

Which of HP's Many Word-Processing Systems is for You? A Practical Point of View

Chuck Thompson
Systems Engineer
Hewlett-Packard (NZ) Ltd.

Are you in the market for a word-processing system? You may be thinking about starting up an office automation scheme, and word processing is the first logical step. There are many systems available on the market designed to do just word processing, and do it very well. Since you already own Hewlett Packard equipment, however, you would like to stay with the same manufacturer. Let me say at the outset here, that Hewlett-Packard word processing systems are not designed stand alone as word processors, but are supposed to take a significant part in a much larger picture: integrated office automation. Hence, HP's word processing solutions are, in most cases, the best for companies that need word processing to run alongised other applications on the same set of hardware.

HP has a variety of tools that can be used for word processing and there are a few third-party systems available that work well on HP machines. Technically, some of the software packages I'll be talking about today aren't really word processors, but many customers use them just for that purpose. The main reason is the significantly lower cost. HP's word processing software consists of these six products (as of November 20, 1983):

Editor/3000

This is one of those pseudo-word-processors I mentioned before. All 3000 users are familiar with this tool, as it comes bundled with MPE. This means that it is the cheapest possible editor available on the 3000. This alone can be the chief reason it is considered when a word processor is being sought. I don't know of anybody who uses this as their word processor, but in theory at least, it can be useful.

Editor/3000

The basic line editor that comes with the Fundamental Operating System

TDP/3000

The text and document processor

HPSlate

A screen oriented editor and word-processor with capabilities similar to TDP's

HPWord

HP's most complete word-processing system

Word/100

A full-screen word processor for the HP120 and 125. (also known as Spellbinder)

WordStar/100

The most capable word processor available on all the Series 100 computers (HP120, 125, and 150)

Advantages

- Uses straight ASCII "flat files," so can be used to edit files from virtually any software.
- can be very powerful for accomplished users.

- doesn't require the purchase of special software or hardware.

Disadvantages

- Command-driven (difficult to learn).
- line-oriented (no screen handling).

- cumbersome and slow to edit odd-sized files.
- No capabilities for output formatting (must be done manually).

TDP/3000

Very similar to Editor/3000, TDP is a "text and document processor." It has a limited "screen mode" which allows the user to take advantage of the basic screen-editing capabilities of a block-mode terminal (any terminal except the 1205, 125, and 2621), and adds many special capabilities for document processing, such as automatic Table of Contents and Index generation. TDP is not normally used as a company's only word-processor, but has definite advantages over other word-processing systems when it comes to producing long documents.

Advantages

- Works on ASCII "flat" files
- Very powerful command language

- full-screen capability
- very powerful text formatting capabilities
- built-in calculator
- hyphenation dictionary for formatting
- mass mailing and macro capability

Disadvantages

- command driven
- line-oriented
- screen editor is very limited
- no use of function keys
- many commands different from Editor/3000 so learning can take longer
- relatively expensive (about \$6,300.00) (all prices, by the way, are as of 20 November 83, in US\$, factory base)

HP Slate

This is the lowest-cost "real" word-processing system available from HP. It is a full-screen editor only, and runs (or is supposed to run) on any true HP block-mode terminal (in other words, the 120/125 are not supported, even when running the block/format emulation software). Slate relies heavily on the capabilities of the terminal, especially terminal memory, but terminals with small internal memories like the 2382 (Shadow) terminal can run in "1/2 screen" mode. This means that only half the current page is displayed at one time. The normal editing features of block mode terminals (insert/delete character, etc.) are used in Slate, but the software also adds a full set of function keys to do other word-processing tasks, like justifying a page, or underlining. Some things in HP Slate are very much different from other word-processors because of the way the terminal is used to do most of the processing, yet most terminals will work. For example, only a carriage return sends your information to the computer, so no automatic word-wrap is done. Also, a page is an entity in Slate, since that's how much a terminal can hold in its memory. This means that no pagination need be done, yet text must manually be moved from page to page. Slate allows the user to access the TDP formatter via softkeys (that is, if you have TDP), and uses a VPLUS-like menu for control of printer output. The use of softkeys throughout, and the very comprehensive help subsystem, make HP Slate very user-friendly, but the product still assumes that the user knows what he or she is doing.

Advantages:

- full screen
- includes standard word-processing functions
- works on any block mode terminal
- uses function keys extensively
- excellent help facility, including a general overview
- allows access to TDP, Typist, and MPE commands
- keeps text in compressed files to save on disc space
- comparatively inexpensive (about \$3000.00)

Disadvantages:

- moving text between page can be difficult; does not allow movement of "page marker" within text.
- no automatic word wraparound (at the end of a line)
- no automatic page wraparound (must manually call up a blank page)

- must convert to/from Slate format in order to use ASCII files
- can cause high CPU utilization, since it doesn't assume much intelligence in the terminal

HPWord

This is the largest, most powerful word processing system offered by HP to run on the 3000. It incorporates all the facilities of most stand-alone word-processors made by our competitors, and adds the capability of integration with other office automation software: HPWord files are readable by HPDeskManager, and can contain figures or charts created with DSG, EasyChart, or HPDraw. HPWord requires a special terminal, either a 2626W, a 2625A with the HPWord option, or the 2628A. Most of the word-processing function, though, is downloaded to minimized. HPWord is often used as a complete operating environment, from file (document) handling to printing control. Spooling to letter quality printers, like to HP 2601, is handled by HPWord, allowing up to eight workstations to use one printer. HPWord also has the capabilities of assigning environments to output documents destined for letter quality printers or for laser printers.

HPWord makes extensive use of function keys and specially labelled keys. This makes the learning time very short, but the lack of a help facility makes it a little more difficult to remember what you learned. This system, unlike the previously mentioned software, is designed to be used mainly by secretaries and data-entry/word-processing people. In my experience, the only people who ever really know HPWord are those who use it. The data processing staff and system managers never seem to need to know more about it than how to change the terminal and printer configuration.

Advantages:

- full function, powerful word-processor
- integrated into HP's family of interactive office software products
- user-friendly; designed for non-DP personnel
- most processing is done in the terminal, leaving the CPU free for other tasks

Word/100

This was the first word-processing software available on the Series 100 personal computers, the HP 120 and 125. It is available on other CP/M-based personal computers as Spellbinder.

- extensive use of function keys and specially-labelled keys
- all enhancements (bold, underline, italics) shown on the screen as they would appear on the printer
- built-in calculator and mass mailing functions
- accommodates wide documents by scrolling right and left as well as up and down
- excellent self-paced and classroom training available

Disadvantages:

- requires special terminal
- requires system resources for spooling to letter-quality printers
- no automatic pagination; this means there is one more step needed to print out a document.
- keeps documents in a special format, readable only from HPWord or HPDeskManager
- left and right justified text is not shown on the screen
- conversion to ASCII is cumbersome
- no help facility
- no access to MPE commands (could be an advantage)
- could be expensive (about \$5000.00 for software, plus about \$3200.00 per 2628A terminal, and \$3500.00 per 2601 printer)
- limited document processing capabilities; could, however, be used in conjunction with TDP

It uses the full capabilities of the screen and adds function keys for most commands. This software operates on a command-mode/edit-mode system, which

allows the user interface to distinguish between the two systems. All the screen-oriented software I've discussed so far uses function keys and specially-labelled editing keys. Word/100 only used function keys as a way of issuing commands while in command mode. These modes can be confusing when you forget which mode you are in:

Word/100 includes a macro definition capability which is extremely powerful, and includes some pre-defined macros for doing such things as mass mailings, multi-column printing, and sorting. Character enhancements (underlining, bold printing, etc.) are shown on the screen in inverse video. This makes Word/100 a powerful editing tool for users of personal computers, but the problems with switching between edit and command mode make it difficult to learn for non-computer users.

Advantages:

- stand alone on a personal computer; does not need a central computer system
- powerful yet simple

WordStar/100

This is probably the most popular, and the most reliable, word-processing software available on personal computers. I'll even go so far as to say that it is the best-written software I've seen on personal computers. In its non-HP form, it uses only control keys for its commands, getting rid of any edit/command mode problems. HP has taken the standard software one step further and allowed the use of function keys for almost every command. This makes it extremely easy for a new or casual user to create and edit documents, but the process can be slowed down by searching through the numerous sets of function keys for the one you want. This latter problem is solved quite easily, though - the control key commands still work, so that you can use them once you get familiar with the editing process.

WordStar includes two add-on packages to increase its power: MailMerge, a mass mailing program, and SpellStar, a word-by-word (context ignorant) spelling checker. These combine to give WordStar almost the power of Word/100, with much greater ease of use. SpellStar allows the creation of user-specific secondary dictionaries, as well as adding to the standard 27000-word main dictions, like operator prompts for words, pauses for ribbon and paper changes, and operator instructions, as well as an easy to use mass mailing program.

Advantages:

- screen-oriented
- makes use of function keys and terminal editing capabilities
- shows enhancements in inverse video
- allows easy conversion to ASCII flat files for transfer to the 3000
- can be very inexpensive; often given away with a Series 100 system

Disadvantages:

- must run on an HP 120 or 125
- very confusing and difficult for new and casual users and non-DP personnel
- limited fix or enhancement support from HP
- must purchase a separate copy for each system it's used on
- poor help facility

- full screen, full function, character-mode word-processor
- well integrated with most other Series 100 software
- includes HPTouch support on the HP 150
- function key driven
- easy to learn for non-DP people
- optional spelling checker
- optional mass mailing capability
- accepts ASCII flat files produced on other software
- word wrap can be turned on or off at will
- scrolls sideways to facilitate editing of wide files
- stand-alone on a personal computer - no main CPU to drag down
- allows for micro-justification capability of HP 2601

Disadvantages:

- impossible to create real ASCII files from documents
- needs a dedicated personal computer
- very expensive compared to Word/100 (about \$500.00 for WordStar, plus \$250.00 for SpellStar and \$150.00 for MailMerge), but is sometimes given away with 120 or 125 systems
- requires a separate copy from each system it will be used on
- help facility is good for HP people, unintelligible to non-DP users, although function key labels are excellent

Conclusions

I'll not dwell too much more on the first two systems mentioned, except to say that they, and other third-party editors, like QEDIT, can be used to fulfill word-processing roles if the cost of other software precludes the purchase of proper word-processors.

The rest of the systems fall easily into two categories: those that run on the 3000 and those that run on our personal computers. Choosing between these two should be a major decision, since each has definite benefits over the other. Thought should be put into what your word-processing load will be, whether you want to put the extra load on the 3000 (or conversely, whether you want your WP staff to fight with other users of the mainframe), as well as the equipment you currently own. If you already own a personal computer, you might consider using it for word-processing as well, and if you already own a 3000, you might consider buying the WP terminals needed. I have seen both methods used successfully in environments where the main users are non-DP "secretarial" staff. The 3000-based system works well where all the terminals are in close proximity to the mainframe (remember that 50-foot limit on RS232 communication), mostly in a room dedicated to word processing. The personal computer system is useful in a situation where the machines are placed anywhere in a large building - they may even be on trol-

leys for easy movement - and access is not needed to the mainframe. Another thing to think about is that 3000 files can be as big as you want, while files on the Series 100 are constrained by the size of the discs you buy.

The next smaller division is obvious: the decision between HPSlate and HPWord on the 3000 and between Word/100 and WordStar on the Series 100. The former really boils down to whether chiefly WP staff are going to be doing word-processing, or whether the main users will be end users and DP personnel, who won't necessarily have word-processing terminals. The question of using Word/100 or WordStar can be answered by looking again at who will be using the software. Almost always, the answer will be WordStar, chiefly because of the ease of use and the SpellStar software. Notice that HP has chosen not to carry the Word/100 software over to the 150. This should tell you something about our commitment to user friendliness.

One last thought: once the final decision is made, you're not really stuck with it, since most of these software packages created documents that can be transported (through ASCII files) to other software packages. Usually, though, enhancements and page headings and footings are not translatable, so some work will still go into system conversion.