

- Graphics Gallery
- BASIC
- Touchscreen/Vectra Differences

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



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The HP PC Newsline

Late-breaking news on HP personal computer products

The first dual-mode Asian computer, the **HP Asian Vectra Workstation**, is available in Asian countries now. The HP Asian Vectra Workstation runs both IBM PC/AT-compatible English monochrome software AND Asian language applications in Japanese, Korean, traditional Chinese, and simplified Chinese.

The Asian Vectra Workstation is available in three different models to provide you with the right amount of memory and disc space, and can be tailored to meet your individual needs. A wide variety of peripherals, accessories, software, and networking/communications solutions are available. Included in the Asian language software offerings are Asian Executive MemoMaker, Asian Executive Spreadsheet, Asian AdvanceLink, Asian Lattice C Compiler, and Asian R:Base 5000.

The Asian Vectra Workstation is currently not available outside of the Far East. For more information, contact your local HP Sales Office.

* * *

Version A.02.00 of the **HP OfficeShare Network**, Hewlett-Packard's PC local area network, is now shipping. This version provides faster remote file access to a PC server from both HP Touchscreen and HP Vectra (and compatible) workstations.

Depending on the application and configuration, you can expect a performance increase of about twice over the original time taken to access a remote file. The revision has also reduced the memory requirement of the HP OfficeShare Network software by 18Kb.

To provide this performance increase to our installed customer base, HP is now shipping a performance upgrade free of charge. If for any reason you have not received your upgrade by the end of July, please contact your HP Sales Office.

For more information on OfficeShare, please call your HP Sales Representative.

* * *

Touchscreen/150 users in the U.S.: You can print your Lotus 1-2-3 (TM) spreadsheets and other software applications sideways on an HP ThinkJet or other dot matrix printer by using SIDEWAYS (TM) software. With SIDEWAYS (HP 35184A), you can spread out your spreadsheets and expand your Project Management charts without using glue or staples.

Other features include:

- Lotus-like menus
- Expanded font selection (nine sizes)
- Extended ASCII character set support--particularly important where you need line drawing characters
- A variety of margin widths
- Bold, underlined, or expanded print

SIDEWAYS is supported by Funk Software. For more information contact your Dealer or HP Sales Representative.

* * *

The **HP-HIL 384 Kb RAM card for the 150A/B** is now available. This accessory provides access to HP-HIL input devices, e.g. a mouse or graphics tablet, provides additional memory, and uses only one card slot.

To order the card (HP 45915A), contact your Dealer or HP Sales Representative.

* * *

An Orator-like font for the **LaserJet**, the Presentations cartridge (HP 92286R), is now available from your Dealer or HP. Also available is the **PC Courier (HP922864)** which emulates IBM Set One and Set Two.

* * *

The current comprehensive list of **HP Touchscreen/150 and Portable computer software**, "Software and Accessories for the HP Touchscreen and Portable Personal Computers," is now available. This brochure contains over 600 products, including those distributed by HP and those developed and distributed by independent vendors. It replaces "Your Source for Software Solutions" and "The Hewlett-Packard Software Catalog."

To get a free copy, ask your Dealer or HP Sales Representative for HP part number 5954-7198D.

* * *

The Summer edition of the "Software and Accessories for the Vectra PC" provides the latest information on HP's proprietary and distributed software and hardware offerings for the Vectra. Also included are listings of software and hardware products developed and distributed for Vectra by independent vendors.

Ask your Dealer or HP Sales Representative for a copy (HP 5954-7199D).

* * *

SHELP, which runs on the **Portable PLUS**, is a memory resident program which allows you to access a pop-up calculator, note pad, keyboard macros, and a remote off function. You can order it by writing to the Users' Library, Hewlett-Packard Co., 1000 NE Circle Blvd., Corvallis, OR 97330, or calling the library at (503) 757-2000. **SHELP (HP V 7550)** is \$55.00 for orders within the U.S., and \$60.50 for orders going outside the U.S.

* * *

SIDEWAYS is a trademark of Funk Software.

Welcome to the *HP PC Communicator*



The *HP PC Communicator* is the backbone 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 *Communicator* also lists known software problems and their solutions, and introduces new members of the HP PC family.

This publication was formerly called the *Series 100 Communicator*—the new name, *HP PC Communicator*, reflects the increased breadth of the Hewlett-Packard personal computer product line.

Subscriptions and Back Issues

In many countries, you can order *Communicator* subscriptions and back issues by telephone. For details, see the "Ordering *Communicator* Subscriptions" and "Ordering Back Issues" sections 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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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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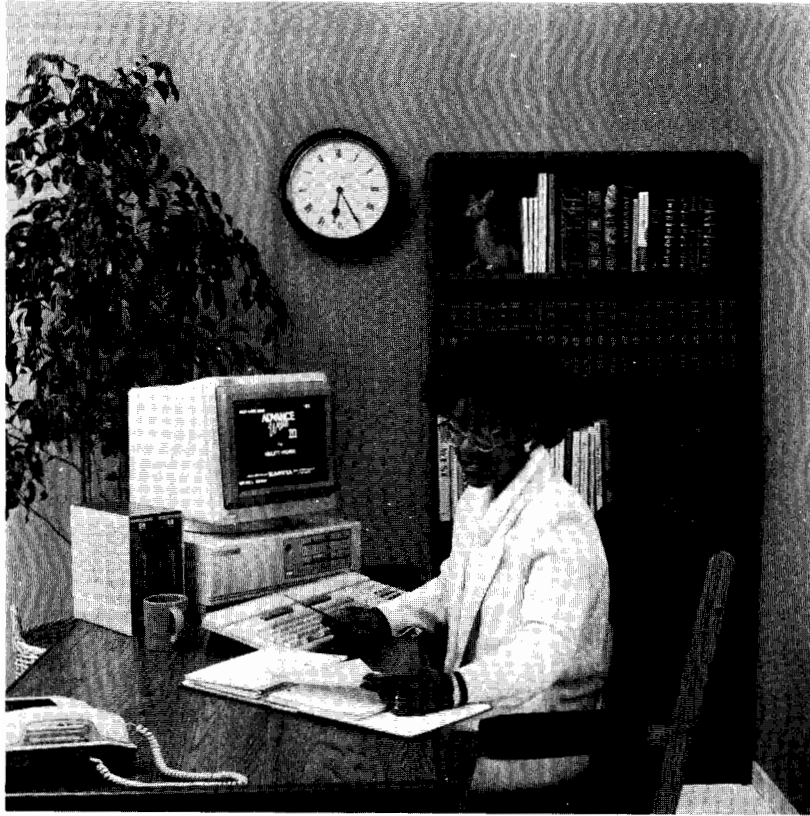
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About Applications

HP Vectra PC: AdvanceWrite Creating Labels Using LaserJet

Karin Dutra

The procedure below can be used to create thirty labels per page—three columns of ten labels each, six lines per label—using your Vectra PC, AdvanceWrite, and the LaserJet printer.

To start, follow the Automatic Merge instructions in *AdvanceWrite, Reference Vol. 1*, pages 3–5 to 3–28. These instructions will create a single column of mailing labels.

Then to create three columns of labels, FORWARD RECORD MARKERS, UP/RIGHT MARKERS, and UP/LEFT MARKERS have to be added. To help clarify the instructions described below, the layout of the three column labels needs to be visualized; rather than printing in column format, the labels will be printing across the page in an “S” formation as depicted here:

```
---label 1-----label 2-----label 3---  
---label 6-----label 5-----label 4---  
---label 7-----label 8-----label 9---  
ETC.
```

-
1. FORMAT the document file in PAGE SPECIFICATIONS as follows:
 - Top Margin: .75
 - Bottom Margin: 0.0
 - Page Length: 30 (which is maximum)
 - Note: [no. of labels per page] x [length of label (including blank lines) in inches] = page length.
- For this example:
MARK/INSERT will be represented by: *
CARRIAGE RETURNS will be represented by: <
DISPLAY MARKERS must be turned on to see MARKERS as shown here.
-

```

*company<
*name<
*address<
*city<
>1 -----> RECORD MARKER, which is telling the software to
<                move forward 1 record.
-----U6----R24-----> Print next item UP no. lines/label
                        RIGHT to leftmost corner of next label

*company<
*name<
*address<
*city<
>1
<
-----U6----R24-----
*company<
*name<
*address<
*city<
>1
<
*company<                                [this label will print directly]
*name<                                    [below the previous label.  ]
*address<                                [Without the U6/R24 command the]
*city<                                    [merge reverts to single column]
>1                                         [printing]
<
-----U6----L24-----> Print next record UP 6, LEFT 24
*company<
*name<
*address<
*city<
>1
<
-----U6----L24-----
*company<
*name<
*address<
*city<
>1
<
*company<
*name<
*address<
*city<
>1
<
-----U6----R24-----

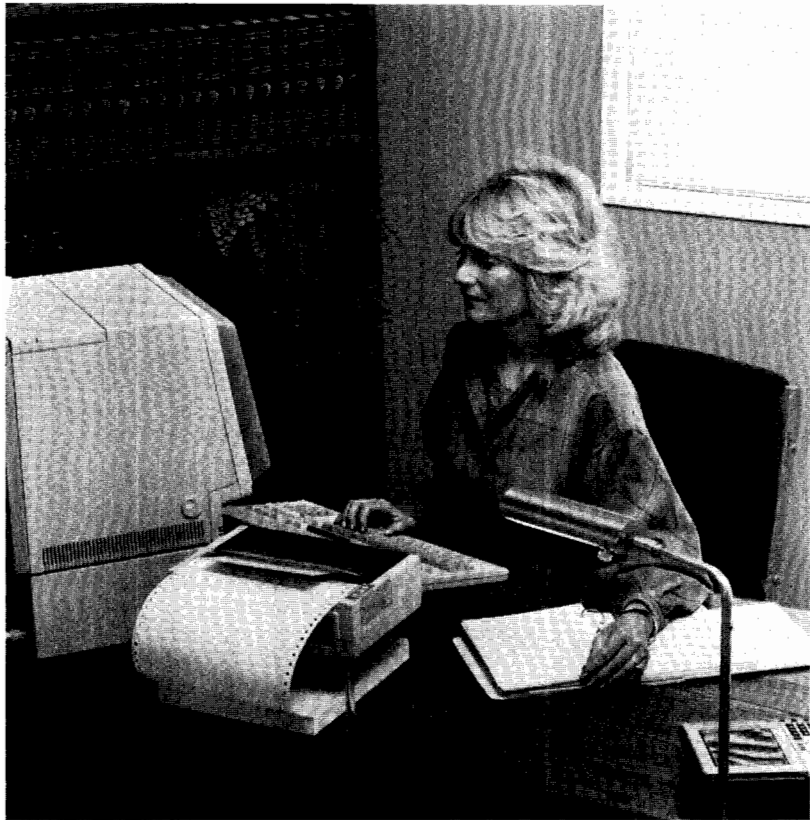
```

```
*company<
*name<
*address<
*city<
>1
<
-----U6-----R24-----
*company<
*name<
*address<
*city
>1
<
```

-
2. Repeat this format until 30 labels (or one page of labels) has been completed. If you have more than 30 mailing labels to print, continue to use the form until all the labels are printed.
-

I find that two blank pages print after each page of labels is printed. I believe that the page length of 30 inches, specified in FORMAT/PAGE SPECIFICATIONS causes the LaserJet to form feed until 30 inches of paper have been printed, in spite of the fact that only one page of text is printed. If you find a solution for this, please document it and send it to the HP PC Communicator.

I would like to thank Julian Troake for his excellent help with this article.



The following shows how you can integrate HP Access with Vectra BASIC (GW). It also demonstrates that you can access remote data at a program level when the location of the data is unknown.

The example consists of three parts:

- a batch file called GET
- an HP Access command file called GETIT
- a Vectra BASIC file

You will also need:

- a copy of Vectra BASIC
- a copy of HP Access

What happens?

Vectra BASIC calls the batch file GET using the "shell" command. GET executes HPAccess with the 'INFO="command-getit" ' parameter. This tells Access to execute the command file GETIT. GETIT just opens the table "TESTTBL," selects ALL columns, then downloads two files, one in ASCII format and one in Lotus format.

Assumptions:

- TESTTBL exists
- You are logged on to the 3000 already
- GET and GETIT reside in the directory C:\HPACCESS

The example can be made more simple if you remove GET, and make GETIT do more than just select TESTTBL and transfer it.

When HPAccess returns control back to Vectra BASIC, you can have the program open the ASCII file and use the data it just retrieved.

```
cd \hpaccess
RUN59 HPACCESS;LIB=ACCXFLIB,FMGRLIB,ACCLIB,PCAIOS;SAVE;INFO="COMMAND=GETIT"
cd \basic
```

```
REMOTE "RANDY"
SELECT "TESTTBL"
COLUMN
SELECT "TESTTBL"
DEFINE_Q
PERFORM_Q
OUTPUT_TAB
SELECT "local ascii" "lotus"
PERFORM_OUTPUT "LFILE" "lotus!"
MAIN
EXIT
```

```
10 REM this program demonstrates how you can
20 REM execute an HP Access batch file from basic
30 REM then input that data into the basic program
40 REM the data will be located on the 3000
50 REM
60 PRINT "DEMONSTRATION OF BASIC TO HP Access"
70 PRINT "EXECUTING ACCESS CALL TO 3000 VIA HP ACCESS BATCH FILE"
80 PRINT "AND THE 'SHELL' COMMAND"
90 SHELL "erase C:\HPACCESS\LFIL"
100 SHELL "erase C:\HPACCESS\LOTUS1.WKS"
110 SHELL "C:\HPACCESS\GET"
120 PRINT "HPACCESS HAS COMPLETED WE HAVE JUST BROUGHT DOWN A LOTUS"
130 PRINT "FILE"
140 PRINT "here is the file"
150 SHELL "type C:\HPACCESS\LFIL"

End of Item 81.
```



Differences Between the Touchscreen/150 and the Vectra PC

Kevin Folan

	<p>Many people like the wide variety of add-on products they can use on the Vectra PC; others appreciate the powerful features of the HP 150 firmware. This article is for those of you who would like to compare the Vectra features to those of the Touchscreen/150. Below are the comparisons for which many people ask.</p>
Terminal Mode	<p>The 150 has built-in HP2623 terminal firmware, including block-mode and graphics capabilities. (The text display, however, is limited to two pages; it can only be expanded by running a terminal emulator from MS-DOS.) Emulators for VT100 and IBM 3278 are also available.</p> <p>The Vectra has no built-in terminal mode, it must use a terminal emulator. HP provides AdvanceLink 2392; numerous third-party emulators are also available. Consult the <i>Vectra Tested Software and Accessories List</i>, HP 5954-7205, for compatibility information on third-party products.</p>
Datacomm Handshaking	<p>The 150 can do hardware (DTR) and software (Enq/Ack, Xon/Xoff) handshaking, which you can set using the Terminal and Port Config menus.</p> <p>The Vectra Serial/Parallel card and Dual Serial card only provide hardware handshaking. Terminal emulation software must provide software handshaking.</p>
Escape Sequences	<p>The 150 can process escape sequences as an HP 2623 terminal. (This is part of the built-in terminal firmware.) This means HP 3000 applications can be run with the 150 acting as a terminal. However, the ANSI.SYS installable device driver is not available for the 150.</p> <p>The Vectra has an ANSI.SYS driver available. It is shipped with the MS-DOS operating system. Some applications for the IBM PC/AT use ANSI escape sequences to communicate with the screen.</p>
Separate Alpha and Graphics Display Memory	<p>The 150 has two separate areas of memory for alphanumeric and graphics data. They may both be turned on at once. The graphics display cannot be scrolled.</p> <p>The Vectra has one area of display memory. It can be in one of several alpha or graphics modes. The display may be scrolled, even if in a graphics mode.</p>

Screen Dump to an HP Printer

On the 150, you can do screen dumps of alpha memory by using the (Shift)(Print) keys. A screen dump of graphics memory can be performed by using the (CTRL)(Print) keys.

On Vectra, you can do alpha screen dumps by using the (Shift)(Prt Sc) keys. If the GRAPHICS program (supplied with Vectra MS-DOS) is run, then a graphics screen may be dumped to an IBM-compatible (i.e., Epson) graphics printer. The ThinkJet printer can emulate an Epson printer if you put it into "Alternate Controls Mode." See the ThinkJet manual for additional information. A graphics dump may be done to a LaserJet if the Print Screen Utility Disc, 5954-2266, is used. To order, contact your Dealer or HP.



First, I would like to make some statements about BASIC and the way it accesses files and controls devices. Then I will try to pass along a few helpful hints on printing graphics.

Languages and System Calls

When most people first consider programming in Assembly Language, their primary fear is that they will have to write hundreds of routines to perform the bare essentials needed to handle the most simple tasks, e.g. writing text to the screen. But soon after, they should come across an extensive library of system defined routines which perform these operations and more. Most computers, whether they are PCs or mainframes, contain a group of these routines and they are usually called "Intrinsics" or "System Functions." They exist to make your job easier and, at the same time, help keep your programs smaller.

BASIC, like most languages, is not as complex as you might think. When you include a PRINT statement, it is not generating a huge amount of code designed to format characters into display memory. In fact, all it does is load the text into a buffer, and call the MS-DOS System Function which "Prints a string." Yes, it is the operating system's predefined routines which perform most of the work.

Why am I telling you this? Well, there is always one problem when working with a high-level language—seldom will you have access to ALL of the capabilities available within the System Functions. There are just too many possibilities, and you have to draw the line somewhere. Series 100 BASIC has a fairly extensive set of commands/statements, and they allow you to use most of the original System Functions. Yes, I said "original." Long after BASIC was written, MS-DOS was enhanced and the number of System Functions just about doubled. BASIC, of course, has no way to get at the new ones, which would be nice considering they include things like "Sub-directories," "Memory Management," "Son-process Capability," and "I/O Control for Devices." (Pay particular attention to the last one.)



**BASIC File
Access and
"Cooked" Mode**

If you read the BASIC manual very carefully, the stated purpose of the OPEN statement is "to allow access to a read or write disc file." Do you see any mention of devices here? No, you don't. It just so happens that reserved file names used with OPEN will allow access to devices (such as PRN), but they will be treated as if they were disc files! You can access them, and as long as you are sending ASCII text and not trying to use the datacomm ports directly, everything will work just fine. When it comes to reading and writing binary data, or trying to read just a few characters from the datacomm port, good luck! BASIC was never designed to handle this.

I recently received a letter from George W. Brown who had difficulty writing binary data to his printer. The main problem he and others find is that the drivers are expecting ASCII text to which they will perform special character modifications. They are not trying to be difficult, in fact they are trying to be helpful. They know that a tab (ASCII value 9) is supposed to be expanded to enough blanks to move the cursor to the next even 8th position, and that a Control-Z (ASCII value 26) means that the end of legitimate text has been reached and anything that follows should be ignored. In the world of MS-DOS drivers this is called "cooking" your data.

Why is it that other applications running on your system can write binary data successfully? Simple. Right after they open the printer file, they call one additional System Function which puts the file into "raw" mode (opposite of "cooked".) This turns off all of the special handling normally performed on ASCII data. BASIC has no such statement, simply because this function did not exist when BASIC was developed.

Summary

I too have tried to make this work. In fact, here is a list of the methods I tested; they all failed as well:

- LPRINT
- OPEN "O",1,"PRN"/PRINT #1
- OPEN "R",2,"PRN"/PUT #1
- PRINT ESC&p... (escape sequence to write to a printer)
- OPEN "O",1,"CON"/PRINT #1,ESC&p...
- OPEN "R",1,"CON"/PUT #1,ESC&p...

For the printing of graphics data, I only know of three possible methods:

- 1) Write Assembly Language subroutines to open and control the printer.
- 2) Organize all your graphics in the graphics display and then use the ESC&p7s4dF escape sequence to copy it from graphics to the printer.
- 3) Use George's method of writing the information to a disc file and then using COPY with the /B option to output it to the printer:

```
10 'serial file version to test graphics with CHR$(9) and CHR$(26)
20 A(0)=129:A(1)=9:A(2)=26:A(3)=129 'CHR$(129) shows byte boundaries
30 INPUT "Output file ", F$ 'PRN or use MS-DOS COPY command if discfile
35 'print discfile with MS-DOS: COPY F$ PRN/B
40 OPEN "O",I,F$
50 PRINT#I,CHR$(27)+"r640S": 'graphics density
60 PRINT#I,CHR$(27)+"rA":
70 FOR K=0 TO 3
80 FOR I=1 TO 25
90 PRINT#I,CHR$(27)+"b5W": '5 bytes per line
100 FOR J=1 TO 5
110 PRINT#I,CHR$(A(K)):
120 NEXT J
130 NEXT I
140 NEXT K
150 PRINT#I,CHR$(27)+"rB":STRING$(128,0):'clearing buffer
160 END
```



printed by opening buffer to PRN as file



printed by MS-DOS command COPY TESTFILE PRN/B

Line 150 produces no visible print but clears the printer buffer of some material which otherwise would clutter up the next line printed. This precaution is vital for the success of the method I have used to print long picture files. If such a file is broken into successive pieces, for example PICFILE1, PICFILE2, PICFILE3, and PICFILE4, clearing the buffer at the end of each segment, then the MS-DOS command COPY PICFILE* PRN/B will print the picture properly.

George initially got an error when he tried to COPY a large file to his printer. This is a "feature" of the COPY command. Although it is a little more forgiving than BASIC when performing binary transfers, it also tries to be efficient by copying the information in very large chunks. Again it is accustomed to working with disc files. When COPY is used with a slower device, such as a printer, the excessive amount of time needed to process one block may cause the driver to give up. Thus, a printer failure occurs. The only workarounds are to create your own COPY program, break up the files like George did, or buy a faster printer (a LaserJet handles the large blocks nicely).

□

In my original article concerning compiling and linking BASIC programs (Communicator Issue # 13), I briefly mentioned the use of an EXEPATCH program to help overcome a feature of the MS-LINK software. Since then I have received letters asking for additional information about this program, with requests for a source listing. I am more than happy to pass it along.

Problem Description

Along with the miscellaneous load-control values placed at the beginning of the .EXE file created by the LINKer, there exists minimum and maximum memory allocation values. The minimum allocation value tells the loader routine how many paragraphs of memory are required, in addition to the space for code and data in the file, for the program to load and execute properly. The maximum allocation value tells the loader how many paragraphs of memory it should try to allocate if at all possible. When the loader is commanded to execute the program, it calculates the total size required by adding the lengths of the code and data areas to the minimum. If the program will not fit in memory, the error message "Program too big to fit in memory" is displayed. If there is sufficient memory, the program is loaded and additional memory is allocated, up to the maximum value specified.

Here is the problem: Although the minimum is set correctly, the maximum value is always FFFF hex. This means that any program created by the LINKer will automatically allocate all of memory to itself upon execution. There are three effects from this:

- Any assembly language call to allocate a block of memory will fail
- Any assembly language call to execute a subprocess will fail
- The memory resident part of COMMAND.COM will always be destroyed

The first two are a result of insufficient memory (the BASIC program has it all), limiting the capability of the application. The last one is more of an annoyance. Each time your compiled BASIC program terminates, COMMAND.COM must be reloaded. If it is not available, you receive the message "Insert COMMAND.COM disk in default drive and strike any key when ready."

**Solution/Program
Description**

The EXEPATCH program shown is designed to overcome this problem. It will ask for the name of the program file, check it to make sure it exists (and was created by the LINKer), then change the maximum allocation value from FFFF to 1000. By altering the maximum to 1000 (Hex), the BASIC program will be restricted to a 64K workspace, which is the most it can use anyway. No additional memory will be allocated!

```
100 PRINT "EXEPATCH Utility: Patch An .EXE File With ";
110 PRINT "Correct Memory Allocation Values."
120 PRINT
130 LINE INPUT "Enter file name [.EXE] > ",FILENAME$
140 IF FILENAME$+SPACES$(LEN(FILENAME$)) THEN END      ' Null response?
150 EXTENSION=INSTR(FILENAME$,".")                    ' Extension included?
160 IF EXTENSION=0 THEN FILENAME$=FILENAME$+".EXE"    ' If not, add .EXE
170 ON ERROR GOTO 500                                  ' Set up error checking
180 OPEN "I",1,FILENAME$                              ' Does it exist?
190 CLOSE 1                                           ' Close it immediately
200 OPEN "R",1,FILENAME$                              ' Re-Open: RANDOM access
210 FIELD #1,128 AS BUF$                             ' Define a buffer
220 GET #1,1                                          ' Get first record
230 MIN=CVI(MID$(BUF$,11,2))                          ' Get minimum mem value
240 MAX=CVI(MID$(BUF$,13,2))                          ' Get maximum mem value
250 PRINT "Minimum memory allocation value: ";HEX$(MIN);" (Hex)"
260 PRINT "Maximum memory allocation value: ";HEX$(MAX);" (Hex)"
270 IF MIN>=0 AND MIN<=&H600 THEN 290
280 PRINT "ERROR: Invalid minimum allocation value found." : STOP
290 IF MAX=&HFFFF THEN 310
300 PRINT "ERROR: File already patched, or not properly linked." : STOP
310 MID$(BUF$,13,2)=MKI$(&H1000)                    ' Define new value
320 PUT #1,1                                          ' Update first record
330 CLOSE 1                                          ' Close the file
340 PRINT
350 PRINT "--- Patch Completed. Maximum changed to 1000 (Hex) ---"
360 END
500 REM Error encountered during file access attempt
510 RESUME 520
520 PRINT "ERROR: File not accessible."
530 END
```

□

Here's the scenario: You've written this really neat piece of assembler code that does whiz-bang things to the screen. You would like to call this routine from BASIC. You look up the section of your BASIC manual that tells you how to use assembly routines from BASIC. . . uummm. . . right. . . lessee. . . /M:10 to reserve the memory, DEF SEG to define the segment (What segment?), then read the file byte-by-byte poking it into memory? Yeeecchhhhh!!!!

YES!! There is a better way! MicroSoft has provided us with a command called BLOAD. This command was to be used to load screens and arrays saved with the BSAVE command. The manual tells us that the files that are BLOAD-able are "memory image" files, that is, images of what was in memory. "Great!" you say, "I can just BLOAD my program!" Well. . . almost. There were a few things MicroSoft neglected to tell us about these so-called "memory image" files. So let's see what you have to do to load assembler programs into BASIC quickly and painlessly.

These examples are written for Vectra BASIC, but the technique should work on Vectra, 150s, or Portables which use Series 100 BASIC or GW BASIC.

First, the assembler program:

```

;
; TBAS.ASM - Larry Lynch-Freshner.
;
; This program is meant to be called from interpretive BASIC
; to read the Vectra touch screen and return the X and Y values
; of the touch as well as a touch/no touch flag.
;
;*****
code          segment
              assume  cs:code,ds:code
              org     0

; header for "memory image" files (to be BLOAD'ed in to BASIC)

type          db      0fdh                ; type of file - always FDh
seg           dw      ?                   ; segment saved from
off           dw      ?                   ; offset saved from
len           dw      end_of_code-$      ; length of code

touch        proc    far
              push   bp                    ; save registers
              push   es
              push   ds

```



```

mov     ah,6             ; fsample
mov     bp,0c5h         ; touch driver
int     6fh             ; call EX-BIOS
pop     ds              ; restore ds
pop     es              ; restore es

mov     bp,sp           ; get pointer into stack
mov     al,dh           ; the touch flag is in DH
xor     ah,ah           ; in bit 7
mov     di,[bp+6]       ; save the flag to the variable
mov     [di],ax         ; pointed to by the stack
mov     di,[bp+8]       ; do the same for the
mov     [di],cx         ; y position
mov     di,[bp+10]      ; and for the
mov     [di],bx         ; x position

pop     bp              ; restore BP
ret     6               ; and get rid of the evidence
touch   endp

end_of_code label near

code    ends
end

```

As you can see, I've added a small header of seven bytes to the beginning of the program. The first byte of this header is a "type" byte that tells BASIC that it is okay to BLOAD the program. This byte must always be FD hex or 253 decimal. The other six bytes are organized as three words, the first is the segment where the "memory image" was originally stored, and the second is the offset. We will ignore these as our program has no original location to which to read back. Instead, we have to tell BLOAD where to load our file so BASIC won't look at these words to determine where to put it. The third word is the length of the code to be loaded into memory and is determined by taking the current address and subtracting it from the last address in the file.

After you enter this program into a file (TBAS.ASM), assemble it and link it. You must then run it through another utility called EXE2BIN. This utility takes the .EXE file generated by LINK and strips off the 512 byte header that all .EXE files have and leaves us with a file that has only what you want. This file has a .BIN extension. This is all done with a simple command:

```
C:\>EXE2BIN TBAS<cr>
```

And you have a file which is capable of being BLOAD'ed!

Now, exactly what must be done to BLOAD a file into memory? Good question. Here is the BASIC program that calls the above assembler routine:

```
10 DIM A%(20)           ' make an array big enough for my program
20 X%=0:Y%=0:S%=0      ' initialize my variables
30 PT=VARPTR(A%(0))    ' get a pointer to the first element of the array
40 BLOAD "tbas.bin",PT  ' load my program
50 CALL PT(X%,Y%,S%)   ' and call it...
60 IF (S% AND 128)=0 THEN 90 ' is the screen being touched?
70 LOCATE CSRLIN-1,1: PRINT "Not touched" " " ' nope...
80 GOTO 50             ' call it again
90 LOCATE CSRLIN-1,1: PRINT "Touch- X:";X%;" Y:";Y%;" " " ' yep...
100 GOTO 50           ' and again...
```

Notice that I appear to be BLOAD-ing my program into an integer array. This means I don't have to use the /M: option when entering BASIC to reserve memory. All I have to do is make an array big enough to hold my program, remembering that each element in an integer array is two bytes wide. My file is about 37 bytes long so that 40 bytes I'm reserving should be more than sufficient. Then I use VARPTR to get a pointer to the array and BLOAD it in, telling BASIC I want to put my program where the array is.

This method works best for small routines. Large libraries of functions are best loaded into memory reserved for them. But many functions can be packed into small assembler routines! Have fun.





The Enhanced Graphics Display System and Graphics Gallery Software.

Vectra: Announcing the Enhanced Graphics Display System

David Bufford
Mary Lion

Industry Standards with HP Quality

Hewlett-Packard's Enhanced Graphics Display System (EGDS) is now available. This system offers graphics display components designed to complement the Vectra PC and IBM™ PC-AT compatibles.

The HP EGDS consists of two components:

- The HP Enhanced Graphics Adapter—HP45983A—HP EGA
- The HP Enhanced Graphics Display—HP35743A—HP EGD

Together they provide an excellent solution for Vectra PC users who need high quality color display systems for Decision Support and Analysis, Presentation Graphics, CAD/CAM and other graphics intensive design applications. With the HP EGDS you need not concern yourself with whether your graphics software applications are designed for the older IBM Color Graphics Adapter (CGA) or the newer Enhanced Graphics Adapter (EGA); the HP system will run both of them.

What is EGA?

EGA stands for Enhanced Graphics Adapter, first introduced by IBM, and is a video accessory card that has set a PC industry standard for high resolution graphics. This graphics solution supports:

- 640x350 pixel resolution
- color text using an 8x14 pixel matrix
- graphics with up to 16 colors from a palette of 64

The product has a two-fold presence in the computer industry. First, it is considered a high resolution system for the business/professional user, and second, a "low-end" system by technical users for packages such as AutoCad™ and other PC based CAD applications.

HP EGA Card

Its small "half-size" format fits in either an eight bit or sixteen bit Vectra accessory slot, and combines several valued graphics capabilities all in one card. Not only does it offer compatibility with IBM EGA software, it will also function with virtually all applications written for the IBM CGA. All of these capabilities smooth the transition for users who want the benefits the EGA software standard provides without obsoleting their existing applications.

HP EGA comes with a full complement of display memory allowing full 16 color display from a palette of 64 colors at full EGA resolution. This standard 256K bytes of memory also benefits applications taking advantage of downloadable fonts or the storage of additional graphics screens.

But for all its power and sophistication, the HP EGA is easy to use. Configuration switches are easily accessible from the back of the card, so there is no need to open your system when changing display modes. Even easier, these mode changes are also executable via software. Included with the HP EGA is a disc which facilitates operation of the adapter by providing help in: setting up, changing display mode, loading fonts, and using HP international character sets.

HP EGA Display

The Enhanced Graphics Display (EGD) is a 13" high resolution color display with performance and resolution to support HP's Enhanced Graphics Adapter. This attractive display is bright, crisp, and is compatible with the Enhanced Graphics Display from IBM.

HP EGD is designed to match the capabilities of the HP EGA. Its dual-sync input capability allows automatic determination of the resolution (640x350, 640x200, 320x200) the board wishes to display and responds accordingly. This display has an antiglare screen, and offers an optional tilt/swivel base that allows you to adjust your new display to the position most comfortable for you.

Ordering Information

HP Enhanced Graphics Adapter—HP45983A
HP Enhanced Graphics Display U.S.—HP35743A
HP Enhanced Graphics Display European—
HP 35743B
HP Tilt/Swivel Base—HP82959S
To order, contact your Dealer or HP Sales Representative.

AutoCad™ is a U.S. trademark of Autodesk, Inc.



**Graphics as Bold as
Your Ideas**



A complete family of compatible business graphics software, Graphics Gallery features three exhibits—Charting Gallery, Drawing Gallery, and Executive MemoMaker—all designed to make your communications more effective.

Individually, and together, these packages provide you with a multitude of high-quality solutions for business presentation and reports. You can create a pie or bar chart in Charting Gallery, add a special font and border from Drawing Gallery, and make a full-color overhead transparency with an HP plotter. You can also transfer Lotus worksheet graphs directly into Charting Gallery without complicated “DIF” procedures. Or you can use Drawing Gallery by itself to create graphics like text charts, organization charts and process-flow diagrams. And any graphics you produce with Charting Gallery or Drawing Gallery can be merged with documents you’ve written using Executive MemoMaker. With Graphics Curator/3000, you can also transfer files between Graphics Gallery and graphics and word processing products on an HP3000 minicomputer.

The Graphics Gallery brings you truly professional-quality graphics that you can create yourself. Professional-quality graphics make you more effective by helping your audience understand your message and remember your conclusions. Bold, full-color presentations grab your audience’s attention, and crisp, clear illustrations can help you convince your reader.

Drawing Gallery

Drawing Gallery lets you illustrate concepts and information other than just numbers. Drawing Gallery is the graphics software that lets you present important ideas such as your recommended strategy, or what makes your company stand out from the competition. Drawing Gallery creates organization charts, flow charts, text charts, and illustrations. Drawing Gallery will also edit or customize a Charting Gallery Chart with logos, pictures, borders, and much more.

Drawing Gallery includes the aided-drawing features that let you create good-looking illustrations without a lot of time or artistic skill. We include a large library of pre-defined pictures to illustrate your ideas and text. You can also construct your own custom illustrations from built-in electronic templates. Drawing Gallery lets you edit your pictures by moving individual objects around, placing objects in front or behind each other, and stretching or shrinking objects to the size you want. Drawing Gallery even has advanced features to automatically scale illustrations or text to fit within borders, or to align your objects to a pre-defined "grid."

Charting Gallery

Charting Gallery quickly turns tables of numbers into meaningful and professional-looking pictures. It will automatically create pie charts, bar charts, line charts, and scattergrams. In fact, Charting Gallery will even take a graph you select from a Lotus 1-2-3 worksheet, and automatically turn it into a high-quality Graphics Gallery chart. You can annotate your graphs with text, lines, and boxes, or you can transfer graphs into Drawing Gallery where they can be fully customized to communicate exactly the points you want to make.

Executive MemoMaker

Executive MemoMaker is an easy-to-use word processor that lets you take Graphics Gallery pictures and incorporate them into true letter-quality memos and reports. You'll find that follow-up reports handed out after presentations are more powerful when you include the same graphics images that were critical to your original presentation.

Executive MemoMaker even lets you preview your text and graphics on-screen, so you can see exactly how your report will look. Executive MemoMaker also includes powerful word processing features such as find and replace, automatic page numbering, and an advanced spelling corrector with an 85,000-word dictionary. Executive MemoMaker takes advantage of the merged text and graphics capabilities of a LaserJet, as well as many other popular printers. See the article "Enhanced Executive MemoMaker Introduced" in this section for more information.

Gallery Portfolios	To help you quickly enhance your charts and text, Drawing Gallery includes pictures, character fonts, and templates that can symbolize an idea or illustrate a point. Not only have we included a full portfolio of pictures, fonts, and templates with Drawing Gallery—three additional portfolios are available, with even more to come. These include specialized portfolios oriented towards Office Activities, Business Management, and Chemical/ Petrochemical applications. For more information see the article on portfolios in this section.
Learning Products	To help you and your organization get started even more quickly with the Graphics Gallery products, we have two learning products available: FastTrak describes advanced techniques and demonstration tips for the advanced user. Classroom Learning Packs include ready-made slides, activity sheets, scripts, and an HP FastTrak manual to help you teach an introductory class about Drawing or Charting Gallery. See the article “New Learning Products for Graphics Gallery” in this section for more information.
The Gallery Collection	The Gallery Collection includes everything you need to get started with professional presentation graphics: Charting Gallery, Drawing Gallery, and your choice of a Gallery Portfolio.
Required Equipment	<ul style="list-style-type: none"> ■ Computer: HP Vectra PC, IBM PC, XT, or AT, many Compaq and other IBM-compatible computers ■ Operating system: DOS 2.0 or above ■ Disk drives: Two flexible disk drives, or one flexible disk drive and a hard disk drive ■ Memory: At least 384K of main memory ■ Mouse or tablet (A mouse or tablet is REQUIRED for Drawing Gallery and for the Gallery Collection): <ul style="list-style-type: none"> -HP Mouse: HP 46060A (For HP Vectra only) -Microsoft Mouse (For IBM PC's and compatibles) -Logitech LOGIMOUSE (For IBM PC's and compatibles) -A-size tablet: HP 46087A (For HP Vectra only) -B-size tablet: HP 46088A (For HP Vectra only)

■ Graphics display adapter:

Graphics Adapter	Maximum Color Resolution*	Maximum Black and White Resolution
HP Multimode	—	640x400
HP Multimode w/color adapter	320x400	640x400
HP EGA	640x350	640x350
IBM Graphics (CGA)	320x200	640x200
IBM EGA	640x350	640x350
Hercules	—	720x348

*Note: The resolution and number of colors available depends upon the display monitor and graphics memory as well as the graphics adapter. Your HP sales representative or computer dealer can help you select the appropriate monitor and memory for your graphics adapter.

Recommended and Optional Equipment

■ Black and white printers:

Hewlett-Packard:	HP Product
ThinkJet	2225A, C, D
LaserJet	2686A
LaserJet Plus	2686A, opt. 300
LaserJet 500	2686D
Dot-Matrix printers	2932, 2933, 2934
Dot-Matrix printers	82905B, 82906A

IBM:
 IBM ProPrinter
 IBM QuietWriter
 IBM Graphics Printer

Epson:
 Epson FX 80, 100
 Epson LQ 1500
 Epson RX 80, 100

Other:
 Okidata 92, 93
 Gemini/Star 10, 15
 Mannesmann-Tally Spirit

■ Color pen plotters:

Hewlett-Packard	HP Product
ColorPro (Eight-pen professional plotter)	7440A
Eight-pen high-performance plotter	7550A
Two-pen personal plotter	7470A
Six-pen technical plotter	7475A
Technical drafting plotters	7580, 7585, 7586

- Color printers:
Epson JX-80 color printer
IBM Color Jetprinter

- Film recorders:

Hewlett-Packard	HP Product
HP Film recorder	7510A

Ordering Information

Drawing Gallery	68351F
Charting Gallery	68350F
Gallery Collection	68352F
Executive MemoMaker	68330F
Office Activities Portfolio	68324F
Business Management Portfolio	68326F
Chemical/Petrochemical Portfolio	68325F**
HP Draw Figures Portfolio	68327F**
Classroom Learning Pack:	
for Drawing Gallery	68351V
for Charting Gallery	68350V
for the Gallery Collection	68352V
for Executive MemoMaker	89912F
HP FastTrak:	
for Drawing Gallery	68351X
for Charting Gallery	68350X
for the Gallery Collection	68352X
for Executive MemoMaker	89915F

**Available in fall of 1986.

To order any of these products, contact your Dealer or HP Sales Representative.



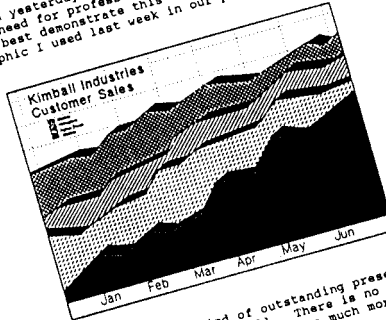
MEMO

Date: April 9, 1986

Subject: Presentation Graphics

From: Gary Johnson
To: John Larson
Susan Thomas

As we discussed yesterday, Hewlett-Packard can provide us with everything we need for professional presentation and reporting graphics. To best demonstrate this capability, I have included below the graphic I used last week in our program review.



As you can see, this is the kind of outstanding presentation graphics that we need here at Kimball. There is no doubt that these types of graphics will help us all be much more effective in communicating our thoughts and ideas.

I look forward to meeting with you soon to further discuss Kimball's role in satisfying your business graphics needs.

Sincerely,

Gary Johnson

Vectra: Enhanced Executive MemoMaker Introduced

Carla Klein

	<p>Executive MemoMaker, the most popular word processor for HP personal computers, has been enhanced for the HP Vectra PC and IBM PC/XT/AT.</p>
Merge Text With Graphics	<p>With the release of the Graphics Gallery for Vectra, Executive MemoMaker/Vectra now supports merged text and graphics. Any chart from Charting Gallery, drawing from Drawing Gallery, or picture from a Gallery Portfolio may be merged with an Executive MemoMaker document and then printed on a variety of HP printers, including the LaserJet and ThinkJet. Before printing, graphics may be previewed on-screen, even in color! Now your reports and correspondence can carry the same powerful graphics used in your business presentations, without cutting and pasting.</p> <p>Other new features in this release for Vectra include automatic page numbering and customized format files for use with HP LaserJet printers. Along with its find and replace capability and spelling verification/correction, Executive MemoMaker has a full set of powerful capabilities, yet is easy to learn and use.</p>
Free Update for Executive MemoMaker	<p>Current Executive MemoMaker/Vectra users can receive the enhanced software at no cost through the following upgrade program.</p> <p>Each copy of Executive MemoMaker (product number 68330F), version A.01.00, included a Graphics Gallery Completion Kit response card. By returning this card to HP, the enhanced software and documentation will be sent. If you have misplaced your card, but would like to receive the new software, send your master disc to:</p> <p>Hewlett-Packard Personal Software Division 3410 Central Expressway Santa Clara, CA 95051 Attn: Graphics Gallery Completion Kit</p> <p>Please include your complete name and address and request the Graphics Gallery Completion Kit.</p> <p>Note: Master discs may be returned until November 1, 1986. The upgrade applies only to Executive MemoMaker/Vectra (product number 68330F), version A.01.00.</p> <p>Please allow three to four weeks for delivery of your Completion Kit.</p>

**Free Update
for Classroom
Learning Pack**

The Classroom Learning Pack for Executive MemoMaker/Vectra (product number 89912F) has also been updated to include lessons on merged text and graphics. You can receive an update kit by returning the Product Update reply card (included with the Learning Pack) or by sending the cover page of the instructor's guide to:

Hewlett-Packard
Personal Software Division
3410 Central Expressway
Santa Clara, CA 95051
Attn: EMM Learning Pack Update

**New
Orders**

To order Executive MemoMaker (68330F) or the Executive MemoMaker Classroom Learning Pack (89912F) contact your Dealer or HP.



**Touchscreen/150 and
Vectra: New Learning Products
for Graphics Gallery**

Carla Klein

HP is now offering a complete set of learning products for the new Graphics Gallery software on the HP Vectra PC and IBM PC/XT/AT.

**Classroom
Learning Packs
for Vectra**

Classroom Learning Packs are available for Drawing Gallery (product number 68351V) and Charting Gallery (product number 68350V), or for the Gallery Collection (product number 68352V—includes 68351V and 68350V). These Packs include all of the features of the current Classroom Learning Packs: ready-to-use instructor's guide, overheads, and student activity sheets and extensive hands-on usage of the software. A copy of the corresponding HP FastTrak, containing self-study learning for the expert user, is included with every Classroom Learning Pack.

The Drawing Gallery Learning Pack includes computer based training for a self-guided tour of the software and a lesson on basic editing functions. Other modules acquaint the student with the documentation; lead them through creation of a slide and organization chart; and discuss other uses and tips for Drawing Gallery. One training disc (CBT) is included in the Pack and each workstation in the class will require a separate disc. Additional copies are available in a pack of five as product number 68351P.

Modules in the Charting Gallery Learning Pack give the students a basic foundation in charting concepts and guide them through the software documentation. The students also create each of the available charts: pie, bar, and line.

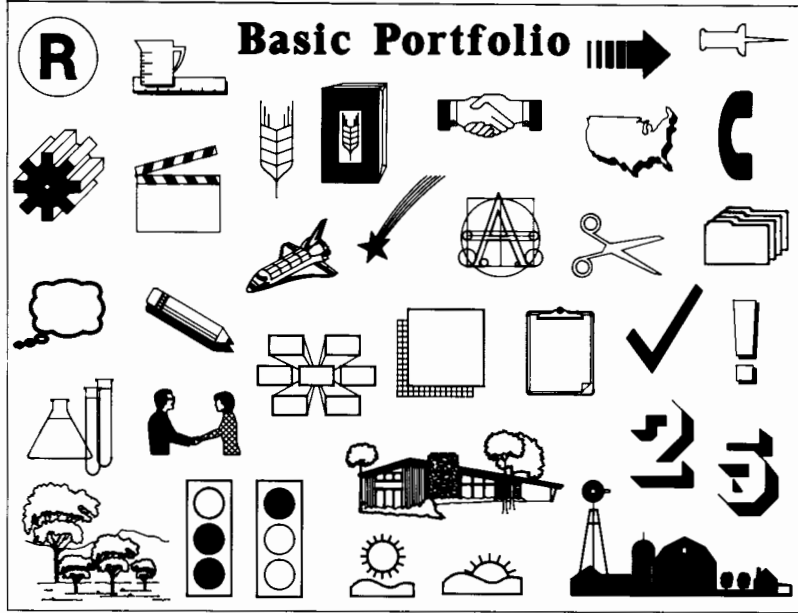
**HP FastTrak Guides
for Vectra and
Touchscreen/150**

HP FastTrak Guides for Drawing Gallery (product number 68351X) and Charting Gallery (product number 68350X) are designed for user support personnel and expert users. They include handy technical tips on configurations, installations, and integration with other software products. HP FastTrak training is self-study and completely modular. A FastTrak Guide for the Gallery Collection (product number 68352X) is also available. These FastTrak guides cover both the Vectra and Touchscreen versions of Gallery software.

For More Information

For additional information on these and other Classroom Learning Packs and HP FastTrak, see the articles on those topics in the green pages of this issue. To order these products, contact your local Dealer or HP Sales Representative.





**Touchscreen/150/Vectra:
Portfolios For Use With
The Graphics Gallery**

Paula Dieli

	Available soon, HP will have a set of portfolios containing over 1000 ready-made pictures which you can use to produce professional-quality visuals for presentations and reports. By using the portfolios, you get the expertise of a graphics artist in every slide you create, and save time since the pictures are already drawn.
Portfolio Included With Drawing Gallery	A set of over 300 pictures is included with Drawing Gallery for the HP Vectra, IBM PC/XT/AT, Compaq and HP Touchscreen personal computers. Included are: borders, fancy frames, pre-fab formats, a designer alphabet, a wide selection of "bullets" to help you emphasize major points, illustrations, word balloons and HP equipment. Four template sets are also included: basic shapes, flowchart symbols, arrows, and curves.
Portfolios In Addition to Drawing Gallery	<p>These portfolios add to the over 300 pictures and 15 fonts included with Drawing Gallery. The varied selection of Gallery Portfolios enables you to fine tune Drawing Gallery to your specific needs:</p> <ul style="list-style-type: none">■ Business Management Portfolio is tailored for the manager or business professional■ Office Activities Portfolio is for the office end-user who produces more artsy slides■ Chemical/Petrochemical Portfolio is for the Drawing Gallery user in the chemical and petrochemical industries■ HP Draw Figures Portfolio is for the HP 3000 graphics user who is migrating their graphics creation to the stand-alone workstation.
Professionally Designed	<p>These portfolios were developed jointly by Aaron Marcus and Associates, well-known graphics designers, and Hewlett-Packard. Professional quality and user need were of the utmost importance during the design and creation of the portfolios.</p> <p>Gallery Portfolios provide:</p> <ul style="list-style-type: none">■ Over 1000 total pictures available for use with Drawing Gallery and over 300 of these are included with Drawing Gallery for the HP Vectra, the IBM PC/XT/AT, Compaq, and HP Touchscreen personal computers.■ Configurable fonts—fonts included in portfolios can be used with Drawing Gallery. No difficult configuration required.

- Editable pictures—features that can be changed are line type, line width, color, fill texture, size and shape.
- Electronic Templates—most commonly used shapes are readily available on screen for quick and easy access.
- Professional, “built-in” graphic artist system enabling anyone to produce professional-quality visuals.

The more focused or strategic groups of pictures make it easier for HP to address the needs of various industries on an on-going basis. HP is currently investigating additional Gallery Portfolios for release in the future.

Picture Compatibility Pictures from Drawing Gallery on the HP Touchscreen PC are compatible with pictures from Drawing Gallery for the HP Vectra, IBM PC/XT/AT, and Compaq personal computers.

Host Computer Picture Integration Portfolio pictures can be used with HP Draw for the HP 3000 Business Computer, by using HP Graphics Curator/3000 (part number 36926A) for conversion to the HP Draw figure format.

Ordering Information To order Drawing Gallery (68351F for Vectra, 45411A for Touchscreen/150) or one of the portfolios below, contact your Dealer or HP Sales Representative.

	Vectra	HP 150
Business Management Portfolio	68326F	*
Office Activities Portfolio	68324F	*
Chemical/Petrochemical Portfolio	68325F*	*
HP Draw Figures Portfolio	68327F*	*

*Available in Fall 1986

□

Graphics Gallery Portfolios were developed jointly by Aaron Marcus and Associates and Hewlett-Packard Company.

The “Cartoons” section of the Office Activities Portfolio was developed independently by Paul Mernyk.

**Touchscreen/150:
New LaserJet Drivers for Microsoft
Word and MultiMate**

Craig Artherholt

A new LaserJet software driver disc has been produced by HP for the Microsoft Word and MultiMate word processing applications used on the Touchscreen/150 PC. It adds support for the HP 2603A Daisywheel Printer and the K font cartridge for both applications. The new soft fonts (33411AB) for the LaserJet PLUS are also supported for Microsoft Word only.

The single 3½" disc contains the appropriate .PRD and .PAT files that will support the following LaserJet hard font cartridges:

A,B,C,D,E,F,G,H,J,K,L,M,N,P,Q,T,U,V, AND W

Portrait and Landscape modes are supported where they apply. The disc also contains a document file with complete specifications and instructions.

To receive this disc, ask your HP dealer for HP part number 5061-9912. Dealers have copying privileges for the disc. It is also available for CompuServe users in the HP Series 100 Forum.

□

Encyclopedia

Welcome to the Encyclopedia



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

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

What's in the Encyclopedia?

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

Encyclopedia articles containing:

- Product Description—a one- or two-sentence explanation of what the product does.
- Encyclopedia Articles—a reference to any other Encyclopedia articles in previous *Communicator* issues covering this product.
- Most Frequent Questions—with answers, based on the experience of HP's Response Centers around the world.
- Software Problem Reports—a list of the major problems which have been reported.
- Manual Corrections or Updates—a list of corrections to the manuals for the product.
- Data Files—a description of the files used by the product, to aid in data transfer.
- Integration Features—a summary of any features built into the product to facilitate data transfer to other products.
- Data Transfer Procedures—specific techniques which have been discovered for data transfer to specific products.

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

Which Products are Covered?

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

The HP PC Bugline

Latest information about HP PC questions, problems, and solutions

Problem: The sample program in Appendix G of the GW BASIC manual implies that the automatic answering of the **Portable/PLUS and Portable** modem can be done with ease. How is it done?

Solution: The easiest way to answer the phone is through PAM. The **Portable PLUS** must be in PAM (either awake or asleep) with a file called AUTOANSR.BAT residing on drive A. When the **Portable/Portable PLUS** phone rings, PAM searches for this file. If found, AUTOANSR.BAT executes. If not found, PAM ignores the ring.

AUTOANSR.BAT should contain DOS commands to start your terminal program. For example, REFLECT1 FILENAME.CNF FILENAME.COM will start REFLECTION 1, using the configuration stored in FILENAME.CNF. Once the application is started, the commands in FILENAME.COM execute.

* * *

Problem: My **Portable PLUS** owner's manual doesn't cover the Function Control (User System) Keys. What can you tell me?

Solution: These keys allow you to choose whether the function key labels are displayed and whether the user or system function keys are active (if you are running the terminal emulation program). The two keys in this group are **Menu** and **User/System**. The **Menu** key alternately turns the function key labels on and off; even though the labels are not displayed, the current function keys are still active. Press the **Shift** and **User** keys to select the user function keys; press the **System** key to select the system function keys. Not all application programs have more than one set of function keys.

* * *

Problem: Please clarify **HP 110 (Portable)** CorrectStar documentation regarding the comment "The only way to run CorrectStar with the dictionary files is for the user to store their WordStar files on the E-disc." (WordStar is not supported on the **Portable PLUS**.)

Solution: CorrectStar and WordStar must reside on the same disc to work, but both will not fit on the E-disc. Dictionary files, on the other hand, can be on the same disc as CorrectStar or on another disc.

Cinstall tells WordStar where to look for the dictionaries, so when running WordStar, make sure the dictionaries are where Cinstall says they are, or re-run Cinstall with the new location.

* * *

Problem: With **Vectra** and a serial/parallel accessory card, can I run a LaserJet on the Serial port, a Parallel ThinkJet on the parallel port AND toggle between the two?

Solution: After you enable the LaserJet, you can enable the ThinkJet by typing the **MODE** Command **MODE LPT1:** and pressing the Enter key.

This will give you the error message "No retry on parallel printer time-out." Don't worry, this has now reset the parallel printer for use as the PRN device.

Solution: To redirect the printer output to the LaserJet, type **MODE LPT1:=COM1:**

* * *

Problem: When executed in **AdvanceLink/150**, the **&PARITY** and **&BAUD** commands will turn off **XON/XOFF** on port two.

Solution: It is reported that in some cases, issuing the **&BAUD** command twice will reset **XON/XOFF** correctly--but this has not been true in all cases. If the configuration that is being altered mistakenly is for a printer, as it has been in most reported cases, then the problem can be avoided by using hardware handshake rather than software handshake (also known as **XON/XOFF**). Most HP printers implement both hardware and software handshakes. To set the hardware handshake on the 150, use the **PORT 2** configuration screen and set **CS(CB)** to **YES**.

* * *

The following should be added to the **AdvanceLink/Touchscreen** manual, pg. 8-3: If you are running **DSN/Monitor** on an HP Touchscreen, you need to send the command **&HP3000 off** before you send **&Hostcopy Run Link100.pub.sys**.

* * *

If your **Touchscreen/150** is a minimum (256 KB) system, do not set Executive MemoMaker (EMM) as the Autostart application. EMM always senses how little memory there is and removes the operating system from memory to make more room for itself; when you exit EMM, it reboots the system. If EMM is the autostart application, it will be invoked when the system reboots, and you'll be stuck in an endless loop.

If you find that you have set EMM as the Autostart application, you can remedy the problem. First enter File Manager from EMM, and name the **RUN52.EXE** program something else. Exit EMM, and the system will reboot. It will attempt to load EMM again and fail, and will give you the PAM screen. Now go in and un-autostart EMM, and change the name of the original **RUN52.EXE** program back to **RUN52.EXE**.

* * *

Never remove the **MemoMaker/150** application disc until you have properly exited the program. To do so may result in permanent damage to the application disc and loss of data.

* * *

Vectra or Touchscreen/150 users with Lotus 1-2-3: You can print Lotus 1-2-3 column headings and row numbers by specifying borders from the "Print Options" menu, and placing your column headings and row numbers in these borders.

* * *

If you have had problems connecting a 7475 (RS-232) Plotter to a Touchscreen/150 for use with **HPDRAW**, please follow the configuration diagram below:

HP 150 CONFIGURATION:

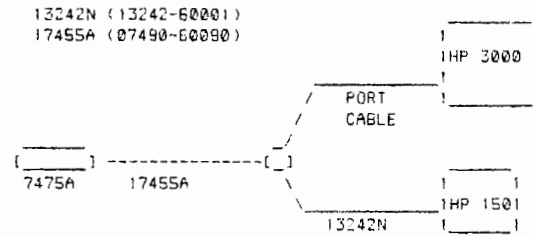
FULL DUPLEX HARDWIRED PORT 1/2

BAUDRATE: 2400 PARITY: 0'S DATA BITS: 7 CLOCK: INT
ASTERISK: OFF STOP BITS: 1 ENKACK: YES
TR(CD): HI CHECK PARITY: NO SR(CH): LO
RECVPACE: NONE SSRXMIT: NO RR(CF)RECV: NO
XMITPACE: NONE SRRINVERT: NO CS(CB)XMIT: YES DM(CC)XMIT: NO

7475A CONFIGURATION:

SWITCH	DESCRIPTION	SETTING
1	BAUD RATE SELECTION	0
2	"	0
3	"	0
4	"	1
5	PAPER SIZE	0 (A SIZE)
6	PLOTTING LIMITS	1 (8 X 11 INCHES)
7	PROGRAMMED OPERATION	1 (Y)
8	PARITY ENABLE	0 (DISABLED)
9	PARITY SELECT	0 (N/A)

CABLES REQUIRED:





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Portable PLUS: Most Frequent Questions

HP PCD S/W Support Group

Here are answers to common questions about the Portable PLUS.

Q: I downloaded a file from our HP 3000. When I look at it in MemoMaker, it has inverse-video "I"s scattered all through it. What's that?

A: *The inverse-video "I" is a tab character ([CTRL] [I]). The document will print, but looks wrong on the display. On an HP 3000, tab characters are routinely used to compress files. If you use REFLECTION 1™ or PC 2622 for file transfer or if you copy display memory to a file, go into the file transfer configuration menu and change the setting so it will expand tabs to spaces.*

Q: I suspect I have a bad file on my electronic disc, but CHKDSK says everything is fine. What gives?

A: *CHKDSK only checks the integrity of the directory and file allocation table, it will not find bad sectors in a file. To check all the files in a given directory, try this:*

`COPY *.* NUL`

This command copies every file in the current directory to the NUL device. NUL is used when you do not want to create a particular file—all you need is to specify an output device. In other words, the file goes nowhere! COPY goes through the motions of copying every sector, checking for bad sectors in the process. If there are no bad sectors, each file name is displayed, followed by 1 FILE COPIED. If any file is bad, the file name is displayed, followed by DATA ERROR READING DRIVE A: ABORT, RETRY, IGNORE? If you find any bad sectors, press "I" to ignore each error.

Q: I'm thinking of buying the video interface (HP 82985A) for my Portable PLUS. What monitors can be connected to it?

A: *The monitor should accept a composite video signal from a phono jack connector. Essentially any low-cost monitor which could be used with an Apple II is acceptable. The only such monitor currently sold by HP is the HP 82913A. Further specifications include:*

Signal: 1.24 pp negative synchronous
into 75 ohms

Scanning Frequency: 15.7 KHz

Compatibility: RS-170

You cannot use a television or RGB monitor.

Q: I understand PC 2622 has been replaced by REFLECTION 1. Does everyone that has PC 2622 need REFLECTION 1? If so, how can PC 2622 be traded for REFLECTION 1?

A: *Not everyone needs REFLECTION 1. All of the features of PC 2622 have been incorporated into REFLECTION 1, including configuration menus and command files. New features include:*

- Roman 8 character support*
- Text file transfer using 8-bit word length*
- Support for the HP 82164A (HP-IL/RS-232/C converter) and HP-IL Acoustic Modem (82168A)*
- File transfers between the Portable PLUS and UNIX systems using CRC error checking (in addition to transfers with HP 3000 and VAX/VMX systems)*
- Program execution from the command line or command files*

If any of the above features are important to you, an upgrade can be ordered from HP's Direct Marketing Division.

Make sure to include the PC 2622 Supplemental Disc along with your order. You will receive new documentation, a supplemental disc, and a ROM for REFLECTION 1. Order part number 82861-64002. You can use the order form at the end of the Current Information section (the green pages) of this issue.

Q: The [Tab] key never works when I type a message on the display—I'm logged on to an HP 3000 using REFLECTION 1.

A: *The [Tab] key indeed works; there just aren't any tabs set initially with REFLECTION 1. Setting tabs in REFLECTION 1 is accomplished using [f2] (margins/tabs/col) in the System Keys. Be sure to save your configuration before you exit REFLECTION 1. You can save a configuration using the [f6] function key on the configuration screens.*

Q: How do you know how much System Memory to set for each application?

A: Applications that are sold by Hewlett-Packard normally include the Main Memory requirements at the front of the manual.

For example, on page 1–2 of the Using MemoMaker manual, you'll read that the value for the Main Memory must read at least 96K. The Main Memory is increased or decreased on the System Configuration menu.

Some programs may require additional memory in order to utilize all of the program features or to edit larger text files or programs.

To make it easy for you, here are the Main Memory minimum requirements for the most popular programs:

Application	Main Memory Required
MemoMaker	96K
Time Management	96K
MS-WORD	140K
Executive Card Manager	128K
MultiMate	152K
REFLECTION 1	144K
Lotus 1-2-3	80K
Lotus 1-2-3 Tutor	192K
GW BASIC	96K
Lattice C by Microsoft	128K

Q: How can my Portable PLUS be upgraded with more memory and the higher quality display?

A: An upgrade program is available for a limited time (April 1, 1986 to September 30, 1986). The display is part number 45711-60955). The memory upgrade is part number 45711-60956. The memory upgrade increases the internal 128K CMOS memory of your machine to 512K internal RAM. (Existing memory drawers further expand your total memory.)

In the U.S., you should call the Corvallis Repair Center at 1-800-782-8884 (in Oregon and Alaska, call 1-503-752-7793, collect) to schedule a time for your unit to be upgraded. It takes about 10 days for the upgrade once your unit has been received. For more information call 800-538-8787. Outside the U.S., contact your Dealer or HP Sales and Service Office.

REFLECTION 1 is a U.S. trademark and PC 2622 is a copyright of Walker Richer & Quinn, Inc.



**Vectra/Touchscreen/150:
Charting Gallery**

Martha Seaver

Encyclopedia Articles	This is the first Encyclopedia article on Charting Gallery for Vectra; this is the second Encyclopedia article on Charting Gallery for Touchscreen/150.
Product Description	Charting Gallery quickly turns tables of numbers into meaningful and professional-looking pictures. It will automatically create pie charts, bar charts, line charts, and scattergrams. You can annotate your graphs with text, lines, and boxes, or you can transfer graphs into Drawing Gallery where they can be fully customized to communicate exactly the points you want to make. See the article on Graphics Gallery in this issue for more information.
Questions and Answers	<p>Q: Are Vectra and Touchscreen/150 Charting Gallery charts compatible?</p> <p>A: <i>Any chart created in the Touchscreen (or Series 100) version of Charting Gallery can be used directly with the Vectra version. If you want to use a Vectra chart with the Touchscreen Charting Gallery, there are two limitations—your Data menu for that chart can contain at most five ranges of data with a maximum of 64 data points per range.</i></p> <p>Q: Can pictures created with the new Vectra Graphics Gallery be converted to figures with HP Graphics Curator/3000?</p> <p>A: <i>Yes, HP Graphics Curator/3000 can convert pictures created with either the Vectra or the Touchscreen Graphics Gallery. Similarly, HP 3000 figures can be used either in the Vectra or Touchscreen version of Drawing Gallery and Executive MemoMaker.</i></p>

Q: What are the differences between Charting Gallery for the Vectra and for the Touchscreen?

A: Charting Gallery on the Vectra is essentially identical to Charting Gallery on the Touchscreen, but also has:

- *improved menu layout, prompts, and messages*
- *much faster software performance*
- *direct integration with Lotus 1-2-3 and Symphony worksheet graphics via Get WrkSheet function*
- *increased data capacity, up to data ten ranges with a maximum of 640 data points*
- *capability to activate/deactivate individual data ranges*
- *on-screen color graphics with enhanced graphics monitor and board*
- *gray-scale simulation of color on black and white devices*
- *separate configuration program, DEVICEID, to specify monitor/board and printer/plotter configurations*

A more detailed comparison chart is given below.

Feature:	Vectra version:	Touchscreen version:
GENERAL DIFFERENCES:		
Keyboard	Vectra/IBM keyboard layout and editing keys (Alt keys for line editing)	Touchscreen keyboard layout and editing keys
Chart types	Same as Touchscreen	Bar charts (horizontal and vertical, stacked and clustered), line charts (line and scatter), pie charts
Colors	With monochrome monitors and B&W printers, solid filled textures and text are displayed in grey scale	With monochrome monitors and B&W printers, you cannot differentiate between colored, solid filled textures and text
DATA MENU:		
Terminology	All data columns labeled as Ranges Erase Range, Erase Field, Erase Chart Subset Data for choosing active rows	Data columns labeled as Bar, Line, Pie Clear Column, Clear Field, New Chart Mark Begin, Mark End
Data ranges	10 columns of data maximum Function Activate Range, Deactvte Range for selecting individual columns	5 columns of data maximum Not available
Data rows	640 rows maximum (16 for pies)—no restrictions based on number of bars/lines Function key To Row Number to quickly get to data	64 rows maximum (16 for pies)—number of rows allowed depends on number of bars/lines Not available

Feature:	Vectra version:	Touchscreen version:
EDIT AND DRAW MENU:		
Menu layout	Menu simplified with text options available on separate fkey level Tab through different chart elements from top to bottom of screen—easy-to-understand order	Initial Edit and Draw menu displays all options at once Tab through chart elements in chart-logical (titles, legends, axis) order
Titles	Same as Touchscreen	Main title, subtitle, footnote up to 60 characters
	Same as Touchscreen	X and Y axis labels up to 40 characters
	Same as Touchscreen	Legends up to 2 lines of 10 characters
	Same as Touchscreen	One font, size, and color specification is used for all titling and annotations
Font	Choices renamed Light, Bold	Choices of Light, Medium
Text Size	Same as Touchscreen	3 text sizes—if largest size, subtitle and footnote are not displayed and title lengths must be shorter
Text color	Colors have numbers and names (e.g. RED) that match monitor and printer colors	Color numbers only
Legends	Back-slash used for split between 2-line legend titles 1–10 legends allowed—for 6–10 legends, they are formatted differently to fit above the chart	Forward-slash used for split between 2-line legend titles 1–5 legends allowed—always positioned on 1 row above chart
Textures	Same as Touchscreen	8 texture pattern choices for bar and pie segment fill, 8 line and scatter marker styles
Texture color	Colors have numbers and names (e.g. RED) that match monitor and printer colors	Color numbers only

Feature:	Vectra version:	Touchscreen version:
Axes	Same as Touchscreen (Auto Scale function key only available when grid activated) With many x-axis values, labels are omitted to improve readability	Auto Scale or user-specified maximum, minimum, and interval values With many x-axis values, labels are truncated
Grids	Same as Touchscreen	User-specified grid color for X and Y grids
Drawing Options	Same as Touchscreen (Sort Segments also included here)	Options for drawing or omitting titles, axes, data, legends, borders, y-axis
ANNOTATIONS:		
Types	Same as Touchscreen	Line, box, text annotations—30 line, 10 text maximum—color same as all text
Interface	Different, easier-to-use mouse and keyboard interface (Drawing Gallery-like use of mouse)	Function key interface for specifying all annotation types
GET AND SAVE MENU:		
Get	Same as Touchscreen	Get Chart, Get Data, or get chart description and/or data separately
	Same as Touchscreen	Get data from DIF, quoted BASIC, and print files
Get Wrksheet	Same as Touchscreen Feature to get Lotus and Symphony graphs	File Manager access Not available
Save	Same as Touchscreen	Save Chart, Save Picture, and save chart description and/or data separately
	Chart not saved automatically when exiting—warning instead	Chart save automatically upon exit—retrieved automatically in startup

Feature:	Vectra version:	Touchscreen version:
PRINTING AND PLOTTING:		
Preview	Preview in B&W using grey scale, Preview in Color	Draw to Screen (no grey scale), no preview in color
Supported devices	Vectra, IBM PC's, some compatibles For printers and plotters, see product documentation (more and different than Touchscreen)	Touchscreen For printers and plotters, see product documentation
Device Control	Same as Touchscreen	Features for output positioning, sizing, etc.
Configuring Output Devices	No P1/P2 support for plotters Use of DEVICEID program to select printer, plotter, HP-IB address, serial interface info (up to 6 configured devices)	P1/P2 can be set on plotter for output size Use product's Config Devices menu to select printer, plotter, system device (up to 6 configured devices—use MS-DOS Device Config to configure system device (to HP-IB or serial port)—use hardware Port Configuration menu to specify serial info
MISCELLANEOUS:		
Memory Requirements	384K minimum memory	256K minimum memory
Installation	INSTALL program for file installation Use DEVICEID program to specify monitor/board combination	Touchscreen INSTALL/REMOVE installation utility No configuration necessary
File format	Touchscreen charts (.GPH, .GPD) can be used in Vectra version—Vectra version charts can be used with Touchscreen only if they don't use rows 65 → 640 and columns 6 → 10	.GPD file holds chart data, .GPH holds chart description



Vectra/Touchscreen/150: Drawing Gallery

Martha Seaver

Encyclopedia Articles	This is the first Encyclopedia article on Drawing Gallery for Vectra, and the second Encyclopedia article for Touchscreen/150.
Product Description	<p>Drawing Gallery lets you illustrate concepts and information other than just numbers. Drawing Gallery is the graphics software that lets you present important ideas such as your recommended strategy, or what makes your company stand out from the competition. Drawing Gallery creates organization charts, flow charts, text charts, and illustrations. Drawing Gallery will also edit or customize a Charting Gallery chart with logos, pictures, borders, and much more.</p> <p>Drawing Gallery includes the aided-drawing features that let you create good-looking illustrations without a lot of time or artistic skill. It includes a large library of pre-defined pictures to illustrate your ideas and text. You can also construct your own custom illustrations from built-in electronic templates. See the article on Graphics Gallery in this issue for more information.</p>
Questions and Answers	<p>Q: Are Vectra and Touchscreen Drawing Gallery files compatible?</p> <p><i>A: The picture files created with the Touchscreen and Vectra versions of Drawing Gallery are compatible—Vectra pictures can be used with Touchscreen Graphics Gallery and vice versa. This is true of the products' picture libraries as well as user-created pictures. However, Vectra pictures store the grid size settings, whereas Touchscreen pictures do not. Therefore, if you bring a Vectra picture into Touchscreen Drawing Gallery, edit, and then save it, you will lose any grid size settings.</i></p> <p><i>Vectra and Touchscreen template files can be used interchangeably.</i></p> <p><i>Font files can not be used interchangeably between the two versions of Drawing Gallery—you cannot use any of the Vectra font files with Touchscreen Graphics Gallery.</i></p>



Q: Can pictures created with the new Vectra Graphics Gallery be converted to figures with HP Graphics Curator/3000?

A: Yes, HP Graphics Curator/3000 can convert pictures created with either the Vectra or the Touchscreen Graphics Gallery. Similarly, HP 3000 figures can be used either in the Vectra or Touchscreen version of Drawing Gallery and Executive MemoMaker.

Q: What are the differences between Drawing Gallery for the Vectra and for the Touchscreen?

A: Drawing Gallery on the Vectra is essentially identical to Drawing Gallery on the Touchscreen, but also has:

- *improved prompts and messages, and new learning products and documentation*
- *much faster performance due to both a faster processor and improved software algorithms— up to 30 times faster in some areas*
- *more high quality filled fonts, including Uniform, italicized, outline-only (hollow)— 15 included with product*
- *more artist-designed pictures available in the Basic Portfolio (included with product) and other add-on portfolios*
- *on-screen color graphics with enhanced graphics monitor and board*
- *gray-scale simulation of color on black and white devices*
- *new editing features including Put Behind, Scroll On/Off, Show Features*
- *separate configuration program, DEVICEID, to specify monitor/board and printer/plotter configurations*

A more detailed comparison chart is given below.

Feature:	Vectra version:	Touchscreen version:
GENERAL DIFFERENCES:		
Main menu layout	Slight change in Main menu layout look	Original Main menu
Keyboard	Vectra/IBM keyboard layout and editing keys (Alt keys for line editing) f10 (function key) or Enter for activating objects	Touchscreen keyboard layout and editing keys Select (keyboard key) for activating objects
View indicator and scrolling	Use of view indicator for scrolling Scroll On/Off option	Scrolling by dragging pointer outside drawing area Scrolling always active
Touch support	Zoom by choosing Zoom label Touch only with softkeys	Zoom by choosing view indicator Touch support everywhere
Cursor direction keys	2 cursor speeds controlled by + and – keyboard keys	Cursor speed controlled by “Cursor fast” keyboard key
TEXT:		
Colors	Colors have numbers and names (e.g. RED) that match monitor and printer colors	Color numbers only
Sizes	Same as Touchscreen	Choices of 6 sizes, unlimited enlarge and reduce
Justify	Same as Touchscreen	4 choices—Center, Top Lft, Top Ctr, Top Rht
Path	Same as Touchscreen	3 choices—Up, Down, Across
Fonts	15 fonts, adding choices of Uniform, italicized and outline-only fonts—more available ongoing in portfolios (e.g. Script and Gothic in Office Activities portfolio) Vectra fonts cannot be used on Touchscreen—different file formats	4 fonts—Modern Light, Medium, and Bold, and Classic
# characters limits	Same as Touchscreen	256 characters at a time, 80 per output line

Drawing Gallery

Feature:	Vectra version:	Touchscreen version:
LINES:		
Terminology	Draw Lines	Connect Points
Colors	Colors have numbers and names (e.g. RED) that match monitor and printer colors	Color numbers only
Patterns	Same as Touchscreen	7 pattern choices
Widths	Same as Touchscreen	3 width choices
Arrowheads	Same as Touchscreen	3 arrowhead choices
# connected lines limit	Same as Touchscreen	104 connected lines
Connect Objects handling	Same as Touchscreen	Connect Objects draws line between objects—stays connected to objects when they move connected
TEXTURE:		
Colors	Colors have numbers and names (e.g. RED) that match monitor and printer colors With monochrome monitors and B&W printers, solid filled textures and text are displayed in grey scale	Color numbers only With monochrome monitors and B&W printers, you cannot differentiate between colored, solid filled textures and text
Textures	Same as Touchscreen	8 texture pattern choices
TEMPLATES:		
Display	4 shapes at a time	5 shapes at a time
Availability	Some standard, others available in separate portfolios	Some standard, others available in Picture Library II and Special Edition library—also available in separate portfolios

Feature:	Vectra version:	Touchscreen version:
PICTURES:		
Picture keys	Same as Touchscreen Can use mouse with File Manager as well	Get, add, save, and save part of picture capability File Manager access—no mouse input for File Manager
Availability	Basic Portfolio (set of pictures) bundled with product—Office Activities, Business Mgmt., and other portfolios purchased separately	Picture Library I (set of pictures) bundled with product, Volume II with Gallery Collection —also Special Edition and other separate portfolios
EDITING AND SETTINGS:		
Basic editing	Same features as Touchscreen—more messages to guide through operations	Move, Stretch/Shrink, Enlarge/Reduce, Connectd, Copy, Delete, Match Features, Fit-In, Undo, Erase Picture
	Selecting menu line option multiple times (e.g. Text) pages through “pull-down” menus for that option (same as More)	Not available
Put Behind	New feature to change drawing order for color printers	Not available
Grid features	Same as Touchscreen	Grid On/Off, Snap On/Off, Move Grid
Grid size	Default grid points depends on monitor (grid squares always square)	One default number of grid points
	Grid size specifications saved with picture	Grid size not saved with picture
Miscellaneous settings	Same as Touchscreen	TextFit On/Off, Dbl Pick On/Off, Horiz/Vert Screen
Scroll On/Off	New option	Not available
Show Features	New option to show object attributes	Not available

Feature:	Vectra version:	Touchscreen version:
PRINTING AND PLOTTING:		
Preview	Preview in B&W with grey scale, Preview in Color	Draw to Screen (no grey scale), no preview in color
Supported devices	Vectra, IBM PC's, some compatibles For printers and plotters, see product documentation (more and different than Touchscreen)	Touchscreen For printers and plotters, see product documentation
Device Control	Same as Touchscreen	Features for output positioning, sizing, etc.
Configuring Output Devices	No P1/P2 support for plotters Use DEVICEID program to select printer, plotter, HP-IB address, serial interface info (up to 6 configured devices)	P1/P2 can be set on plotter for output size Use product's Config Devices menu to select printer, plotter, system device (up to 6 configured devices—use MS-DOS Device Config to configure system device (to HP-IB or serial port)—use hardware Port Configuration menu to specify serial info
Spooling-Multiple Printing and Plotting	Option in the DOS run command (DRAWGAL) to list and plot many pictures in sequence	User creates batch file (.BAT) including names of pictures to plot appended to run commands

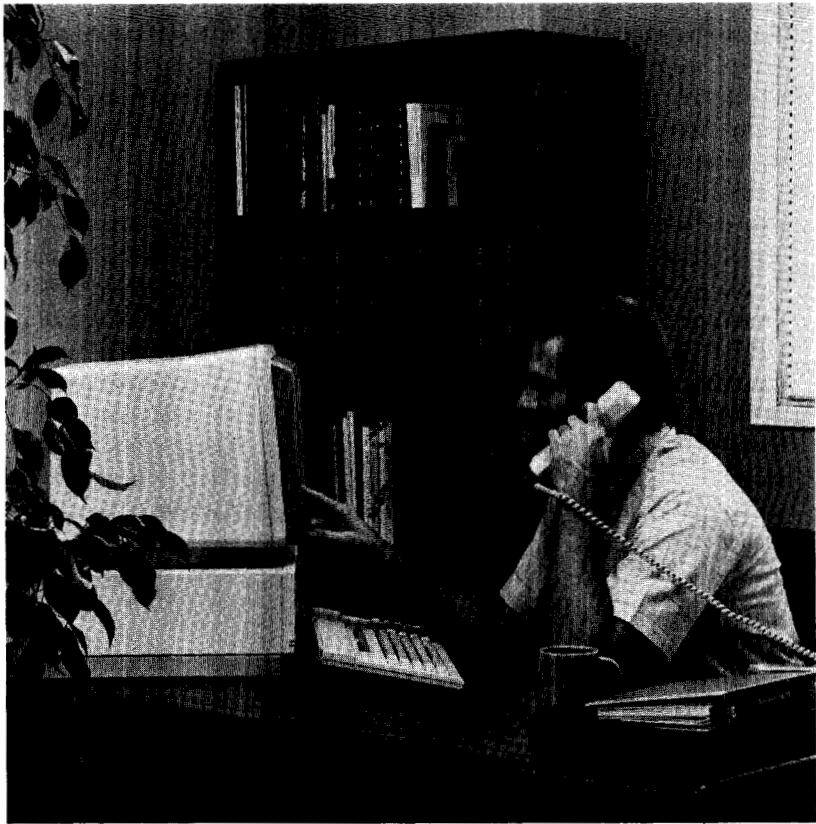
Feature:	Vectra version:	Touchscreen version:
MISCELLANEOUS:		
Memory Requirements	384K minimum memory	384K minimum memory
Installation	INSTALL program for file installation Use DEVICEID program to specify monitor/board combination	Touchscreen INSTALL/REMOVE installation utility No configuration necessary
File format	.GAL file compatible with Touchscreen format—in addition, grid definition and new font numbers stored Template file compatible with Touchscreen format Font file NOT compatible with Touchscreen format	.GAL file format



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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, 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 *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?

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 *Communicator*?

The *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 new Encyclopedia section, initiated with Issue #9, 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 *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 finance 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 or Hewlett-Packard.

Step 4: Was this product purchased from a dealer?

If this product was purchased from a dealer or independent system supplier, 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 is the best source of assistance—knowing you, your needs, and your configuration well.

Authorized dealers 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.

By buying your hardware, software, accessories, and supplies from an Authorized Hewlett-Packard Dealer 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 software and hardware products that the 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 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, Master Charge, 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 *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 teach similar courses or can arrange for Hewlett-Packard to teach a course in your area. To discuss training, call your local dealer 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 system house may also have consulting services available. To discuss consulting, call your local 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 21 countries. If you join Interex, you will receive, at no cost, an assortment of *HP Communicator* back issues which pertain to your computer model.

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."

Membership

Standard Users Support Service includes a subscription to the magazine *Professional Computing*, a subscription to the *Interrupt* newsletter, and one disc from the Interex Contributed Software Library.

Standard Users Support Service:
North America \$70
Outside North America \$120

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 94089
U.S.A.
Telephone 408/738-4848

U.K. residents can contact the HP 100 Users Group in England:

Tim Cullis
HP 100 Users Group
Trafalgar House
Grenville Place
Mill Hill
London, NW7 3SA
England

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 \$120*

*Of this fee, \$15 is allocated for a subscription to Professional Computing.

Payment Method:

Check Enclosed Check Number _____
(if a company check)

Mastercard # _____

Bill Visa # _____ Expires _____

Bill MasterCard # _____

Interbank # _____ Expires _____

HP User Information:

Name _____

(Title) _____

(Company) _____

Address _____

City _____ State _____ ZIP _____

Country _____

Telephone _____

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

Disc Format: 3½" single-sided 3½" double-sided 5¼"

Please send my free *Communicator* back issues

(over)

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

No Yes: ID # _____

Please send more information about Interex's other activities:

____ HP 1000 ____ HP 3000 ____ HP 9000/Series 200

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.


**Touchscreen/150 Software
Available from HP**

Marilyn Ruel
Steve Martin

To determine which U.S. products are recommended for use with localized computers, check with your Dealer or HP Sales Office.

Name	Product Number	Uses HP Touch	Special Requirements
COMMUNICATIONS:			
AdvanceLink—U.S.	45431A	●	
—German	45431AD	●	
DSN/Link—German	45425AD	●	
—Spanish	45425AE	●	
—French	45425AF	●	
—Dutch	45425AH	●	
—Latin American	45425AM	●	
—Swedish	45425AS	●	
—Finnish	45425AX	●	
HPMessage	36568A	●	Corresponding 3000 software required
IBM 3278 Term. Emul. Acces.	45641B	●	
OfficeShare Network Server	50902A		Dedicated PC plus user software, 512 K memory required
OfficeShare Network User	50903A		Network Server, 512 K memory recommended
VT100 Terminal Emulator	45412A		
DATA BASE MANAGEMENT:			
Condor3	45416A	●	
dBASEII—U.S.	45468D		
—French	45468AF		
—German	45468AD		
Executive Card Manager	45421A	●	
ECM: Templates	45441D	●	
HP Access	36898A	●	Corresponding 3000 software required
Pers. Card File—Afrikaans	45422AA	●	
—German	45422AD	●	
—Spanish	45422AE	●	
—French	45422AF	●	
—Dutch	45422AH	●	
—Latin Amer.	45422AM	●	
—Norwegian	45422AN	●	
—Swedish	45422AS	●	
—Finnish	45422AX	●	
—Danish	45422AY	●	
—Italian	45422AZ	●	
R:Base 4000	45545A		
R:Base 5000	45563A		512K

Name	Product Number	Uses HP Touch	Special Requirements
ENGINEERING DESIGN:			
AutoCAD	47956A		512K
GRAPHICS:			
Diagraph	45463A	●	
Charting Gallery—U.S.	45513A	●	
—German	45513AD	●	
Drawing Gallery—U.S.	45411A	●	384K
—German	45411AD	●	384K
Gallery Pic. Library, Vol. II	45433A		
Gallery Collection—U.S.	45437A	●	384K
—German	45437AD	●	384K
—Italian	45437AZ	●	384K
Painter	45540A	●	
Picture Perfect	45462A	●	
S/100 Graphics—Afrikaans	45410AA	●	
—Spanish	45410AE	●	
—French	45410AF	●	
—Dutch	45410AH	●	
—Latin Amer.	45410AM	●	
—Norwegian	45410AN	●	
—Swedish	45410AS	●	
—Finnish	45410AX	●	
—Danish	45410AY	●	
—Italian	45410AZ	●	
INTEGRATED SOLUTIONS:			
ExecuDesk—U.S.	45444A	●	
—German	45444AD	●	
—Danish	45444AY	●	
—Italian	45444AZ	●	
ExecuDesk System	45442A	●	384K
Symphony from Lotus	45498A	●	
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		

Name	Product Number	Uses HP Touch	Special Requirements
SPREADSHEETS:			
1-2-3 from Lotus	45482A		
Financial Calculator	45423A		
Deluxe Visicalc/150—U.S.	45405A	●	
—French	45405AF	●	
Visicalc/150—Afrikaans	45405AA	●	
—German	45405AD	●	
—Spanish	45405AE	●	
—Dutch	45405AH	●	
—Latin American	45405AM	●	
—Norwegian	45405AN	●	
—Swedish	45405AS	●	
—Finnish	45405AX	●	
—Danish	45405AY	●	
—Italian	45405AZ	●	
UTILITIES:			
HP PLCPak	33406A		
Print Central/150	36890A		Corresponding 3000 software required
WORD PROCESSING:			
HPWORD/150 U.S. English	27505A	●	512K
HPWORD/150 U.K. English	27505AB		
Executive MemoMaker U.S.	45418A	●	
Executive MemoMaker— German	45418AD		
Executive MemoMaker— Italian	45418AZ		
MemoMaker—Afrikaans	45420AA	●	
—German	45420AD	●	
—Spanish	45420AE	●	
—French	45420AF	●	
—Dutch	45420AH	●	
—Latin Amer.	45420AM	●	
—Norwegian	45420AN	●	
—Swedish	45420AS	●	
—Hebrew	45420AT	●	
—Arabic	45420AV	●	
—Finnish	45420AX	●	
—Danish	45420AY	●	
—Italian	45420AZ	●	

Name	Product Number	Uses HP Touch	Special Requirements
Microsoft SPELL	45556D	•	
Microsoft WORD	45474D	•	
MultiMate	45424A	•	
WordStar—U.S.	45400D	•	
WordStar Professional	45427D		384K + dual double sided disk drive
WordStar Professional Options	45429D		384K + dual double sided disk drive
European WordStar/MailMerge Combo:			
—U.K. English	45313AB		
—German	45313AD		
—Spanish	45313AE		
—French	45313AF		
—Dutch	45313AH		
—Norway	45313AN		
—Swedish	45313AS		
—Finnish	45313AX		
—Danish	45313AY		
—Italian	45313AZ		
LEARNING PRODUCTS:			
Classroom Learning Pack for HP Access/150 (with Computer Based Training)	89914A		
Student Training discs (pack of 5) for HP Access	89921A		
HP FastTrak:			
for HP Access	89917A		
for AdvanceLink	89918F		
for Executive MemoMaker	89915F		
for Executive Card Manager	89916F		
for Drawing Gallery	68351X		
for Charting Gallery	68350X		
for Graphics Gallery	68352X		



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

Name	Product #	Uses HP Touch	Special Requirements
COMMUNICATIONS:			
AdvanceLink 2392	68333F		
HP IRMA IBM3278/79 Term Emul	50920A		
HPMessage	36569E		Corresponding 3000 software required Dedicated PC plus user software, 512 K memory required
OfficeShare Network Server	50902F		
OfficeShare Network User	50903F		
DATA BASE MANAGEMENT:			
Executive Card Manager (ECM)	68331F	●	Corresponding 3000 software required
ECM: Templates	68335F	●	
HP Access	36898F	●	
R:Base 5000	68336F		
GRAPHICS:			
Drawing Gallery	68351V	●	
Charting Gallery	68350V	●	
Gallery Collection	68352V	●	
Office Activities Portfolio	68324F	●	
Business Mgmt. Portfolio	68326F	●	
TextCharts	45406E		
INTEGRATED SOLUTIONS:			
Symphony from Lotus	68339F		
PROGRAMMING LANGUAGES AND DEVELOPMENT TOOLS:			
MS BASIC Compiler	35190B		
MS BASIC Interpreter	35190A		
MS C Compiler**	35186E		
MS COBOL Compiler**	35186B		
MS FORTRAN Compiler**	35186C		
MS Pascal Compiler**	35186D		
SPREADSHEETS:			
1-2-3 from Lotus	68340F		
Executive Spreadsheet	68332F	●	

Name	Product #	Uses HP Touch	Special Requirements
UTILITIES:			
HP PLC PAK	33406B		
Print Central/Vectra	36890F		Corresponding 3000 software required
Laser Control 100	35190J		
WORD PROCESSING:			
AdvanceWrite I*	27506F		
AdvanceWrite II*	27507F		
AdvanceWrite III*	27508F		
Executive MemoMaker	68330F	•	
MS Word**	35190D		
MultiMate	68338F		
MultiMate Advantage	68343F		
WordStar	68345F		
WordStar Professional	68346F		
WordStar 2000	68341F		
WordStar 2000 Plus	68342F		
MISCELLANEOUS:			
Millionaire: Stock Market Simulation**	922458A		
Sargon III**	35182F		
Teach Yourself WordStar**	35190G		
ThinkTank**	35190H		
Tycoon: Commodities Market Simulation**	92245EA		
Typing Tutor III**	35190F		
Zork I**	35180F		
Baron: Real Estate Simulation**	92245AA		
Flight Simulator**	35183F		
Harvard Project Manager**	35190E		
Hitchhiker's Guide: Interactive Fiction**	35181F		
LEARNING PRODUCTS:			
Classroom Learning Pack:			
for Drawing Gallery	68351V		
for Charting Gallery	68350V		
for the Gallery Collection	68352V		
for Executive MemoMaker	89912F		
for Executive Card Manager	89913F		
Drawing Gallery	68351P		
Student Training Disks (pack of 5)			
Executive MemoMaker Student Training Disks (pack of 5)	89919F		

Name	Product #	Uses HP Touch	Special Requirements
HP FastTrak:			
for HP Access	89917A		
for Drawing Gallery	68351X		
for Charting Gallery	68350X		
for Graphics Gallery	68352X		
for AdvanceLink 2392	89918F		
for Executive MemoMaker	89915F		
for Executive Card Manager	89916F		

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

**Manufacturer Supported



**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	Product Number	Portable	Portable Plus
ACCOUNTING:			
Rags to Riches Ledger	45520C	•	
Rags to Riches Sales	45521C	•	
Rags to Riches Receivables	45522C	•	
Rags to Riches Payables	45523C	•	
COMMUNICATIONS:			
REFLECTION 1	82863K		
	Opt. 400		ROM
YTerm	82867K		•
	Opt. 630		
DATA BASE MANAGEMENT:			
d:BASEII	45468D	•	•
Executive Card Manager	45555K		ROM
	Opt. 400		
PROGRAMMING LANGUAGES AND DEVELOPMENT TOOLS:			
BASIC by Microsoft	45445D	•	
BASIC by Microsoft	82862K		
	Opt. 400		ROM
Compiled BASIC by Microsoft	45446D	•	•
FORTTRAN by Microsoft	45449D	•	•
GW-BASIC by Microsoft	45450D	•	
Lattice C Compiler	45452D	•	•
Pascal by Microsoft	45447D	•	•
Programmer's Tools	45419C	•	•
Technical Reference Manual	45559K		•
SPREADSHEETS:			
1-2-3 from Lotus	45548K		
	Opt. 400		ROM

Name	Product Number	Portable	Portable Plus
WORD PROCESSING:			
MemoMaker/Time Management	45504K Opt. 400		ROM
Microsoft SPELL	45556D	•	•
Microsoft WORD	45474D	•	
Microsoft WORD	45549K Opt. 400		ROM
WordStar	45400D	•	
WordStar Prof.	45427D	•	
WordStar Prof. Opts.	45429D	•	
MultiMate	45554K Opt. 400		ROM
PERSONAL SOLUTIONS:			
The Calendar	35151D	•	
The List Mgr.	35152D	•	
Correspondence Pac	35156D	•	
Mind Prober	35161C	•	
Organizer Pac	35157D	•	
The Planner	35155D	•	
The Speller	35154D	•	
The Writer	35153D	•	
GAMES:			
Adventure	92243D	•	•
Baron	92243KA	•	•
Cutthroats	92244AA	•	•
Deadline	92243VA	•	•
Enchanter	92243VA	•	•
Hitchhikers Gde.	92244BA	•	•
Infidel	92243WA	•	•
Planetfall	92243PA	•	•
Seastalker	92243ZA	•	•
Sorcerer	92243YA	•	•
Starcross	92243DA	•	•
Suspect	92244CA	•	•
Suspended	92243FA	•	•
The Witness	92243QD	•	•
Zork I	92243QA	•	•
Zork II	92243RA	•	•
Zork III	92243TA	•	•

□

Replacement Media for Discontinued Software

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

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

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

Touchscreen/150:		
Product Name	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	None
DATABASES:		
DSN/Link—U.S. English	45425A	AdvanceLink/150—45431A
—U.K. English	45425AB	AdvanceLink/150—45431A
Condor 1	45415A	Condor 3—45416A
Condor 1 to 3 Upgrade	45417A	Condor 3—45416A
dBASE II/150	45468A	dBASE II—45468D
Personal Card File/150	45422A	Executive Card Manager—45421A

Product Name	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. —German	45410A 45410AD	Charting Gallery—45513A German Charting Gallery—45513AD
Graphplan by Chang Labs	45467A	Available from Chang Labs
Graphwriter Basic Set	45484A	None
PFS: Graph	45490A	None
PROGRAMMING:		
BASIC by Microsoft/150	45445A	BASIC by Microsoft—45445D
Compiled BASIC/150	45446A	Compiled BASIC—45446D
FORTRAN by Microsoft/150	45449A	FORTRAN by Microsoft—45446D
GW-BASIC by Microsoft/150	45450A	GW-BASIC by Microsoft—45450D
Pascal by Microsoft/150	45447A	Pascal by Microsoft/150—45447D
SPREADSHEETS:		
Context MBA/150	45481A	None
Microsoft Multiplan/150	45473A	None
VisiCalc/150—U.S. English —French	45405A 45405AF	Deluxe VisiCalc/150—45405A French Deluxe VisiCalc/150—45405AF
MicroPlan	45465A	Available from Chang Labs
MicroPlan Consolidation Module	45466A	Available from Chang Labs
Microsoft Multiplan	45473D	None
WORD PROCESSING:		
MemoMaker/150—U.S. English Touchscreen	45420A	Executive MemoMaker/150—45418A
PFS: Write	45489A	None
WordStar/150—U.S. English —U.K. English	45400A 45400AB	WordStar—45400D U.K. WordStar/MailMerge Combo—45313AB
—German	45400AD	German WordStar/MailMerge Combo—45313AD
—Spanish	45400AE	Spanish WordStar/MailMerge Combo—45313AE
Current Information—26		Communicator #17

Product Name	Product #	Superseded by:
—French	45400AF	French WordStar/MailMerge Combo—45313AF
—Dutch	45400AH	Dutch WordStar/MailMerge Combo—45313AH
—Norwegian	45400AN	Norwegian WordStar/MailMerge Combo—45313AN
—Swedish	45400AS	Swedish WordStar/MailMerge Combo—45313AS
—Finnish	45400AX	Finnish WordStar/MailMerge Combo—45313AX
—Danish	45400AY	Danish WordStar/MailMerge Combo—45313AY
—Italian	45400AZ	Italian WordStar/MailMerge Combo—45313AZ
MailMerge—U.S. English	45401A	Included in WordStar Professional—45427D or Professional Options—45429D
—U.K. English	45400AB	U.K. WordStar/MailMerge Combo—45313AB
—German	45400AD	German WordStar/MailMerge Combo—45313AD
—Spanish	45400AE	Spanish WordStar/MailMerge Combo—45313AE
—French	45400AF	French WordStar/MailMerge Combo—45313AF
—Dutch	45400AH	Dutch WordStar/MailMerge Combo—45313AH
—Norwegian	45400AN	Norwegian WordStar/MailMerge Combo—45313AN
—Swedish	45400AS	Swedish WordStar/MailMerge Combo—45313AS
—Finnish	45400AX	Finnish WordStar/MailMerge Combo—45313AX
—Danish	45400AY	Danish WordStar/MailMerge Combo—45313AY
—Italian	45400AZ	Italian WordStar/MailMerge Combo—45313AZ

Product Name	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.

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

Product Name	Product #	Superseded by:
DATA COMMUNICATIONS:		
AdvanceLink	45431E	AdvanceLink 2392—68333F
Monitor/IBM PC	45439A	AdvanceLink 2392—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	Product #	Superseded by:
COMMUNICATIONS:		
Dow Jones Spreadsheet	45511D	None
SPREADSHEETS:		
Microsoft Multiplan	45473D	None
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
13269U	Carrying case—Leather
13269V	System carrying case
13269W	Attaché case
13269Z	Leather briefcase
92221P	RS232C printer cable (1.5 meters)
92221M	RS232C modem cable (1.5 meters)
92222F	RS232C gender converter (female)
92222M	RS232C gender converter (male)
82167A	HP-IL cable (0.5 meters)
82167B	HP-IL cable (1.0 meter)



■ 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
92171R	Keyboard palm rest (for extended keyboard)
92171T	System turntable
92207A	Anti-glare filter
92250B	Dust cover

■ HP 150 Touchscreen Personal Computer

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

92250F Dust cover for 150
 92250K Dust cover for Touchscreen
 92171C Keyboard drawer park
 92171J Large (extended) keyboard park
 92171X ThinkJet printer stand for top of display
 92208A Mobile PC Centre
 92240A Light-gray tilt unit
 92240B Light-gray swivel unit
 92220R Right-angle HP-IB cable (0.3 meters long)

■ **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
 45741A Monochrome video extension cable
 45742A Color video extension cable
 45986A Security System Lock
 45989A Floor Stand
 92171X ThinkJet printer stand for top of display
 92171Z Vectra PC keyboard park
 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)
 92190A 5.25-inch flexible discs, 360 KB formatted capacity (box of 10 discs)
 92208A Mobile PC Centre
 92259A Vectra PC dust cover for monochrome monitor and keyboard
 92259B Vectra PC dust cover for color monitor and keyboard

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
 92193K 5.25-inch flexible-disc drive-cleaning kit
 92194N 5.25-inch rolltop file (capacity 120 discs)
 92251A Dust cover (82901M/S)
 92251B Dust cover (82902M/S)

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

92191A 3.5-inch micro flex discs—single-sided (box of 10)
 92192A 3.5-inch micro flex discs—double-sided (box of 10)
 92191D 3.5-inch micro flex disc desktop file (capacity 50)
 92191H 3.5-inch micro flex disc album (capacity 20) (replaces 92191C)
 92191R 3.5-inch micro flex disc roll-top file (capacity 50)
 92251D Dust cover (9121 D/S)
 13269T Disc-drive case for 9121

For Printers**■ HP 2225A/B/C/D ThinkJet**

92261A	Individual printhead ink cartridge
92261D	Accessory Kit (2 print heads, 500 sheets fanfold paper, 500 sheets cut paper, 1 dust cover & 1 printer stand)
92261L	Fan-folded ink-jet paper (1000 sheets)
92261M	Cut-sheet ink-jet paper (two 500-sheet packs)
92261N	Fan-folded ink-jet paper (five 500-sheet packs)
92261S	Desktop ThinkJet printer stand
92171X	Terminal top ThinkJet printer stand for 239X series terminals
92250V	Dust cover
13269TT	Carrying case

■ HP 2601A Daisywheel Printer

92151C	Multi-strike ribbon cartridges (box of 12 cartridges)
92151D	Fabric ribbon cartridges (box of 12 cartridges)
92157A	Printer paper, fan-folded (box of 2400 sheets)
92157C	Printer paper, microperforated fan-folded (box of 2400 sheets)
92177C	Sound enclosure
92210P	Printer stand
92177Q	Sheet-feeder
92252 Series	Plastic print wheels, 96 character (box of 6 wheels)
92153 Series	Metal print wheels (1 each)

■ HP 2602A Daisywheel Printer

92151H	Multi-strike ribbon cartridge (box of 12 cartridges)
92157A	Printer paper, fan-folded (box of 2400 sheets)
92177D	Sound enclosure
92157C	Printer paper, microperforated fan-folded (box of 2400 sheets)
92177R	Sheet-feeder
92262 Series	Plastic print wheels, 98-character, USASCII
92263 Series	Plastic print wheels, 98-character, International
92264 Series	Plastic print wheels, HP 150 International Keyboard Support

■ HP 2932A/2934A Dot-Matrix Printer

92154B	Print head (average life of 200 million characters)
92155L	Ribbon cartridges (box of 3 cartridges)
92157A	Printer paper, fan-folded (box of 2400 sheets)
92157C	Printer paper, microperforated, fan-folded (box of 2400 sheets)
92155M	OCR ribbon cartridge—for bar code applications (box of 3 cartridges)
92214P	Mobile printer stand

■ **HP 2671A/G and 2673A Thermal Printers**

92160A	Thermal paper, blue print (box of 24 rolls)
92160B	Thermal paper, black print (box of 24 rolls)
92160C	Thermal paper, blue print, page perforated (box of 24 rolls)
92160M	Thermal paper, blue print (box of 1320 fan-folded sheets)
92160N	Thermal paper, black print (box of 1320 fan-folded sheets)

■ **HP 2686A LaserJet Printer**

92219H	RS232C cable to HP 150 (5 meters)
92219J	RS232C cable to IBM PC (5 meters)
92214P	Mobile printer stand
92215F	RS232C extension cable (15 meters)
92215T	RS232C extension cable (30 meters)
92285A	Toner (EP) cartridge—black
92285G	Toner (EP) cartridge—brown
92285B	8.5" x 11" paper tray
92285C	8.5" x 14" paper tray
92285F	LaserJet forward collator
92285D	Metric A4-size paper tray
92285E	Metric B5-size paper tray
92285P	Font Organizer
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)
92286J	Plug-in type-font cartridge (Math Elite)
92286H	Plug-in type-font cartridge (Legal Courier)
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)
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)

■ **HP LaserJet 500 Plus**

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**

92156A	Ribbon cartridges (box of 2 cartridges)
92157A	Printer paper, fan-folded (box of 2400 sheets)
92157C	Printer paper, microperforated, fan-folded
92154P	Print head
92171S	Desktop printer stand
92250T	Dust cover

■ **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
92171S	Desktop printer stand

For HP 7470A and 7475A Plotters

■ **Non-Glossy Plotter Paper**

New numbers	Size/Sheets	Old Numbers
17800P	A/50	9280-0589
17801P	A/250	9280-0517
17802P	A4/50	9280-0588
17803P	A4/250	9280-0519
17804P	B/50	9280-0614
17805P	B/250	9280-0518
17806P	A3/50	9280-0615
17807P	A3/250	9280-0610

■ **Glossy Plotter Paper**

New numbers	Size/Sheets	Old Numbers
17900G	A/100	9280-0640
17901G	A4/100	9280-0642
17902G	B/100	9280-0641
17903G	A3/100	9280-0643

■ **Non-Glossy Paper and Pen Kits**

New numbers	Size	Old Numbers
17820PK	A	5061-5070
17821PK	A4	5061-5071

■ **Transparency Plotter Film**

New numbers	Size/Sheets	Old Numbers
17700T	A/50 (7440/70)	9270-1126
17701T	A4/50 (7440/70)	—
17702T	A/50 (7475 + others)	9270-1181 9270-1128
17703T	A4/50 (7475 + others)	9270-1182

■ **Transparency Plotter Kits**

New numbers	Size/Plotter	Old Numbers
17715TK	A/7440 + 7470	5061-7561
17716TK	A4/7440 + 7470	—
17717TK	A/7475 + others	5061-7583 5061-7560
17718TK	A4/7475 + others	5061-7584

■ **Fiber-Tip Paper Pens**

New Numbers		Single-color (5 pens/pkg)	Old Numbers	
.3mm	.7mm		.3mm	.7mm
17825P	17826P	Black	5060-6787	5060-6890
17827P	17828P	Green	5060-6786	5060-6892
17829P	—	Aqua	—	—
17831P	17832P	Blue	5060-6785	5060-6891
17833P	—	Violet	—	—
17835P	—	Brown	—	—
17837P	—	Yellow	—	—
17839P	—	Orange	—	—
17841P	17842P	Red	5060-6784	5060-6893
17843P	—	Red-Violet	—	—
17845P	17846P	Multi-color	—	—
17847P	17848P	Std Assort	5060-6810	5060-6858
17849P	17850P	Cool Assort	5060-6894	5060-6895
		Warm Assort	5060-6894	5060-6895

■ **Fiber-Tip Transparency Pens**

New Numbers		Single-color (5 pens/pkg)	Old Numbers	
.3mm	.6mm		.3mm	.6mm
17725T	17726T	Black	5061-5010	5061-5020
17727T	17728T	Green	5061-5015	5061-5025
17729T	—	Aqua	—	—
17731T	17732T	Blue	5061-5016	5061-5026
17733T	—	Violet	—	—
17735T	—	Brown	—	—
17737T	—	Yellow	—	—
17739T	—	Orange	—	—
17741T	17742T	Red	5061-5012	5061-5022
17743T	—	Red-Violet	—	—
17745T	17746T	Multi-color	—	—
17747T	17748T	Std Assort	5060-6818	5060-6819
17749T	17750T	Cool Assort	5060-6834	5060-6835
		Warm Assort	5060-6834	5060-6835

■ **Solvent**

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

■ **Accessories**

92171S Desktop stand (7470A)
 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
 92250N Dust cover (7470A)
 92214P Mobile support stand (7475)



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.

■ *Introduction to Personal Computers*

For managers and professionals with limited knowledge of personal computers. Content: General personal computer usage including basic computer literacy, lots of hands-on use of VisiCalc® hands-on use of word processing and graphics; summary of how PCs can work for you.

35119A (1 day)

■ *Getting Started With the Portable*

If you're a novice computer user interested in learning how to use the HP Portable, this workshop is for you. It includes instruction on P.A.M., MemoMaker, and Terminal, along with an introduction to Lotus™ 1-2-3™ and Personal-Desktop Link. You'll get hands-on experience with the computer, the built-in applications, and HP-IL peripherals.

35036C (1 day)

■ *Getting Started with your HP 150*

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.

35036A (1 day)

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

■ *HP 12x User Course*

For any user of the HP 120/125. Content: Introduction to the HP 12x and the use of Word/12x; second day covers Graphics/12x, VisiCalc/12x, and DSN/Link/12x.

35042B (2 days)

This course, or equivalent knowledge, is a prerequisite for all applications and programming training on the HP 12x.

**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.

■ *Introducing 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.

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.

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.

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.

35123C (½ day)

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

35123A (1½ days)

■ *Condor/150 20-1*

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.

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.

35124C (1 day)

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

35124A (2 days)

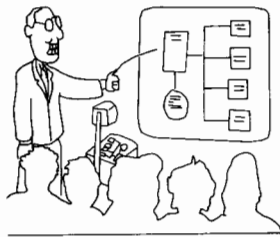
■ *HP 150 Applications: Sharing Information*

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.

35037A (½ day)

HP-Conducted Programming Courses	<ul style="list-style-type: none"> ■ HP 12x Programmer training is provided by the <i>HP 12x Program Development Course</i>, which covers CP/M®, the specifics of Series 100/BASIC, and the assembly language. This course is designed for those who have programming experience in both BASIC and an assembly language. 34043A (5 days)
HP Customized Training	<p>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.</p>
Dealer-Conducted Courses	<p>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.</p>

□



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. In some cases, computer based training (CBT) has also been developed and integrated with the learning program.

-
- Classroom Learning Packs are offered for:
- Executive MemoMaker/Vectra and IBM
PC/XT/AT includes 1 Student Training
Disc (CBT) 89912F
 - Executive Card Manager/Vectra and IBM
PC/XT/AT 89913F
 - HP Access/Touchscreen and 150
includes 1 Student Training Disc (CBT) .89914A
 - The Gallery Collection/Vectra and IBM
PC/XT/AT includes both Drawing and
Charting Gallery 68352V
 - Drawing Gallery/Vectra and
IBM PC/XT/AT includes 1 Student
Training Disc (CBT) 68351V
 - Charting Gallery/Vectra and IBM
PC/XT/AT 68350V

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.

Executive MemoMaker	The Executive MemoMaker Learning Pack covers creating and revising memos, printing documents, using the keyboard, and using MemoSpeller with MemoMaker on Vectra or an IBM PC/XT/AT. Computer based training is used for several lessons and one student training disc (CBT) is included with the Pack. Each workstation in the class will require one training disc. Additional training discs are available in a pack of five as product number 89919F. The CBT may also be given to students to take with them after class for use as a review tool.
Drawing Gallery	The Drawing Gallery Learning Pack thoroughly covers the user interface and includes extra practice using the documentation tutorial. Other exercises are provided on creating slides and organization charts, as well as additional uses of Drawing Gallery and helpful tips. Computer based training provides a guided tour of the software and a lesson on basic editing functions. One student training disc (CBT) is included with the Pack. Each workstation in the class will require one training disc. They are available in pack of five as product number 68351P. The CBT may also be given to students to take with them after class for use as a review tool.
Charting Gallery	The Charting Gallery Learning Pack contains modules on 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.
HP Access	The HP Access Learning Pack covers basic database concepts, retrieving data, performing a query, sorting, summarizing, and placing a table in a document. Computer based training is incorporated in this course and one student training disc (CBT) is included with the Pack. Additional training discs are available in packs of five as product number 89921A. The CBT may also be given to students to take with them after class for use as a review tool.

Ordering Information

To order Classroom Learning Packs or Student Training Discs, contact your local HP 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 six software applications:

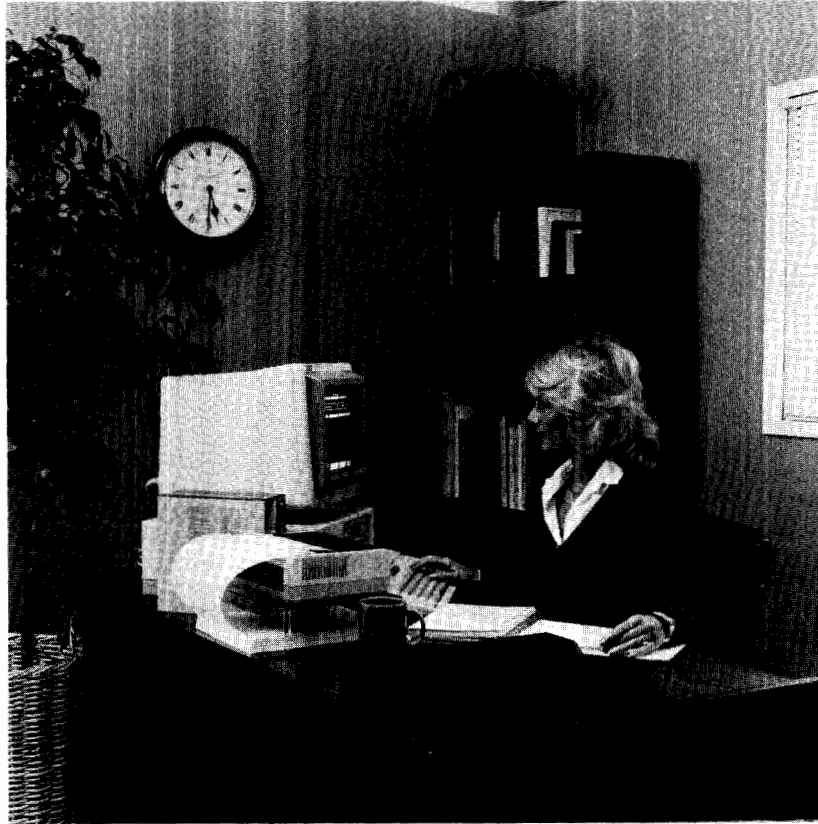
- Executive MemoMaker (89915F)
- Executive Card Manager (89916F)
- HP Access (89917A)
- AdvanceLink/AdvanceLink 2392 (89918F)
- Drawing Gallery (68351X) and
- Charting Gallery (68350X)

Also available is HP FastTrak for the Gallery Collection (68352X), which includes the Charting Gallery and Drawing Gallery FastTraks.

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

To order HP FastTrak, contact your local HP dealer or HP office.





Ordering *Communicator* Back Issues

The application information, operational tips, and programming techniques included in the *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”

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”

Communicator Issue #2—U.S. 5955-3943

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”

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”

Communicator Issue #4—U.S. 5957-6204

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”

Communicator Issue #5—U.S. 5957-6205
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”

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

HP 150 Touchscreen and HP 12x

Issues #7 and #8 cover primarily the HP 150 Touchscreen and HP 12x. (5½" x 8½" page size)

Issue #7 includes the following major articles:

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

Communicator Issue #7—U.S. 5957-6207
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
- Communicator Issue #8 5957-6218

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

Issues #9 and onward cover the Portable, HP 150 Touchscreen, and HP 12x. (5½" x 8½" page size)

Issue #9 includes the following major articles:

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

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"
- 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”

Communicator Issue #11 5958-0251

Issue #12 includes the following major articles:

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

- “Announcing Deluxe VisiCalc”
 - “Introducing VT100 Emulation for the HP 150B”
 - “The Touchscreen 3278 Emulation Upgrade”
- Communicator Issue #12 5958-0252*

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”
- 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”

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”

Communicator Issue #15 5958-0255

Issue #16 includes the following major articles:

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

Communicator Issue #16 5958-0256

Additional copies of this current issue are available:

Communicator Issue #17 5958-0257



This article lists several data communications books which you may find helpful.

For ordering information, refer to the "How to Order" article which appears later in this issue.

Touring Datacomm: A Data Communications Primer
Hewlett-Packard, 1983

This book introduces you to the basic concepts of data communications, beginning with a discussion of simple communications concepts and gradually moving toward more complex topics. It covers hardware and software, transmissions methods and channels, line configurations and interfaces, signal conversion, multiplexing, common carrier services, network structures and capabilities, protocols, and architectures. It's designed for readers with little or no previous knowledge of data communications.

HP Product Number 5957-4622

Communicating with IBM: An HP-to-IBM Communications Primer
Hewlett-Packard, 1984

This primer builds on the information in the book above, **Touring Datacomm**, and focuses on the world of HP-to-IBM communications. An overview of HP-to-IBM networks is discussed, followed by an introduction to each of the main components of those networks. Topics include: IBM mainframes, IBM operating systems, job entry subsystems, communications controllers, basic SNA concepts, emulation, IBM remote devices, and HP-to-IBM data communications products. As you progress through this primer, you will read about HP products that run on various systems, including the HP Touchscreen, 250, 1000, 3,000, and 9,000. This book provides a valuable introduction to IBM and HP-to-IBM data communications. Written for individuals who have a general background in computers and data communications, but little or no previous experience with IBM systems or with HP-to-IBM products.

HP Product Number 5957-4923

**Making the LAN
Connection: A Local
Area Network Primer**
Hewlett-Packard 1984

This book presents a generic overview of local area networks (LANs) and gives some specific information on HP's LAN implementation. Topics discussed include the characteristics and advantages of LANs, some of the criteria for evaluating a LAN, common applications and options that must be considered for a LAN, industry standards and HP's LAN implementation, and a glossary which contains brief descriptions of terms used in the text. Written for those who have some familiarity with the concepts covered in **Touring Datacomm: A Data Communications Primer**.
HP Product Number 5957-4624



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.

The *Encyclopedia* article for your product explains the capabilities added or problems fixed in the latest version.

- **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.

The *Encyclopedia* article for your product gives the details of new features.

- **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 through your HP dealer or by mail from HP's Direct Marketing Division, using the form given later in this magazine.
- Outside the U.S., contact your HP dealer or HP sales and service 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 Product Marketing, Building 78
or Hewlett-Packard
Attn: Software Product Marketing
P.O. Box 60008
Sunnyvale, CA 94088

Reference your HP Internal Order number on the package.

**Replacement Media
for Discontinued
Software**

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

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

- Replacement Media Exchange Kits available for five years from date of last HP shipment, as indicated for each product in the "Discontinued Software" table in this section.
- Availability of telephone assistance through Hewlett-Packard Help Line Response Centers.
- Continuing coverage in this magazine—the *HP PC Communicator*. (By the way, you can help—share your tips and ideas with other users—just send a note to the *Communicator* editor.)

Products Not Listed

Because entertainment software packages are low-priced, there are no exchange kits for these products. Re-order the original product to replace damaged discs.

For information on other products not listed, contact your dealer or HP Sales and Service Office.

**Touchscreen/150
Software Exchange Kits**

Product	Version	Order Part #	Notes
Touchscreen (HP 150B) Operating System and Utilities		45626-63007	2
Sys Master Disc			
MS-DOS	B.02.02		
MS-DOS	B.02.02		
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		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	

Product	Version	Order Part #	Notes
AdvanceLink (upgrade)	A.03.02	45431-63002	
AdvanceLink (update)	A.03.02	45431-63001	
Auto Cad	A.02.01	47956-63001	
BASIC Interpreter	A.01.01	45445-63002	
BASIC Compiler	A.01.01	45446-63002	
Charting Gallery	A.01.00	45513-63001	
COBOL	A.01.00	45448-63001	
Condor 3	*A.02.11	45416-63002	1
CorrectStar (hard-disc upgrade)	3.31	45429-63002	
CorrectStar to SpellStar Upgrade	3.31	45429-63001	
dBASE II	*A.02.41	45468-63001	
Diagraph	A.03.00	45463-63001	
Drawing Gallery	A.01.00	45411-63002	
DSN/Link	A.01.01	45424-63001	
Executive MemoMaker	A.01.00	45418-63002	
Forms Master	A.01.00	45443-63001	
FORTRAN	A.01.00	45449-63001	
FORTRAN Upgrade	A.01.00	45449-63003	
Graphics (bar disc, pie disc, line disc, text disc, examples disc)	*A.03.01	45410-63001	
GraphPlan	1.00.T2	45467-63001	
GraphWriter	A.01.01	45484-63001	
GW BASIC	A.01.00	45450-63002	
HP Word	A.00.00	27505-63001	
Lattice C Compiler	A.01.00	45452-63001	
Lotus 1-2-3:			
System Disc	1A	45482-63001	
System Disc	1A	45482-63004	
Utility	1A	45482-63002	
Tutorial 1&2	1A	45482-63003	
Printgraph	1A	45482-63005	

Product	Version	Order Part #	Notes
MailMerge	A.03.30	45401-63001	
MemoMaker	B.01.02	45420-63001	
MemoMaker Time M	A.02.00	45504-64002	
MicroPlan	4.04.T2	45465-63001	
MicroPlan Consol.	4.04.T2	45466-63001	
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	
Pascal	A.01.00	45447-63001	
PCF	B.00.02	45422-63001	
Picture Perfect	A.03.00	45462-63001	
PFS: File & Report	A.02.41	45488-63001	
Print Central	A.01.01	36890-63001	
Prog. Tools/Portable	A.01.00	45419-63001	
Prog. Tools/150	A.01.00	45435-63001	
R:Base 4000	1.1	45545-63001	
R:Base 5000	1.1	45563-63002	
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	
HPTel	A.01.01	45314-63001	
Transend COMplete	A.01.00	45414-63001	
Videotex	A.01.01	45314-63001	
VisiCalc	B.01.02	45405-63004	
VT100 Terminal Emulator	A.01.00	45412-63001	
WordStar (HP150)	3.34	45400-63031	
WordStar Professional		45427-63003	

* 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 Media Replacement

Product	Version	Order Part #	Notes
Op Sys Disc	A.01.03	45951-63001	
BASIC Interpreter		45952A	1
MS-DOS Macro Assembler		45953A	1

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	
Prog. Tools	A.01.00	45419-63001	
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	
HP 12x:				
Op Sys/Util/12x	*A.02.00	45900-13810	45900-15810	April, 1990
Op Sys/Util/12x	*A.02.00	45900-13800	45900-15800	April, 1990
VisiCalc/12x	*A.02.01	45531-13800	45531-15800	April, 1990
Graphics/12x	*A.01.03	45532-13800	45532-15800	April, 1990
Word/12x	*A.02.03	45533-13800	45533-15800	April, 1990
Link/12x (3)	A.02.00	45534-13800	45534-15800	April, 1990
DSN/Link/12x	A.01.01	45534-13810	45534-15810	April, 1990
BASIC/12x	A.05.21	45535-13800	45535-15800	April, 1990
Programming/12x	A.01.00	45536-13800	45536-15800	April, 1990
Condor 1/12x (5)	A.02.00	45550-13800	45550-15800	April, 1990
Condor 3/12x (4)	*A.02.01	45550-13802	45550-15802	April, 1990
BPI G/A/12x	A.01.00	45552-13800	45552-15800	April, 1990
BPI Payroll/12x	A.01.00	45553-13800	45553-15800	April, 1990
WordStar/12x	A.01.00	45560-13800	45560-15800	April, 1990
SpellStar/12x	A.01.00	45561-13800	45561-15800	April, 1990
MailMerge/12x	A.01.00	45562-13800	45562-15800	April, 1990
MicroPlan/12x	A.01.00	45670-13800	45670-15800	April, 1990
MicroPlan Cons./12x	A.01.00	45671-13800	45671-15800	April, 1990
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
Context MBA/150	A.02.03	45481-63001	n/a	April, 1990
Graphics (bar disc, text disc, pie disc, line disc, examples disc)	A.03.01	45410-63001	n/a	April, 1990
VisiCalc	B.01.02	45405-63004	n/a	April, 1990

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 HP 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, the items listed in this issue are also available by telephone from Hewlett-Packard:

- Australia (03) 895-2645
(03) 895-2615
(03) 895-2815
(03) 895-2861
- Austria (0222) 2500-615
(0222) 2500-616
- Belgium/Luxembourg (02) 762 32 00
- Canada
Toronto local (416) 671-8383
Ontario 1-800-387-3417
Quebec 1-800-387-3417
British Columbia 112-800-387-3154
Other Provinces 1-800-387-3154
- Denmark (02) 816640-258
- Finland (90) 887 2361
- France (1) 692 83 264
(1) 690 77 825
- Greece (81) 6471673
- Italy (02) 9236 9437
(02) 9236 9478
(02) 9236 9585
- Middle East
Athens (01) 6828811
- Norway (02) 171180
- South Africa
Johannesburg (011) 8025111
Cape Town (021) 537954
- Spain 91-6374013
91-6370011
- Sweden (08) 7502028
(08) 7502027
(08) 7502204

- Switzerland (057) 31 22 54
(857) 31 22 53
(057) 31 22 59
- The Netherlands (020) 547 6606
- United Kingdom (0734) 697201
- United States 800-538-8787
Alaska, California, and Hawaii . . . 408-738-4133
- West Germany (0130) 3322

For countries not listed, call your local HP Sales and Service Office.

Ordering HP-Conducted Training Courses

Hewlett-Packard provides personal computer training courses at HP Customer Training Centers using HP-provided equipment; they can also be taught by HP at your facility using your own systems. To order, call your HP Sales and Service Office.

Ordering Software Update and Upgrade Kits

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

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

HP Internal Users

Have your purchasing department enter an I2 order on the supplying entity shown for the item on the Corporate Price List or the Parts Price List.

If you are ordering a Software Exchange Kit, return the original master disc to:

Software Administrator/Internal Orders,
Building 78/5

or to:

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

Reference your HP Internal Order number on the package.

HP Employees

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



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.”

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