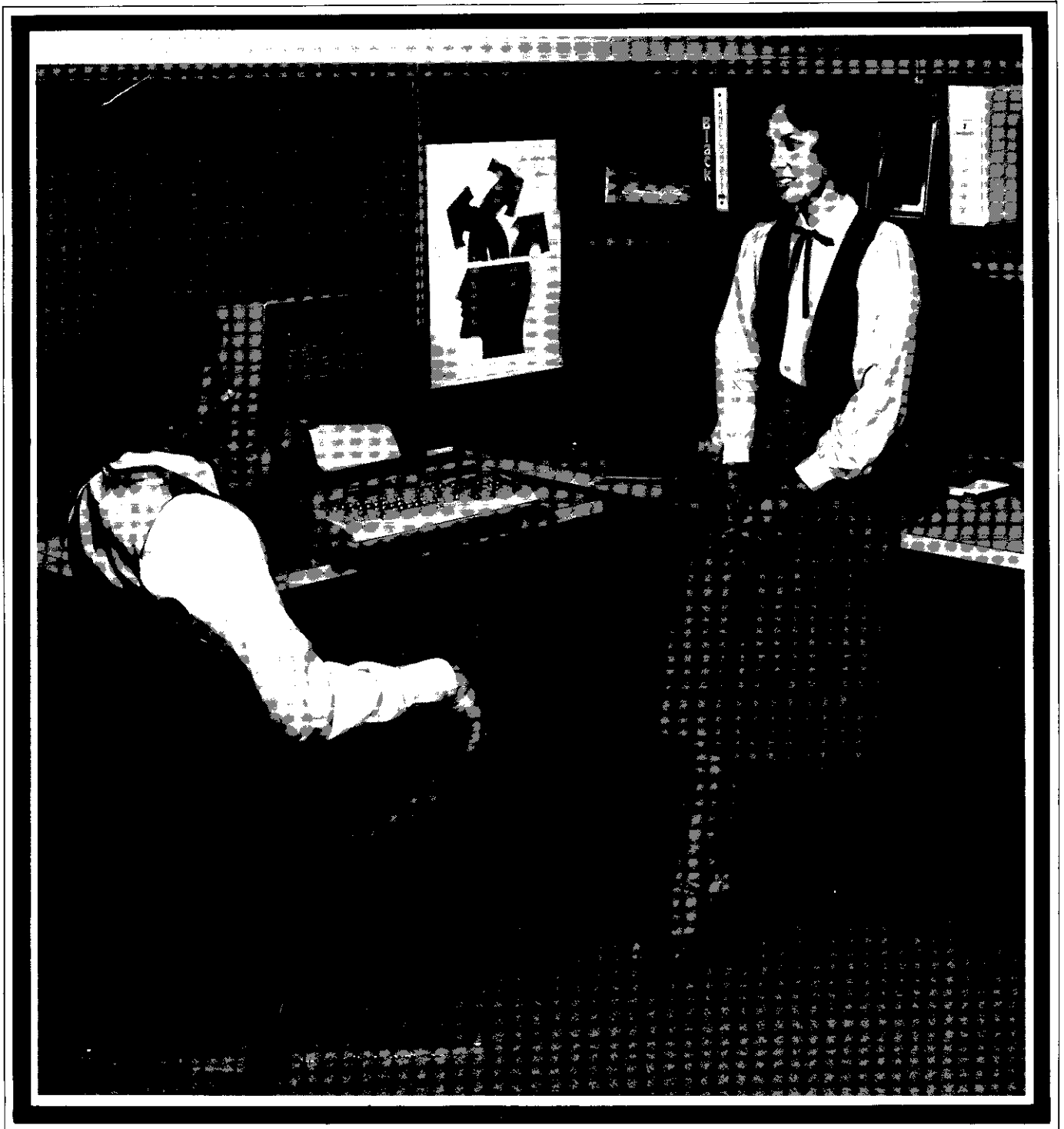


A Hewlett-Packard Software Summary
for the System 45B Desktop Computer

System 45B Text Management



The easy, cost effective way to create, store and edit documents.

A Versatile Package

In addition to serving as a powerful system for scientific computation, a System 45B with appropriate application software functions as an extremely efficient text processor.

The Text Management program combines the line oriented features of computer text editing packages with the character editing capabilities of word processors. Text Management means you can create and store a document on System 45B in one easy

step. Then alter, organize, update or change virtually any of your stored documentation on demand.

Produce Error Free Text — Fast

The combination of the System 45B, with its CRT, and the Text Management program speeds and simplifies text manipulations. Doing your editing on this automated system means you can produce revised

documentation such as technical reports, instruction manuals, procedure guides or "boilerplate" proposals quickly and easily.

Using the old manual approach, you have to type a document before and after each editing — or each time you update or make a change. Yet, the same document could be edited or revised on the CRT of System 45B. You can view text on the CRT exactly as it will appear on the final hard copy — including headers, trailers, page numbers, top and bottom margins, etc. To get a printed copy, you simply press LISTER and let the printer do the rest. Your printed copy will be ready in a fraction of the time and with greatly reduced clerical costs. Now you can afford to revise or amend a document anytime and every time the need arises.

Figure 1. Simple commands allow you to format text to fit your needs.

Centered Heading

You enter the heading and press the CENTER key to center it between the margins.

KEYBOARD

Underlined Words

When entering text into the system, pressing the UNDERLINE key results in the designated words being underlined by the printer and on the CRT display. Large blocks of text can be automatically underlined if desired.

Crossroads
By John Nairn, PhD

"It is the mark of an instructed mind to rest satisfied with the degree of precision which the nature of the subject admits, and not to seek exactness where only an approximation of the truth is possible."
Aristotle

Notes

To print notes or when calling special attention to segments of text, you can establish temporary right and left margins. At the end of the section thus set off, the right and left margins are cleared automatically so the system reverts to normal text formatting.

It is not a rule of mathematics (or even a sound principle) that the difficulty of solving an algebraic equation is related to how "complex looking" that equation might be. Many persons who might remember the pencil-and-paper method for taking the square root of a number would have to resort to a set of tables on a computer to find the cube root of that number.

And even this problem is relatively simple compared to those that have a way of cropping up in many everyday programming jobs. Obtaining a programmed solution to a real-world problem usually breaks down into four major steps: (1) analyze the problem, (2) describe the problem by a set of equations and procedures, (3) solve the equations, and (4) program the solution. (We will be more optimistic than we have a right to be and leave out the step of debugging the program!)

Each step in the above process has had countless books and articles devoted to it, and a complete understanding of any of these steps could demand years of study. The everyday programmer needs a working knowledge of the fundamentals of all of them and is always glad to pick up tools in each area from time to time. An extremely useful tool for step (3), and one that does not appear to be widely known among programmers, is a method known as Newton-Raphson iteration.

Indentation (New Paragraph)

To indent a paragraph, you simply TAB to the required position and start typing the new paragraph. Margin changes have no effect on indentation.

Line Feed

To skip lines you simply press REQUIRED LINEFEED at the conclusion of the preceding line.

Hyphenation

With this feature, you can insert silent hyphens in words. These hyphens will only appear in print if a word needs breaking to fill out a line. More than one hyphen can be embedded in a word, allowing the system to choose the most appropriate break.

Format Text the Way You Want It

The Text Management program automatically sets margin width, page length and line spacing to predetermined parameters (in the interest of simplified system operation). Yet anytime the need arises, simple commands allow you to easily alter these automatic settings to values meeting your specific formatting requirements (see Figure 1 and 2). And automatic operations such as page numbering can be tailored to meet your particular formatting needs. With a simple parameter change you can move the page number (which normally appears at the top center of the page) to any place on the page. Also, you can change to page number format — for example, a page number could appear as follows:

- 10,
- Page 10,
- Theory of Operation, Page 10.

As another example, you can easily change the order that header, trailer, page number and text go on the page — any of these can be included, omitted, moved or even occur several times on a page.

Store up to 5 Books Per Tape Cartridge

The first step in utilizing the text processing capability is to enter your text into the System 45B memory via the keyboard. Each document entered into the system's memory is given a "book" name. Up to 5 books — totaling no more than 154,000 (44 pages of 3500 characters each) characters — can be stored on a single tape cartridge.

Move Text From One Spot to Another

You can easily move sections of text from one book to another by utilizing the specifically provided assembly/merge feature. System 45B allows you to merge books or portions of books together. This capability also allows you to include a common segment of text throughout different documents without retyping it each time. See Figure 3 for an example of this feature.

Fighting Oil Well Fires
by Nancy Sorensen

Fifty miles offshore, an oil well was burning. The flaming explosion had burned away the drilling platform, blown away the wellhead and conductor pipe, and carved a crater in the ocean floor some two hundred feet deep and several hundred feet wide. At times the burning gas spouted higher than 100 feet directly out of the water. Heat from the fire could be felt on the relief well drilling platform two hundred feet away.

The gas contained hydrogen sulfide, which is extremely poisonous. If the fire had gone out but gas had continued to escape, there would have been immediate attempts to re-ignite it. Such an explosive, poisonous mixture of gas and air is called "Sour Gas".

Figure 2. You can set margins to any width — even columns such as these are possible.

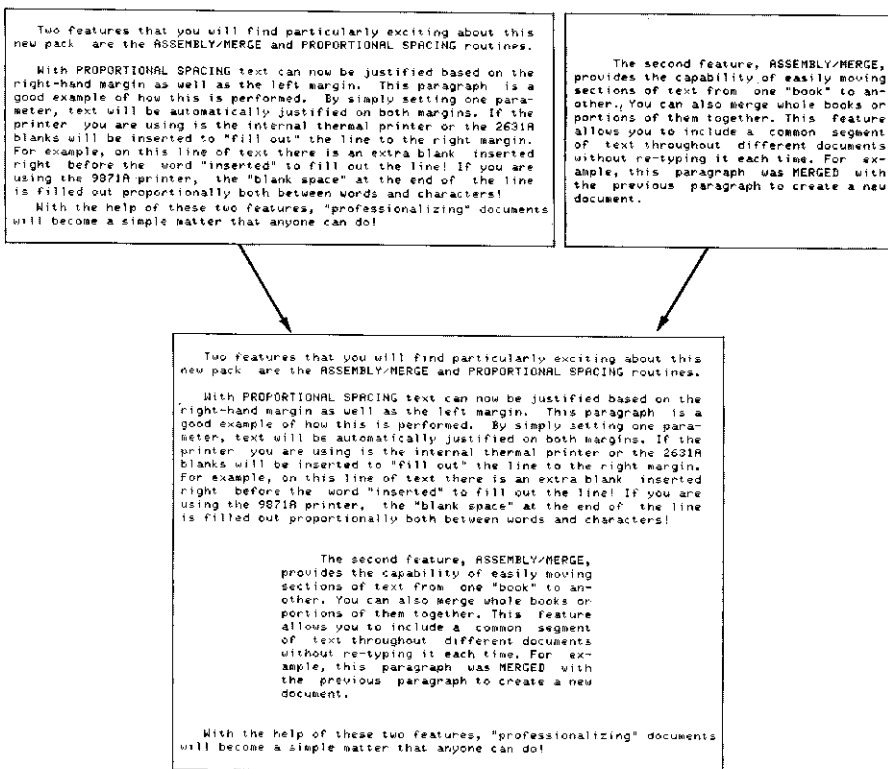
Two additional features you will find particularly helpful are the word wrap-around and 20 Word Dictionary. Word wrap-around allows you to type a word near the right margin. If the word is going to extend beyond the margin the system will automatically pick up the entire word and put it on the next line. The 20 word dictionary allows you to store up to 20 word "strings", of 70 characters each, for instant recall and insertion into text. For instance, assigning "Your Company Name" as one of the word strings allows you to insert with a single keystroke "Your Company Name" anywhere in the text!

Proportional Spacing

To solve the problem of justifying text by the right margin as well as the left — as indicated in Figure 3, HP offers proportional spacing. To have any document justified on both the left and right margin, merely say yes to the right hand justification parameter. All text printed after this point will be justified on both margins.



Figure 3. Example of assembly/merge and proportional spacing.



High-Speed Search/ Replace

This routine allows you to locate a specified group of characters stored anywhere accessible by the system and, when found, replace it. And the group of characters inserted can be a different length from the original group. Search and Replace maintains text integrity — underlining and capitalization. For instance, searching for “HP” to be replaced by “Hewlett-Packard” would cause the following sequence to take place.

System 45B searches until it finds the first occurrence of “HP”, automatically inserts “Hewlett-Packard” and stops. When you press REPLACE, the replacement becomes permanent and the search/replace routine proceeds to the next occurrence of “HP”. Press CONTINUE for no replacement and go on to the next occurrence. Again, pressing REPLACE makes the change permanent. If you choose, you can have each occurrence automatically replaced without “approving” each one. If the occurrence of HP is HP, the replacement will be Hewlett-Packard thus maintaining capitalization and underlining integrity. Each occurrence appears on the screen with 20 lines of text to aid you in maintaining context.

European Characters

To satisfy your international text management needs, the pack can process all European special characters for French, Spanish, German or Finnish/Swedish language needs. The character set includes — for example: Ä, ß, ñ, â, ç, ò, í, etc. All are available if the appropriate European keyboard is installed on the System 45B.

CRT Defined Special Function Keys

To provide rapid access to functions the pack provides, a small portion of the CRT displays the “definition” of the Special Function keys located on the upper right hand side of the keyboard. These keys give the operator quick and easy control of many text management functions.

Ordering Information

To order the System 45B Text Management program package specify part number 09845-10620 which consists of the following:

- A pre-recorded program cartridge.
- An instruction manual describing the program including detailed directions with examples.

Hardware Configuration

The Text Management software pack requires the following hardware configurations:

- System 45B Desktop Computer with 192K bytes read/write memory,
- HPIB or non-IB printer, e.g. internal thermal printer (Opt. 560), or 9871A, 2631A,
- Mass Storage device, e.g. second tape cartridge, floppy or hard disk.



3404 E. Harmony Road, Fort Collins, Colorado 80525

For assistance call: Washington (301) 948-6370, Chicago (312) 255-9800, Atlanta (404) 955-1500, Los Angeles (213) 877-1282.
Ask for an HP Desktop Computer representative.