word processor in ASCII format.
- Delete most of the lines and modify the last so that the contents of your file look like this:

```
echo off
cls
gal64.exe drawgal.b00;lib=pcaios.g04,gal2.v75;info="@TEST"
```

Note: The exact syntax of the run command may vary depending on the version of Drawing Gallery; always use that found in DRAWGAL.BAT.

- Save the new batch file in ASCII format as DRAW2.BAT, on the disc or subdirectory where you found DRAWGAL.BAT.
3. Run Drawing Gallery with your new command file.
- From DOS go to the subdirectory where Drawing Gallery resides.
 - Type DRAW2; then press Enter.
 - Check that the command file was properly executed by seeing if you have **AutoStich On** on the Settings menu, that the default directory is A:, and that the picture you specified is loaded.
-

□



This article describes the procedure that should be used when trying to print landscape using AdvanceWrite F.01.03 and AdvanceWrite Plus. In addition, it includes information on how to print landscape newspaper columns. This discussion assumes a basic knowledge of creating and printing documents with AdvanceWrite.

The specifications were tested using a Series II LaserJet printer.

The article is divided into four parts:

Part	Paper Size	Tray Installed	Column Text
1	8.5 x 11	Yes	No
2	8.5 x 14	Yes	No
3	8.5 x 14	No	No
4	8.5 x 11	Yes/No	Yes
	8.5 x 14	Yes/No	Yes

**Part 1: 8.5 x 11 with
Paper Tray**

With F.01.03:

To print landscape on 8.5 x 11-inch paper set the following FORMAT PAGE options:

Page Length = 8.5"
Page Width = 11"
Bottom Margin = .5"
Top Margin = .5"
Line Spacing = 1

In addition, the default print wheel on the DO DEFAULTS page must be a landscape wheel.

With AdvanceWrite Plus:

Use the same FORMAT PAGE as above; however, answer yes to the format option on Landscape/Portrait orientation in the FORMAT PAGE menu.

In addition, you no longer need to specify a landscape wheel in the DO DEFAULTS menu.

**Part 2: 8.5 x 14 with
Paper Tray**

With F.01.03:

To print landscape on 8.5 x 14-inch paper with a paper tray, set the following FORMAT PAGE options:

Page Length = 14"
Page Width = 14"
Bottom Margin = 6.5"
Top Margin = .5"
Line Spacing = 1

In addition, the default print wheel on the DO DEFAULTS page must be a landscape wheel.

With AdvanceWrite Plus:

Use the following page format. Answer yes to the format option on Landscape/Portrait orientation in the FORMAT PAGE menu.

In addition, you no longer need to specify a landscape wheel in the DO DEFAULTS menu.

Page Length = 8.5"
Page Width = 14"
Bottom Margin = .5"
Top Margin = .5"
Line Spacing = 1

**Part 3:
8.5 x 14 Paper
Without Tray
(Manual Feed)****With F.01.03:**

Use the following procedure to print landscape on 8.5 x 14-inch paper when you do not have a paper tray.

1. When printing, you must specify that you have single sheet (S) paper in the first PRINT DOCUMENT menu.
2. In your document, you must create a "dummy" first page. This will eliminate problems with creeping text. You can create a page break using REPAGE B. The FORMAT PAGE options for the dummy page should be:

Page Length = 14"
Page Width = 14"
Top Margin = .5"
Bottom Margin = 7.5"
Line Spacing = 1

3. All other pages should have the same FORMAT except for the bottom margin.
Bottom Margin = 6.5"
4. You need to place a wheel change mark for a landscape wheel 1) at the top of the file, and 2) in a header at the beginning of the file. A wheel change mark is indicated by MARK W.
5. When you print the document, a blank sheet will print first. This is because of the orientation change of the wheel mark. Next, the dummy page will print. At this point, a WP-25 error (Printer needs attention) will prompt you to manually feed the paper. After you are sure paper is positioned in printer, hold SHIFT and PRINT to continue. You will need to follow this procedure for all remaining pages in the document.

With AdvanceWrite Plus:

Use the following page specifications:

Page Length = 8.5"

Page Width = 14"

Bottom Margin = .5"

Top Margin = .5"

Line Spacing = 1

When printing, you must specify that you have single sheet (S) paper in the first PRINT DOCUMENT menu.

In addition, you must turn on Manual Feed on the printer, and answer yes to the FORMAT PAGE option to print in landscape.

When you print the document, page 1 will print, and then a WP-120 error will occur. After you are sure paper is positioned in printer, hold SHIFT and PRINT to continue. You will need to follow this procedure for all remaining pages in the document.

**Part 4:
Newspaper Columns**

The following table can be used as a guide when trying to print newspaper columns in landscape mode with F.01.03 and AdvanceWrite Plus.

It is assumed that you have followed the appropriate procedure in Parts 1–3 to set up your document initially.

Note: If you are printing on 8.5 x 14-inch paper without a paper tray and you are printing two columns, you will need to specify two "dummy" pages at the beginning of the document. Similarly, if you are printing three columns, you will need three "dummy" pages. Once you begin printing, two blank pages will print before your document.

The left and right margins below are suggested margins only; they are not necessarily the maximum allowable margin widths.



To print newspaper columns, you must specify the number of columns you want to print in the second PRINT options screen. To access this screen, answer yes to the "MORE OPTIONS?" choice in the first PRINT options screen.

Paper Size	# of Columns	Pitch	Left Margin	Right Margin
8.5 x 11	2	10	5	50
	2	12	10	60
	2	16	10	80
	3	10	10	35
	3	12	10	40
	3	16	10	50
8.5 x 14	2	10	10	60
	2	12	10	75
	2	16	10	95
	3	10	10	40
	3	12	10	50
	3	16	10	68



The ZIP command of R:BASE System V allows you to execute programs written outside of R:BASE from within R:BASE or an R:BASE command file. The ZIP command directly executes any command that can be issued at the DOS prompt except internal DOS utility commands such as PATH, SET, or COPY.

A complete description of how the ZIP command functions is given on pages 1–24, 25, and 26 of the *R:BASE System V User's Manual*. To summarize, however, the ZIP command executes large and small program files differently.

**Small
Program
File**

You can ZIP out to a small program, meaning one that will fit into the memory left over after R:BASE has been loaded, and execute the program directly with the ZIP command. When the program has finished executing, the ZIP command returns to the next line in the command file, or returns back to the R> prompt if the ZIP command was executed from within R:BASE. An example of the ZIP command in this situation would look something like:

```
CLS
ZIP COMMAND.COM /C DIR /W
EXIT
```

In this example, the ZIP command is used to pass control of the program back to MS-DOS which then executes the DIR command with the /W option. Control is then returned to the next statement in the command file which is to EXIT R:BASE.

Large Program File

However, if you have a large program file that will require more memory than is available after starting R:BASE, you will need to use the ROLLOUT option with the ZIP command, ZIP ROLLOUT. The ROLLOUT option basically tells R:BASE to remove most of itself from memory, and return that memory space to the system, thus making the memory available to the next application. When you do a ROLLOUT command, R:BASE saves the database that's open, saves the global variables, and saves the environment settings of R:BASE. It then removes most of itself from memory, and executes the new program. After the external program has finished, R:BASE is executed again, re-loads the environment it previously saved, and executes the RBASE.DAT file. At this point, R:BASE leaves the user at the R> prompt, and awaits input from the keyboard instead of executing the next command in the command file. If the ZIP ROLLOUT was executed from within R:BASE, then execution is also returned to the R> prompt. Thus it is the RBASE.DAT file which is the key to 1) returning to the original command file which called the ZIP ROLLOUT command, or 2) jumping to a different section in the command file.

Here's an example of what you can do to bring your execution of the command file back to any location in your R:BASE application:

- The file RBASE.DAT should contain something like the following:

```
SET VAR ENTRYPT TEXT
IF ENTRYPT FAILS THEN
  SET VAR ENTRYPT = MAIN
ENDIF
RUN APPLIC IN APPLIC.APX USING
  ENTRYPT
```

This creates a variable, called ENTRYPT, that holds a label located in the R:BASE application. If the variable is null, which it always is upon entry, then you will go to the label MAIN in the R:BASE application. On the other hand, if you reset the variable to be something other than null, then control of R:BASE may be set to be a location in the command file other than the MAIN section.

- The MAIN section of the R:BASE application will have the following as its first two lines.

```
GOTO .%1  
LABEL MAIN
```

The .%1 allows you to change the name of the label to which you want to jump each time you enter your R:BASE application. The first time you start the R:BASE application, you will go to the label MAIN as that's what gets set in RBASE.DAT. If you change the value of the variable ENTRYPT and then perform a ZIP ROLLOUT, you can jump back to any part of the R:BASE application that you want.

- In the part of your R:BASE application where you want to call the external program file, you reset the variable ENTRYPT before the ROLLOUT command is called.

```
SET VAR ENTRYPT = ZRETURN  
ZIP ROLLOUT COMMAND.COM /C MAKEMSG.BAT  
LABEL ZRETURN
```

The above shows that you set the variable ENTRYPT to another part of the R:BASE application called ZRETURN. What occurs next is the following:

- The ZIP command gets executed, which in turn saves the R:BASE variables and environment. The variable ENTRYPT is now set to the label ZRETURN.

- The external program is executed. When you quit that program, R:BASE is reloaded, the global variables are re-loaded, and then the RBASE.DAT file is executed. Upon entering the R:BASE application the second time, the variable ENTRYPT is now set to ZRETURN instead of MAIN. Since ENTRYPT exists, the IF statement in the RBASE.DAT file is not executed, thus the variable ENTRYPT does not get changed back to MAIN. The run command passes ZRETURN to the R:BASE application. The main file starts up if the GOTO command is encountered, at which time R:BASE jumps to the specified label, and the R:BASE application continues from that point.

Thus, even though the way R:BASE executes the ZIP command with and without the ROLLOUT option is inconsistent, you can utilize the RBASE.DAT file to get control over your command file. As just explained, if you create a variable that holds the label names of different locations in your command file, you can jump to any position in your command file that you want.



The A.02.00 version of Scanning Gallery now lets you print using the standard Print or using HP Direct Print from the File menu of the Image Editor. How they differ is explained in the paragraphs and matrix below.

Print

When you print using the standard **Print** command, Scanning Gallery uses the printer specifications set up in the Windows Control Panel for such things as printer type, port, baud rate, etc. The Windows spooler and device drivers are used to handle the actual printing. This is also the way most Windows applications perform their printing.

HP Direct Print

When you select **HP Direct Print**, Scanning Gallery handles the printing (to HP LaserJets, QuietJets, or ThinkJets) itself, bypassing the Windows printing and spooling facilities. Therefore, don't use HP Direct Print when the Windows spooler is actively printing a document from another application!

HP Direct Print is the only method provided in versions A.01.00 and A.01.02 of Scanning Gallery. Now with version A.02.00 you have a choice.

In general the HP Direct Print provides a faster print with limited capabilities. Note that none of the Printer Options in the Windows Control Panel are used.

The matrix below shows the exact differences between Print and HP Direct Print.

Differences of Print vs. HP Direct Print	Capability	Print	HP Direct Print
	Speed	Is slower than HP Direct Print	Is faster than Print
	Image size	Can print images larger than one page	Prints only first of a multi-page image
	Image position	Centers image on the page	Places the image in the upper left corner of the page
	Resolution	Prints the proper size image regardless of printer resolution	Will change the size of the image if the printer resolution doesn't match the image resolution
	Memory and Disc space	Requires more than HP Direct Print	Requires less than Print





TIFF (Tagged Image Format File) files, the image files created with Scanning Gallery, can be quite large depending on the image size and resolution specified. For example an 8½ by 11-inch image scanned at 300 DPI can consume over 1 Mbyte of disc space. If you need to conserve disc space, you should specify compression when doing a final scan or as a setting in the Image Editor.

When using compression, be aware that:

- Compressing and decompressing images takes time when working with images—consider the tradeoffs of time vs. disc space.
- Compression is valid only for the TIFF file format, not other converted formats.
- You cannot compress images with Shades of Gray/Color set to Gray Scale.
- Some applications cannot accept compressed images; don't compress images that you intend to place in such applications. Refer to the manual for your application to verify whether it accepts compressed images.

The disc space savings are highly dependent upon the complexity of the image. In general with line art (no shades of gray selected), you can realize up to 8:1 to 10:1 savings—in extreme cases you could see a 15:1 savings. With photographs (dither pattern selected), you can realize 2:1 to 5:1 savings.

Scanning Gallery uses the compression algorithms as documented in the TIFF standard Rev 4.0. Thus, a modified CCITT Group 3 compression scheme (not FAX compatible) is used when "no shades of gray" is selected. A PackBits scheme is used when a dither pattern is specified for "shades of gray."

The table below shows a real example of disc consumption for a photograph, scanned with the coarse Fattening dither pattern, at different sizes, resolutions, and compression. The photograph used was the tiger found in the user's guide.

	<u>Not Compressed</u>	<u>Compressed</u>
300 DPI 8½ x 11-inch	1,060 KB	540 KB
150 DPI 8½ x 11-inch	265 KB	166 KB
300 DPI 2 x 3-inch	72 KB	18 KB
150 DPI 2 x 3-inch	54 KB	16 KB

□



With AdvanceLink version B.00.01, you could access and run an MS-DOS program from within AdvanceLink, provided there was enough memory available to run the program. To do so you would press the function key labeled DOS Command and then enter an MS-DOS batch file name or executable program name. In order to return to AdvanceLink you had to exit the program.

Now, with AdvanceLink B.01.00, you can context switch or flip-flop (similar to MS Windows) between AdvanceLink and an MS-DOS application. This feature, for example, will allow you to save time when you want to use HPDESKMANAGER and write your messages with your favorite word processing applications.

Here are some pointers on how to use this new feature.

■ Set a PATH to the Command Interpreter.

When in AdvanceLink, if you press the DOS Command function key, AdvanceLink will attempt to find and run COMMAND.COM. Since AdvanceLink will most likely reside in sub-directory, it is necessary to set a PATH to where COMMAND.COM resides. If COMMAND.COM is in the root directory, then you need to issue the command `PATH = C:\;` before you run AdvanceLink. This can be done in the AUTOEXEC.BAT file by adding the line `PATH = C:\;`

■ Invoking Another Program

If you press the DOS Command function key, you can enter any executable program or batch file. (Again, the proper PATH must be further expanded and set, or the batch file set up).

Below is an example for running Executive MemoMaker (EMM) from within AdvanceLink.

1. Create a batch file in the AdvanceLink sub-directory called EMM.BAT. Assuming that Executive MemoMaker is in the sub-directory called EMM, the batch file should look like this:

```
ECHO OFF
CD\EMM
IF %1 "==" GOTO NOFILE
ADV2EMM %1
GOTO END
:NOFILE
ADV2EMM
:END
```

This batch file lets you run EMM from within AdvanceLink and autoload a file to edit. When this batch file is run it will first change the directory to EMM and run another batch file called ADV2EMM.BAT.

2. Create a batch file in the EMM sub-directory called ADV2EMM.BAT. This batch file should look like:

```
ECHO OFF
IF %1 "==" GOTO EMM
EMM64 MM.RUN;LIB=MMLIB.V71,MMAIOS.V02;INFO="-G%1"
GOTO END
:EMM
EMM64 MM.RUN;LIB=MMLIB.V71,MMAIOS.V02
:END
CD\ADVLINK
```

This batch file will run EMM and autoload a file, if specified. When you exit EMM, the batch file will change directory back to the AdvanceLink sub-directory.

■ Context Switching between AdvanceLink and an MS-DOS application

After invoking EMM (or whatever application you choose) according to the instructions above, you can now context switch or flip-flop between EMM and AdvanceLink. To accomplish this, you need to press ALT plus the left Shift key simultaneously; they are default context switching keys. (You can reprogram these keys using the &HOTKEY command.) Once you press these keys, you will be back in AdvanceLink. To get back into EMM, press the DOS Command function key or Alt plus left Shift key.

Please be aware that even though you have context switching capability, you do NOT have background processing capability. This means that you cannot be transferring a file in AdvanceLink and context switch to EMM, and you cannot be in EMM printing a file and context switch back to AdvanceLink. Performing the latter could lock your system.

Also be aware of memory resident PRINT.COM. You will also lock your system if you invoke PRINT.COM and context switch back to AdvanceLink.

■ **DOS Command vs. AdvLink Command**

You can context switch between two separate programs. You can have context switching capability only by pressing the DOS Command key and running a batch file or executable program. The DOS Command key can be looked upon like a doorway which leads out of AdvanceLink.

If you press the AdvLink Command function key and issue an AdvanceLink command like >EMM, you will successfully run the EMM program but you won't have context switching capability. The difference is that when you press the AdvLink Command function key, you have invoked the AdvanceLink command interpreter which then invoked COMMAND.COM and ran EMM. Since you are still in the AdvanceLink command interpreter, you haven't left AdvanceLink and therefore you do not have the ability to Context Switch.

For this same reason, you cannot context switch between AdvanceLink and another MS-DOS program when that MS-DOS program has been invoked through using the &KEY or &FASTKEY command.





Q: Does AdvanceLink version B.00.01 or later support an internal modem as COM3 or COM4?

A: No. Even if the internal modem supports COM3 and COM4, AdvanceLink won't recognize it.

Q: Does AdvanceLink version B.00.01 or later support COM3 or COM4 on a parallel/serial card?

A: Yes. You need to use the HP parallel/serial card (HP 24540B) and it must be installed in a full slot.

Q: Why do I get the error message "Unable to access COMMAND.COM" when I press the DOS COMMAND function key in AdvanceLink B.00.01 or later?

A: There are five possible reasons:

1. The operating system. If your personal computer is running DOS 2.1 or earlier, you won't be able to access COMMAND.COM programmatically.
2. Check your DOS PATH command. If COMMAND.COM resides in the root directory and AdvanceLink resides in a sub-directory, a PATH must be set to tell AdvanceLink where to look for COMMAND.COM.
3. COMMAND.COM may not actually exist.
4. There may not be enough memory to load COMMAND.COM.
5. Check your CONFIG.SYS file. Make sure that you set FILES = 10 or more.

Q: When running AdvanceLink version B.00.01 or later using the Graphics terminal emulator under MS Windows for the HP Vectra, why is it that if I type an HP 3000 command, it appears on the screen very slowly?

A: When there is not enough memory available for AdvanceLink to run, it swaps the keyboard driver in and out of memory, thus slowing down performance. There are some workarounds to improve performance.

1. Remove any unnecessary drivers from CONFIG.SYS.
2. Don't use any memory resident programs—check AUTOEXEC.BAT and remove them.
3. Reduce terminal memory size in the Global Config Screen.
4. Use AdvanceLink with the Alpha terminal emulator.

Q: What programs can I run from AdvanceLink B.01.00?

A: The answer to this question depends on how much memory is available. For a system which has 640 Kbytes of RAM, and assuming that no device drivers are used, no RAM resident programs are in use and P.A.M. is not used, the available memory would be:

System Memory Available	640KB
-Operating System	40KB
-Device Drivers	0KB
-P.A.M. (5.5KB)	0KB
-RAM resident programs	0KB
-AdvanceLink (with Alpha emulator using 16KB for terminal memory)	227KB
<hr/>	
= Available Memory	373KB

Therefore, this system would have 373 Kbytes of memory available to load and run another MS-DOS program from within AdvanceLink. If you use P.A.M., some device drivers, or a RAM resident program, this figure will obviously be reduced and might affect your ability to run certain MS-DOS programs. Programs that will not run from AdvanceLink B.01.00 even with 373 Kbytes of memory available are:

Drawing Gallery 2.0
Charting Gallery 2.0
R:BASE 5000
R:BASE System V

Q: Why doesn't the B.00.01 version of AdvanceLink work with the new (CS, ES, RS) Vectra PCs?

A: The new Vectra PCs have a DIN connection to the keyboard. This behaves differently than the original HP-HIL connection, and the older versions of AdvanceLink do not recognize it.

Q: Can I use the HP Terminal program with B.00.01 AdvanceLink to make it work on the new Vectra ES/CS/RS PC?

A: No. Under no circumstances will it work to take the TEMPOE.LIB file from the current terminal emulator program shipped with the new Vectra PCs, and insert it into ANY version of AdvanceLink prior to B.01.00 because the shape of the configuration file has changed and is not compatible.

Q: I presently have AdvanceLink version B.00.01 and want the new version, how do I order it?

A: If you have B.00.01, order the update kit from HP DIRECT. The update kit part number is HP 68333-65002. If you have an earlier version, A.05.xx, where xx is a number, then you must order the upgrade kit. The upgrade kits are:

<u>Product No.</u>	<u>Description</u>
68333-65001	1 copy
68333Z	Quantity 10 right to copy
68333M	Quantity to 50 right to copy
68333N	Quantity 50 site license

To order an upgrade follow the general ordering instructions in the article "Software Exchange Kits" in the green pages of this issue. You do not need to own a site license to purchase the site license upgrades.



Q: What versions of AdvanceLink are supported on the different Vectra PCs?

A: See the matrix below.

AdvanceLink Version / Hardware Support Matrix

	A.05.04 or less	A.05.06	B.00.01	B.01.00
Vectra / Vectra A +	Supported	Supported	Supported	Supported
Vectra with MonoPlus Monitor	Unsupported	Supported	Supported	Supported
Vectra ES	Unsupported	Unsupported	Unsupported	Supported
Vectra CS / Portable CS	Unsupported	Unsupported	Unsupported	Supported
IBM XT/AT	Supported	Supported	Supported	Supported
IBM PS/2 (any model)	Unsupported	Unsupported	Unsupported	Supported

Supported— This version of AdvanceLink will run on this system and is supported on this system by HP.

Unsupported— This version of AdvanceLink will not run or work properly on this system and is not supported by HP.



If you've used AdvanceLink to access a system 1) via X.25, 2) from a multiplexor, or 3) from an uncommon modem, you may have already encountered the message "Waiting for remote response." This error means that AdvanceLink (AdvLink) is trying to run Monitor on the host, but that the two programs are unable to communicate with each other. Well, the solution may be that you need to use some special AdvLink commands for file transfer over X.25.

HEX Mode Commands AdvLink has two methods of network file transfers, HEX and NET modes. Hex mode is available in all versions of AdvLink for the HP 150 and the Vectra PCs. There are five commands used for hex mode:

- &HEX ON Enables AdvLink to transfer data in hex
- &HP3000 OFF AdvLink will not expect DC1 (XON) character during file transfer
- &TERMINATOR ":" AdvLink will look for : before sending data
- &BLOCKSIZE 110 This tells AdvLink to transfer the file 110 bytes at a time. AdvLink uses 18 additional bytes for overhead, making a 128-character block. Since many multiplexors and PAD devices use a buffer of 128 characters, &BLOCKSIZE 110 ensures that no blocks will be broken apart when passing through the multiplexor. For example, if the buffer size of the multiplexor is 64, you should set the blocksize to 46 ($64 - 18 = 46$).
- &HOSTCOPY "RUN MONITOR.PUB.SYS;INFO = 'HEX' " Enables MONITOR.PUB.SYS to transfer data in hex

Net Mode Commands Net mode is available on "B" versions of AdvLink on the Vectra. Four commands are needed to run net mode:

- &NETMODE ON Enables AdvLink to transfer data in hex
- &NETCHARS... Determines which ASCII characters are used as network control characters (refer to AdvLink manual for syntax and details)
- &NETCHLEN 7/8 Use 7 or 8 for use over 7-bit or 8-bit network
- &HOSTCOPY "RUN MONITOR.PUB.SYS;INFO = 'HEX' " Same as in HEX mode

What's the Difference Between Hex and Net Modes?

First of all, keep in mind that the network, mux, or modem uses control characters. If you were to transfer a file which includes those control characters (in fact, any file transfer could normally produce control characters), the control characters would be interpreted by the network and the transfer would never complete, which is why you get "Waiting for remote response." It's for that reason that a special protocol is needed to transfer files over a network. Hex and net modes are essentially two different transfer protocols.

The following paragraphs describing Hex and Net Mode are taken from the AdvanceLink FastTrak (HP 89916F). (For information on this FastTrak, see the article "HP FastTrak, FastTrak PLUS and ExpertGuide Self-Study Packs" in the green pages of this issue.)

Hex Mode: Hex mode, set by using the AdvanceLink &HEX command, allows the use of the HP file transfer protocol over data channels that support only 7 bit ASCII communications. An example of this is the default state of most X.25 networks. Hex mode takes each byte of data to be transferred, splits it into two 4 bit "nibbles," converts these nibbles to hexadecimal characters and sends them as two successive characters. At the receiving end, the process is reversed to reconstruct the full byte.

While this process does allow the transfer of a binary or 8 bit ASCII file over a data comm line that supports only 7 bits, the transfer time using this process is twice what it would be outside of Hex mode.

Net Mode: X.25 networks like all other networks, use a certain set of ASCII characters for link control functions. If any of these characters exist in the file you are attempting to transfer over the network, they will be interpreted as network characters and acted upon thus affecting the file transfer. NETMODE allows the user to define what the network control characters will be. When a block of data is ready to be sent, it is scanned for network control characters. If a control character is found, a "flag" character is inserted immediately before it and a constant is added to the ASCII value of the network control character (thereby turning it into a non-control character). At the receiving end, the inverse process is performed.

Character Length: The length of the characters which will be actually sent over the network is defined by the &NETCHLEN command. The default is 8 bits. For links that support only 7 bit characters, set &NETCHLEN = 7. This will result in about a 15 percent increase (minimum) in characters sent.

Blocksize: Selecting the AdvanceLink BLOCKSIZE becomes an important issue. The BLOCKSIZE should be set to a size less than the X.25 packet size (X.25 Pad buffer equals 128 bytes) to allow for overhead and the additional characters inserted by NETMODE. Failure to select the proper BLOCKSIZE will result in sending a large number of X.25 packets. Generally speaking, you should allow about 10 percent for overhead and additional characters for an 8-bit transfer (BLOCKSIZE = 115) and about 25 percent for a 7-bit transfer (BLOCKSIZE = 108).

Examples:

The following AdvanceLink commands were issued to set up HEX mode:

```
&HOSTCOPY "RUN MONITOR.PUB.SYS;INFO='HEX'"  
&BLOCKSIZE 110
```

The following AdvanceLink commands were issued to set up NETMODE:

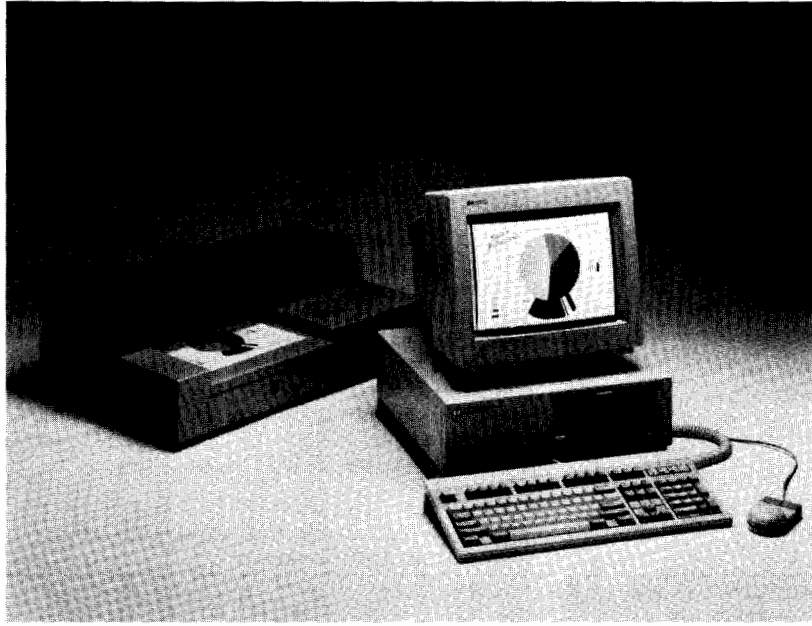
```
&NETMODE ON  
&HOSTCOPY "RUN MONITOR.PUB.SYS;INFO='HEX'"  
&NETCHARS "@P'Q'R'S'T'E'F'H'J'I'Y'X[#85#86"  
&NETCHLEN 7  
&BLOCKSIZE 110
```

Note: NETMODE commands issued by AdvanceLink B.00.01 and later to an old version of Monitor/3000 (A0201 or earlier) will actually convert to HEX mode.

What Configurations Require Network Modes?

Only networks that use X.25 protocol are supported by these transfer methods. It may or may not work over other types of networks. Multiplexors, such as the HP 2334 may also require the use of an X.25 transfer method whether or not it's actually running X.25 software. And we've found that several types of modems also require the use of the X.25 commands. If you ever see the message "Waiting for remote response" and you're not sure if your equipment or network software traps any control codes, try one of these methods—it may just solve the problem.

□



If you have an HP Vectra CS PC with an HP Multimode video display and you do not have the HP-HIL accessory card installed, you should be aware of the following information for installing Graphics Gallery, Executive MemoMaker or AdvanceLink.

During the installation procedure you will need to select the appropriate video display and adapter. If you have an HP Multimode video display and you do not have the HP-HIL accessory card installed, you should select the IBM Color Graphics Adapter (CGA)/IBM Color Display instead of the HP Multimode Adapter and color or monochrome monitor.

If you have an HP Multimode video display and you do have the HP-HIL accessory card installed, select HP Multimode adapter and HP Multimode monitor during installation.

If you select the wrong video adapter on the HP Vectra CS PC, and then run Graphics Gallery or Executive MemoMaker using merged text and graphics, you will get a message saying you have selected the wrong video display adapter. To correct the problem, run DeviceID again, and select the correct video adapter and display.

If you select the wrong video adapter when installing AdvanceLink on the HP Vectra CS PC, it will not run. To correct the problem, you must re-install AdvanceLink and select the correct adapter and display.



The HP DeskJet printer is now available in the U.S. and Canada; it will be available in Europe and other countries in June 1988. Software for the new HP DeskJet Printer is multi-faceted and has been developed so that you can plug in your new printer and print almost immediately. There are three basic components to the software.

- **Unique DeskJet Drivers**—See the *Software Reference Guide* for a complete listing (HP 5954-9945)

Over 40 software packages (approximately 50 versions) support the DeskJet Printer at this time, and the list is growing daily. We also ship drivers for several of the most popular software packages with the printer. These drivers are available in the back pocket of the owner's manual on a 5¼-inch disc (in MS-DOS format) and include installation instructions. At this time, drivers for the following software applications are shipped with the printer, however, this list is subject to revision:

Lotus 1-2-3
Lotus Symphony
Wordstar 2000
Wordperfect
Framework II
Multimate Advantage
Multimate Advantage II

- **HP LaserJet Drivers**—See the *DeskJet Owner's Manual* (HP 02276-90004) for a listing of tested drivers

Due to the similarities between the DeskJet and LaserJet Printer (PCL III), many LaserJet drivers will work with the DeskJet Printer. You can select the LaserJet driver already in your software package and, in most cases, the DeskJet Printer will work. The situations in which a LaserJet driver may not perform well with the DeskJet Printer are when using proportional space fonts, and mixed text and graphics packages.

Check the DeskJet Owner's Manual Application Notes for tested software applications.

- **Epson FX-80 Emulation Cartridge**—Available from HP DIRECT phone lines (HP 22707E)

If you use a software package for which an HP DeskJet or LaserJet driver is not available, there is a good chance that the package supports an Epson Printer. Using the Epson FX-80 emulation cartridge will allow you to use your DeskJet with software when using the Epson driver in the software package.

- Other key issues:

Where you can find more information:

Owner's Manual (HP 02276-40009)

What is a Printer Driver

How to get DeskJet Printer Drivers

How to install and use HP LaserJet Drivers

How to install and use HP DeskJet Drivers

Disc with Several DeskJet Drivers

ISV Phone Numbers and Addresses

Software Reference Guide (HP 5954-9945)

List of Software Packages that Support the DeskJet Printer

ISV Phone Numbers and Addresses

To order one of these publications, contact your HP sales office.



The complete editor version of Scanning Gallery is now available. The ScanJet Interface Kit includes version A.02.00 of Scanning Gallery. Enhanced and added features for this version include:

- Complete image editing as described in the user manual:
 - Cut now works with clipboard
 - Copy
 - Clear
 - Crop
 - Paste—an additional floating box feature for positioning image
 - Undo/Redo—also indicates last editing used
- Complete printing capabilities:
 - Print utilizing Windows print facility (i.e. configuration and spooler)
 - HP Direct Print to LaserJet, QuietJet, and ThinkJet (bypasses Windows print facility)
 - Gray scale draft print
 - Accelerator key **P** to go directly to Print dialog box
- Full View of image in Image Editor Window
- Detail View selection using Specify Detail View command
- Enhanced Final Scan options:
 - Negative of Image
 - Increased "Image size when printed" range of 13 to 200% for 300 dpi or 50 to 800% for 75 dpi, depending on the selected resolution
 - Increased custom resolution range—38 to 600 DPI
- Enhanced Help with Help Index and Screen/Menu Help—Help window can remain open while using other functions
- Scanner firmware date code displayed using About in Scanner Window System menu

If you have an earlier version of Scanning Gallery, turn in the response card which was included with the original software to receive the free update.



Since the original release of Scanning Gallery A.01.00, there have been two additional releases—A.01.02 and A.02.00. The Scanner Window and the Image Editor Window matrices that follow show the capabilities available in the different Scanning Gallery versions.

Key:

Y = Available as described in initial user manual

Y+ = Available with additional features

Y- = Available with limitations to user manual description

N = Not available

Scanner Window Capabilities	Scanner Window	A.01.00	A.01.02	A.02.00
File				
Convert To		Y	Y	Y+
Scan				
Preview Scan		Y	Y	Y+
Final Scan		Y	Y	Y+
Settings				
Custom Resolution		Y	Y	Y+
Paper Size		Y	Y	Y
Shades of Gray		Y	Y	Y
Prompts		Y	Y	Y
Help				
Help Index		Y	Y	Y
Screen/Menu Help		N	N	Y+

A.02.00 Notes:

1. Convert To includes conversion to PC Paintbrush 4 Color.
2. Preview Scan includes Negative of Image option.
3. Final Scan includes Negative of Image option, increased size range from 7 to 800 percent—range extent depends on resolution.
4. Custom Resolution Settings includes increased range of 38 to 600 DPI.
5. Help includes Screen/Menu prompt and open Help Window.



Image Editor Window Capabilities	Image Editor Window	A.01.00	A.01.02	A.02.00
	File			
	Open	Y-	Y-	Y
	Save	N	Y	Y
	Save As	N	N	Y
	Print	N	N	Y+
	HP Direct Print	Y-	Y-	Y
	Convert To	N	Y	Y+
	Edit			
	Undo/Redo	N	N	Y+
	Cut	N	Y-	Y
	Copy	N	N	Y
	Clear	N	N	Y
	Paste	N	N	Y+
	Crop	N	N	Y
	Select All	N	N	Y
	Scan			
	Scanner	Y	Y	Y
	View			
	Full View	N	N	Y
	Specify Detail View	N	N	Y+
	Detail View	Y	Y	Y
	Settings			
	Compression	N	N	Y
	Background	N	N	Y
	Help			
	Help Index	Y	Y	Y
	Screen/Menu Help	N	N	Y+

A.01.00 Notes:

1. File Open not operational with gray scale or compressed images.
2. Print only to HP Printers, bypassing Windows printing facilities—image always centered and exact resolution must be used—neither gray scale nor compressed images.

A.01.02 Notes:

1. File Open not operational with gray scale or compressed images.
2. Print only to HP Printers, bypassing Windows printing facilities—neither gray scale nor compressed images.
3. Cut does not put image on clipboard.

A.02.00 Notes:

1. Print includes Gray Scale Draft Print, use of ^P accelerator keys for normal Print, HP Direct Print for HP printers.
2. Convert To includes conversion to PC Paintbrush 4 Color.
3. Undo/Redo indicates last edit performed.
4. Paste includes floating paste box capability.
5. Specify Detail View—new way to indicate area for detail view.
6. About in Scanner Window System menu has scanner firmware date code.



	<p>Executive Card Manager (ECM) for the HP Vectra and Touchscreen PCs has been changed because of a potential problem with ECM data index files. The ECM code has been fixed so that this file problem does not occur and a utility is supplied with the ECM software to repair any existing damaged index files.</p>
Description of the Problem	<p>The problem occurs when you delete an entry that falls at the end of an index block. Occasionally, pointers may not be adjusted properly across the block boundary. The usual result is that you are unable to add, delete, or modify cards, even though there is plenty of disc space available. You may also see duplicate card entries, "endless" sorts, and other unexpected behavior.</p>
How to Repair a Bad ECM Index File	<p>The new versions of ECM include a utility called REPAIR.EXE on the ECM Utility disc that can be used to fix a corrupted index file. A README file on the disc describes how to use the REPAIR utility.</p> <p>As long as you are able to work with a cardfile without any problems, you do not need to use REPAIR.</p> <p>If you experience any of the following problems, it is likely that your cardfile has a damaged index file, and you should use REPAIR to fix the index file:</p> <ol style="list-style-type: none">1. Adding cards to a cardfile is impossible2. Sorting cards takes an unusual amount of time3. A large block of cards is missing from a cardfile4. A large block of empty cards appears in a cardfile <p>Note: Symptoms may not appear until some time after index file damage has occurred. A user might upgrade to the new version of ECM and later discover a damaged index file. This damage can have been done by their old version of ECM but just wasn't evident until some time after the upgrade. The REPAIR utility will fix the index file.</p>

**Ordering
Information**

Upgrade/Exchange Kits are available from HP DIRECT. To order, follow the general ordering instructions in the article "Software Exchange Kits" in the green pages of this issue.

HP Part	Description
68331-65001	ECM/Vectra Upgrade/ Exchange Kit Version A.01.08
45421-63004	ECM/150 Upgrade/Exchange Kit Version A.02.02



HP now offers an internal tape backup solution for the HP Vectra Personal Computer family. The new product (HP D1671A) provides 40 Mbyte of formatted data storage on the compact DC 2000 data cartridge. This half-height tape drive connects to the existing Vectra flexible disc drive cable and power cables. The product also interfaces with the optional "Flexible Disc Expander" board (HP D1678A) which enables Vectra RS systems to support an additional two—for a total of four—flexible disc interface devices.

**The Companion
for 40 Mbyte
Hard Disc
Drives**

This tape drive is the perfect companion for the 40 Mbyte hard disc, and the software utilities provided with the product enable the user to backup and restore the Vectra RS 103 Mbyte, 155 Mbyte, and 310 Mbyte ESDI hard discs in a smooth manner. The tape software provides incremental backups—backing up only those files which have changed since the last backup—generally may be done on a single 40 Mbyte cartridge, even for the 310 Mbyte disc. This feature enables users to backup even the larger disc drives in unattended mode.

**The D1671A
Includes:**

The D1671A subsystem contains the following components:

- Tape mechanism with edge connectors and mounting rails "plug compatible" to existing Vectra flexible cables and mass storage cage
- Tape utility software on a 5.25-inch 360 Kbyte flexible disc
- One 40 Mbyte pre-formatted, certified data cartridge
- Installation and user documentation

The initial product release provides English language software and documentation. European language options will be released beginning in late Spring, 1988.

Support and Operation

The D1671A internal tape drive is currently supported on the Vectra RS/16 and RS/20. Verification testing currently underway will enable HP to support the product on members of the desktop Vectra family this Spring.

The tape drive operates under a variety of operating system and networking environments including:

- MS-DOS version 3.1 or later
- SCO XENIX System V
- STARLAN
- Novell Advanced Netware version 2.0a or later
- 3Com EtherSeries
- IBM Token Ring

To Order

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



For many of today's software applications written for MS-DOS, 640 Kbytes of base memory just isn't enough. For the HP Vectra ES and ES/12 PCs, the solution is the HP Vectra ES Expanded Memory Card, which is now available.

**Overcomes the
640 Kbyte
Barrier**

Hewlett-Packard's Vectra ES Expanded Memory Card overcomes the 640 Kbyte barrier for software written to take advantage of the Lotus/Intel/Microsoft Expanded Memory Specification (LIM EMS), the industry standard for expanded memory. With expanded memory, you can store and manipulate large spreadsheets in a single file rather than splitting them into multiple files when the 640 Kbyte limit has been reached. In addition, expanded memory will increase the performance of the HP Vectra system when switching between multiple applications under Microsoft Windows.

**Uses
LIM EMS 4.0**

While fully compatible with the LIM EMS, revision 3.2, popularized by Intel's Above™ Board, the HP Vectra ES Expanded Memory Card goes beyond this standard by using the recently introduced LIM EMS 4.0 memory specification. The new specification runs all of the software supported by LIM 3.2 including Lotus 1-2-3, Symphony, Framework, and dBase III. In addition, LIM EMS 4.0 features up to 16 times as many memory swap areas which can be used for executable code (computer instructions) as well as data. The benefits of LIM EMS 4.0 are most notable in applications supporting these features such as Microsoft Windows 2.0 for the HP Vectra PC (HP 45954B).

**Expandable
and Fast**

The HP Vectra ES Expanded Memory Card is the most expandable card available from any vendor. A single card can be loaded with up to eight Mbytes of memory. This high memory capacity is achieved by using Single In-Line Memory Modules (SIMMs), the latest in memory packaging technology. Because the card plugs into the HP Vectra ES Expanded Memory Slot, included exclusively on the HP Vectra ES and ES/12 PC motherboards, none of the seven standard accessory slots need to be used for memory expansion.

The HP Vectra ES Expanded Memory Card is also among the fastest memory cards on the market today. When installed in the HP Vectra ES/12 PC, the HP Vectra ES Expanded Memory Card runs at 12 MHz with one wait state, further enhancing the HP Vectra ES/12 PC's high speed performance.

**Like Two Cards
in One**

Finally, the HP Vectra ES Expanded Memory Card is like having two memory cards in one. All or part of the Vectra ES Expanded Memory Card can be set-up as extended memory for use in operating systems such as Xenix and Microsoft's OS/2.

**Ordering
Information**

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

To order, contact your dealer or HP sales representative.



The HP Vectra RS Series Personal Computers can now be ordered. The Vectra RS PCs are the flagship members of the Vectra PC product family. Using the Intel 80386 microprocessor and HP high performance disc drives, the HP Vectra RS/20 and RS/16 PC's have the power and expandability that make them ideal for demanding applications such as CAD/CAE, LAN Servers and multi-user systems. These floor-mounted PC s have the flexibility to be used in multi-user office environments as well as advanced single-user business and technical environments. This article complements the information about the RS in Issue 24 of this publication.

**Key Components
and Subsystems**

The superior performance of the HP Vectra RS PC results from the careful integration of key components and subsystems. Three such elements include the microprocessor architecture, the memory subsystem and the mass storage subsystem.

Intel 80386 microprocessor. The Intel 80386 microprocessor, standard on the RS/20 and RS/16, is the most powerful microprocessor in the PC industry. It has the highest performance and the greatest functionality of any processor in the Intel family. The 80386 provides much greater performance than its 80286 predecessors and is backward compatible with the large installed base of MS-DOS application software. The Intel microprocessor also has new modes which support multi-tasking for today's MS-DOS software. Finally, the microprocessor will run OS/2 and be compatible with the applications developed for it.

Memory Subsystem Architecture. The Vectra RS uses interleaved page mode memory architecture. Interleaved page mode memory architecture is a fast paged memory subsystem that approaches the performance of the more expensive cache-based system.

In addition, the Vectra RS Series supports LIM EMS 4.0, the most recent expanded memory specification. Applications that support this specification can break the 640 Kbyte memory restriction imposed by MS-DOS.

Mass Storage Subsystems. The ESDI Disc Controller, high performance HP disc drives and disc caching software have been designed to complement the fast 80386 microprocessor. The Enhanced Small Disc Interface (ESDI) and cache software increases the effective throughput from the disc controller to the disc mechanism. The high performance, high capacity drives, manufactured by HP, are the fastest in the PC industry; the drive mechanism featuring an average seek time of 17 milliseconds.

Benefits

The Vectra RS Series personal computers are attractive choices for current 80286-based PC users who need higher performance; users who need additional expansion capability, especially for mass storage; users who value performance and/or expandability but not at the expense of desk space, users who can perform their current mini/mainframe applications more efficiently and cost-effectively on an industry-standard PC.

In terms of performance, the Vectra RS PC has 20 MHz models and up to 620 Mbyte of 17 millisecond hard disc mass storage capability. The Vectra RS Series is also expandable: Eight AT-compatible I/O expansion slots, 620 Mbyte in six half-height mass storage shelves, 330 watt peak power supply and a floor-mount design.

The HP Vectra RS PC is designed for completeness and contains items in the basic product offering that are not standard in the industry. Such items include LIM 4.0 Expanded Memory Support, terminal emulation software, disc cache software, 80387 coprocessor support and "Shadow" RAM for improved video performance. The Vectra RS PC is compatible with the Weitek 1167 floating point accelerator. Completeness can also be defined in terms of a system or solution. The Vectra RS PC may be the foundation of a complete HP solution involving the broad range of HP personal computer and peripheral product offerings.

The dominant usage for these PCs are traditional, personal productivity application areas where there are performance and/or expansion limitations on current systems. The processing power of the 80386 has made the Vectra RS PC a product which can also be substituted into businesses which have not traditionally used Intel-based PCs.

For More Information

The article "The HP Vectra Personal Computer Systems and Personal Computers" in the green pages of this issue gives the product numbers for the various RS configurations.

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





**Memory
Expansion
and Math
Coproductors**

Several accessory products which further enhance the power and capabilities of the Vectra RS/16 and Vectra RS/20 PCs can now be ordered. These products include memory expansion products and Math Coprocessors for the Vectra RS/16 and RS/20 PCs.

Both one Mbyte Memory Expansion Kits and eight Mbyte Memory Expansion Kits are available. These Memory Expansion Kits used in various combinations allow the Vectra RS user to configure systems of two, four, eight, ten, and sixteen Mbytes of RAM or main system memory. All of the Memory Expansion Kits utilize Single In-line Memory Modules (SIMMs) rather than the conventional chip packaging. The SIMMs are completely user installable, plugging easily into connectors provided on the Vectra RS PC's processor/memory card.

The one Mbyte Memory Expansion Kits consist of four 256 Kbyte SIMMs. The eight Mbyte Memory Expansion Kits use higher density memory components consisting of eight one-Mbyte SIMMs. Separate Memory Expansion Kits are available for the Vectra RS/16 and RS/20 PCs. The Memory Expansion Kits developed for the Vectra RS/16 PC use memory components with 100 nanosecond access time while the kits developed for the Vectra RS/20 PC use faster memory components with 80 nanosecond access time to support the faster 20 MHz processor speed.

In addition to memory products, two coprocessors are available for the Vectra RS PCs. A 20 MHz Intel 80387 Numeric Coprocessor is available for the Vectra RS/20 PC and a 16 MHz Intel 80387 is available for the Vectra RS/16 PC. Installing a coprocessor can substantially enhance the performance of the software applications which support them. In a benchmark test using AutoCAD software, a Vectra RS/20 PC equipped with an 80387 coprocessor performed the test 4.5 times as fast as an RS/20 without a coprocessor (73 versus 330 seconds).

To Order	HP Product	Description
	D1540A	1 Mbyte Memory Expansion Kit (100ns)
	D1541A	1 Mbyte Memory Expansion Kit (100ns)
	D1640A	8 Mbyte Memory Expansion Kit (80ns)
	D1641A	8 Mbyte Memory Expansion Kit (80ns)
	D1570A	16 MHz 80387 Numeric Coprocessor
	D1670A	20 MHz 80387 Numeric Coprocessor
	To order contact your dealer or HP sales representative.	



Encyclopedia



Welcome to the Encyclopedia



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

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

What's in the Encyclopedia?

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

Encyclopedia articles containing:

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

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

Which Products are Covered?

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

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LaserJet Issue 16, Issue 12

Portable PLUS:

Most Frequent Questions Issue 17

The Portable:

Disc Drives Issue 12

Languages (see Touchscreen/150 and Portable Languages)

Lotus 1-2-3 Issue 12

MemoMaker Issue 12

Multiplan Issue 11

Odds and Ends Issue 15, Issue 12

P.A.M./MS-DOS Issue 12

Peripherals Issue 12

The Terminal Emulator Issue 12

HP Vectra PC—Hardware, Firmware, and Operating System

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HP Graphics Curator	Issue 18, Issue 15
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A quick reference guide for integrating your HP Vectra Office PC applications is shown here. It is designed so you can determine at a glance what file type to use when moving data from one application to another.

Vectra Office Integration Table

TO→		AdvanceWrite:		EMM	LOTUS	DrawGal	ChartGal	ECM
		AdvDoc	AdvList					
FROM	AdvDoc	AdvDoc	—	—	DCA ASCII	—	ASCII	ASCII
	AdvList	—	AdvList	DIF	—	DIF	—	DIF
	AdvSS	AdvDoc	DIF	AdvSS	—	DIF	—	DIF
	EMM	DCA ASCII	—	—	EMMDOC	ASCII	—	ASCII
	LOTUS	ASCII	DIF	DIF	ASCII	WKS	WKS/Grph (Not PIC)	WKS/Grph (Not PIC)
	CHARTGAL	TIFF	—	—	GAL	—	GAL	ChtGal
	DRAWGAL	TIFF	—	—	GAL	—	GAL	—
	ECM	ASCII	DIF	DIF	ASCII	DIF ASCII	—	DIF ASCII
	HPAccess	ASCII	DIF	DIF	ASCII	WKS	—	DIF

□

Recently Executive MemoMaker (EMM) Version A.03.00 introduced an EMMTODCA converter utility for converting EMM documents to the Revisable Form Text DCA file format so you could easily move documents from EMM to other applications using the DCA format. Here is an update for those of you moving files from EMM to PageMaker.

Using Standard ASCII Character Set

To move EMM documents into PageMaker using the Standard ASCII Character Set you can either bring the EMM document into PageMaker as a WordStar formatted file or use the EMMTODCA converter utility and bring the EMM file in as a DCA formatted document.

It doesn't really matter which method you use to bring your EMM document into PageMaker, the formatting and enhancements you have made to your EMM file will be converted in a similar manner. In other words, PageMaker will recognize enhancements like bold or underline in both file types. However, there is an extra step involved in using the EMMTODCA converter utility.

Using Extended ASCII Character Set

If you are importing EMM documents containing local (non-English) characters to PageMaker, then you need to use the EMMTODCA converter utility. Not only will the EMMTODCA utility convert any enhancements you have in your text, it will also convert the extended ASCII characters.

The EMMTODCA converter utility is the recommended solution for importing EMM files containing local characters to PageMaker.



Why are the results of certain Lotus 1-2-3 version 1A calculations displayed as .00 while the results of other calculations are shown as 0.00? They both equate to zero.

Here is an example of why this may happen:

The contents of cell A1, A2, A3, B1, B2, B3 are decimal numbers. Cell A4 contains the formula +A1-A2-A3 and cell B4 contains the formula +B1-B2-B3. Also, the format for all these cells is "General." Notice that cell A4 does not equate to an exact zero value. However, cell B4 does.

	A	B	C
1	98.7	98.5	
2	40.3	40.3	
3	58.4	58.2	
4	7.1E-15	0	

Lotus 1-2-3 uses floating point arithmetic and a computer can only represent floating point numbers to a certain degree of accuracy. Therefore, the result in cell A4 of this example is 7.1E-15, which for all practical purposes is 0, but is actually not a "true" zero value. You may avoid errors such as this by using the @ROUND function.

If you change the format of A1..B4 to "Fixed," with two decimal places to the right of the decimal point, your spreadsheet will look like this:

	A	B	C
1	98.70	98.50	
2	40.30	40.30	
3	58.40	58.20	
4	.00	0.00	

Why, then, in the second spreadsheet, is the result .00 in cell A4 and the result 0.00 in cell B4?

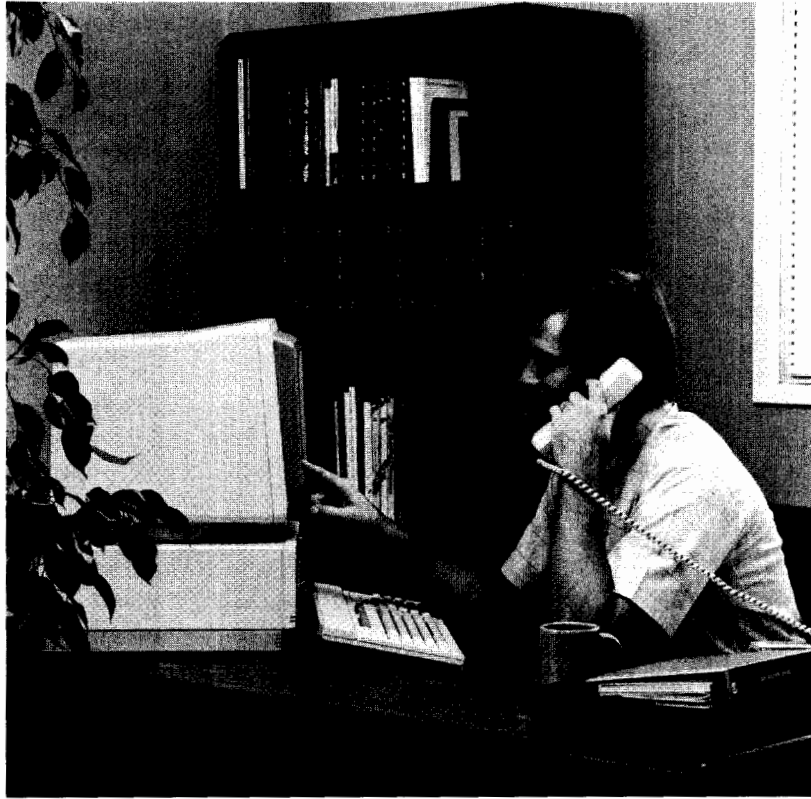
If a number is absolutely zero, you will see a zero followed by a decimal point. If a number isn't exactly zero, (for example 7.1E-15) a zero will not be displayed to the left of the decimal point. This is true only for version 1A of Lotus 1-2-3. Later releases of Lotus 1-2-3 will give the same results in the first example, but will show a zero to the left of the decimal point in both cell A4 and B4 in the second example.



Current
Information

Current Information

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

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

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

Step 2: Is the answer available through CompuServe?

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

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

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

Step 6: Telephone assistance from Hewlett-Packard

Step 7: Training or consulting

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

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

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

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

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

Step 2: Is the answer available through CompuServe?

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

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

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

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

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

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

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



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

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

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

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

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

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

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

Step 6: Telephone assistance from Hewlett-Packard

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

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

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

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

- The toll-free HP HelpLine number is:

1-800/858-8867

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

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

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

Step 7: Training or consulting

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

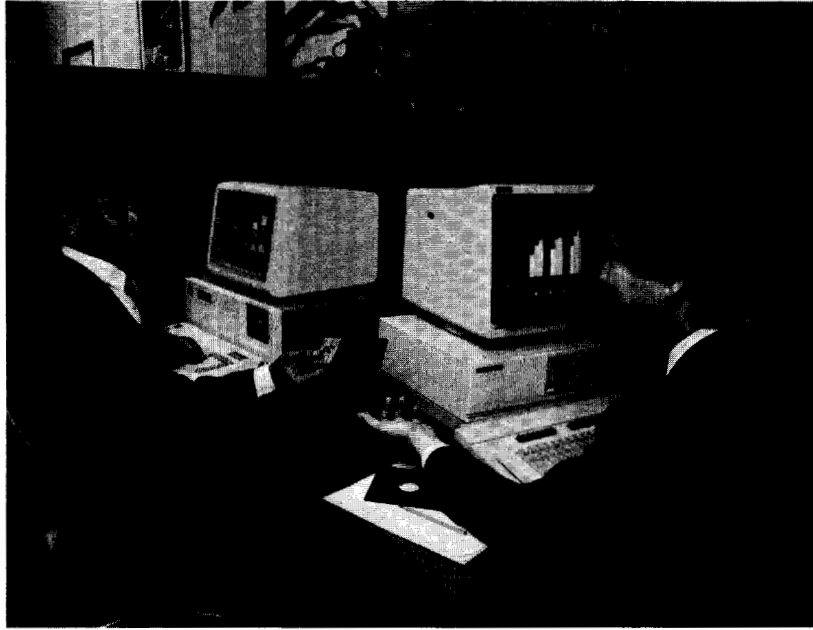
- Classroom training is available to supplement the documentation that accompanies your product. Courses can help first-time computer users rapidly build confidence and gain new skills away from the distractions of the day-to-day job. As HP training courses are developed, they are listed in the *HP PC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

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

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

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





Get in Touch



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

Start a Local Chapter

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

Member Services

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

Standard Users Support Service:

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

How to Join

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

For more information, contact:

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

Interex

The International Association
of Hewlett-Packard Computer Users

Application for Personal Computer Services

Enclosed is my full payment for:

Standard Users Support Services

___ North America \$70*

___ Outside North America \$95*

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

Payment Method:

Check Enclosed Check Number _____
(if a company check)

Mastercard # _____

Bill Visa # _____ Expires _____

Bill MasterCard # _____

Interbank # _____ Expires _____

HP User Information:

Name _____

(Title) _____

(Company) _____

Address _____

City _____ State _____ ZIP _____

Country _____

Telephone _____

(over)

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

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

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

No Yes: ID # _____

Please send more information about Interex's other activities:

____ HP 1000 ____ HP 3000 ____ HP 9000

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

Signature _____ Date _____

Send this page with your full payment to:

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

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

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

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

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

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

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

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

**The HP Vectra
Publisher PC**

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

Vectra Publisher PC D1200A

Option 011: Vectra Publisher ES Model 21

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

Option 051: 12-inch Monochrome Monitor

Option ABA: U.S. personality pack includes HP Vectra DOS 3.2, PC Kit with terminal emulation software, Enhanced Vectra PC Keyboard, MS Windows for the Vectra PC, Aldus PageMaker software, HP Mouse and customized user documentation.*

Option 017: Vectra Publisher ES/12 Model 22

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

Option 052: 13-inch EGA Video Display

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

Option 014: Vectra Publisher ES/12 Model 42

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

Option 052: 13-inch EGA Video Display

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

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

**The HP Vectra
StarLAN PC**

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

Vectra CS StarLAN PC Product Number D1201A

**Option 001: Vectra CS StarLAN PC—
Monochrome**

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

Option 051: 12-inch Multimode Monitor

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

Option 002: Vectra CS StarLAN PC—EGA

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

Option 052: 13-inch EGA Video Display

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

Vectra ES/12 StarLAN PC Product Number D1202A

**Option 015: Vectra ES/12 StarLAN PC—
Monochrome**

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

Option 051: 12-inch Multimode Monitor

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

Option 016: Vectra ES/12 StarLAN PC—EGA

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

Option 052: 13-inch EGA Video Display

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

The Vectra CS PC

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

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

D1110A Vectra CS Model 10*

Includes one 5.25-inch 360 Kbyte flexible disc drive.

D1111A Vectra CS Model 11*

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

D1112A Vectra CS Model 12*

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

D1120A Vectra CS Model 20*

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

D1121A Vectra CS Model 21*

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

D1122A Vectra CS Model 22*

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

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

The Vectra ES PC

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

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

D1210A Vectra ES Model 10*

Includes one 5.25-inch 1.2 Mbyte flexible disc drive.

D1220A Vectra ES Model 20*

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

D1221A Vectra ES Model 21*

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

D1222A Vectra ES Model 22*

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

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

The Vectra ES/12 PC

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

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

D1310A Vectra ES/12 Model 10*

Includes one 5.25-inch 1.2 Mbyte flexible disc drive.

D1320A Vectra ES/12 Model 20*

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

D1321A Vectra ES/12 Model 21*

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

D1322A Vectra ES/12 Model 22*

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

D1340A Vectra ES/12 Model 40*

Includes one 5.25-inch 360 Kbyte flexible disc drive and a 40 Mbyte hard disc.

D1341A Vectra ES/12 Model 41*

Includes one 5.25-inch 360 Kbyte flexible disc drive, a 40 Mbyte hard disc and Multimode Video Adapter.

D1342A Vectra ES/12 Model 42*

Includes one 5.25-inch 360 Kbyte flexible disc drive, a 40 Mbyte hard disc and Enhanced Graphics Video Adapter.

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

The Vectra RS/16 and RS/20 PCs

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

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

D1500A Vectra RS/16 Model 40*

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

D1600A Vectra RS/20 Model 40*

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

D1602A Vectra RS/20 Model 100*

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

D1603A Vectra RS/20 Model 150*

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

D1604A Vectra RS/20 Model 300*

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

D1606A Vectra RS/20 Power User PC*

Includes 4 Mbyte system memory, 103 Mbyte ESDI hard disc, 3 serial/1 parallel port, 80387 Numeric Coprocessor, EGA card and monitor, 40 Mbyte Tape Backup Mechanism, HP Mouse, Vectra DOS 3.2, and Microsoft Windows/386 Presentation Manager.

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



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

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

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

*Uses HP Touch

†Corporate Site Licensing also available

Name	HP Product Number	Version	Special Requirements
HP OfficeShare Network User Software Upgrade to HP ThinLAN User Software for HP Touchscreen PCs	50916A		Must return OfficeShare master discs
HP SERIAL Network User Link Software for HP Touchscreen PCs	50910A		
Print Central† PC Software	36890A	A.02.00	For use with the HP 3000 Computer
VT100 Terminal Emulator	45412A		
Office Talk (Phone Voice Mgmt.)	24520A	A.01.02	512K
ENVIRONMENT MANAGER:			
Microsoft Windows	45875A		DOS 3.2, 384K memory (512K is recommended), dual flexible disc system (one 710K byte disk is needed) or single flexible disc (260K or 710K) with hard disc
DATA BASE MANAGEMENT:			
Executive Card Manager*†	45421A	A.02.02	
ECM: Templates*	45441D	A.01.02	
R:Base 5000	45563A	1.01	512K
ENGINEERING DESIGN:			
AutoCAD	47956A		512K
GRAPHICS:			
Charting Gallery†	45513A	B.03.00	
Drawing Gallery†	45411A	B.03.00	384K, Mouse req'd.
HPDraw Figures Portfolio	45571A	A.01.00	
Office Activities Portfolio	45568A	A.01.00	
Business Mgmt. Portfolio	45570A	A.02.00	
Chemical/PetroChemical Portfolio	45569A	A.01.00	
The Graphics Gallery Collection*†	45437A		384K

*Uses HP Touch

†Corporate Site Licensing also available

Name	HP Product Number	Version	Special Requirements
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
INTEGRATED SOLUTIONS:			
ExecuDesk—U.S.*	45444A	A.03.00	
Symphony from Lotus*	45498A	1.1	384K
PROGRAMMING LANGUAGES AND DEVELOPMENT TOOLS:			
BASIC by Microsoft	45445D		
BASIC Programmer's Library	45310A		
COBOL by Microsoft	45448A		
Compiled BASIC by Microsoft	45446D		
Cross Reference Utility	92248BA		
Forms Master*	45443A		
FORTRAN by Microsoft	45449D		
GW-BASIC by Microsoft*	45450D		
ICON Design System*	45311A		
Lattice C Compiler	45452D		
Pascal by Microsoft	45447D		
Programmer's Tools	45435A		
SPREADSHEETS:			
Lotus 1-2-3*	45566A	2.01	384K
UTILITIES:			
HP PLCPak	33406A		
WORD PROCESSING:			
HPWORD/150 U.S. English*†	27505A	A.00.00	512K
Executive MemoMaker*†	45418A	C.02.00	
Microsoft WORD*	45474D	1.10	Now includes Microsoft Spell
MultiMate*	45424A	3.29	
WordStar Professional	45427D	3.34	384K + dual double sided disk drive



*Uses HP Touch

†Corporate Site Licensing also available

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

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

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

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

†Corporate Site Licensing also available

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

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

Name	HP Product Number	Version	Special Requirements
DESKTOP PUBLISHING:			
iPrint	35188D		
Vectra PageMaker	45964A		MS Windows required
ENVIRONMENT MANAGER:			
Vectra MS Windows	45954A		
DATA BASE MANAGEMENT:			
Executive Card Manager (ECM)*†	★68331F	A.01.08	
ECM: Templates*	68335F	A.01.02	
R:Base 5000	68336F	1.01	512K memory required
R:Base System V	68328F	1.1	512K memory required
GRAPHICS:			
Drawing Gallery*†	68351F	B.03.00	384K memory and mouse required
Charting Gallery*†	68350F	B.03.00	
The Graphics Gallery Collection*†	★68352F	B.03.00	384K memory and mouse required
Office Activities Portfolio*	★68324F	A.01.00	
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
INTEGRATED SOLUTIONS:			
Lotus Symphony	68339F	1.2	384K memory required
PROGRAMMING LANGUAGES AND DEVELOPMENT TOOLS:			
Vectra GW BASIC Interpreter	45952A	3.11	
SPREADSHEETS:			
Lotus 1-2-3	★68340F	2.01	
UTILITIES:			
HP PLC PAK	33406B		
LaserControl 100***	35190J	Rev. 3	
Laserplotter	35188A		
WORD PROCESSING:			
AdvanceWrite Plus	★27546F	F.02.00	
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		

*Uses HP Touch

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

***Manufacturer Supported

†Corporate Site Licensing also available

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

Harry Cruickshank

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

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



**Localized HP Vectra Software
Available from HP**

Harry Cruickshank

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

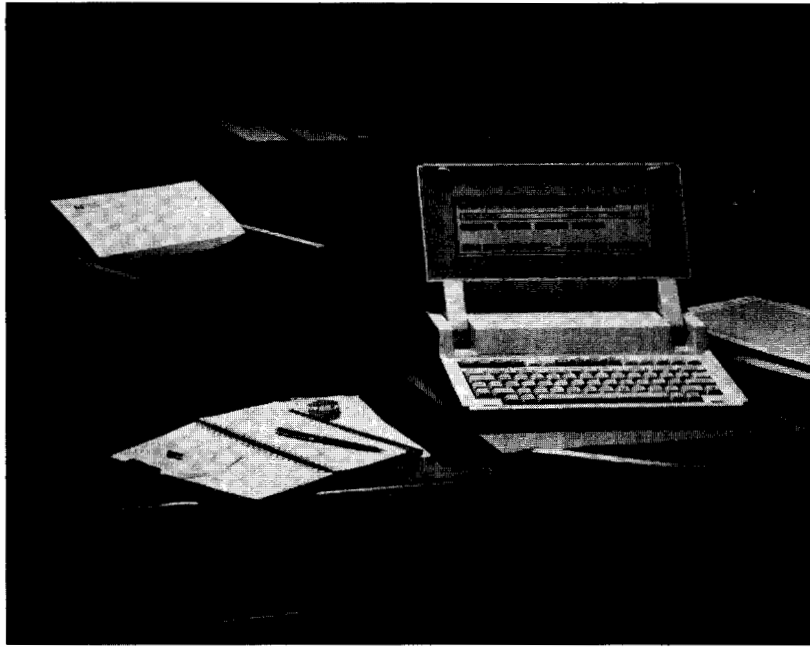
Name	HP Product Number	Country	Revision
Executive MemoMaker	68330FN	Norwegian	A.02.03
Executive MemoMaker	68330FZ	Italian	A.02.03
Gallery Collection	68352FD	German	A.01.00
Gallery Collection	68352FH	Dutch	A.01.00
Gallery Collection	68352FX	Finnish	A.01.00
Gallery Collection	68352FY	Danish	A.01.00
Gallery Collection	68352FZ	Italian	A.01.00
Gallery Collection	68352FE	Spanish	A.01.00
Gallery Collection	68352FF	French	A.01.00
Gallery Collection	68352FN	Norwegian	A.01.00
Gallery Collection	68352FS	Swedish	A.01.00
Gallery Collection	68352FX	Finnish	A.01.00
Gallery Site Lic.	68352LD/ QD/SD/TD	German	
Gallery Site Lic.	68352LF/QF/ SF/TF	French	
HPWord Site Lic.	27536LF/QF/ SF/TF	Eur. English	
HPWord PC/Vectra	27536FB	U.K.	A.02.00
HP Access Vectra	36898FD	German	F.01.01
Lotus 1-2-3	68340FB	Eur. English	2.01
Lotus 1-2-3	68340FD	German	2.01
Lotus 1-2-3	68340FE	Spanish	2.00
Lotus 1-2-3	68340FF	French	2.01
Lotus 1-2-3	68340FS	Swedish	2.01
Lotus 1-2-3	68340FZ	Italian	2.01
Symphony	68339FB	Eur. English	A.01.2
Vectra Office Assist.	68301FB	Eur. English	
Vectra Office Assist.	68301FF	French	
Vectra Office Assist.	68301FZ	Italian	
Vectra Office Assist.	68301FD	German	
Vectra Office Assist.	68301FH	Dutch	
Vectra Office Assist.	68301FY	Danish	
Vectra Office Assist.	68301FS	Swedish	
Vectra Office Assist.	68301FX	Finnish	
Vectra Office Assist.	68301FE	Spanish	
Vectra Office Assist.	68301FN	Norwegian	
Vectra Office Prof.	68300FB	Eur. English	
Vectra Office Prof.	68300FF	French	
Vectra Office Prof.	68300FZ	Italian	
Vectra Office Prof.	68300FD	German	
Vectra Office Prof.	68300FH	Dutch	
Vectra Office Prof.	68300FY	Danish	
Vectra Office Prof.	68300FS	Swedish	
Vectra Office Prof.	68300FX	Finnish	
Vectra Office Prof.	68300FE	Spanish	
Vectra Office Prof.	68300FN	Norwegian	



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	





**Portable/Portable Plus
Software Available from HP**

Jane Blando

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

Replacement Media for Discontinued Software

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

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

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

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

Touchscreen/150:		
Product Name	HP Product #	Superseded by:
GRAPHICS:		
Charting Gallery/Executive MemoMaker Bundle	45440A	Sold separately: Charting Gallery—45513A and/or Executive MemoMaker—45418A
Series 100 Graphics—U.S.	45410A	Charting Gallery—45513A
Graphplan by Chang Labs	45467A	Available from Chang Labs
Graphwriter Basic Set	45484A	None
PFS: Graph	45490A	None
INTEGRATED SOLUTIONS:		
ExecuDesk System	45442A	ExecuDesk sold separately—45444A
SPREADSHEETS:		
Context MBA/150	45481A	None
Financial Calculator	45423A	None
VisiCalc/150—U.S. English	45405A	None
MicroPlan	45465A	Available from Chang Labs
MicroPlan Consolidation Module	45466A	Available from Chang Labs
Microsoft Multiplan/150	45473A	None
Microsoft Multiplan	45473D	None
Deluxe VisiCalc	45405A	None
WORD PROCESSING:		
MemoMaker/150—U.S. English Touchscreen	45420A	Executive MemoMaker/150—45418A
PFS: Write	45489A	None
WordStar/150—U.S. English	45400A	WordStar—45400D
MailMerge—U.S. English	45401A	Included in WordStar Professional—45427D or Professional Options—45429D

Product Name	HP Product #	Superseded by:
SpellStar	45402A	SpellStar has been superseded by CorrectStar which is included in WordStar Professional—45427D and/or Professional Options—45429D. An Upgrade kit is available from CorrectStar to SpellStar for users with a dual single-sided disc drive.
WordStar/MailMerge/ SpellStar Combo	45404A	Superseded by WordStar Professional—45427D.
WordStar	68345F	Available from MicroPro, Inc.
WordStar Professional	68346F	Available from MicroPro, Inc.
WordStar 2000	68341F	Available from MicroPro, Inc.
WordStar 2000 PLUS	68342F	Available from MicroPro, Inc.
MultiMate	68338F	Available from MultiMate International Corp.
MultiMate Advantage	68343F	Available from MultiMate International Corp.

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

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

The Portable or the Portable Plus:

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



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

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

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

For Computers

■ The Portable

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

■ HP 120 Personal Computer

13242H	RS-232C cable (use 13242-60011 for replacement)
13269P	Carrying case (for HP 120 with short keyboard plus 9121 disc drive; or HP 120 with extended keyboard)
92171C	Keyboard drawer park
92171J	Keyboard park—large
92171T	System turntable
92240A	Display tilt unit
92240B	Display swivel unit
92250D	Dust cover
92220R	Right-angle HP-IB cable (0.3 meters long)
92251P	"Stacked" dust cover (for computer and disk drive)

■ HP 125 Personal Computer

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

■ **HP 150 Touchscreen Personal Computer**

13242H	RS-232C cable (use 13242-60011 for replacement)
13269BB	Carrying case for Touchscreen
13269C	Carrying case (for HP 150 and 9121 disc drive)
92160A	Thermal paper, blue print (box of 24 rolls)
92160B	Thermal paper, black print (box of 24 rolls)
92165A	2 plug surge suppressor
92165B	4 plug surge suppressor
92165C	6 plug surge suppressor
92165R	RS-232C surge protector
92171C	Keyboard drawer park
92171J	Large (extended) keyboard park
92171X	ThinkJet printer stand for top of display
92208A	Mobile PC Centre
92220R	Right-angle HP-IB cable (0.3 meters long)
92240A	Light-gray tilt unit
92240B	Light-gray swivel unit
92250F	Dust cover for 150
92250K	Dust cover for Touchscreen
92261R	ThinkJet paper catcher (use with 92171X printer stand)
92268A	4 metre StarLAN cable. 8-pin connected/4 twisted pair unshielded cable with RJ45 connectors
92268B	8 metre StarLAN cable. 8-pin connected/4 twisted pair unshielded cable with RJ45 connectors
92268C	16 metre StarLAN cable. 8-pin connected/4 twisted pair unshielded cable with RJ45 connectors
92268D	32 metre StarLAN cable. 8-pin connected/4 twisted pair unshielded cable with RJ45 connectors

■ **HP Vectra PC**

24542D	Parallel printer cable for the Vectra PC (2 meters)
24542G	Serial printer/plotter cable for the Vectra PC (3 meters)
24542H	Serial plotter cable for Vectra PC to 7550 plotter (3 meters)
24542M	U.S./European modem cable (3 meters) for the Vectra PC
35178A	Vectra PC three-piece carrying case
35188A	LaserPlotter software (allows laser to do plotter graphics)
35188D	iPrint software (allows LaserJet to print & fill-in forms)
35190J	LaserControl software (to drive LaserJet)
35190P	Jetplotter software (allows InkJet printers to emulate plotters)
92165A	Two outlet surge suppressor
92165B	Four outlet surge suppressor
92165C	Six outlet surge suppressor
45741A	Monochrome video extension cable
45742A	Color video extension cable
45986A	Security System Lock
88140LC	600' formatted/certified data cartridge, 67-Mb formatted capacity (box of 5)
88140SC	150' formatted/certified data cartridge, 16 Mb formatted capacity (box of 5)



92165A	2 plug surge suppressor
92165B	4 plug surge suppressor
92165C	6 plug surge suppressor
92165R	RS-232C surge protector
92166A	Vectra PC keyboard park
92171X	ThinkJet printer stand for top of display
92190A	5.25-inch flexible discs, 360 KB formatted capacity (box of 10 discs)
92190X	High-capacity 5.25-inch flexible discs, 1.2 MB formatted capacity for use on the Vectra PC's high capacity internal disc drive (box of 10 discs)
92192A	3.5" micro flex discs, double-sided (box of 10)
92192X	3.5" micro flex discs, high-density (box of 10)
92208A	Mobile PC Centre
92259A	Vectra PC dust cover for monochrome monitor and keyboard
92259B	Vectra PC dust cover for color monitor and 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

For Disc Drives

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

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

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

13269T	Disc-drive case for 9121
92191A	3.5-inch micro flex discs—single-sided (box of 10)
92192N	3.5-inch micro flex discs—double-sided (box of 100 discs)
92191D	3.5-inch micro flex disc desktop file (capacity 50)
92191E	FlexFiles for 3.5-inch discs (Pkg. of 5 FlexFiles—each unit holds 10 discs)

- 92191F Portable album file for 3.5-inch discs (capacity 20 discs)
- 92191H 3.5-inch micro flex disc album (capacity 20) (replaces 92191C)
- 92191L Package of 20 pages for use with 92191H
- 92191M Micro carrying case pack for 3.5-inch discs (Pkg. of 3 cases—each case holds 5 discs)

- 92191P Hanging file pages for 3.5-inch discs (capacity 40 discs)
- 92191Q Compact file for 3.5-inch discs (capacity 25 discs)
- 92191T Micro disc case for 3.5-inch discs (capacity 10 discs)
- 92191R 3.5-inch micro flex disc roll-top file (capacity 50)
- 92192A 3.5-inch micro flex discs—double-sided (box of 10)
- 92192N 3.5-inch micro flex discs—double-sided (box of 100)
- 92251D Dust cover (9121 D/S)

- **HP 45812A Internal 1.2 Mb 5.25-inch Disc Drive for the Vectra PC**
- 92190X 5.25-inch high capacity flexible disc (box of 10)
- 92194A Compact file for 5.25-inch discs (capacity 50 discs)
- 92194E FlexFiles for 5.25-inch discs (Pkg. of 5 FlexFiles—each unit holds 10 discs)

- 92194G Portable album file for 5.25-inch discs (capacity 20 discs)
- 92194P Hanging file pages for 5.25-inch discs (Pkg. of 10—capacity 20 discs)

- **HP 45813A Internal 1.44Mb 3.5-inch Disc Drive for the Vectra PC**
- 92192X 3.5-inch high density microflexible discs (box of 10)
- 92191E FlexFiles for 3.5-inch discs (Pkg. of 5 FlexFiles—each unit holds 10 discs)

- 92191F Portable album file for 3.5-inch discs (capacity 20 discs)
- 92191M Micro carrying case pack for 3.5-inch discs (Pkg. of 3 cases—each case holds 5 discs)

- 92191P Hanging file pages for 3.5-inch discs (capacity 40 discs)
- 92191Q Compact file for 3.5-inch discs (capacity 25 discs)
- 92191T Micro disc case for 3.5-inch discs (capacity 10 discs)

- **HP 9142A Cartridge Tape Drive**
- 92242L 600-foot data cartridge, 52 Mb formatted capacity (box of 5)
- 92242S 150-foot data cartridge, 15 Mb formatted capacity (box of 5)
- 92167F Storage tray for 92242L/S tapes (holds up to 10 tapes)
- 92167L Storage album for 88140LC/SC tapes (Pkg 5 albums—each holds 4 cartridges)

- **HP 9144A Cartridge Tape Drive**
- 88140LC 600-foot formatted/certified data cartridge, 67Mb formatted capacity (box of 5)
- 88140SC 150-foot formatted/certified data cartridge, 16Mb formatted capacity (box of 5)
- 92167F Storage tray for 88140LC/SC tapes (holds up to 10 tapes)
- 92167L Storage album for 88140LC/SC tapes (Pkg 5 albums—each holds 4 cartridges)

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

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

■ HP 2225A/B/C/D ThinkJet Printer

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

■ HP 2227A/B QuietJet/QuietJet Plus

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

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

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

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

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

■ **HP 2686A LaserJet Printer**

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

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

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

■ **HP LaserJet/LaserJet Series II Printer Fonts**

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

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

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

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

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

■ **HP LaserJet 500 Plus Printer**

92287B	Paper Cassette Tray (Letter Size)
92287C	Paper Cassette Tray (Legal Size)
92287D	Paper Cassette Tray (A4 Size)
92287E	Paper Cassette Tray (B5 Size)

■ **HP 82905A/B Dot-Matrix Printer**

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

■ **HP 82906A Dot-Matrix Printer**

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

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

■ **Non-Glossy Plotter Paper**

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

■ **Glossy Plotter Paper**

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

■ **Non-Glossy Paper and Pen Kits**

	Size
17820PK	A
17821PK	A4

■ **Transparency Plotter Film**

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

■ **Transparency Plotter Kits**

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

■ **Fiber-Tip Paper Pens**

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

■ **Fiber-Tip Transparency Pens**

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

■ **Accessories**

92166E	Plotter sound enclosure (for ColorPro, 7470A & 7475A plotters only)
92177V	Personal Plotter-pen organizer (for fiber-tip pens)
92177T	Plotter-pen organizer (for short pens)
92177U	Plotter-pen organizer (for tall pens)
92177W	ColorPro (7440A) graphics organizer
92177X	7475A graphics organizer
92214P	Mobile support stand (7475)
92250N	Dust cover (7470A)
92269A	Desktop stand (7470A, ColorPro)



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

**HP-Conducted
Introductory Courses**

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

■ *Getting Started—Vectra*

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

HP 72401A (1 day)

■ *Getting Started—The Portable*

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

HP 45689A (1 day)

■ *Getting Started—The Touchscreen*

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

HP 35036B (1 day)

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



**HP-Conducted
Application Courses**

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

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

■ *Lotus 1-2-3*

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

HP 45688A (1 day)

■ *VisiCalc/150*

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

HP 35125A (1 day)

■ *WordStar®/150*

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

HP 35123B (1 day)

■ *MailMerge and SpellStar/150*

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

HP 35123C (½ day)

- *WordStar/150 and MailMerge/SpellStar/150* are available as a single unit.
HP 35123A (1½ days)
- *Condor/150 20-1 and 20-2*
This workshop will introduce you to Condor™—an easy-to-use, yet powerful database management system. After you understand what a database system is you'll learn how to use one by designing a form for entering data, creating a simple dataset, editing information, sorting and creating simple reports, and reorganizing a dataset.
HP 35124B (1 day)
- *Condor/150 20-3*
The Condor 20-3 workshop will provide you with in-depth experience using Condor's advanced database management and report writing capabilities including indexing a new or existing dataset, joining unlike datasets, creating, printing and revising reports, and creating and running a help screen and command procedure.
HP 35124C (1 day)
- *Condor/150 20-1 and 20-3* can be ordered as a single unit.
HP 35124A (2 days)

- *HP 150 Integrating Applications*
Because you may use the same information in different ways, this workshop was created to teach you how to pass information from one software application to another. The following applications are covered: Condor, PCF, MailMerge, MemoMaker, SpellStar, Graphics, and WordStar.
HP 35037A (½ day)

- *Advanced Lotus 1-2-3*
This class teaches Lotus 1-2-3 users advanced 1-2-3 features such as Data Sort, Data Query and Data Table commands, database statistical functions, keyboard macros, programming with the /X command, and advanced file commands.
HP 05097A (1 day)

■ *MultiMate*

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

HP 51400A (1 day)

■ *MS Word*

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

HP 51401A (1 day)

■ *AdvanceWrite III*

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

27501A (3 days)

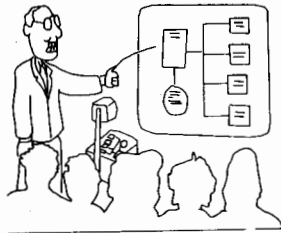
HP Customized Training

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

Classroom Learning Packs are offered for:

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

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

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

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

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

Gallery Collection	The focus of the Gallery Collection Learning Pack is intensive hands-on practice with the software. This is accomplished with instructor-guided exercises as well as self-instructional worksheets. One student training disc (CBT) is included with the Pack. CBT may also be used as self-paced training for an individual user at his/her workstation. A package of five training discs is available as product number 68351P. Topics covered include: using the Drawing Gallery discs and manuals; additional uses of Drawing Gallery; basic charting concepts, using the Charting Gallery manuals, and creating pie, bar, and line charts.
Executive Card Manager	The Executive Card Manager Learning Pack includes lessons on creating a cardfile; adding, updating and deleting cards; finding cards; and creating reports. This course may be used for teaching Executive Card Manager on the HP Vectra PC or an IBM PC/XT/AT.
Ordering Information	To order Classroom Learning Packs or Student Training Discs, contact your local dealer or HP office.





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

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

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

HP FastTrak guides are now available for five software applications:

- Executive MemoMaker** (HP 89915F)
- Executive Card Manager** (HP 89916F)
- AdvanceLink** (HP 89918F)
- Gallery Collection** (HP 68352X)
(includes Charting and Drawing Gallery FastTraks)

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

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

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

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

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

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



**The First Step
Toward Effective
Vectra Use**

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

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

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

To Order

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



If you can't wait long for answers to questions about application software and hardware configurations, you should know about HP's Personal Computer Assistance services. They give you access to experts at HP Response Centers, five days a week.

For the mid-size to large company with an internal support staff, we offer two services:

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

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

- **PC User Assistance** makes the same Response Center specialists available to individual users interested in peak productivity. Unlimited telephone assistance and a two-hour response time ensure that you are getting the most from our popular software packages. The *HP PC Communicator* subscription is included with this service also.
 - **HelpLine** provides you with a pay-as-you-go alternative for software support. If you don't often need assistance, this service may be right for you. You receive direct access to Response Center specialists with the same two-hour response time. Special certificates let you purchase assistance in advance or you can charge the toll-free call to your personal or company credit card.
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Ordering Information

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

Telephone Assistance for Internal Support Personnel:

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

Telephone Assistance for the End-User:

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

Vectra ES/12 Personal Computers:

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

Vectra RS Personal Computers:

HP Vectra RS/16 Model 40	HP D1500A + E00
HP Vectra RS/20 Model 40	HP D1600A + E00
HP Vectra RS/20 Model 100	HP D1602A + E00
HP Vectra RS/20 Model 150	HP D1603A + E00
HP Vectra RS/20 Model 300	HP D1604A + E00

Portable Vectra CS Personal Computers:

Portable Vectra CS	HP D1101A + E00
Portable Vectra CS 20	HP D1109A + E00

Portable Plus Personal Computers:

Portable PLUS	HP 45711E + E00
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The Touchscreen Personal Computers:

Touchscreen II	HP 45851A + E00
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■ **HelpLine*:**

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

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



Ordering *HP PC Communicator* Back Issues

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

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

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

HP 120 and HP 125

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

Issue #1 includes the following major articles:

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

*Series 100 Communicator Issue #1*5955-3937

Issue #2 includes the following major articles:

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

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

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

Issue #3 includes the following major articles:

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

Series 100 Communicator Issue #3 5957-6213

Issue #4 includes the following major articles:

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

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

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

Issue #5 includes the following major articles:

- "Enhanced Installation Program Available"
- "Video Display Interface for the HP 125"
- "Comparing Condor and dBASE II"
- "Sending Escape Codes to Printers from WordStar and Condor"
- "Interchangeability of Word and WordStar Text"
- "Two-Column Print in WordStar"
- "WordStar Quick Tips and Defaults"
- "Getting VisiCalc to Round Dollar Values to Two Places"
- "Word: Wandering HP 2601A Printer Margins with the Sheet Feeder"
- "DSN/Link: Enhanced File Transfer Capabilities over Link/125"
- "Connecting Two Series 100 Systems for ASCII File Transfer"
- "Transferring IMAGE/3000 Data to a Condor Database"
- "Transferring Data to the HP 2700 Color Graphics Terminal"
- "Installing the Operating System on Your Fixed Disc"
- "Using the HP 2631B HP-IB Printer with Series 100"

-“Programming Challenge—Bypassing WELCOME”

Series 100 Communicator Issue #5—U.S. . 5957-6205
Series 100 Communicator Issue #5—Intl. . 5957-6215

Issue #6 includes the following major articles:

- “CSC Graphics Available on the Series 100”
- “New Auto Shutter for 3½ inch Micro Flexible Discs”
- “Introducing Enhanced DSN/Link”
- “Microsoft BASIC Compiler”
- “Using Block/Format on the Series 100”
- “Correction—Printing Mailing Labels From Condor”
- “WordStar/100 Multiple Column Print Update”
- “Remote Access to the HP 125”
- “Using the 92911A Bar Code Reader on the HP 125”
- “Configuring the Series 100 for use with the Diablo 630 Printer”
- “An Alternative to ALPHASORT for Series 100/Word”

Series 100 Communicator Issue #6—U.S. . 5957-6206
Series 100 Communicator Issue #6—Intl. . 5957-6216

HP 150 Touchscreen and HP 120 and 125

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

Issue #7 includes the following major articles:

- “Transferring Files Between the HP 12x and HP 150”
- “Data Compatibility Between HP 12x and HP 150 Applications”
- “HP 12x: PIP, COPY, and BACKUP”
- “Comparing VisiCalc and MicroPlan”
- “WordStar Microspace Justification”
- “Configuring WordStar/150 for your Printer”
- “Condor Tips”
- “Correction: Remote Access to the HP 120/125”
- “BASIC/150: Block Mode Transfers”
- “HP 12x BASIC Compared to HP 150 BASIC”
- “Subtle Difference: HP 12x/150 BASIC and Other BASICS”

Series 100 Communicator Issue #7—U.S. . 5957-6207
Series 100 Communicator Issue #7—Intl. . 5957-6217



Issue #8 includes the following major articles:

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

Series 100 Communicator Issue #8 5957-6218

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

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

Issue #9 includes the following major articles:

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

- “Battery-Powered Peripherals for The Portable”
- “dBASEII for The Portable ... and a New Version for the HP 150”

Series 100 Communicator Issue #9. 5957-6219

Issue #10 includes the following major articles:

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

Series 100 Communicator Issue #10. 5958-0250

Issue #11 includes the following major articles:

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

- “Precision Problems in Microsoft Languages”
 - “Presenting The Graphics Gallery”
 - “Introducing Dow Jones Spreadsheet Link”
 - “The BPI Family of Accounting Packages”
 - “Turbo Pascal: A Hot Item”
 - “Special Upgrade for Word/12x”
 - “From Keyboard to Printer with Type-a-Line”
 - “PFS: . . . for the HP 150”
 - “MultiMate and Friends”
 - “HP 125 Software Obsolescence”
- Series 100 Communicator Issue #115958-0251*

Issue #12 includes the following major articles:

- “The HP Personal Computer Assistance Program”
 - “How to Use Diagraph”
 - “Transferring Files from Condor to dBASE II”
 - “File Transfers—Every Which Way—with The Portable”
 - “MemoMaker on The Portable: Differences”
 - “LaserJet Support under MultiMate and WordStar”
 - “HP 120/125 Word and WordStar with the LaserJet”
 - “Macros in WordStar”
 - “File Transfers from VisiCalc to Condor”
 - “What’s So Special about BASIC?”
 - “Useful Functions in BASIC”
 - “General-Purpose Input Routines”
 - “BASIC Relational and Logical Operations”
 - “Fun with the Calendar”
 - “Introducing the Touchscreen II”
 - “ExecuDesk and the ExecuDesk System”
 - “New Personal Productivity Center Release”
 - “Introducing Print Central”
 - “HPWORD/150—HP 3000 Word Processing”
 - “HPAccess/Touchscreen and HPAccess Central”
 - “Data-Storage Solutions for HP PCs”
 - “Microsoft Word”
 - “MS-DOS Manual Update for Touchscreen II Owners”
 - “Announcing Deluxe VisiCalc”
 - “Introducing VT100 Emulation for the HP 150B”
 - “The Touchscreen 3278 Emulation Upgrade”
- Series 100 Communicator Issue #125958-0252*

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

Issue #13 includes the following major articles:

- "Condor/150: Computations Against Computed Values"
- "Condor/150: Sending Escape Sequences to Your Printer"
- "Diagraph and Picture Perfect: Positioning Multiple Pictures"
- "Lotus 1-2-3: Transferring Files to and from PCF"
- "MS Word: How to PRINT MERGE Data from dBASEII"
- "MS Word: How to PRINT MERGE Data from Condor"
- "WordStar: Installing Multiple Copies on One Fixed Disc"
- "WordStar: Installing Multiple Copies on One Flexible Disc"
- "Helpful Hints for Compiling BASIC Programs"
- "Double-Referencing Variables in Compiled BASIC"
- "The 64 Dollar/K Question"
- "BASIC Floating Point Internal Representation"
- "BASIC General Purpose Error-Handling Routines"
- "A Complete Guide to BASIC Strings"
- "Introducing the Vectra PC"
- "Upgrading Your HP 150A or Touchscreen to a Touchscreen II"
- "Independent Software Vendor Program Update"
- "Introducing Executive Card Manager"
- "Symphony for the Touchscreen/150"

HP PC Communicator Issue #13 5958-0253

Issue #14 includes the following major articles:

- "Word/12x: Printing the Unique Spanish Characters"
- "WordStar: Letter Quality Printing with an Okidata Printer"
- "WordStar: Underlining with an Okidata Printer"
- "Running the Vectra SETUP Program"
- "Programming Screen Enhancements on HP Vectra PC"
- "Video and the HP Vectra PC"
- "Graphing Data from Your BASIC Program"
- "Assembly Language Subroutines for BASIC Programs"
- "Introducing HP OfficeShare PC Local Area Network"

- “Introducing the New 1-2-3 for HP Vectra PC”
 - “The Executive Series”
 - “MicroPro Products for HP Vectra PC”
 - “New Supplies and Accessories”
- HP PC Communicator Issue #14 5958-0254*

- Issue #15 includes the following major articles:**
- “Condor and BASIC: Automatic Processing”
 - “The Portable and the COPY CON Command”
 - “The Portable: Creating a Backspace/Erase Key”
 - “Condor: Using *End in V2.11 Command Files”
 - “Using Lattice C with the Portable”
 - “Touchscreen/150: Serial Communications”
 - “Introducing MultiMate for HP Vectra PC and IBM PC/XT/AT”
 - “HP Graphics Curator/3000: Touchscreen/150 and Host Based Graphics”
 - “Introducing Classroom Learning Packs”
 - “Introducing HP FastTrak Self Study Packs”
 - “Touchscreen/150: Upgrade from R:BASE 4000 to R:BASE 5000”
- HP PC Communicator Issue #15 5958-0255*

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

- Issue #16 includes the following major articles:**
- “Touchscreen/150: Condor—Escapes Sequences to Your Printer”
 - “Drawing Gallery: Creating Drop Shadow Boxes”
 - “Terminal to System Connections: RS-232 vs. RS-422”
 - “Touchscreen/150: Graphics Escape Sequence Programming”
 - “Graphics Labels with Touchscreen/150 GW BASIC”
 - “Date Functions for Series 100 BASIC Revisited”
 - “Introducing the Enhanced Portable PLUS”
 - “Update on HP’s Personal Computer Software Support”
 - “WordStar 2000, Release 2 for Vectra”
 - “PC Software Corporate Licensing Program Now Available”
 - “MultiMate on the Portable PLUS”
 - “Portable PLUS Localization Kits”
 - “Portable PLUS: New MemoMaker/Time Management ROM”
 - “Executive Card Manager for the Portable PLUS”
 - “REFLECTION 1 for the Portable PLUS”
 - “R.BASE 5000: Application Express in Depth”
 - “1-2-3 Release 2 for the Touchscreen/150”
- HP PC Communicator Issue #16 5958-0256*

Issue #17 includes the following major articles:

- “Vectra: Creating Labels with AdvanceWrite/LaserJet”
- “Vectra: HP Access and GW BASIC”
- “Differences Between the Touchscreen/150 and Vectra”
- “Series 100 BASIC: Device Control and Printing Graphics”
- “Touchscreen/150: Hints for Compiling BASIC Programs”
- “Calling Assembler Subroutines from Interpretive BASIC”
- “Vectra: Announcing the Enhanced Graphics Display System”
- “Vectra: Welcome to the Graphics Gallery”
- “Vectra: Enhanced Executive MemoMaker Introduced”
- “Touchscreen/150/Vectra: New Learning Products”
- “Touchscreen/150/Vectra: Portfolios for Graphics Gallery”
- “Touchscreen/150: New LaserJet Drivers”

HP PC Communicator Issue #175958-0257

Issue #18 includes the following major articles:

- “Vectra Mass Storage: New Options”
- “Bundled Vectra Systems Available”
- “Introducing Vectra 3000 and Vectra Office”
- “Introducing Shelp for the Portable PLUS”

HP PC Communicator Issue #185958-0258

Issue #19 includes the following major articles:

- “Vectra: EX-BIOS and Keyboard Click”
- “Touchscreen/150: Using MS-DOS Load and Execute”
- “Getting Started with Turbo PASCAL”
- “FORMIO for the Touchscreen/150 Using Series 100 BASIC”
- “Accessing MS-DOS File Time-Stamps from Lattice C”
- “Vectra: Migration to Drawing Gallery Made Easy”
- “New Graphics Tablet Available”
- “Vectra: Microrim R:BASE System V”
- “Touchscreen/150: MS-DOS 3.2 Available”
- “Touchscreen/150: Expanded Memory Board Available”

- “1-2-3 Release 2.01 Available for Touchscreen/150”
 - “Touchscreen/150: New Upgrades for MemoMaker and PCF”
 - “Touchscreen/150: ExecuDesk Enhanced”
- HP PC Communicator Issue #19* 5958-7673

Issue #20 includes the following major articles:

- “Software Tested with the OfficeShare Networking Family”
 - “Operating HP-IB Peripherals with Vectra and IBM Family Computers”
 - “Understanding the 8088 Architecture”
 - “Touchscreen/150: Programming Function Keys Using Turbo Pascal”
 - “Touchscreen/150: Controlling Print Pitch on the HP 82906A Printer”
 - “The Vectra PC Publisher”
 - “Introducing HP-Enhanced Versions of Microsoft Windows”
 - “Hewlett-Packard Adds Value to Microsoft Windows”
 - “Touchscreen/150: Microsoft Windows”
 - “XENIX Operating System Available on Vectra”
 - “Vectra: Introducing Monochrome Plus Display System”
 - “QuietJet Printer Family: Special Characters Available”
 - “Symphony and 1-2-3 Enhanced by New Expanded Memory Board”
- HP PC Communicator Issue #20* 5958-7674

Issue #21 includes the following major articles:

- “Vectra: WordStar 2000/2000+ Printers and Fonts”
- “Vectra and Touchscreen/150: LaserJet and R:BASE 5000”
- “Touchscreen/150: MS Word 150 and the LaserJet 500 Plus”
- “Hidden Features of MS Word for the Touchscreen/150”
- “Touchscreen/150: Executive MemoMaker and the LaserJet 500 Plus”
- “Microsoft Windows for the HP 150/Touchscreen and HP Vectra PC”
- “Extended Screen and Keyboard Control”
- “Vectra PC: How to Ensure Software, Peripheral and Accessory Compatibility”
- “Introduction to Programming the EGA Board”
- “Vectra Graphics Gallery Now Works with PageMaker”

- “Vectra Graphics Gallery Q&A”
 - “New HP 150/Touchscreen System Documentation”
 - “JetSeries Software Support”
- HP PC Communicator Issue #215958-7675

Issue #22 includes the following major articles:

- “How to Use Executive MemoMaker with PageMaker”
- “Desktop Publishing: Colors in PageMaker”
- “Outputting PageMaker to a Linotronic Typesetter”
- “Windows, Drivers, Fonts, and Applications”
- “Vectra: Booting from the Hard Disc”
- “What is HP StarLAN?”
- “HP Vectra 3000 PC: Frequently Asked Questions”
- “Portable Desktop Link Q&A”
- “Introducing Vectra HP BASIC Controller Bundles”
- “Announcing New AdvanceLink for HP Vectra PC”
- “Announcing New AdvanceLink FastTrak”
- “New Enhancements: HP Vectra 3000 PC”
- “Three Models of HP LaserJet 2000 Printer Introduced”
- “Now Available: HP LaserJet Series II Printer”
- “HP ScanJet Expands HP’s DTP Offering”
- “HP-IB QuietJet Plus Introduced”
- “HP’s New DraftMaster Duo”

**Portable Vectra CS,
Portable PLUS,
Portable, HP 150
Touchscreen, HP 120
and 125**

Issue #23 includes the following major articles:

- “Using Scanning Gallery”
- “Scanning Gallery: Preview vs. Final Scan”
- “Printer Timeout Tables”
- “Using the Correct Communication Port”
- “Vectra: Softfonts and the PCL/LaserJet Driver”
- “Vectra: Softfont Limits with the HPPCL.DRV Driver”
- “HP Vectra PC: Key Combination Chart”
- “Taking Care of Your Hard Disc”
- “Announcing the HP PaintJet”
- “Portable PLUS: Lotus 1-2-3 Version 2.01 Upgrade”
- “Introducing the New Portable Vectra CS”
- “iPrint: New Approach to Electronic Forms”
- “New Graphics Gallery—Version 2.0”

- "Asian Vectra: Announcing the Asian Graphics Gallery"
 - "QNX Operating System for HP Vectra and Industrial Vectra PC"
 - "New Vectra MS-DOS 3.1 Exchange Kit"
- HP PC Communicator Issue #23 5958-7677*

**Vectra CS, ES, RS;
Portable Vectra CS;
Portable PLUS,
Portable, HP 150
Touchscreen, HP 120
and 125**

Issue #24 includes the following major articles:

- "Compact vs. Quick Save in ECM"
- "PageMaker 1.0a Tips"
- "Using Disc Optimizer Programs with Lotus 1-2-3"
- "HP Vectra PC and HP-IB De-mystified"
- "InkJet Printers: Autostart Perforation Skip"
- "LaserJet Series II Help Sheet"
- "GW Basic with ThinLAN/StarLAN"
- "Introducing a New Family of HP Office Workstation Solutions"
- "The HP Vectra CS PC"
- "Introducing the HP Vectra ES and ES/12 PCs"
- "HP Vectra ES and ES/12 Disc Mechanisms"
- "3.5-Inch Internal Flexible Disc Drive for Vectra"
- "Expanded Memory for the HP Vectra ES and ES/12 PCs"
- "New Math Coprocessor for Vectra ES and ES/12 PCs"
- "HP Vectra ES and ES/12 PCs: What's Different?"
- "New HP Vectra PC Keyboards"
- "Original HP Vectra PC Discontinuance Plans"
- "Model 58 and 59 HP Vectra 3000 PCs Discontinued"
- "Ordering the New HP Vectra 3000 PC"
- "HP's Flagship PC: The Vectra RS"
- "Vectra RS Systems Use HP Disc Drives"
- "New HP Vectra MS-DOS 3.2"
- "HP Vectra PC and Microsoft Windows"
- "New HP Vectra Publisher PC's for Desktop Publishing"
- "New HP Vectra PC Bundles for HP StarLAN Users"
- "HP Terminal Program for the HP Vectra PC Family"
- "Software Support for the HP Rugged Writer 480 Printer"
- "New Font Offerings for HP's LaserJet Family"
- "Introducing AdvanceWrite Plus"

HP PC Communicator Issue #24 5958-7678

Issue #25 includes the following major articles:

- “Finer Gray Scale with Graphics Gallery 2.0”
- “Sending Multiple Gallery Files to Plot”
- “Using TIF Files with PageMaker”
- “Printing Images and Graphics with AdvanceWrite Plus”
- “Protecting BPI Data”
- “AdvanceWrite Plus and Print Central”
- “Notes on the HP 82973A HP-IL Card (PDL)”
- “Opening Two MS-DOS Windows”
- “Using MS-DOS and Microsoft Windows”
- “How to Install a Logitech Mouse”
- “HP SketchPro—New RS-232-C Graphics Tablet”
- “Announcing Five PC-305/308 Instrument Controllers”
- “Everything You Need for the HP PaintJet Printer”

HP PC Communicator Issue #255958-7679

Additional copies of this current issue are available:

HP PC Communicator Issue #265958-7680



This section lists the software exchange kits available for The Portable, HP 120/125, Touchscreen/150, and HP Vectra PC. These kits contain the latest software and any manual updates issued since the original release.

Exchange kits are provided at a nominal charge. You return your original master disc as proof of purchase and continue operating as usual with your work copy of the software.

Software Exchange Kits are provided for several different purposes:

- **Updates.** Software is revised to add new features, to work with new peripherals, or to correct problems. You can update your program and manuals at a nominal cost by ordering the appropriate Software Exchange Kit.
- **Upgrades.** When major features are added to a software product, you can order a Software Exchange Kit at a low cost—"trading in" your older version for one with the latest capabilities and documentation.
- **Media Replacement.** The master-copy/work-copy technique used is designed to minimize the risk of damage to your master software due to handling or human error. If this happens, Software Exchange Kits are available at a nominal charge. If the product has been updated since your original purchase, the Exchange Kit contains the latest version and any manual updates issued since the original release.

Ordering

To order:

- In the U.S., Software Exchange Kits are available by mail from HP's Direct Marketing Division, using the form given later in this magazine.
- Outside the U.S., contact your dealer or HP sales office for details.

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

To determine the price for a kit, contact your dealer or HP office—or call the HP telephone order number for your country. (See the “How to Order” section later in this Current Information insert.) HP cannot accept orders submitted without the correct master disc.

Refer to the tables on the next pages for Exchange Kit part numbers.

HP Internal Orders	For HP Internal Orders of Software Exchange Kits, return the original master discs to: Software Administrator, Building 78/3 or Hewlett-Packard Attn: Software Administrator P.O. Box 60008 Sunnyvale, CA 94088 Reference your HP Internal Order number on the package.
Replacement Media for Discontinued Software	We are committed to sustain support for Hewlett-Packard products well after technology advances and market demand cause us to discontinue offering a product for sale. It is HP corporate policy to ensure availability of parts and full support services for your computer for five years beyond discontinuance. Specifically, this means: <ul style="list-style-type: none">■ 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 <i>HP PC Communicator</i>. (By the way, you can help—share your tips and ideas with other users—just send a note to the <i>HP PC Communicator</i> editor.)
Products Not Listed	Because entertainment software packages are low-priced, there are no exchange kits for these products. Re-order the original product to replace damaged discs. For information on other products not listed, contact your dealer or HP sales and service office.

**Touchscreen/150
Software Exchange Kits**

Product	Version	Order HP Part #	Notes
Touchscreen (HP 150B) Operating System and Utilities		45626-63007	2
Sys Master Disc			
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 Disc			
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	3
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	

**Touchscreen/150
Software Exchange Kits**

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

Product	Version	Order HP Part #	Notes
3278 Emulation	A.01.00	45641-63001	
AdvanceLink (upgrade)	A.04.04	45431-63002	
AdvanceLink (update)	A.04.04	45431-63001	
Application Master (150 B)	B.02.00	45626-63006	
Auto Cad	A.02.01	47956-63001	
BASIC Interpreter	*A.01.01	45445-63002	
BASIC Compiler	A.01.00	45446-63002	
Charting Gallery	A.01.00	45513-63001	
Charting Gallery Upgrade	B.03.00	45513-60001	
COBOL	A.01.00	45448-63001	
Compiled BASIC	A.01.00	45446-63002	
Condor 3	*A.02.11	45416-63002	1
CorrectStar (hard-disc upgrade)	V3.31	45429-63002	
CorrectStar to SpellStar Upgrade	3.3.30	45429-63001	
CorrectStar	3.32	45427-63002	
dBASE II	*A.02.41	45468-63001	
Drawing Gallery	A.02.01	45411-63002	
Drawing Gallery Upgrade	B.03.00	45411-60001	
DSN/Link	A.01.01	45424-63001	
EtherPrint	2.11	45646-13001	
ExecuDesk	A.01.01	45444-63001	
Executive Card Manager (Upg/tp)	A.02.00	45421-63004	
Executive MemoMaker	C.02.00	45418-63002	
Forms Master	A.01.00	45443-63001	
FORTRAN	A.01.00	45449-63001	
FORTRAN Upgrade	*A.01.00	45449-63003	
Gallery Collection Upgrade	B.03.00	45437-60001	
Gallery Collection			
Bar, Line & Pie Charts	B.03.00	45513-63001	
Basic Portfolio Discs 1 & 2	B.03.00	45411-63004	
Basic Portfolio Discs 3 & 4	B.03.00	45411-63005	
Business Management Portfolio Discs 1-3	B.03.00	45570-63001	
Gold Master	B.03.00	5061-9914	
Set-up & Utility	B.03.00	5061-9917	

Product	Version	Order HP Part #	Notes
GraphWriter	A.01.01	45484-63001	
GW BASIC	*A.01.04	45450-63002	
HP Message to AdvanceMail (upgrade)	A.00.02	27534-63007	
HP-IB Command Library (upgrade)	B.01.00	14857-63002	
HP-IB Command Library for MS-DOS	B.01.00	14857-63001	
HP Message	A.00.02	36568-63001	
HP Message to AdvanceMail	A.01.02	27534-63007	
HP Terminal Program	A.00.01	24597-65002	
HP Word	A.00.00	27505-63001	
Info Access	A.02.00	36898-63003	
Lattice C Compiler	A.01.00	45452-63001	
Lotus 1-2-3:			
System Disc	2.01	45566-63001	
Help Disc, Install, and Print Graph	2.01	45566-63002	
Translate/View	2.01	45566-63003	
System Disc	1A	45482-63001	
System Disc (including backup)	1A	45482-63004	
Utility	1A	45482-63002	
Tutorial 1&2	1A	45482-63003	
Printgraph	1A	45482-63005	
MailMerge	A.03.30	45401-63001	
MemoMaker	*B.01.02	45420-63001	
MemoMaker Time M	A.02.00	45504-64002	
MemoMaker to Executive MemoMaker (upgrade)	C.02.00	45418-63003	
MS Spell	A.01.00	45556-63001	
MS Word	B.01.00	45474-63002	
MultiMate	3.29	45424-63001	
MultiPlan	A.01.10	45473-63001	
OfficeShare Network	A.01.00	50902-69301	
Pascal	*A.01.00	45447-63001	
Painter	A.01.00	45540-63001	
PC Interface with HP 150	A.01.00	61060-63001	
PCF	B.01.02	45422-63001	
PCF to Executive Card Manager (upgrade)	A.02.01	45421-63005	
PFS: File & Report	A.02.41	45488-63001	
Print Central	A.01.01	36890-63001	
Print Central Upgrade	A.03.00	32593-63001	

Product	Version	Order HP Part #	Notes
R:Base 4000	1.1	45545-63001	
R:Base 5000	1.1	45563-63001	
R:Base 4 K to 5 K	1.1	45563-63002	
SpellStar	A.03.30	45402-63001	
Symphony	1.1		
Prog. Disc, Tutorial, Help		45498-63002	
Printgraph, Utility Discs		45498-63003	
Install Prog., Library Discs		45498-63004	
Tutorial1, Tutorial2 Discs		45498-63005	
Videotex	A.01.01	45314-63001	
VT100 Terminal Emulator	A.02.00	45412-63001	
VT100 Terminal Emulator	A.01.00	45412-63001	
Windows Kernal	A.01.03	45875-63001	
Windows Write/Paint	A.01.03	45875-63002	
X.21 Interface	26.22	18154-17101	

* Revised since original release

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

To determine the price for a kit, contact your dealer or HP office, or call the HP telephone order number for your country. (See the "How to Order" section later in this Current Information Insert.) Orders submitted without the correct master disc cannot be accepted. If you want a kit with 5.25" discs, please indicate this preference on your order. Otherwise 3.5" disc will be shipped, regardless of the size of your returned master disc.

Notes

- 1—Either a Condor 20-3 disc or a Condor-20-1-to-Condor-3 Upgrade disc can be exchanged for the Condor 3 disc.
- 2—Three double-sided discs, written in single-sided format, to exchange for damaged HP 150A or Touchscreen (HP 150B) media. To upgrade an HP 150A to the **Touchscreen (HP 150B)** operating system, order this kit. To update an HP 150A or Touchscreen to the **Touchscreen II** operating system, order the Touchscreen II Upgrade Kit (45849-63006) from your dealer or HP office. The upgrade kit includes the new operating system disc and the ROM integrated circuits required by the new disc; it is not user-installable. (Refer to the article "Upgrading Your HP 150A or Touchscreen to a Touchscreen II" in *Communicator* Issue #13 for details.)
- 3—Double-sided exchange disc for damaged Touchscreen II media. To upgrade an HP 150A or Touchscreen (HP 150B) to the Touchscreen II operating system, order the Touchscreen II Upgrade Kit (45849-63006) from your dealer or HP office. The upgrade kit includes the new operating system disc and the ROM integrated circuits required by the new disc; it is not user-installable. (Refer to the article "Upgrading Your HP 150A or Touchscreen to a Touchscreen II" in *Communicator* Issue #13 for details.)

**Vectra PC
Software Exchange Kits**

Product	Version or /Date Code	Order Part #	Notes
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	B.01.00	68333-65002	
AdvLink (Upg.)	B.01.00	68333-65001	
ASYST Scientific	A.02.50	14858-61005 14858-61006 14858-61007	
BASIC Interpreter	2538	45952A	1
BASIC Interpreter (Upg/rp)	3.22	45952-63001	
Charting Gallery Upgrade	B.03.00	68350-60002	
Drawing Gallery Upgrade	B.03.00	68351-60002	
Executive Card Manager	A.01.03	68331-65001	
Executive MemoMaker Upgrade	A.03.00	68330-60005	
Executive MemoMaker Application & Utility (5.25")	A.03.00	68330-65002	
Gold & Dictionary (5.25")	A.03.00	68330-65003	
Exec. Spreadsheet	A.01.01	68332-65001	
Gallery Collection Upgrade	B.03.00	68352-60001	
Gallery Collection Application Master (5.25")	B.03.00	68351-65002	
Application Master (3.5")	B.03.00	68351-63001	
Bar, Line & Pie Charts (5.25")	B.03.00	68350-65001	
Bar, Line & Pie Charts (3.5")	B.03.00	68350-63001	
Basic Portfolio Discs 1, 2 & 3 (5.25")	B.03.00	68351-65001	
Basic Portfolio Discs 1 & 2 (3.5")	B.03.00	68351-63002	
Basic Portfolio Disc 3 (3.5")	B.03.00	68351-63003	
Business Management Portfolio Disc 1 (5.25")	B.03.00	68326-65001	
Business Management Portfolio Disc 2 (5.25")	B.03.00	68326-65002	
Business Management Portfolio Disc 3 (5.25")	B.03.00	68326-65003	
Business Management Portfolio Discs I & II (3.5")	B.03.00	68326-63001	
Business Management Portfolio Disc III (3.5")	B.03.00	68326-63002	
Gold & Utility Master (5.25")	B.03.00	5061-9915	
Gold Master (3.5")	B.03.00	5061-9919	
Set-up Master (5.25")	B.03.00	5061-9916	

Product	Version or /Date Code	Order Part #	Notes
Graphics Gallery Update	A.01.00	68352-65002	
HP-IB Command Library (Upg.)		82990-65001	
HP Message	A.00.02	36569-65001	
HP Message to AdvanceMail (upgrade)	A.01.02	27535-65009	
HP Terminal Program	A.00.01	24597-65001	
HP Terminal Program (3.5")	A.00.01	24597-65002	
MS-DOS Op Sys Disc	A.01.04	45951-63001	
MS-DOS Op Sys Disc	A.01.02	45951-60001	
MS-DOS Op Sys Disc	B.01.01	45951-63017	
MS Macro Assembler	4.0	45953-60001	
MS Windows (Upgrade, 5.25")	B.02.00	45954-60001	
MS Windows Kernal Set-up, Build & Display Discs (5.25")	B.02.00	45954-60002	
MS Windows Fonts & Utilities (5.25")	B.02.00	45954-60003	
MS Windows Applications & Write Discs (5.25")	B.02.00	45954-60004	
MS Windows Kernel (3.5") Set-up, Build & Display Discs	B.02.00	45954-60005	
MS Windows Fonts & Utilities (3.5")	B.02.00	45954-60006	
Multiple Character Set Utilities MCS	A.01.01	5061-8970	
Office Share Network Server	A.01.00	50902-69601	
Office Share Network User	A.01.00	50903-69601	
Office Talk	A.01.02	24520-15001	
PC Instrument Data Acquisition	A.02.00	14856-65001	
PC Instrument Data Acquisition (Upg.)	A.02.00	14856-61001	
PC Instrument System	B.01.00	61061-65001	
PC Instrument System	B.01.00	61061-65002	
Print Central	A.01.00	36890-65001	
Print Central (Update)	A.03.00	32593-63001	
R:Base 5000	2537	68336-65001	
R:Base Program Interface		68337-65001	
R:Base System V	1.1	68328-65012	
Scanning Gallery	A.02.00	68357-65001	
Scanning Gallery MS Windows Run-Time Version	A.01.00 & A.02.00	88290-10150	
Symphony	2538	68339-65001	
TextChart	A.02.00	45406-65001	
VT 100 Terminal Emulator	A.02.00	45412-63001	
1-2-3 by Lotus	2.01	68340-65001	

Notes

1—Because an exchange kit would be priced at approximately the same price as the original product, the order number is for the original product.

**Portable
Software Exchange Kits**

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

**Discontinued Software
Replacement Media Exchange Kits**

Product (Notes)	Version	Order Part Number†		Exchange Available Through
		3.5" Disc	5.25" Disc	
Touchscreen/150:				
BPI Gen. Acctg.	A.01.00	45455-63001	n/a	June, 1990
BPI Personal Acctg.	A.01.11	45459-63001	n/a	June, 1990
BPI Accts. Rec.	A.01.11	45456-63001	n/a	June, 1990
Condor 1/150	A.02.11	45415-63002	n/a	April, 1990
Condor 3*	A.02.11	45415-63002	n/a	April, 1992
Context MBA/150	A.02.03	45481-63001	n/a	April, 1990
Diagraph	A.03.01	45463-63001		September, 1992
Graphics (bar disc, text disc, pie disc, line disc, examples disc)	A.03.01	45410-63001	n/a	April, 1990
GraphPlan	1.00.T2	45467-63001		
Lotus 1-2-3:				
System Disc (including backup)	1A	45482-63001		April, 1992
Utility	1A	45482-63004		April, 1992
Tutorial 1&2	1A	45482-63002		April, 1992
Printgraph	1A	45482-63003		April, 1992
MicroPlan	4.04.T2	45465-63001		May, 1991
MicroPlan Consol.	4.04.T2	45466-63001		May, 1991
Picture Perfect	A.03.01	45462-63001		September, 1992
Transend COMPLETE	A.01.00	45414-63001		May, 1991
VisiCalc	B.01.02	45405-63004	n/a	April, 1990
WordStar (HP 150)	3.34	45400-65031		September, 1992
WordStar (150/110)	3.34	45400-63030		September, 1992

*Revised since original release.

**Discontinued Software
Replacement Media Exchange Kits**

Product (Notes)	Version	Order Part Number†		
		3.5" Disc	5.25" Disc	8" Disc
HP 12x:				
Exchange Available Through April, 1990				
Op Sys/Util/12x	*A.02.00	45900-13810	45900-15810	
VisiCalc/12x	*A.02.01	45531-13800	45531-15800	45531-18800
Graphics/12x	*A.01.03	45532-13800	45532-15800	
Word/12x	*A.02.03	45533-13800	45533-15800	45533-18800
Link/12x (3)	A.02.00	45534-13800	45534-15800	
DSN/Link/12x	A.01.01	45534-13810	45534-15810	45534-18810
BASIC/12x	A.05.21	45535-13800	45535-15800	45535-18800
Programming/12x	A.01.00	45536-13800	45536-15800	45536-18800
Condor 1/12x (5)	A.02.00	45550-13800	45550-15800	45550-18800
Condor 3/12x (4)	*A.02.01	45550-13802	45550-15802	45550-18802
BPI G/A/12x	A.01.00	45552-13800	45552-15800	45552-18800
BPI Payroll/12x	A.01.00	45553-13800	45553-15800	
WordStar/12x	A.01.00	45560-13800	45560-15800	45560-18800
SpellStar/12x	A.01.00	45561-13800	45561-15800	45561-18800
MailMerge/12x	A.01.00	45562-13800	45562-15800	45562-18800
MicroPlan/12x	A.01.00	45670-13800	45670-15800	
MicroPlan Cons./12x	A.01.00	45671-13800	45671-15800	
WordStar	3.31	n/a	68345-65001	May, 1992
WordStar Professional	3.31	n/a	68346-65001	May, 1992

See notes on next page.

*Revised since original release.

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

To determine the price for a kit, contact your dealer or HP office—or call the HP telephone order number for your country. (See the "How to Order" section later in this Current Information Insert.) Orders submitted without the correct master disc cannot be accepted.

Notes

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



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

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

Ordering by Telephone from HP

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

- Australia (03) 895-2645
 (03) 895-2615
 (03) 895-2815
 (03) 895-2861
- Austria (0222) 2500-614
 (0222) 2500-615
 (0222) 2500-616
- Belgium/Luxembourg (02) 761 31 11
- Canada
 Toronto local (416) 671-8383
 Ontario..... 1-800-387-3417
 Quebec..... 1-800-387-3417
 British Columbia 112-800-387-3154
 Other Provinces 1-800-387-3154
- Denmark 04 30 16 40
- Finland (90) 887 2361
- France (1) 69 28 83 90
 (1) 69 28 32 64
- Greece (01) 672 6090
- Italy (02) 9236 9702
- Middle East
 Athens (01) 6828811
- Norway (02) 24 60 90
- South Africa
 Johannesburg..... (011) 8025111
 Cape Town (021) 537954
- Spain 91-6374013
 91-6370011

- Sweden (08) 7502400
- Switzerland (057) 31 24 90
- The Netherlands (020) 547 6606
- United Kingdom (0734) 697201
- United States 800-538-8787
Alaska, California, and Hawaii . . . 408-738-4133
- West Germany (0130) 3322

For countries not listed, call your local HP sales and service office.

Ordering HP-Conducted Training Courses

Hewlett-Packard provides personal computer training courses at HP customer training centers using HP-provided equipment; they can also be taught by HP at your facility using your own systems. To order, call your HP sales and service office.

Ordering Software Update and Upgrade Kits

Your original master disc must accompany an order for software update or upgrade kits. Therefore, they are available only through your local dealer or from HP by mail.

For ordering instructions, refer to the article "Software Exchange Kits" elsewhere in this Current Information section.

HP Internal Users

Have your purchasing department enter an I2 order on the supplying entity shown for the item on the Corporate Price List or the Parts Price List. If you are ordering a software exchange kit, return the original master disc to:

Software Administrator/Internal Orders,
Building 78/5

or to:

Hewlett-Packard
P.O. Box 60008
Sunnyvale, CA 94088
Attn: Software Administrator/
Internal Orders

Reference your HP internal order number on the package.

HP Employees

Check with the Employee Computer Program Coordinator in your personnel or purchasing department for ordering instructions.



Ordering HP PC Communicator Subscriptions

The *HP PC Communicator* is the heart of the support program for The Portable, the HP 150 Touchscreen, the HP 12x, and the Vectra PC.

This publication contains articles on how to best use your system—plus each issue includes sections of the “HP PC Encyclopedia.”

The “HP PC Encyclopedia” brings together all the current information you need, in addition to the manuals, for each of the software packages that you use. New and revised Encyclopedia articles are sent to you as part of the *HP PC Communicator*.

You can order a subscription just as you order supplies and accessories—through your dealer, by using HP’s special telephone orderlines, or through your local HP office. (See the “How To Order” section in this insert for the special HP telephone number for your area.)

HP PC Communicator—
U.S. 45530A
HP PC Communicator—
Canada/Mexico 45530B
HP PC Communicator—
International 45530C
(Subscriptions outside the U.S. are sent by accelerated mail.)

Note: We are unable to start your subscription with an issue which has already been mailed; to complete your set of Communicator issues, order individual copies as described in the article “Ordering HP PC Communicator Back Issues” which is also in this Current Information section.

Address Corrections for HP PC Communicator Subscribers

Change the information on the mailing label by sending us the Change of Address form which appears at the end of this Current Information Insert. Allow six to eight weeks for the change to take effect.

HP Internal Users

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

HP Employees

Check with the Employee Computer Program Coordinator in your personnel or purchasing department for Direct Marketing Division (DMK) ordering instructions.



Mail Order Form

for HP Personal/Desktop Computer Software Update Kits

Use this form only for HP Personal/Desktop Computer Software Update Kits. Supplies matched to your HP Computer System can be ordered with update kits.

Ordering instructions:

1. Print or type all requested customer information.
2. Order software update kit(s) for your HP Personal/Desktop Computer. The original disc must be sent to HP with your order for the software update kit; see instruction 7.
3. You may also order computer supplies using this form. Obtain current prices by calling toll-free 800-538-8787. In California, Alaska and Hawaii call (408) 738-4133 collect.
4. Compute state/local taxes on the total cost of items ordered (HP is required to collect taxes; their omission delays your order). If tax exempt, you must provide your tax exemption/resale number.
5. Fill in any special shipping instructions, as required. HP pays freight to U.S. addresses on mail orders, EXCEPT you will be charged extra for special expedited shipping methods; and you will be charged freight on heavy, bulky items weighing more than 30 lbs., such as furniture or printer paper.
6. Fill in credit card information or enclose cashier's check for fastest shipment. Payment by personal or company check will delay shipment up to 10 days. Make check payable to Hewlett-Packard Co. All orders subject to credit approval. **Do not send currency, coin, stamps or purchase orders.**
7. Before your software update kit(s) can be shipped, you must send with your order one original disc (containing the software being updated) for each update kit ordered. This is the disc with the HP software product number and description printed on the label. Be sure to make a working copy before sending the original.
8. Mail this form, along with credit card information (or check), and the original disc to:
HEWLETT-PACKARD DIRECT MARKETING
Mail Order Dept., P.O. Box 60008, Sunnyvale, CA 94088
For carriers other than U.S. Mail, the address is:
HEWLETT-PACKARD DIRECT MARKETING
Mail Order Dept., 1320 Kifer Road, Sunnyvale, CA 94086

Thank you for your order!

Your Name _____ Phone () - _____ Date _____




Disc Size: _____ 5.25" _____ 3.5"

Product Number	Description	Quantity	Unit Price	Amount
1				
2				
3				
4				
5				

Tax Exempt? No Yes

Tax Exempt or Resale Number _____

Subtotal	
State/Local Taxes	
TOTAL	

Ship To	Payment Method
Company _____ Attn Of _____ Bldg/Room _____ Street Address _____ City _____ State _____ Zip _____ Special Shipping Instructions _____ Standard Shipping Method is _____ UPS Surface _____	<input type="checkbox"/> Purchase Order (Number _____) <input type="checkbox"/> Check Enclosed (Payable to Hewlett-Packard Co.) <input type="checkbox"/> Credit Card (Check one, provide all information, and sign) <div style="display: flex; justify-content: space-around;"> <div> <input type="checkbox"/>  </div> <div> <input type="checkbox"/>  </div> <div> <input type="checkbox"/>  </div> </div> Account No. _____ Expiration Date _____ Name on Card _____ Address _____ Signature _____

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

Change of Address Form for *Communicator* Subscribers

If the information on your *Communicator* mailing label is no longer correct, please let us know. Fill in this form and mail it to **Hewlett-Packard, Subscriptions Marketing Department, P.O. Box 60008, Sunnyvale, CA 94088 U.S.A.** Allow 6-8 weeks for change to take effect.

(please print)

Old Address:

(attach mailing label or fill in information as it appears on mailing label)

Name _____ (Title) _____

(Company) _____

Address _____ (Bldg No./Mail Stop) _____

City _____ State _____ Zip _____

Country _____

New Address:

(exactly as it should appear on the mailing label)

Name _____ (Title) _____

(Company) _____

Address _____ (Bldg No./Mail Stop) _____

City _____ State _____ Zip _____

Country _____

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