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Morrow Owners' Review

VOLUME 2, NUMBER 4, AUGUST/SEPTEMBER 1985

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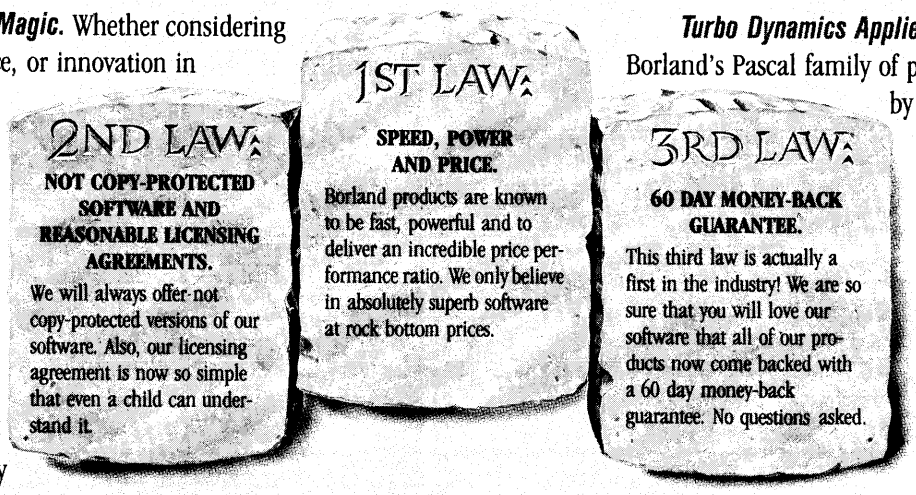

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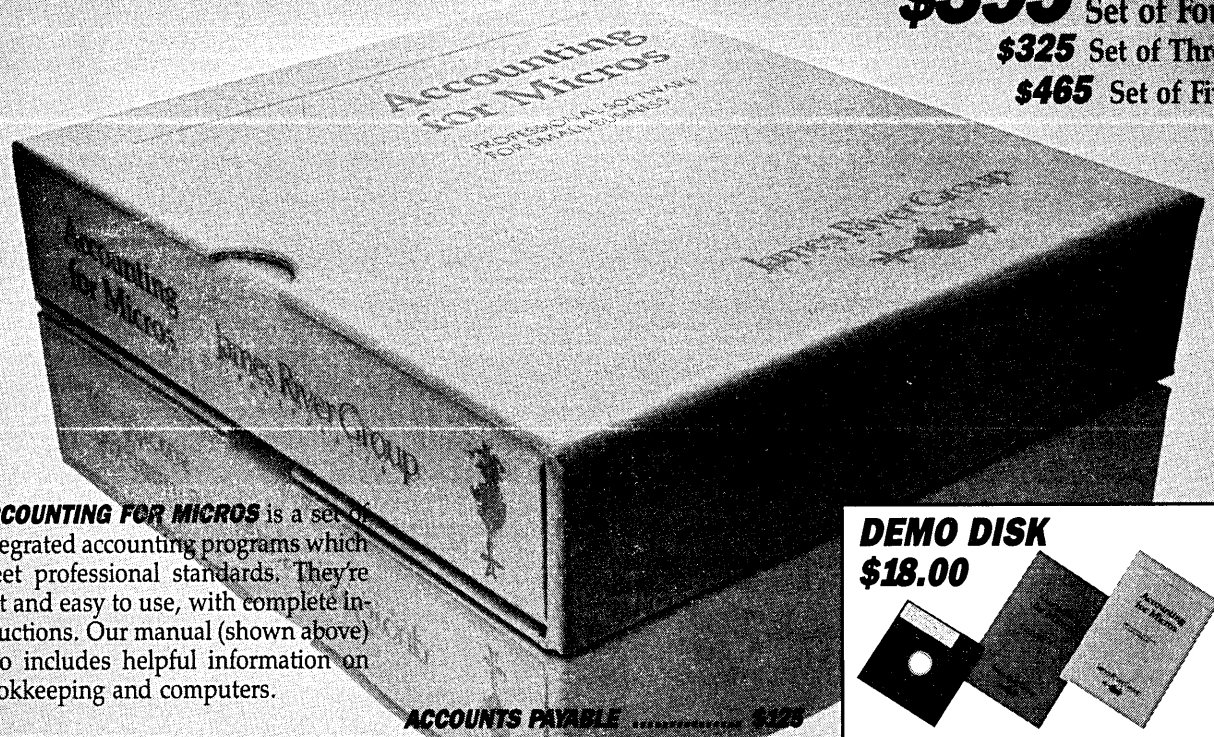

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(415) 644-2638

Bi-monthly publication - Next issue early October 1985
Subscriptions $18 per year

Editor and Publisher: Sypko Andreae

Managing Editor: Shoshana Tembeck, Administrative Assistant: Dana Gaskin, Graphics: A. Lucas-Andreae
Advertising and Layout: Dana Gaskin, Design: Augusta Lucas-Andreae & Shoshana Tembeck
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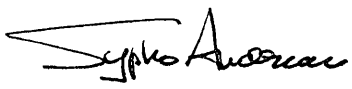
EDITORIAL

Remember those heady days when people stood in line to buy a Morrow . . . when the BAMDUA Morrow Users Group received over a hundred membership applications each month . . . . Those where the days of the great Personal Computer Boom--only some 20 months ago. They sure are over now.

The whole Micro Computer industry is in a slump. Business Week's cover story for the June 24, 1985 issue suggested that this is trouble deeper than the normal boom-and-bust cycles. We Morrow owners know all about the disappointments in terms of support and short warranty periods. We've all heard about the enormous expectations people had about computers working miracles for them. There also seems to be a growing distrust with the whole computer scene--especially among those who were about to but did not yet buy a computer. It is based on a few notions: Computers are still too hard to use; they still cost a lot; new product announcements are mostly a ruse; computer stores are terrifying, unhelpful places; in general, all this computer stuff is just going too fast. Reaction of the crowd: Count me out.

To make the whole picture even more gloomy, people like Michael Shallis from Oxford warn of the harmful impact computers have on society and the human soul. (For one report on his recent lecture in San Francisco, get the "Floppy of the Bi-Month," see p. 53.) To make us think about what can go wrong if we don't pay attention to ethics and moral issues in computing, Dean Gengle writes a challenging article in Dr. Dobbs Journal for June 1985, (p. 52). It's clear, the naive infatuation with the personal computer is over. Now it's time to reflect on it. I don't think that's so bad either.

While all this is going on, most of us--MOR readers and other established micro-users--carry on, busily applying our machines in the tasks of our daily lives without too much concern. Isn't it wonderful to get really familiar with a tool over the years, to read about a neat trick in MOR, or occasionally find a little gem of a program in the library of your local users group? And CP/M is still a reliable old workhorse. Read the article in Personal Computing, July 1985 (p. 54). It talks about software manufacturers who are dedicated to CP/M. There is even a detectable migration of MS-DOS programs to CP/M! CP/M dead? You must be kidding. Look at DC-3 airplanes. They were meant to fly in the '30's. It was a good design. They still fly.



LETTERS TO THE EDITOR

COOLING THE HOT ONE, REVISITED

Dear Editor:

When I first got my MD11 in February 1984, I immediately noticed that it was running far too hot for the sustained use I was going to give it. I wrote to Morrow and I also spoke to Mr. David Block by telephone about the MD11 heat problem. I was emphatically told that the computer was working "within specifications." I thought that maybe I was the only one with a problem. Then I read in Issue 19 of Micro Cornucopia, Dave Thompson's comment that "MD11's are becoming famous for going to lunch before noon...." That prompted me to write my findings. You may have seen my article "Cooling a Hot Computer" in Issue 21 (December-January 1985) of Micro Cornucopia.

I've since gotten a number of requests to somehow get the word to other MD owners through the Morrow Owners' Review about the overheating problems. You even published a letter from one of my customers in the April issue of MOR--Mr. Pate said that before he installed my fix, a "floppy disk would be about as warm as a hot muffin." Yet in the editorial comment, Morrow, Inc. only admits to a heat problem when the co-processor is installed.

Maybe some of the newer MD5's and MD11's have better fans and cabinets than mine, because not everyone seems to have the problem and Morrow doesn't think there's a problem. But all of the hard disk MD's I'm aware of have a small toy fan that barely moves air. Even worse, Morrow left the louvers open on the rear of the cabinets, so that any air coming in goes right back out the rear without doing any cooling.

In a wide open space my MD11 was reaching an internal cabinet temperature greater than 70°F degrees above room temperature (yes, that's 145°F degrees in a 75° degree office) in just a couple of hours of operation. When I opened the cabinet, the power supply and hard disk were so hot I couldn't put my hand on them. A close look at the specifications showed that the maximum operating temperature of the Shugart disk drive was only 115°F degrees. Disaster was awaiting.

I searched everywhere for a direct replacement 2" fan that could move an adequate amount of air. I eventually found a 12-volt DC direct replacement at a somewhat reasonable price. I've been running one in my computer (about 150 - 200 hours a month) since April, and so have several other people. The internal temperature of the computer, including inside the power supply, now rises to only about 10°F degrees above room temperature. A much safer temperature rise.

If a diskette is put into an MD5 or MD11 and it comes out real warm after several minutes, or if the cabinet area over the hard disk and power supply is warm, the computer is not adequately cooled.

Kenneth J. Grymala, Mannasas, VA

[Excellent work, Ken! I'd like to hold this up as an example of how we, as members of the users community, can help each other out. At MOR we had exactly the same problems a year ago, but they went away after we installed a better fan. All hard-disk MD's have been delivered with adequate fans for about a year now. If any of you need a better fan, check Ken Grymala's classified ad; to get back issues of Micro Cornucopia's articles on your hot computer refer to their display ad (both in this issue). --Ed.]

WON'T EAT HIS WORDS

Dear Editor:

Some time ago I bought a Morrow MD2 computer after talking to several friends who had other brands and after trying some other brands myself. In fact, I had almost decided on a Kaypro computer when I called a local Morrow dealer and tried the MD2.

Since buying my MD2, I've told several of my friends about it. Many of them are, like me, beginning writers who want to increase their efficiency with a computer, but the ones that have enough money (or credit) to buy a computer are afflicted with technophobia. I put off buying a computer for two years after an RS-80 model III ate most of an overdue term paper when I pushed the wrong key.

Morrow's advertising emphasizes the value and the low price, but for me and for the other writers I know the fear of a computer locking up and eating the words we have laboured so hard to string together keeps us suspicious of computers. The Virtual Drive, the CP/M operating system with PILOT, and the foolproof design of the bundled software make the Morrow computer perfect for writers.

Neil Gussman, Lancaster, PA

THREE CHEERS FROM THE LUCKY ONE

Dear Editor:

Two years ago I bought an MD2 with a Freedom 100 terminal. From the first day I had the computer home, it didn't work properly. I often got garbage on the screen and the system would then crash, the keyboard locking up. Sometimes it took ten tries to even get WordStar working!

My queries to my dealer were fruitless. "Morrows just do that," they insisted. New in the world of computers, I decided they must know what they were talking about. By the time I realized that they didn't, my warranty was up and my dealer was out of business. It looked like I was out of luck.

This March, George Morrow came to Seattle to speak to our local users' group. This may have been my lucky break. I stood up and described my problems and asked George what could be done about it. He told me that he would do his best to help me.

Six weeks later, I became the proud owner of a brand new MDT 60 terminal, shipped from Morrow at no expense to me. (My problem turned out to have been a defective terminal.) What fun it is to use a computer that just WORKS when you turn it on, and continues to do so!

So, the word from here is: Three cheers for Morrow! I don't think many companies would replace defective equipment two years after purchase. I got the feeling from talking to George Morrow that he is a kind and fair man and that the good will of the customer really matters to him. I won't hesitate to recommend Morrow computers to my computer-shopping friends.

P.S. Credit is also due Jack Vaughn and others at Digital Computer Systems of Seattle for their help (beyond the call of duty!) in coordinating this hardware exchange.

Marsha C. McGough, Seattle, WA

[It's great that you had the opportunity to speak to George Morrow in person. Often more gets accomplished that way. But I think of those hundreds of other Morrow owners with the same sort of problem who did not have your lucky break. I hope you can still appreciate the position of the majority of us. --Ed.]

SUPPORT THOSE HOLES

Dear Editor:

I also have been storing your magazine in a three-hole-binder. I would like to add my support to the idea of pre-punching MOR so it would be more easily stored. Keep up the great work!

Peter D. Hodgson, La Jolla, CA

[Yes, it may sound funny,
but holes do cost money,
and of that MOR
does not have enough.
Stack them up on the shelf,
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'Cause right now
MOR's finances are rough. --Ed.]

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MORE ON NEWWORD AND WORDSTAR

(Not in this issue)

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THE BASIC MORROW WORD PROCESSOR

by Chandos Brown

Despite the falling prices of the IBM PC and its many clones, the Morrow Micro Decision remains a cost effective system for academic and professional word processing. While micro-computers based on the Intel 8088 processor offer many advantages: fast execution, the option of comparatively vast amounts of solid state memory (RAM), and the capability of systems expansion, this edge in performance is purchased at a cost. By contrast the Micro Decision is primitive. Built around the Zilog Z-80 processor, virtually an antique as the computer industry reckons age, it addresses only 64K of memory, and is, in effect, a closed system. Yet the hardware comparisons are misleading. IBM intended the PC primarily for use in offices where certain kinds of number crunching occur on a daily basis. They most emphatically did not design it to process words, as anyone who has pounded that keyboard can attest.

My purpose is not to disparage the PC, but instead to suggest that marketing hype and the widespread acceptance of the IBM and its derivatives in the work place does not necessarily signify that this particular computer is universally suited to all applications. I am a writer, at present engaged in producing a book-length manuscript on a Morrow MD3. I chose this computer nearly two years ago after considerable research and soul searching. Today I have no reason to regret my choice, and I have recommended similar systems to many of my friends and associates. The Morrow does have its limitations. Some of them are serious; but few of us can simply go out and purchase what we desire. To buy a computer is to learn the art of compromise, and, as the old song goes, "you can't always get what you want...but...you can get what you need." Here are some ways in which an MD3 can be transformed into a useful word processor, one that should meet the needs of most writers, at a reasonable cost.

The Morrow comes bundled with the core of a word processing system. When I bought mine, it included WordStar and the spelling checker, Correct-It. Nowdays the machine comes packaged with NewWord, (which is an "improved" version of WordStar), Correct-It, and an extraordinarily handy program called SmartKey which allows one to program the various function keys on the terminal. With these three programs: word processor, spelling checker, and key programmer, you can begin to tailor the system to fit your needs. Still, there is more to consider. Fine as it is to move words around on the screen, few editors will accept polaroids of your prose. It is important to choose a printer.

The printer is the most expensive option you can add to the basic machine, although it is increasingly common to find dealers offering "packages." Usually these include a "start up" pack of disks, drive cleaners, cables and a printer of some sort, either a low speed daisy wheel for letter-quality printing or an expensive dot matrix. Often such a package can be a bargain, but before you buy, first determine what exactly you hope to accomplish with the computer.

If you must submit your manuscripts in fair copy, on good paper, with formed letters, then obviously it would be a mistake to invest in a dot matrix printer. If you produce a large volume of writing, then a slow printer of the sort usually included in a package deal, say one that prints about 12 characters per second, will not suffice. At 12 cps it takes at least a couple of minutes to print a page. A thirty-page document printed on hand-fed single sheets will take an hour to complete. A tractor feed, because it uses fan-fold paper, speeds things up somewhat, but this also means buying another piece of hardware. (In any case, feeding sheets to the printer manually is a penance that ought to be reserved for only the most hardened sinners.) The point here is that it would probably be wiser, in this case, to forego the package deal and to purchase a letter-quality printer separately. A faster printer costs significantly more, but the gain in efficiency will over time offset the cost. You can't write while your computer is printing (without additional hardware, software or patching). I should say that 18-20 cps is the slowest acceptable speed for a letter-quality printer. A tractor feed, you will find, is mandatory.

On the other hand, if you don't need the formed letter and are content with the slightly less attractive quality of dot matrix printing, then get one. An Epson RX/80, for instance, programmed to print in a twelve pitch Elite type (this involves a simple BASIC program) produces very nice copy. You sacrifice a certain amount of speed for the improved legibility, but the hard copy is produced at a quicker rate than you can get from any letter-quality printer available for under a thousand dollars. Many dot-matrix printers offer some graphics capability as well, though I am skeptical of the value of this to most writers.

I confess that I have two printers: a Silver-Reed EXP 550 (serial) for letter-quality and an Epson dot matrix (parallel) of the sort I've just described. I bought the Silver-Reed printer at the same time that I purchased the system, used it for a year, and then grew exasperated with the slow speed (18 cps). The MD3 (Rev. 2) allows one to configure both the serial and the parallel ports with SETUP. I simply installed two versions of WordStar, each on a separate disk--one set up for the letter-quality and the other for the dot-matrix printer. Now I print drafts on the Epson and reserve the Silver-Reed for correspondence and final copy. I shopped very carefully. Both printers together, with cables, cost less than a thousand dollars, and I bought them locally, not through the mail. It is important to keep in mind, when figuring the expense of a printer, that it's not machine

specific. If you have more than one computer or if you decide to upgrade your Morrow, your printers can migrate from system to system. And that usually requires no more than a slight modification in the cable connectors.

With all the hardware in place, it's time to look at the software. NewWord and WordStar are both powerful programs. You can produce a document formatted to meet nearly any requirement, and the editing capabilities of each are on par with any of the software designed for the PC. Spend time with the manual and learn how to use the "dot" commands. Experiment, and when you find the proper configuration of commands to format a text according to your needs, save it to a file with the suffix ".fmt." Then you can simply "read" it into each new text at the beginning.

Correct-It, I feel, is an inferior spelling checker, though it suffices for most applications. I find that The WordPlus spelling checker from Oasis Systems is well thought out, and it offers such conveniences as word counting--a must for writers who need to meet space requirements--as well as word frequency analysis. This last feature determines the number of times you use each word in a text and display it either alphabetically or in order of frequency of use. Certainly this won't replace careful editing and a sense of style, but certain peculiarities of use or repetitions become painfully obvious, set out starkly in tabular form. On top of that, The WordPlus executes more quickly than Correct-It and is more interactive. Among other options, it allows you to change your mind about correcting a word, to move backward and forward in the file, and to choose from a menu of correct spellings. In all, it is a sophisticated program, and at $125 does not seem overly expensive.

SmartKey is possibly the most useful accessory included with the Morrow. With it you can program the special function keys on your terminal to perform a variety of complex sequences of keystrokes, and in that way "customize" the software to meet your own requirements. I have a Liberty 100 terminal, and my ten function keys are labeled as follows:

Help Off 1 Help On	Save/Done 2 Save/Ret	End Block 3 Beg Block	Copy Block 4 Move Block

Find/Repl 5 Find/Text	Boldface 6 Underline	Write File 7 Read File

10 Pitch 8 12 Pitch	End of File 9 Beg of File	SScript 10 NA

The upper labels represent the function of the shifted keys. "SScript" stands for superscript. "NA" means not assigned, and so on.

Each cursor (arrow) key on my terminal works correctly in WordStar and also has a "supershifted" value (a function of the SmartKey program): screen up, screen down, left screen and right screen. I've also set up each key on the numeric pad to perform some special task: "1" sets single-space, "2" double-space; "4" sets up a file for correspondence and automatically enters my letterhead. The effect of all this is to dedicate the computer to a specific task: word processing. The flexibility of SmartKey is limited only by your imagination.

Academic and technical writers must place notes in their manuscripts, and no word-processing program with this function built-in runs under C/PM. I use a program called Footnote, distributed by ProTem Software, which numbers notes and then formats them according to your instructions. It offers the option of placing notes at the end of a document or at the foot of the page, although I have not been successful in obtaining a correctly formatted document with single-spaced notes and double-spaced text. Still, one can work around this. Here, again, compromise is key, and at $100 the program seems reasonably priced. It comes with an accessory program, Pair, which checks a document to make sure that all the printer commands are properly closed. This prevents your text coming out half in italics, for example, because you neglected to embed the command "off italics."

It requires a certain amount of thought and effort to optimize the performance of the MD3, as it would with any computer, and for some it may not be worth the trouble. Here I've accounted for perhaps an additional $1200 in expenses, which must be added to the price of an MD3. It sounds like a lot of money, and it is, but you needn't spend it all at once. Finally, consider this. The complete cost of an exceptionally versatile system with two printers, an excellent spelling checker, and the ability to footnote, remains well under $3000. For that price, you end up with 2/3 of an equivalent set-up in IBM hardware--and then what you've got is an expensive doorstop. ■

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UPGRADING NEWWORD: WHY AND HOW?

by Ilbert I. Butler

If you have a Morrow computer with NewWord as the "bundled" word processing software, I hope this review provides the information for you to decide whether it is worthwhile to buy the upgrade. (WordStar users, see Footnote.) If you have already bought the upgrade and have problems or questions, this article also offers a little help, such as how to install it, common problems and their solution, differences between different releases of version 2, and even some "bugs" discovered after release.

If you are wondering whether to upgrade, first check whether you have version 1.xx (any number after the decimal) or version 2.xx of NewWord. If you have version 1.xx, you will probably want the upgrade, unless you do very little word processing. If you already have version 2.xx, it is less likely you will want to upgrade from 2.05 or 2.12 to 2.16 or higher, unless word processing is your primary use and you want the very latest features, or you want to install a state-of-the-art new printer which is not a selection on your current version of NewWord.

How to Get the Upgrade

The price of the NewWord upgrade ordered direct from NewStar Software is $35 + $3 shipping (+ $2.28 California sales tax, if applicable). You send in your old distribution diskette (of which you must make a backup copy to keep for reasons I will explain later), and you receive back a new diskette in the mail, together with upgrade notes supplementing the manual.

What Do You Get, and What Don't You Get?

Diskette. You get a single-sided, double-density diskette with all the NewWord command and overlay files on it, and the applicable new PRINTERS.DOC. All diskettes are single-sided so all Morrow owners can read them. In most releases of version 2, there is not room enough for READ-ME, PRACTICE.DOC, SAMPLE1.DOC, SAMPLE2.DOC. This is your first reason for having saved a backup copy of your original distribution diskette. Even if you are long past the stage of needing these, they may be useful to teach a family member or friend.

Footnote: If you have WordStar, this article can offer you some information on NewWord to help you determine if you want to continue with WordStar or change over. NewWord version 2 is similar to WordStar 3.3. The information printed in MOR, Vol. 1, #1, p. 8 on the differences between WordStar and NewWord is still valid. WordStar 2000 is a completely different program. People who have already learned WordStar or NewWord may not like it, because it requires learning new material and is slower. NewWord has no plans to issue anything similar.

NewWord used to come on distribution diskette as NWU.COM, installed for an "Example" terminal and the "Draft" printer. It now comes to Morrow users as NW.COM already installed for the MDT 60/70 terminal and for the "Draft" printer. Using NWINSTAL.COM, as instructed in the manual, you can install NewWord from menu for a broad variety of other terminals and for many printers, including the Morrow MP- series.

In some early releases of version 2, NWINSTAL.COM got considerably bigger, because it did more. Then later, at least by version 2.15, it got back down near the old size, as the programmers compressed it. Regardless of which version 2 you have or get, NWU.COM or NW.COM is somewhat smaller than version 1. Since you don't need to leave NWINSTAL.COM on the working disk, nor need to have it on that disk during installation, this leaves you more working disk space, whatever version you have.

Manual Upgrade Notes. You do not get a whole new manual. You keep your old version 1.xx manual and get a supplement. In early releases of version 2.xx, this may be a single booklet. In more recent releases, it is two booklets, with the how-to instructions in one and the new user area listing in the other. Early releases of version 2 (e.g., 2.05) have the "wildcard ?" option in find (^QF) and replace (^QA) operations, but the Upgrade Notes do not explain it. Maybe an example can: If you want to search for both "then" and "than," at the prompt enter: "th?n," and specify ? as one of the options. NewWord will give you not only "then" and "than" but also "thin," "th_n," "thon," etc. If this explanation isn't enough for you, ask NewStar Software by letter to send you the full explanation.

Improved Scrolling Speed. One of the features you get with version 2 is faster scrolling through the text when using the commands ^R, ^C, ^QR, and ^QC. This is a welcome convenience, even to a user who is not impressed by the speed obsession of computer professionals.

Better Printer Support. NewWord can now be specifically installed for some of the latest and best printers. The later the release, the more printers are supported (version 2.14 and higher can use the Hewlett-Packard laser printer), and more printers can be commanded to provide continuous underlining (instead of just underlining individual words).

The PRVIEW Printer Driver. This feature alone is worth the price of the upgrade and will pay for itself. How much time, ribbon and paper have you wasted testing printouts? Now you just print your file by selecting PRVIEW as your printer, which will operate just as if you were printing on a printer, with all pauses and messages displayed, but much faster--no more than a few seconds per page.

The PREVIEW.NW file will include headers, footers, bold, underline, page numbers, page division, etc. This is where you find out that "Yours truly," is on one page, and the name typed below the signature is on the next page, without wasting time and paper. This is also where you find merge-printing and print-formatting mistakes. And PREVIEW.NW is a file that self-destructs and gets replaced the next time you use PRVIEW, unless you rename it.

The Data Printer Driver. This is not on early releases of version 2 (e.g., 2.05), but only shows up later (at least by 2.14). You may recall you always could turn a non-document data file into a text document by opening it as a document and saving it. Now you can turn text documents into non-document data files, and also create new data files from old, containing only part of the data from the old file, without sorting. Hackers and dBASE and basic programmers will use it a lot, most others very little.

On-Screen Display of Some Print Attributes. Another feature is that some kinds of print attributes, such as underlining and bold, are displayed on screen instead of being indicated only by markers (^PS, ^PB, etc.). Using NWINSTAL.COM, you can also have those markers on screen be set to **on** or **off** as a default value. They can also be changed during editing with the ^OD command. Block markers <B> and <K> created by the commands ^KB and ^KH appear only until a block is defined. Once it has been defined, they disappear and the block appears in reverse video.

One of the kinds of underlining you can do--the kind between two ^PS commands--appears on screen with underlining. Later releases of version 2 (e.g., 2.14) support continuous underlining--of spaces between words as well as the words themselves--with all Morrow MP printers. You do this with the ^PS command, plus the dot commands **.ul on** and **.ul off**, but this does not show on screen.

Both bold (^PB) and double-strike (^PD) appear as extra-bright on screen. And, provided you have a Level III terminal of any brand (which includes the MDT 50, 60 and 70) and have installed it correctly, blocks are in reverse video, with bold and double-strike within the block maximum brightness, while the rest is reduced intensity.

These are all a genuine convenience, not just a gimmick. Most people have the experience of leaving out one ^PS or ^PB command and then finding out only when their printout comes out with a whole section of the page underlined or bold. When this is visible on-screen as you type, it is hard to make this mistake. Reverse video is also useful. Among other things, it shows where there are spaces in the text, as well as

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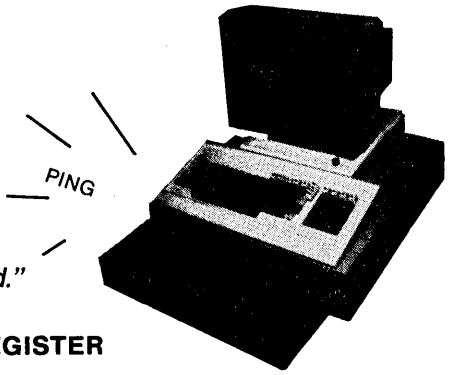

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characters, something you may want to know both for text which will later be merged, and also for column mode, where you may want all lines to have the same length. Also, if you want to check the format of the text with print controls not displayed (^OD), so that the text appears as it will on the page, the bold, double-strike and underlining are still visible.

Column Mode. This is something you could live without, and you probably would not upgrade just for this, but once you have it, you will probably use it. Its highest and best use is probably taking spreadsheets you have made on LogiCalc or SuperCalc2, writing them to a text file, and then integrating that file into written text, formatting and editing as you go along. It can also be used to make and edit small tables in the middle of text, which are not complicated enough to do on the spreadsheet program. It will probably save law offices a few minutes in setting up legal case captions and transferring blocked information to and from case captions. It will never replace the need for a spreadsheet program, because, among other things, it does not calculate and tabulate numbers.

It takes a little practice to get used to column mode. Until you do, it might be a good idea to use NWINSTAL.COM to set the maximum unerase size to a large number, like 1,000, so that if you lose a block of columns, you can probably get them back with the ^U command. When you do get the hang of it, go back and set the unerase buffer to a lower number, because a large buffer uses a lot of memory.

Conditional Dot Commands. These commands are used for merge-printing. Using them is like saying, "If a specified condition exists, then print or insert certain text or data, or else if another condition exists, then print or insert other text or data, but if none of these exists, either leave it out, and print what remains, or display a message." The commands **.if** and **.el** roughly correspond to the words "if" and "else." The command **.ei** means "end [of the] '.if' [sequence]", and every **.if** must be followed by a corresponding **.ei**. The use of **.el** is optional.

You can see the convenience of merge printing different letters for a range of zip codes, or different letters for different products, etc. This also allows you to call up one name and address from a data file with this information, without sorting the file.

To give the reader an idea of the power of this feature, I now have a series of files which will print out any specified number of rows of mailing labels with my own and/or my spouse's name, with either of our work addresses or our home address, with or without phone number at that address, and with or without the phone numbers at the other addresses. To get this result, all that is needed is to merge-print the command file and respond to on-screen questions. Invalid responses are noted with a message, which also says "try again."

Similarly, at my law office I have a certificate of service by mail in a single form which can be prepared for signature by an attorney or secretary (the legal requirements are different) and mailed from the same or different city as the office. This certificate will be automatically numbered as the last page in a legal document and also contain headers and footers required by the local federal court. This is almost data base programming without a separate program.

This feature takes more getting used to than all others. To nest conditional commands into a series of parameters defining exactly what you want to print, you will have to make an outline. You may feel as if you are learning merge-printing all over again--and make as many mistakes. But if you do a lot of merge-printing, this feature alone could be worth the upgrade price.

How to Install Your Upgrade and Why

If you upgrade, you will probably need a few pointers in installing your new NewWord version: 1) You should not make your working disk using the PILOT menu-driven program on the CP/M Master Diskette, but instead follow Chapter 2 of the NewWord Manual, using PIP commands and NWINSTAL.COM; 2) if you have a Morrow MDT terminal that is on the NWINSTAL.COM menus, install for it specifically, not an "emulated" terminal; 3) do not install for a multi-user system, unless you have networking; and 4) there is one common problem requiring a patch for most users with daisy-wheel printers without separate buffers, and it is surprisingly easy to do, even if you have never patched before.

The reason you should not install your upgrade using the CP/M Master Diskette's PILOT menus is that those earlier procedures applied only to version 1. In that version, NWINSTAL.COM did not have Morrow terminals on its menus as installation options, so PILOT did a patch for you and installed for a terminal it defined as "LEVEL III" for the MDT 50, 60 and 70 and LEVEL II for the MDT 20. If you do this again for the upgrade, it will work, but you will not get all the benefits of the new version. At the least, one of the things you will miss is reverse video.

The second reason for installing according to Chapter 2 of the NewWord manual is that you will discover the absolutely marvelous NWINSTAL program. If you have never used this before, go through all the menus specified on the Main Menu, except "G Fresh User Area" (which returns to all default values) and "H Special Patches." "G" will erase any modification already made to your NewWord Program and restore all installable items to the default value as supplied on the distribution disk. "H" requires an understanding of making patches using hexidecimal codes. NWINSTAL is one area where NewWord clearly outshines WordStar. Many items which are matters of choice on the NewWord installation menus can only be changed by a special patch with WordStar.

All Morrow terminals except the MDT 50 are menu choices. If you have a Morrow MDT 20, 60 or 70, do not specify your terminal as an ADM-31, Soroc IQ-120 or any other "emulated" terminal (which you may have been told to specify sometime in the past), but use only the

Morrow designation. If you have the Morrow MDT 50 terminal, install for whatever terminal is emulated, as shown on the diagram for the dip switches. (This article was edited on an MD3 with the MDT 50 terminal set to emulate the Freedom 100, which is a menu choice. All features worked.)

Virtually all non-Morrow smart terminals which Morrow users might have are menu choices, e.g., Televideo and Qume.

Morrow printers are also a menu choice, under "B Printers," which is entered from the main menu of NWINSTAL.COM. In older releases, there were different choices for different Morrow printers, but in the latest releases, all Morrow and Silver-Reed daisy-wheel printers are a single choice. Be sure to read PRINTERS.DOC on the distribution disk carefully. The information on the disk may be different from what is in the upgrade notes. There are surprises. Star Gemini 10X printers are a menu selection, but 10X Plus printers use the Epson FX80 driver. There is additional information there to help you get the best out of each brand, e.g., how to get maximum density out of Okidata dot-matrix printers, using dot commands while editing, without working switches on the printer. You will also learn to greatly speed your output of rough drafts on a daisy-wheel printer using the "DRAFT" printer driver.

When you get to "C Computer related items," there is one thing you ought to know. Unless you have networking (cables running between multiple terminals and a system such as MP/M), install for a single-user system. Do this even if you plan to use multiple user numbers at one terminal. In early releases of version 2 (e.g., 2.05), the semantics of the menu may be confusing. "Single-user" really means "one user at a time." If you install for multiple users, you will later find disk drives being mysteriously protected. What is happening is that when NewWord is installed for a multi-user system, it does not attempt to reset the disk when a new drive is logged. So when you change the disk in Drive B and relog to find that the new disk is all protected, this is not a "bug." It is your mistake.

Also, under "C Computer related items," install as legal drives those drives which are legal, according to your Micro Decision User's Guide (A, B, C, D, and E, all removable for most Morrow systems without hard disk). Some early releases of NewWord version 2 come with too few drives installed as the default value, only A and B. Some later releases come with too many, such as A through P.

Finally, if you have version 2.12 or higher and you encounter too many printing pauses in which NewWord is displaying the message, "Printer has been busy a long time, press ^C to continue," and then and only then make one special patch. (First, make a copy of your current version of NW.COM and call it, say, NW.COM. If you use NX.COM for your installation and things go wrong, you can always start over with a new copy of NW.COM.) From the Main Menu of NWINSTAL, type **H** for "special patches." You will get Patch Menu 1, which is for terminals. Type **3** to select Patch Menu 3 for printers. When you are there, type **B** to select "PRNDLY - Printer timeout." You should now have something like this on your screen: (do not worry if not all the numbers are the same)

```
While patching
      X - Return to Patch Menu
      . - End of changes, re-display
 RETURN - Leave current byte unchanged; advance
          to next location
      ' - Enter the next character in ASCII

0-9, A-F - Enter the hex digit

0563 10 27 00 00 00 00 80 00 C9 00 00 C9
```

Your cursor should be under the 10. What you are going to do is change only the **27** hex number to a higher hex number. So press Return once to advance your cursor from the 10 to the 27. When you press Return, the number 10 will be entered where your cursor was, below the 10 already on screen, and your cursor will advance to beneath the 27. Now, type only one of **67** or **87** or **A7**, which are progressively higher hex numbers. Whatever you enter will appear below the 27. The first time, use one of the lower numbers. If you must, you can also type **FF**, which effectively disables this feature of NewWord. (See below.) You could at this point type a period to end the changes and redisplay, but all you really need to do is type **X** to complete the change (the "27" will now be changed to whatever number you entered), and return to Patch Menu #3, **X** again to return to the Main Menu, and **X** again to end the installation, if you are done.

What are you doing, and why? You are changing the "printer timeout delay" to make it longer. What this means is that when your printer is in a "busy" mode, i.e., when it tells the computer it cannot receive more data for a certain period of time, NewWord will pause the printing operation and display the printer-busy message on the screen. What you are doing is lengthening the designated time period before that happens.

Why are you doing this? In later releases of NewWord, there are already so many sophisticated "conversations" going on between your computer and your printer that are taking so much time (in milliseconds) that the addition of text where you have both underlining and print attributes, such as bold, are likely to trigger the pause and message. You do not want to disable this feature entirely, unless you are always in the room during printing. If the printer is in another room, or if you go out for breaks during printing, you probably want the feature so NewWord can keep telling you when your printer runs out of ribbon, goes on alert for any reason, etc. All you want to achieve is to keep the printer from stopping during

ordinary printing operations. If it never does so with hex number 27, don't bother. If it does it once in a while, try hex number 67 (three times as long). If it still does it, try 87 (four times as long). And so on.

Don't worry too much about screwing up a patch. If the absolute worst happens, e.g., your cat jumps onto the keyboard while patching and the screen goes crazy, you can still recover by making a new NX.COM copy of your original NW.COM.

If you want to start from the configuration found on the NewWord distribution disk, go back to the main menu, select "G Fresh user area," and select it (Y = yes). This restores all default values of uninstalled NewWord. This means you have to go back and reinstall your terminal, printer, etc., but it also means the patch menu goes back to square one, and you can start over.

Bugs and What to Do About Them.

Yes, there are bugs in NewWord. This is the second and most important reason you saved your distribution diskette from the earlier version. If anything ever goes wrong, usually with a printout, try it again with the older version. If it goes wrong there too, you probably made a mistake. If it goes right, you may have a "bug."

But do not despair--you are now a direct customer of a software company with outstanding support. In most cases, call NewStar Software first, and ask for "Customer Support." They will sort out your mistakes from bugs over the phone. Then if you have something they don't recognize, they will probably ask for a copy of your working disk and the file(s) where the problem appeared. If they find a hitherto undiscovered bug, they will be genuinely grateful for your pointing out something they can now correct. In any case, if it is a bug and not your mistake, even if they already know about it, NewStar will send you the latest version that cures it. If not, they will tell you what you are doing wrong.

Please do not abuse the courtesy of the publisher by looking for bugs as a way to get a free upgrade to a higher version. If you do, you will make it hard or impossible for people who discover the bugs and really need them corrected to get help.

Some known bugs are:

1) Before version 2.12 -- A miscount in the status line of the number of lines in some kinds of documents when using some kinds of scrolling. This is easily cured for occasional problems by counting lines visually, or scrolling only with the commands that do not produce the error. Don't expect the publisher to give you a new version just because you find this bug.

(continued)

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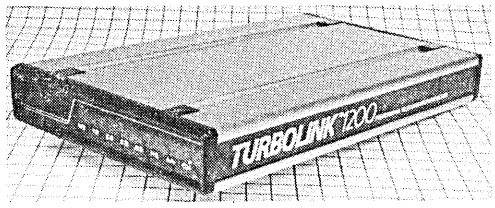

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You may have to show a number of files which depend on a perfect line count.

2) Before version 2.14 -- Late recognition of changes in **.po** commands when printing out only later pages of long documents. This is easily cured for occasional problems by making a new file at the point where you want printing to begin.

3) Only version 2.14 -- Rare incorrect order of blocks of text in a PREVIEW.NW file, and even rarer incorrect order of blocks of text in a printout, but only when block operations were performed on that text in very long files with multiple nesting and chaining levels.

As you can see, the average user might never encounter these at all and could live without correcting them, except for problems likely to come up regularly in the kinds of files already used frequently.

Except for item 2) above, users appear to report the least bugs in version 2.12 (which was distributed by BAMDUA to its members under a group rate). So far, in my extensive use of all NewWord features, I have found no bugs at all in 2.15 and have used it on MDT 50 and 60 and Qume 102 terminals. By the time you read this and decide whether or not to order an upgrade, version 2.16 or higher will be available.

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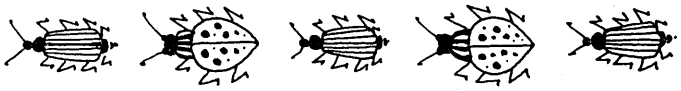
If you wait long enough, then even later versions may have meaningful improvements in the **.rp** dot command, carried over into NewWord from WordStar. This command is not well explained in the manual, and has not been all that useful anyway. In the meantime, if you understand this obscure command and use it, remember the golden rule: Never put **.rp** in the same file as the **.df** and **.rv** commands. When you want to use it following those commands, "nest" or "chain" to a new file and put the **.rp** there.



Failures to Function That Are Not Bugs.

One kind of thing is not a bug: There are amounts of memory allocated to specific functions, e.g., the size of the unerase buffer and the number of embedded ruler lines. Both of these are mentioned in the manual and can be changed by a menu selection in NWINSTAL.COM. Not all memory limitations are documented in the manual, not all are subject to change without patching by a menu selection in NWINSTAL.COM , and they may not trigger error messages when you exhaust memory capacity for that function.

For example, recent versions of NewWord reserve 2048 bytes of memory to hold the names and values of merge-print variables. A large number of **.av** (ask for variable) queries, particularly if coupled with an instruction to read a data file (**.df** and **.rv** commands) and merge-print a large number of letters, could exhaust the memory capacity. It would be difficult to calculate the maximum number of **.av** commands in advance, because variables vary in the number of bytes they use. In any case, when memory is exhausted, NewWord will stop making changes, even if there are new variables. (A possible solution is to split files into smaller units and chain them.)

Finally, one more thing that is not a bug: Your Morrow original or upgrade version of NewWord will not work on Kaypro CP/M computers without extensive patching, even though they use the same CP/M version. You do not have tradeable software. This is intentional. NewStar designed it that way. Other publishers "discover" ROM differences in different CP/M computers, when their program doesn't work. (For this very reason, InfoStar for non-Morrow computers "crashes" instead of saving data when run on Morrow.) NewStar is smart. They plan for these differences to avoid wholesale piracy. (It also beats the heck out of copy protection that has gotten WordStar in so much trouble that they abandoned it.) Frankly, with NewWord at such a bargain, why would you want to spend the time patching, which can end up costing a lot more than "going legal"? ■

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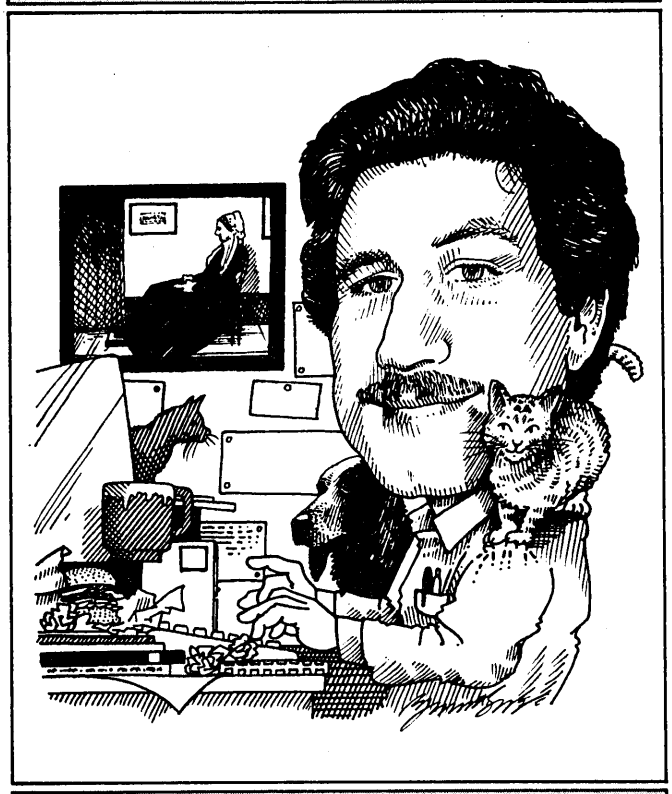
Computerese even a mother would love



INSIGHT

by Art Zemon

MISCELLANEOUS RAMBLINGS

A number of you have written asking for very basic information. Letters like "I've used WordStar but cannot figure out how to do anything else" are all too common. I have also received many letters asking how to do simple things like copy and delete files. Everyone who wrote has been answered but there are probably many more of you with the same questions, so here is my solution.

This is the first of a short series of articles, each a potpourri of topics. Many books have been written about computing and I cannot hope to adequately cover the subject in MOR. I do hope, however, to help you get over the first hurdle of basic use of your computer.

Your letters are very important. Without them I cannot know what you want to understand. It is perfectly fine to write "I'm so confused that I don't even know where to start." You can send US mail to me at 4743 Matney Avenue, Long Beach, CA 90807. I can also be reached via CompuServe EasyPlex; my ID is 72406,3275. MCI Mail will also reach me; send it to AZEMON. Whatever means you choose, I'll try to oblige your request in a future article or via return mail.

Computers Never Lie--Or Do They?

I am sitting here doing something you have probably done many times. I am watching my computer lie to me. It lies to me a lot--literally every time I use it. And to add insult to injury, I cannot even find anything written that clearly explains the truth behind my Micro Decision's lies.

The Most Common Lie: DIR

What files are on your diskette? If you are not quite sure, then you will probably type "DIR" and see things like this:

```
PIP      COM : WS      COM : INSIGHT 2X4
```

What do you think this means? If you are new to computers you might think that you have:

a) three files named "PIP COM", "WS COM", and "INSIGHT 2X4", or
b) six files named "PIP", "COM", "WS", "COM" (again?), "INSIGHT", and "2X4", or
c) three files named "PIP", "WS", and "INSIGHT" and that someday you might figure out what "COM" and "2X4" and ":" all mean.

What it really means is that you have three files named "PIP.COM", "WS.COM", and "INSIGHT.2X4". You will not, however, find that written down anywhere. This strange notation with all the blanks is used only by DIR. If you wanted to erase one of the files, you would need to type:

```
ERA PIP.COM
```

and not:

```
ERA PIP      COM
```

or even:

```
ERA PIP
```

The latter two commands would not work because your file is named "PIP.COM". You must give the correct name whenever you reference a file.

If you look through some of the RBBS's you will find some better behaved replacements for DIR. These programs, going by such names as "XD" and "SD", do sensible things like sort the files alphabetically, display the true names, and tell you the number of kilobytes used by each file and the amount of free space on the diskette.

A File Name is not a Filename

Now that you know how to interpret the output from DIR, you still might want to know what things like "COM" and "2X4" mean. CP/M, as an operating system, imposes certain standards on file names. One of the standards is that all files shall have up to an eight character primary filename and an optional three character filetype. The primary filename (which I will henceforth call simply, filename) is the part to the left of the period. The filetype is the part to the right and is usually used to indicate what kind of

information is stored within the file. You may also see the filetype called an extension.

In the vernacular we often refer to a file's name and mean the combination of its filename and its filetype. For example, if I were to give you a diskette with the three aforementioned files on it, I might tell you that you have files named "pip dot com", "double-you ess dot com", and "insight dot two ex four." Technically, I would have lied to you and while that is unimportant most of the time, it does on occasion cause confusion.

Consider LogiCalc files. You never specify the filetype when you save a spreadsheet. As a matter of fact, you cannot specify the filetype because you cannot type the period which must separate the filename from the filetype. LogiCalc automatically adds the filetype "LCF" to the filename which you provided. Later, if you want to remove one of your spreadsheet files, you must provide the complete file name to ERA. For example, if you had an old budget which you had saved under the name "BUDGET," you would need to type the command "ERA BUDGET.LCF" at the "A>" prompt. "ERA BUDGET" would not work.

I mentioned that the filetype usually identifies the type of data contained within the file. Although this is not a requirement, convention dictates certain common filetypes. CP/M will only run programs with the filetype "COM". (MS-DOS will run programs with either "COM" or "EXE".) MBASIC will search for files with filetype "BAS" unless you explicitly specify another one. LogiCalc will only work with files having the filetype "LCF".

WordStar and NewWord, however, do not care about filetype. You are therefore free to use those additional three characters in any way you choose. For example, "INSIGHT.2X4" is the name I have given the file containing this article, "Insight" for MOR vol. 2, number 4.

Terminology

A very common source of confusion within computerdom is poor terminology. Since you cannot understand a description if you do not understand the words within it, here is the beginning of a micro-lexicon of computer terms.

computer

This is a term frequently used ambiguously. Strictly speaking, your computer is the hardware which comprises your Micro Decision. The term computer does not encompass any software at all.

Every computer consists of the same set of basic parts. The heart of a computer is the CPU or central processing unit. In microcomputers the CPU is a single microprocessor chip, a Zilog Z80 inside a Micro Decision, a copy of the Intel 8088 (used in many MD/DOS machines) inside a Pivot. The other parts include working storage, mass storage, a console (terminal), and I/O (input/output) ports to which you can connect printers, modems, etc.

storage

Computers have two types of storage. The first, called electronic or working storage, is similar to the top of your desk. The second, called long-term or mass storage, is similar to your bookcases and filing cabinets.

The program you are currently running and the data with which you are currently working must be within the electronic storage, or RAM (Random Access Memory), of your computer. Your desktop shares a couple of traits with your computer's working storage. Primarily, whatever you are working on must first be placed on the desktop. You cannot easily write a letter if the paper is still in a drawer. Secondarily, the desktop is limited in size when compared with the file drawers at your disposal.

The programs and data with which you are not currently working reside in your computer's mass storage. Diskettes and cassettes are examples of long-term storage and so is a hard disk. A filing cabinet is similar in concept to a floppy diskette.

A computer uses storage much like you do. In order to run a program, be it CP/M or WordStar, the computer first copies the program from mass storage (the file cabinet) to working storage (the desktop). Once running, the program will perform a similar operation on the data. In the case of CP/M, the data it moves from mass storage to working storage will be other programs. The other programs will then move documents, spreadsheets, etc., as appropriate to their function.

hardware & software & firmware

This one is easy. If you can touch it, it is hardware. If you cannot, then it is software. Firmware is software which is permanently embedded within a piece of hardware.

If you pick up your WordStar diskette you are holding a piece of hardware. The WordStar program on the diskette is software. The documents on the diskette are also software, although the term software is usually reserved for programs as opposed to data.

There are a couple instances of firmware in your Morrow. The most obvious is the bootstrap program contained in ROM (Read-Only Memory). The bootstrap is automatically run every time you turn on your computer. It loads the operating system (CP/M or MS-DOS) into working memory. Another instance of firmware exists on the microprocessor chip itself. There is firmware which tells it how to do things like add two numbers.

Helpful Hint #1

Make backups often.

Floppy diskettes do fail from time to time. When that happens you would rather not lose any data. Note

that I said "when" and not "if." Someday you will have at least one floppy diskette die on you. Even the ones with a lifetime warranty are not impervious to spilled coffee.

I have a backup copy of every one of my diskettes and I update the backup every time I update the original. Using BACKUP makes this a trivial task. When I am done working I run BACKUP, pop the original in drive A and the backup diskette in drive B, and go away for a few minutes. You could literally cut in half any one of my diskettes and I would not be at all upset.

By the way, I also use the no-brand diskettes. My reasoning is that I can buy two cheapies for less than the cost of one warranted diskette and then I have a backup. Although I have never had to throw out one of these diskettes, I have often used my backup copies.

Helpful Hint #2

When in doubt, try it (but make a backup first). The wonderful thing about computers is that you cannot hurt them by using the programs wrong. And if you have a backup diskette you cannot even lose your data.

On Software Marketing Strategy

Recently I bought the "MIX" editor for MS-DOS (also available for CP/M from Mix Software Inc., 2116 East Arapaho, Suite 363, Richardson, Texas 75081 or see the ads in Byte). The quality of the program highlights the extremely poor way in which most software is marketed. It does this not by being bad but by being wonderfully good.

To wit, MIX costs only $30. It was shipped promptly. I have found no bugs in it. The manual is over 100 pages, softbound, and includes both a table of contents and an index. Section two of the manual is a tutorial; the rest is a reference manual. I have not found any errors in the manual.

Most important, MIX was not copy protected and it was sold with a 30-day money back guarantee. Unlike virtually every other program I have seen advertised, I quickly ordered this program, knowing that a refund was available if the program did not meet my needs. Conversely, I have never ordered any program which did not come with a suitable refund policy or with which I had not had previous experience.

I know of one other software house, Ellis Computing (also Byte advertisers), which offers high quality products at a reasonable price and with "satisfaction guaranteed." I sincerely hope that such marketing strategies will prevail. The next time you do not buy software because it is too expensive or because you cannot try it before you buy, take a moment to phone or write to the manufacturer and tell him exactly why he has lost a sale.

Software theft (software piracy is just a white-washed phrase for the same thing) is not the answer either. A bit of patience will often reveal reasonable and high quality commercial or public domain products.

In the next issue, I will discuss some more CP/M idiosyncrasies and present a few very useful public domain programs.

TECHNICAL MANUALS/SCHEMATICS

About 18 months ago several BAMDUA members asked Morrow about the availability of schematics and manuals so they could repair their own machines. The response of Morrow at that time was that it couldn't be done. Why? The answer was that Morrow would get too many phone calls from "technically unqualified" people demanding answers to technical questions which would absorb too many resources. I brought the question up again recently with Howard Fullmer of Morrow, Inc. This time the response was much more helpful. Currently MOR and Morrow are working out an arrangement in which MOR will distribute some of the technical information to subscribers upon request and for a price designed to cover expenses. Doesn't that sound better than the $250 offer coming from dealers? Write MOR if you are interested, tell us what you need. We'll keep you posted.

--Sypko Andreae

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THE MD3 AS A DEDICATED WORD PROCESSOR

by Gordon Northrup

I have an MD3, an MDT 60 terminal with function keys at the top of the keyboard and NewWord software. A nice set-up for word processing. However, I kept finding that I couldn't remember, for example, if the command for "indent" was ^I or ^OG or . . . , but I knew I'd be able to find a key labeled INDENT. I also wanted my family to be able to use the MD3 as a dedicated word processor by just firing it up, without my guiding them through the menus, SmartKey, and all. So I set to work, programming a set of commands with SmartKey, and made a cardboard "overlay" or "template" as a guide to each key. (See model Template on facing page.) The overlay sits above the function keys, held in place by the side extensions. Similar overlays could be fitted to almost any keyboard and the commands adapted to WordStar just as easily, using the directions in the SmartKey manual.

Now my daughter can just put the special "word processing" disk in A, a "WP blank disk" in B, and turn on the MD3. (More about these disks later.) There will be no on-screen help menus, but of course she can call them up (as you see by looking at the Template) by holding down SHIFT and tapping the HELP key. On the MDT60, "Help" is printed on the function key that would otherwise be labeled "F-10." If she taps that reconfigured key without holding down SHIFT or CTRL she gets STOP! which is the same as "undo." I've outlined the word STOP in red on my overlay.

The section on the right of the template is the menu for the "Superkeys" function of SmartKey. I decided to call them with the "\" key, as described in the SmartKey manual. I used various special keys for the block commands: "[" for Begin Block and "]" for End Block; "~" (the wavy line or tilde) for Move Block; "#" (the octothorpe) (I couldn't resist sneaking that in) for Erase Block, and so on. Among various other commands, my letterhead appears in bold face on tapping "\" and then "r". There are various other commands and plenty of room for new ones.

An unsolved problem is with the arrow keys. Without a patch, they must be tapped only; if they are held down, various extraneous characters are introduced. Another problem is the CORRECT key for the Correct-It spelling checker. I hope someday to tap CORRECT, take a break, and come back to find the text on the screen with every typo or misspelling marked with an #, ready to be found with a tap on FIND AGAIN. At this point, however, I have to use the Opening Menu "R" command to evoke Correct-It and ask it interactively for the things I want done. I don't know how to solve these problems, but others have them too, and someday a friendly hacker will come up with patches to do the trick.

On the back of the overlay are some condensed directions, as follows:

HELP: Get help from the help key of the NewWord Reference Card.

TAP, DON'T HOLD the arrow keys, or you'll get extra characters.

AVOID SETUP! It will beep! If it does, tap it again.

Margins, left and right: set cursor, tap margin key, then ESC. There are 10 characters/inch.

Margins, top and bottom: tap key, enter number. Defaults: top = 3, bottom = 8. There are 6 lines per inch.

Footnote: If you're typing and have an unrelated idea, this stores it at the end of the document: start block with **\[**, type your idea, type *****, type **]**, type *****.

Find mark: If you type ` (accent grave) and leave your place, for example, to go to footnote, then **\`** returns you back to your original place.

To define a new \ command: tap SETUP, tap ****, tap character, type new definition, and tap SETUP twice.

To save new definitions: go to CP/M, enter A:FIXKEY, choose "pack and save," save as Definition (D), and enter NWKEYS (the definition file name).

Two notes on the MDT 60 keyboard: To configure the keyboard SETUP key in order to use it for what the SmartKey Manual calls "setup," I had to enter the key by it's hex code: ^\^@. And while I was at it, I changed LINEFEED to "Delete previous character," i.e., backspace; it's useful, and much less fuss if you tap it by accident.

About the disks: The "WP blank disk" for drive B is formatted and has on it handy utilities, such as WASH.COM, a file maintenance program. The "Word Processing" disk is sysgened and has all the files for NewWord, Correct-It, SmartKey and NWKEYS.DEF (the SmartKey definitions file), plus SUBMIT.COM and AUTO.COM (from the Morrow distribution disk). I programmed AUTO, as described in the Owner's Manual, to AUTO SUBMIT NW. Then I wrote a file called NW.SUB on the New Word disk to bring up NewWord with SmartKey logged on B:

```
;NW.SUB
B:
A:SMARTKEY A:NWKEYS
A:NW
```

That's it. I hope this turns out to be as interesting a project for you as it was for me. ◘

TEMPLATE FOR DEDICATED WORD PROCESSOR

C

FIND	INSERT/ REPLACE		QUIT	LINE	TEXT	LINE			
PRINT TWO COPIES	ALIGN PARAG.	HELP	SAVE & → MENU	WORD	PARAG.	WORD	WORD LEFT ←		
PRINT	UNDER-LINE	UNDO	SAVE AND RETURN	SPACE	LINE	SPACE	WORD		
PRINT		HELP	SAVE	C U R S O R	LINE		ERASE		

B

		RIGHT MARGIN	TOP MARGIN	LINE SPACING	CHANGE DISK DRIVE	OPTION M FIND WORD	FIND AGAIN		
SCREEN →	LEFT MARGIN	BOTTOM MARGIN	CLEAR TAB	ERASE A FILE	FIND AGAIN	FIND & REPLACE			
SCREEN ←	INDENT	CENTER	SET TAB	BRING A FILE	CORRECT SPELL	FIND			
SETUP	TABS & MARGINS				FILES	CORRECT	FIND		

A

| THIS ROW → HOLD CTRL | | | | | | | | |

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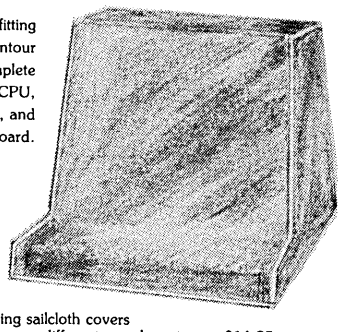

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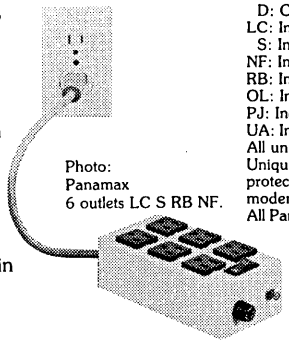

Photo: Panamax 6 outlets LC S RB NF.

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"Power line-associated problems are estimated to cause nearly 70 to 90 percent of the malfunctions in the IBM PC."

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P.C. Magazine, March 1983

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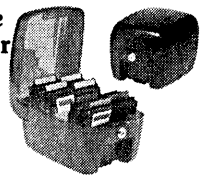

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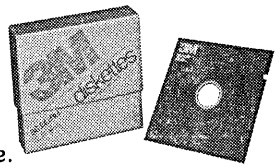

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SYPKO'S SYLLOGISMS

All things are transient. Floppies are things. Therefore, floppies are transient. Back 'm up! Back'm up! Do it often enough so that--if disaster strikes--you can live with the loss of the data you generated since your last backup. If your floppy is more than half-full, use BACKUP. On the other hand, if it is more than half-empty, use PIP or NSWEEP. They're faster.

Do floppies die? They sure do, sometimes within a year depending on use and quality. Don't worry about that, just make backups. Keep coffee and cats away from floppies and never leave floppies lying around without sleeves. Mail floppies in sturdy cardboard mailers, and if you are worried about airline X-rays, wrap them in tin foil. Don't smoke within breathing distance of your floppy drives or they will suffer a slow death. At the first sign of disk trouble--stern error messages from CP/M--try your backup floppy first, then clean the disk drive, then call the repairman.

Should you clean your disk drives at other times? No, or at the most every half year or so. Learn about the public domain program FINDBAD (or FBAD57) before you throw out floppies with a few bad sectors on them. The program marks the bad ones "occupied" and puts 'm in a file called [UNUSED].BAD. Can you use SSDD floppies as DSDD floppies? I do it all the time. Perhaps you can too.

All information is transient. Your text in memory is information. So your text in memory is transient. Always have a few formatted floppies on hand just in case WordStar/NewWord stumbles. And in case it actually dies, the public domain programs MAGE31 and RESQ12 can rescue text in memory that hasn't been saved yet. If you are editing text and it is stormy outside, do ^KS very often. During electrical storms unplug your machine and other computer equipment and do the dishes instead.

Of course you need to know much more. So much can go wrong. It's amazing to me how much does go right without people even appreciating it. What more can you do to enhance your computer operations or just to protect yourself from disaster? Read every page of MOR. It will only take you a few days and it will last you a lifetime.

HOW NOT TO LOSE YOUR FILES

by Bill Steele

Used to be, the worst thing that could happen to a writer was to lose the only typed copy of the manuscript. For us that's trivial: our computers can bang out another "original" copy in a few minutes. For us, the worst thing that can happen is to lose the file.

A few simple precautions can save you from that terrible experience, and they are among the first things a newcomer to word processing should learn, perhaps even before "How do you turn it on?" In this case, ignorance is not bliss. You can avoid a lot of mistakes if you understand clearly just what's happening to the deathless green or amber prose you're typing into your machine.

Assume you're starting a document on a new floppy with NewWord or WordStar. (From here on, I'll just refer to NewWord; unless noted otherwise everything applies equally to both.) When you press **D** and type in a file name, the file is of course empty. Let's just call the file "TEXT." As you start typing, the characters you enter are stored in the computer's Random Access Memory, or RAM; this means that they exist only as electrical impulses running around inside the machine. If the power should go off at this moment, everything you've typed would disappear. It would also disappear if you hit reset, or if you pulled the disk out of the computer and turned off the switch, or if you typed ^KQ, NewWord's command to "abandon" a file.

To avoid any of these possibilities, your first line of defense is to do periodic "saves." After you've typed a page or two, or whenever you go for a fresh cup of coffee, type ^KS. The screen displays "Saving," and the disk drives whirr for a moment. What is happening is that the computer is taking the text it has in RAM and storing it on your file disk as a series of magnetic signals. A directory recorded on the outer rim of the disk tells the computer where to look for those signals when you ask for the file named "TEXT." Now, if the power goes off, or you hit reset, or even if you type ^KQ, you'll find that you can boot up NewWord again, reopen the file "TEXT" and see that everything you typed up to the save command is still there. (What NewWord "abandons" when you type ^KQ is the text in RAM, not what's already recorded on disk.) A directory recorded on the outer rim of the disk tells the computer where to look for those signals when you ask for the file named "TEXT."

For now, let's assume that no disasters occur, and you continue typing. After a while you again type ^KS. This time, NewWord writes a whole new file, containing everything that was already on the disk in "TEXT," plus everything you've typed since, including any changes you may have made in the earlier parts of the document. It names this new file "TEXT." The old file is left unchanged and is renamed from "TEXT" to "TEXT.BAK." The "BAK" stands for "backup." Every time you do a save after this, another brand new file will be written and named "TEXT," the previous file will be renamed "TEXT.BAK," and the previous backup file will be erased.

The idea of backup files, besides a little extra security, is that you might change something in your document and then wish you hadn't; the previous version will still exist in the BAK file.

(Suppose you are editing and you realize you have made changes you don't want to keep and you also have done a save (^KS) after you made those changes. Now you must exit from the current file without saving, by using ^KQ; if you were to do another save, the previously saved version of the file becomes the BAK file, and the previous BAK file, which has the pre-change version you want to keep, will vanish. After exiting, you will also have to rename the BAK file to something else; NewWord will not let you open and edit a file that has the .BAK extension. If you're about to make extensive changes in a file and are not sure whether you might want to go back to the original later, your best approach is to make a copy of the file under a new name and work on that instead of the original.)

The process of writing and saving with ^KS goes on until you finish your work. You should do a save every couple of pages, so that if anything goes wrong you will lose only a page or two of typing. While ^KS saves your file and leaves you in Edit mode, ^KD sends you back to the menu. You might want to remember that "S" stands for "Save" and "D" stands for "Done.") If you like, you can think of ^KD as producing exactly the same result as ^KS followed by ^KQ. If you type ^KS when the doorbell rings, and then you decide not to go back to work, there's no need to do a ^KD; you can do a ^KQ instead, to return immediately to the opening menu and avoid the wait caused by saving the whole file. Or just take the disks out and turn off the computer.

Jump ahead 24 hours. You decide to pick up where you left off, so you boot up NewWord and again type D, TEXT. This time, of course, the disk file is no longer empty, so NewWord copies TEXT from the disk (actually just the first few pages) into its RAM, and displays the first page of what it has copied on your screen. Now, here's a test: what happens if, right now, you hit reset? Have you destroyed the file?

If you've been paying attention, you answered "No." Notice I said that NewWord copies what's on the disk into RAM. If you hit reset, you erase the copy in RAM, but the disk file is unchanged!

Likewise, if you type ^KQ in this situation, you no longer lose the file the way you would if you had typed it before the very first save. Now, NewWord will abandon the text in RAM, but will leave the disk file untouched. ^KQ is handy when you're looking at the

directory and see a file that you can't identify; you can open the file, take a quick look at it, then abandon it unchanged--a lot faster than waiting for NewWord to do a complete save. You can also nip into a file, mark one or more blocks and write them to other files, then nip out again with ^KQ. (There's nothing wrong with doing a save in these circumstances, but it's a waste of time and effort.)

[If you don't need Editing mode, you can also use NSWEEP to take quick peeks at files. Assuming it is on your NW disk, from the Opening Menu, use the "R" command, then enter NSWP207 <cr>, if that is the version of NSWEEP you are using. --Ed.]

So now you continue typing, doing periodic saves and adding to the disk file just as you did yesterday. But there is one other problem you might encounter, especially if you have an MD2 and you're working on a long document: the disk may get too full. When that happens you'll get a message that says something like "Unable to store data on disk; press the escape key to continue."

Is this true disaster at last? After all, it says "Unable to store data on disk." Depends. If it happens when you're trying to scroll through the file, what it means is that there isn't room for the "scratchpad" files NewWord needs if you're going to do any more editing. Then you can usually still do a ^KS or ^KD; NewWord will have room to save your file, because it will overwrite the old backup file.

You can also make more space on the disk by deleting a file other than the one you're working on. You do this by typing ^KJ, then the name of the file you want to delete. In any help level except 0, ^KJ will bring up a directory of the logged disk. The first choice of a file to delete is usually TEXT.BAK.--if it is there.

If you get the "unable to store" message when you do a ^KS or ^KD, it means the disk is really too full; there isn't room for your main file and the BAK file. This time, deleting the BAK file won't help; NewWord automatically makes another one when it does a save. You can still do a ^KQ and abandon what you've typed most recently; everything up to the last save will still be on your disk. Or perhaps you can make room for a save by deleting some other file(s) on the disk with ^KJ. But let's assume the worst: let's say there's nothing else on the disk but the file you're working on and you've been forgetting to do saves for the last hour, so you can't afford to abandon. Now it's time to rejoice that you were smart enough to buy a Morrow! You can still get out of this mess by using the virtual drive feature.

Say you started with your one and only file which occupied 40% of your disk. By the time your file

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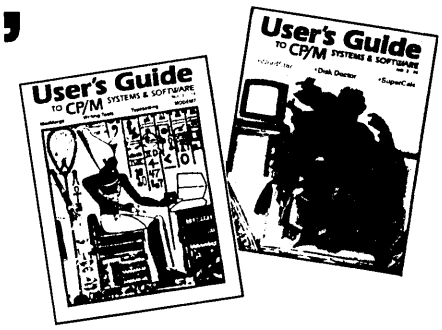

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reaches twice its original size (80%), it will be clear that there isn't enough space for both your current file (80%) and the .BAK file which occupies 40%. That's when you get an error message. But there is still enough space for the little scratch files NewWord uses to let you scroll around in your file. Use that last tiny bit of freedom to save your file. Go to the beginning of the file and type ^KB. Go to the end and type ^KK. You have just marked the entire file as a block. Now use ^KW to write that block to another file. When NewWord asks for the filename, type "C:TEXT". You'll get a message telling you that Drive A is being reassigned as Drive C; take the NewWord Disk out of Drive A and insert a blank, formatted disk (always keep a couple on hand), and NewWord will copy your file to that disk.

There will be plenty of room on the new disk, because NewWord won't be copying the backup file. Bear in mind, though, that if you now shift that new disk into Drive B and reopen the file, you'll run into the same problem when you try to do another save, because NewWord will again need room for the main file and a BAK file! Before you can do any more work on this file, you'll have to break it into smaller chunks and copy each chunk onto its own disk.

To save that extra step, mark about half the file as a block and copy just that to Drive C. Then return to the original file and delete the block you've copied. This will leave you with a file small enough to continue editing for a while. If there is so little room on the disk that NewWord doesn't have the needed scratch pad file space to let you scroll around freely, then your only choice is to mark (with ^KB and ^KK) whatever little piece you can, transfer it to the blank disk, go back and delete the blocked piece, and try for the next little block. Now there should be just enough room for a scratch file to let you scroll around. Use a separate disk for each block, and you'll be ready to go back to work on the blocks separately, with plenty of room for future saves. You'll have to put the NewWord disk back into Drive A after each copying operation.

After you've gone through this sort of thing once, you'll learn to avoid it by not letting your files get too large in the first place. If you're writing a book, for instance, you might give each chapter its own disk. (Another way to get more room on your disks is to use the NWINSTAL program to modify NewWord so that it will not make BAK files. However, this option should be considered very carefully since you lose the major safety advantages of .BAK files.) Now that you know about all these file-saving tricks, you can look forward to having more confidence in your word processor and yourself. ◘

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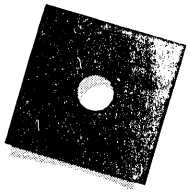

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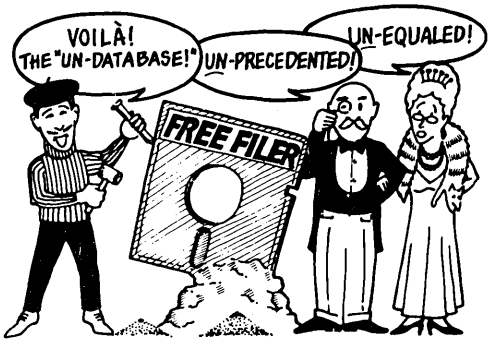

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DAY-OLD COMPUTERS

by Sypko Andreae

Just around the corner from the Morrow plant is a big warehouse with a little sign: Silicon Valley Surplus (SVS). If you call (415) 568-1741, you get a message telling you when SVS is open for business--on Thursday and Saturday afternoons only. Or you might get proprietor Brian himself on the phone. What's so special about SVS that you'd want to know about it? Surplus Morrow parts and occasionally even systems are its sole stock-in-trade. Morrow and SVS have a scrap contract. SVS takes all that Morrow does not want and sells it for low, low prices.

I went to pay a visit. SVS is an enormous, slightly organized space. DSDD drives for $25, used MDT 60's for $119. And there, a bunch of MD2's! How much, Brian? Sold already. But here is an MD3-P (the portable MD3) for $649. Brian tells us there is no warranty on parts. "You better try them out here before you walk out with them," he warns. And sure enough at a table over yonder is a familiar BAMDUAn who has taken his MD3 apart and is trying out one MDCP-88 (co-processor) board after another. After the fourth try he smiles . . . . The MDCP-88 went for $229 that day.

How about printers? Ah, a new MP100 for $249 and a refurbished one for $199. And a bunch of MP200's for $349, one with a sheet feeder. Reems of unintriguing Hazeltine terminals with fixed keyboard--$119. More terminals, new MDT-60's for $295. Hmmm. Any MT70's around? None what-so-ever. MDT50's with only a little dust masking their "mint" condition, only $119. This is just like a fleamarket. Look, a box with Z80 chips for $1 each. How many tries do you figure before you hit a good one? Ah, this is fun!

Let's look at this "Computer kit" for $189. Turns out to be about 80% of the pieces needed to assemble an MD2: motherboard, case, powersupply, drives. But no mounting hardware, no cables. "Perhaps you can find them in that box over there." I peek in the box and see a thousand unrelated cables and things. That would be a challenging project. "What about the little screws?" "Go to the hardware store." Everybody has as many questions as answers.

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SOFTWARE REVIEW

PROGRAM:	**KAMAS**
VERSION TESTED:	Version 1.2
AUTHORS:	Adam Trent, Anne Hickman
MANUFACTURER:	KAMASOFT, Inc. (Formerly Compusophic Systems) P.O. Box 5549 Aloha, OR 97007 (503) 649-3765
PRICE:	$147.00 (See note on group buy at end of article)

by Tim Evans and Dale Clark

Summary

KAMAS is a rarity in the world of CP/M programs--an integrated set of programs that includes "Outline Processing" (a generic term for several associated functions relating to outlines, including Outline Editing, limited word processing capabilites, and information retrieval), telecommunications capabilities, and a programming language. The package works on two levels. First, you can use KAMAS' outline processing functions as an off-the-shelf applications program for writing, editing, and manipulating hierarchically-structured outlines. Second, you can use the KAMAS programming language and interpreter to write and run free-standing programs (just as you would with BASIC or PASCAL) and you can use it to modify the rest of KAMAS to tailor it to your own uses.

What is an Outline Processor and Why Would I Want One?

Most users will be primarily interested in the outline processing aspects of KAMAS. Some MOR readers have in fact asked what an outline processor does that a word processor doesn't. After all, they ask, can't you use just about any old word processor to write up a perfectly adequate outline? While the answer to that question is Yes, especially if you're doing a one-page outline, KAMAS (as well as other outline processors, such as Think Tank) offer features that make organizing large amounts of material in a coherent fashion considerably easier and more efficient. So, before we get down to the specifics of KAMAS, let's take a look at the basic idea of outline processing.

Briefly, an outline processor creates a file on your diskette (KAMAS calls it a "Topic" file) which is organized in a special way and allows you to take advantage of this special organization to manipulate the document and the material in it in numerous useful ways. Suppose you were writing a book about, say, repairing Morrow computers and peripherals. Undoubtedly, you'd want individual chapters on the computer's main or "mother" board, its disk drives and its various ports, as well as the various terminals, printers, modems, cables that work with Morrow computers. Each chapter would be broken down into sections, each section into subsections, and you'd probably want an appendix or two. This is pretty technical stuff that's going to require tons of detail and, by the time you wrote up an outline showing the organization of your book, it'd probably be maybe 15 or 20 pages long (or longer). As you work, it would be very easy to get so bogged down in the details of the sections and subsections that you lose the big picture of how you planned to organize the overall book. (Now, let's see, what chapter had I decided I wanted to cover desoldering and removing chips in?) And, chances are, if you're like most people, along the way of writing out the outline, you started writing bits and snatches of the actual text of your book which take up large amounts of space in your outline; or worse, you've scribbled little sections of the book in umpteen scratch files on your work diskette--and their names don't make sense any more.

Now, you could use your word processor to scroll back and forth in your lengthy outline, trying to find what's where, visualizing the organizational relationships between the sections of Chapter III; maybe you could even do searches for strings of text--if you remember exactly how they go. Or you could take a giant step backward and print your 20-page outline, take scissors and cut out all the technical details, then spread the little slivers of paper that contain the main headings out on the floor. (Which leads to the question of how to deal with the rest of the scraps of 20 pages of outline.)

Or, if you've written your outline on an outline processor, you can "collapse" the entire 20 pages down to a single screenful, showing just the main headings, hiding (but not losing) the intervening detail. This will give you a bird's eye view of your overall organization--or disorganization. Is a major idea out of place? With an outline processor, you can just move it; when you do, all the detail attached to it moves with it, automatically. Would you rather reword some of the headings? Your outline processor will let you edit your outline, just as if you were using your word processor. Is what you thought was a secondary idea really a major idea that ought to have major idea status--maybe even its own chapter? Well, use your outline processor to "promote" it in your organization. Then, expand the section (or branch) of the outline you've just promoted and see that all the material it contains has also been promoted. Then collapse the whole outline again and see what the changes have done to your organization.

What about those little and not-so-little text files scattered out on your diskette, or on the floor, like loose notecards (and just about as useful)? Or what if you absolutely have to write a new bit of text while you're working on the overall structure of your book? If you're using an outline processor, you can invoke a built-in word processor and use it on the spot

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to write and edit chunks of text; then you can attach them at appropriate places in your outline. Later, should you reorganize your outline, these text "leaves" will stay put, with the the key ideas (the outline "branches" and "stems") to which they're attached. Or, you can "cut and paste" the text leaves, moving them from one branch to another.

One last generic feature outline processors have is the ability to print the outline and its accompanying text leaves (or just one branch of it) in a readable outline format.

What About KAMAS Outline Processing?

To begin with, KAMAS, one of few new CP/M applications programs in a MS-DOS world, contains the only full-feature outline processor available for CP/M-80 computers--that means Osbornes, KayPros, Morrows, TRS-80's, and all the rest of the 8-bit machines out there. This in itself is a technical triumph since most IBM-compatible programs (including the various available outline processors) are internal memory hogs, requiring 128K--or more--of RAM to run. (This triumph is not without cost, however. Because of CP/M's 64K memory limitation, KAMAS is extremely "disk intensive"; like WordStar or NewWord, it frequently goes to the "overlay" files on the program diskette to get information. Meanwhile, you're flashed a message "Working" and you wait--sometimes for lengthy periods.)

As described below, numerous changes have been made in the current version of KAMAS. But the most significant change is a complete refocusing of the program around the Outline Editor and a downplaying of the rest of the features of this multi-leveled and very powerful program. While all of the features of earlier versions of KAMAS have been retained, these recent changes amount to nothing less than a fundamental change in the very nature of the program. This being the case, let's look at the new KAMAS.

What's New in Version 1.2

There are two primary groups of changes in the current version of KAMAS. First, the Outline Editor has been, in a practical sense, divorced from the rest of the KAMAS package--and made more accessible to the vast majority of users. On the whole, we find this a distinct improvement over the previous version of KAMAS, although we can imagine that the authors of the program might well feel that the philosophy of their tightly integrated set of functions might now be a bit less "pure."

For the benefit of old KAMAS users, it ought to be explained that virtually all of the ROVE commands relating to outlines have also been made available directly in the Outline Editor. This means that virtually all the outline processing functions--the writing and editing of outlines and text leaves, the manipulation of outlines (collapsing, expanding, promotion, demotion, and movement of branches), and the searching of outlines for branch "keys" or text strings--are done from within the Outline Editor.

The result is that the Outline Editor now stands virtually alone as an outline-processing applications program which could be marketed without the rest of KAMAS. For most users, the information that the program just happens to have been written in the KAMAS programming language is probably irrelevant: how many know, or care, what programming language was used by the programmers who wrote NewWord? What most users care about is whether the program works and how easy is it to use. While the changes in the program contained in Version 1.2 do little to make KAMAS work better (we think it works pretty well), they certainly make using it much easier.

The second major change in KAMAS, which is an especially important one for us Morrow users, is that the Leaf Editor (a rudimentary word processor which allows you to create, edit, and otherwise manipulate chunks of text--including KAMAS programming language source code--as pieces of your outlines) can be configured during the installation procedure to work much like WordStar/NewWord. Prior versions of the Leaf Editor used Perfect-Writer-like commands--a word processor many of us know little about (unless we have friends with KayPro's).

The Rest of KAMAS.

Aside from the KAMAS programming language, discussed in detail below, there are a couple of other aspects of the program that need attention. First, although it's actually a function within the general rubric of outline processing, KAMAS' Information Retrieval capabilities are interesting, versatile, and valuable both in the outline context and out. When you create outlines with KAMAS, your major headings ("keys" in KAMAS' vocabulary) form what amounts to a sort of free-form text data base which can be quickly and easily searched.

KAMAS can maintain a virtually unlimited number of unique keys, each of which can be up to 31 characters long. The Outline Editor (and ROVE) allow you to search an outline for a specified key and bring it up quickly (virtually instantly if you don't have too many keys), giving you quick access to any attached text leaf as well. This not only makes dealing with lengthy outlines manageable, but also suggests numerous other uses for KAMAS-created outlines. For example, imagine instant searching through the electronic equivalent of 200 index cards for a particular card. Similarly, consider setting up your weekly appointment calendar as a KAMAS outline with days of the week as keys; then just do a quick search for the key "Tuesday" and get your schedule for the day. In fact, the flexibility of KAMAS' Information Retrieval capabilites allows you to use it for virtually any list-oriented record keeping--from an electronic "Rolodex" (from which you can dial telephone numbers using KAMAS' telecommunications capabilities and a Hayes-compatible smartmodem) to a recipe file.

In addition to these "key" searches, KAMAS contains a unique feature of "sounds-like" searching capability among the keys in a topic file--for those rare times when you don't remember the exact wording of a text string you want to find. This technique does not work on the same principle as CP/M "wildcard" searches, but rather on what KAMASOFT calls a "soundex algorithm," which ignores vowels and instead groups commonly- occurring consonants according to linguistic frequency. KAMAS will search through all the keys in a Topic file (or several files), flashing each possible match on your screen and asking if it's the one you want; if it's not, the search continues until you've found it or the end of the file is reached. KAMAS also will search for literal text strings within topic files. Searches of this sort through a lengthy topic file--or several files--can be very time-consuming, however.

Telecommunications capabilities make up another interesting part of KAMAS. With a properly configured version of KAMAS and a Hayes-compatible smartmodem, you can call computer bulletin boards (BBS's), or even set one up on your computer. (There are, however, no file upload/download capabilities.) More important for serious users, you can access and run KAMAS itself from a remote terminal, allowing you to perform virtually any KAMAS function--outline processing, information retrieval, programming--from a distance.

[KAMASOFT tells us that several interesting BBS's have started up using the KAMAS telecommunications capabilities. Among them, members of an investment club in Southern California use KAMAS to discuss the price of gold, the international banking scene, and investment opportunities while on the East Coast a Jesuit priest has set up a "general purpose" bulletin board for clergy. KAMASOFT will soon have their own

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The KAMAS Programming Language.

Beneath the outline processing layer of the KAMAS system lurks a powerful programming environment with its own language and some very interesting characteristics. (See box below on "Language.") For those people with little programming experience, or those whose experience has been limited to the MBASIC language bundled with our Morrow computers, the KAMAS language will appear very obscure at first. Despite this initial impression, however, once you have worked with it for a while and become familiar with it, we think you will agree that it is a very well thought out and highly structured tool which nicely augments the rest of KAMAS.

True to the overall philosophy of the KAMAS system, the language itself is arranged into hierarchies; the illustration used in the excellent manual provided is one of concentric rings or shells, with the outermost ring (not counting the Outline Editor) being the Topic Environment through which the ROVE command allows you to wander. The next ring, the Expanded Topic Environment, is where the user is first exposed to the KAMAS language. Commands available at this level are very similar to those available in the ROVE mode of operation, but here they can be strung together into programs. In this connection, it should be noted that you can write "jobs" (functions) in KAMAS language source code as text leaves of an outline, then have them automatically executed (or "jexed," in KAMAS jargon).

The next ring in the system is called the Programming (or Language) Environment, and here is where the arithmetic, logical, and program flow control commands reside. The Language Environment contains the real "meat" of the KAMAS language.

A WORD ABOUT LANGUAGE

The KAMAS language bears more resemblance to a language called FORTH than any of the more familiar (should we say, "conventional"?) languages such as BASIC or FORTRAN that most people are accustomed to seeing. FORTH was developed by Charles Moore in the early 1970's and is suited best for use in control and data base manipulation applications; it was first used to control the operation of large observatory telescopes. It is not well suited to large number-crunching jobs, and in its basic implementation provides only integer math functions, although floating point extension packages are available.

One of the unique features of FORTH is that it is extensible; that is, the programmer can define new commands (expressed in terms of combinations of existing commands) and these new commands, once created, are indistinguishable from the commands that are provided with the system. The other unique feature is the use of a last-in-first-out stack (and its associated postfix notation) for passing data back and forth between operations. Users of Hewlett Packard calculators will be familiar with this concept, also known as Reverse Polish Notation, or RPN. As an example of how this works, let's add the numbers 5 and 7 using conventional algebraic, and then postfix arithmetic:

```
5 + 7 = 12
```

This is the conventional way--you typed the "5 + 7 =" and the computer (or calculator) printed "12". In postfix notation this becomes:

```
5 7 + 12
```

Note that the two numbers were entered first (placed on the stack) and then "+" was entered. The "+" operation in this case removes the top two numbers from the stack, adds them together, and leaves the result on the top of the stack. Note the lack of an "=" sign--one is not necessary; if you look at an HP calculator you will note that it has no "=" key! Postfix notation has the advantage of not requiring the use of parentheses, even in very complex calculations. For example, what does the following algebraic expression mean?

```
2 + 6 X 3
```

It could be either:

```
( 2 + 6 ) X 3     or     2 + ( 6 X 3 )
```

These two yield very different results. In postfix notation the first of the two above interpretations becomes:

```
2 6 + 3 X
```

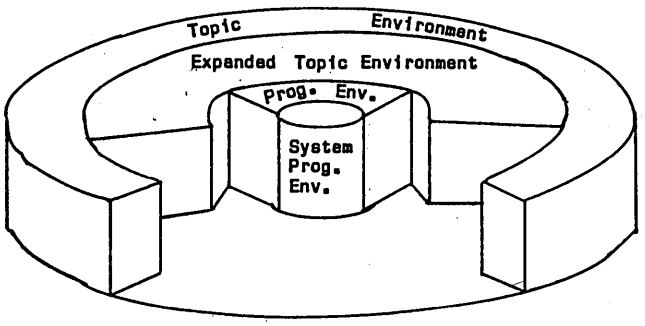
and the second would be written:

```
2 6 3 X +
```

While postfix notation may seem awkward at first, it is really a very neat and concise way of describing arithmetic expressions, and it is not subject to the ambiguities of conventional algebraic notation.

The KAMAS language, although not a dialect of FORTH, retains the above characteristics (and others) of that language, and is therefore referred to by KAMASOFT as a Moore Class language. Actually, it is more structured and homogeneous than most implementations of FORTH, which has grown and expanded over the years since its development--and therefore reflects the personalities of many who have used and altered it. The KAMAS language, on the other hand, was written "from the ground up" by Adam Trent for the express purpose of this knowledge processing application. KAMAS also surpasses FORTH in the area of error and parameter checking, and is a very robust system; that is, it is almost impossible to crash the program if you restrict yourself to the higher level functions provided by the system.

The innermost part of the circle, the System Programming Environment, allows the user to gain access to very low-level machine functions. While it contains the most powerful commands in the system, it is also the most dangerous since it provides the capability to destroy data and wreak other forms of havoc if not used carefully. It is for this reason that the System Programming Environment is so deeply buried beneath the other, more accessible areas of KAMAS.



Operating Environment Layers

The full range of arithmetic and logical operations provided make the KAMAS language suitable for many types of general programming applications. Programming in KAMAS will not be for everyone, however, and even with the excellent tutorial provided in the manual, many users will have a very difficult time grasping the concepts required to make efficient use of this tool. It is said of the FORTH language that programmers either love it or hate it; there is no middle ground. Programmers may say the same about the KAMAS language. For a user who has some BASIC programming experience and is interested in trying something (completely) different, KAMAS can be a lot of fun. Fortunately for those more interested in using computers than in programming them, there are hints from KAMAS of an active user community and the availability of cheap (free!) KAMAS software.

Documentation

KAMAS comes with a veritable mountain of documentation, including two large softcover manuals, a small introductory "Volume 0," reference cards, and a newly written (but very brief) pamphlet labeled "Read Me First." The latter provides installation instructions and a quick tutorial on the outline editor, then summarizes the changes made in Version 1.2. (The installation instructions appear to contain at least one error: when we followed the instructions to install for our MDT 20 terminal, KAMAS would not display properly; we reinstalled for the ADM 31 terminal and everything worked fine.) In addition, the KAMAS program diskette contains a topic file called SYSTOPIC which provides, among other things, invaluable on-line help.

Aside from the "Read Me First" pamphlet (and, of course the on-line help), the KAMAS documentation has not been updated for Version 1.2, presumably because KAMASOFT concentrated on getting the new version out first. We hope updating the doc's is next. Until then, users of the Outline Editor will have to settle for the clumsiness of flipping back and forth between the new pamphlet, which gives brief--and frequently inadequate--summary descriptions of the new Outline Editor commands, and the sections in the old manual on using ROVE to write, edit, and manipulate outlines. As noted above, many ROVE commands are now available directly in the Outline Editor; getting to understand them, though, requires you to study the ROVE sections of the documents.

The existing documentation is, we emphasize, more than adequate when it comes to the rest of KAMAS. Anne Hickman and Adam Trent have provided tutorial-oriented documentation that works the user through a series of increasingly technical lessons. Given the nature of the so-called "inner layers" of KAMAS (that is, the Extended Topic Environment and the Programming Environment), users should expect the later lessons to be technical and difficult--especially if they have little or no programming experience.

Other KAMAS Goodies

One of KAMASOFT's aims is to support KAMAS users by encouraging the development and dissemination of public domain KAMAS applications software. To this end, buyers receive a free subscription to the KAMAS Report, which is published irregularly (Issue #5 should be available by the time this is published). This newsletter contains news from KAMASOFT, tips on using the program (including tips on uses for the program and, in many cases, KAMAS programming language source code for them), and articles (and source code) submitted by KAMAS users.

KAMAS has also made available three "Utility Disks" which contain public domain KAMAS-related information and files, including numerous KAMAS "utilities." These files are available for downloading on the BAMDUA [and other?] RBBS's or may be purchased directly from KAMASOFT at nominal cost. Utility Disk 1 (the only one we were able to review) contains KAMASLAN.TOP, an online help guide for the KAMAS Programming Language, and UTILITIE.TOP, which uses the KAMAS language to create a large number of auxiliary utility-type commands to augment those already available in the ROVE mode. (The UTILITIE topic, incidentally, is an excellent example of the extensibility of the KAMAS language.) These utilities include, among others, programs for reading a standard CP/M text (or ASCII) file into a KAMAS-compatible Topic (outline) file and for outputting a Topic file to an ASCII file. A fourth utility disk, focusing on KAMAS telecommunications, is due out soon, KAMASOFT reports.

Registered owners of KAMAS Version 1.1 are eligible for low-cost upgrades to Version 1.2. If you purchased KAMAS Version 1.1 after April 11, 1985, you can upgrade for $15; earlier purchasers may upgrade for $30. Contact KAMASOFT for further information about upgrades.

(continued)

PHILOSOPHED-WARE

[While 90% of KAMAS owners use only the outline processor function of the program, KAMAS offers many levels of richness. We thought that the philosophes among you would appreciate the following. --Ed.]

As a university teacher of philosophy, I normally cringe at the use of the word "philosophy" in inappropriate contexts. "Programming philosophy" is almost always such a context. But KAMAS is genuinely well-founded, and Mr. Trent and Ms. Hickman, KAMASOFT's principals, have gone to great lengths to document the thinking behind their product.

The KAMAS language is described as a "Moore Class Language." "Moore" is the person who developed the popular FORTH language for machine control. I speculate that "class" refers to the logic of the system--it appears to be that kind of thing known as a "class logic." As such, it is more properly the kind of thing I teach in a logic class. Rather than using pseudo-logical structures to express imperatives, KAMAS defines words from primitives; such words describe states of the computer, so that issuing a command is largely a matter of redefining the computer's internal memory as being thus-and-so, and the relationships obtaining between such states. That is, a KAMAS command consists essentially of creating a situation in which state "A" obtains within locale "B." This seems to be the direction in which computer languages in general are moving--away from the traditional procedural languages, such as BASIC, COBALT and PASCAL, and toward a class of languages that are more flexible. These functional languages include LISP and PROLOG, commonly used for artificial-intelligence research. While KAMAS is also considered a functional language, it is oriented mainly to free-form text management.

This kind of development is well-founded conceptually. A unique KAMAS bibliography offers insight into the kinds of thinking undergirding the creation of KAMAS. Heavy use has been made of some fairly sophisticated texts in logic and the theory of knowledge; the logic texts are Aristotelian, both those of Aristotle himself and of the mediaeval logician, John of St. Thomas. Since these logics are themselves entirely class-inclusion logics, this is confirmation of the previous comments on the inherent style of logic discussed above. While one could wish that thinkers from a broader spectrum of philosophical endeavor had been brought into play (and there is some unevenness in the selection of work cited), still, that this information is made available means that the thoughtful user, accustomed to theoretical discussion grounding practice, is not limited to the usual dogmatism encountered in most computer software systems.

--Donald Jenner

Conclusions

KAMAS is an exciting and demanding set of programs. Like chess, it's fairly easy to master the basics, but it's going to be a challenge to become a "power user." Unfortunately, as we've noted above, using the program can be frustrating because of frequent and lengthy disk drive activity. For example, if you boot KAMAS and it detects the presence of the UTILITIE topic, it asks if you want to load the "Auxiliary" ROVE commands UTILITIE contains. Loading this file (on an MD2) took two minutes and 25 seconds.

Similarly, other operations (such as the creation of a new topic branch in the outline editor) also take what seems to be a long time. Given the fact that one of KAMAS' major selling points is that it's supposed to allow users to electronically "jot" their thoughts down as they come to them (to be reorganized later), we found it annoying to have a train of thought disrupted while we waited for the system to catch up. This is in part, no doubt, linked to the memory limitations of floppy-diskette-based CP/M 2.2. We assume, although we haven't tried it, that KAMAS would run much faster on hard disk machines with their considerably shorter disk access times; and KAMASOFT states that KAMAS Version 1.2, in taking full advantage of CP/M 3.0's enhancements (including use of bank-switched RAM), runs "three to five times faster" on an MD5 or MD11. Neverthless, we suspect KAMASOFT could profit by concentrating on more efficient organization of diskette files to further limit the frequent disk access.

This having been said, KAMAS represents a solid advance in CP/M programming--something that's become few and far between these days--and we hope the user community and KAMASOFT keep improving it. Especially with the improvements contained in Version 1.2, its outline processing functions should be extraordinarily valuable to people who organize and manipulate large amounts of information. At the price, it's a bargain even if you never go beyond the outline processing level; for those who go deeper, we see it as an elegant set of nested boxes, each one containing subtle electronic treasures. ◘

[According to KAMASOFT, keyboard programs such as SmartKey II do work with KAMAS, essential for those who have reconfigured their keyboards according to the Dvorak arrangement. Also, all of you might be glad to know that WordStar/NewWord and KAMAS files can be ported back and forth.

MOR readers can purchase KAMAS for $77.50 (that's almost a 50% savings) by participating in a **group purchase** organized by TUG-NET. Send your check Attn: Mike Faith at TUG-NET, P.O. Box 705, Van Nuys, CA 91408-0705. Be sure to specify your computer type. **The closing date is September 6, 1985.** --Ed.]

IN SEARCH OF THE PERFECT WRITING TOOL

by Marilyn Umehara

Please understand that many aspiring writers are procrastinators and self-deceivers, possessed by muses who have one foot out the door and are GONE at the first sign of a diversion.

We who suffer chronic writer's block will leap at any excuse to keep from writing and, if all else fails, will lament the lack of proper equipment for perfect self-expression.

(Okay, so Joyce Carol Oates probably works with a pencil stub and a yellow legal pad under a florescent light, churning out her masterworks with calligraphic strokes. The woman is a flat-out genius, an aberrant and rebuke to us all. Forget her!)

In the mode of the true dodger, I clung to my Voss portable for years, growing ever more agitated as keys stuck, the spacer bar faltered and enormous energy had to be expended to pound out legible type. In my heart of hearts, I lusted for an IBM Selectric. Then the fiction would fly!

I began to haunt the office of a self-employed friend who owned the coveted machine. After some months had passed he became testy, interrupting my writing with his work, and I found myself cast out into the street. But my passion was spent. Familiarity had bred disillusionment. The Selectric, like Robert Redford's complexion in closeup, was resistible. The quest for the perfect tool was still on.

It was then that my friend Diane came to my rescue. "Come to my house, " she trilled. "Freddy (a Sales Manager for a Blue Chip electronics firm) has brought home a company computer!"

The machine was chained down in Diane's basement. It looked big. Mean. Expensive. The printer beside it seemed wide enough to injest a wallpaper roll whole. Impressive.

"Now look," Diane said, holding up a recipe card, "Freddy has written down all the instructions I need to know right here. You just type and I'll do the rest."

I gingerly sat down and laid hands on the computer keyboard, Diane sitting alertly at my side. My fingers moved tentatively. Nothing exploded. This was a snap! I picked up the pace, BANGING those keys with burgeoning arrogance.

"Stop hitting RETURN at the end of every line," Diane screamed in my ear. "Yeh, yeh," I mumbled, still hitting RETURN at the end of every line. Little arrows began to pile up to the right.

An hour passed in this fashion, maybe two, with Diane quietly grading papers and only occasionally yelling a warning. I filled screensful with scintillating prose and those little arrows. Accomplishment! Bliss! The computer flowed easily along with me, keeping pace with my every thought and never once intruding upon my concentration with any mechanical demands.

"I think I'd better save this now," said Diane.

"What's 'save'?" I inquired politely.

"Just move aside," she said.

Earnestly lipreading Freddy's cue card, Diane began to press certain codes into the machine. Whirrs and groans greeted us. I watched with interest. Soon, we were both watching with horror. Blips, Bleeps and other gibberish began to cascade down the monitor screen in undulating, unrelenting waves.

"Stop, stop!" commanded Diane. Nothing doing. In her despair, Diane began to slap the monitor, pound the keyboard and bounce the printer up and down. Her strength was astounding, though ineffective. "Freddy! Freddy! Freddy!" she bawled up the stairs.

In a trice Freddy galloped down on the run, hairy knees protruding from a damp Happy coat. Our alarm had catapulted Herr Husband out of his evening bath.

Freddy shot us both the Glare of Contempt with which Technically Superior Man has been putting down Technically Inferior Woman since the advent of fire.

"What have you done now?" he snarled.

We cringed and slunk against the nearest wall...contrite, blubbering explanations, anticipating expensive repair bills and/or a divorce.

All my work was gone. Far more disastrous, Freddy was in a sulk. Diane and I were disgraced, demoralized, hapless and predictably incompetent. Was this the perfect tool for perfect expression?

Surprisingly, it was. The computer came through the ordeal unscathed. That impressed me. Many times in the following months I was allowed back into Diane's basement. Although my function was only to type and not to command, their computer became a familiar companion to me, ever faithful, an agile extension of my fingers and an unobtrusive conveyer of my every thought.

Infatuation turned to love. I became determined to buy a computer of my own. It was inevitable that I would find my Morrow. But could I master NewWord and find the cure for chronic writers' block? Tune in next time. . . .

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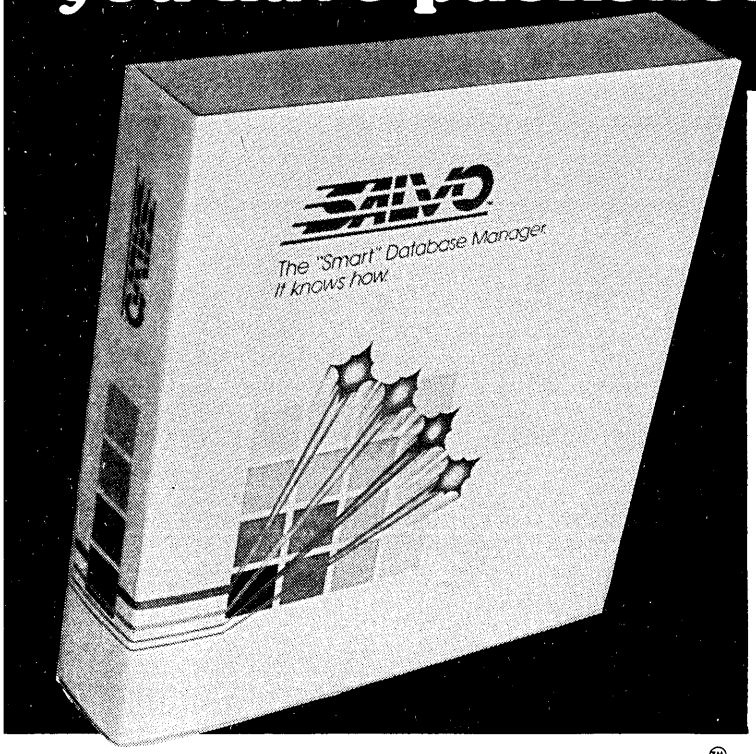

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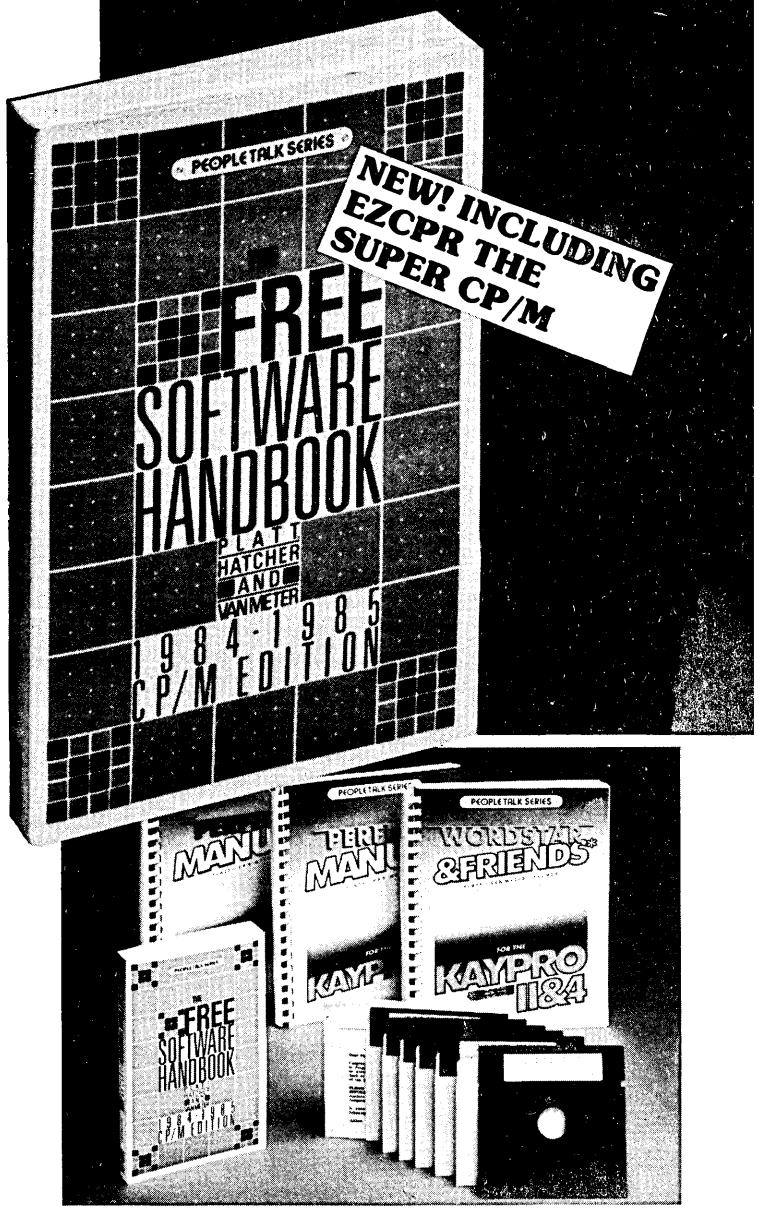

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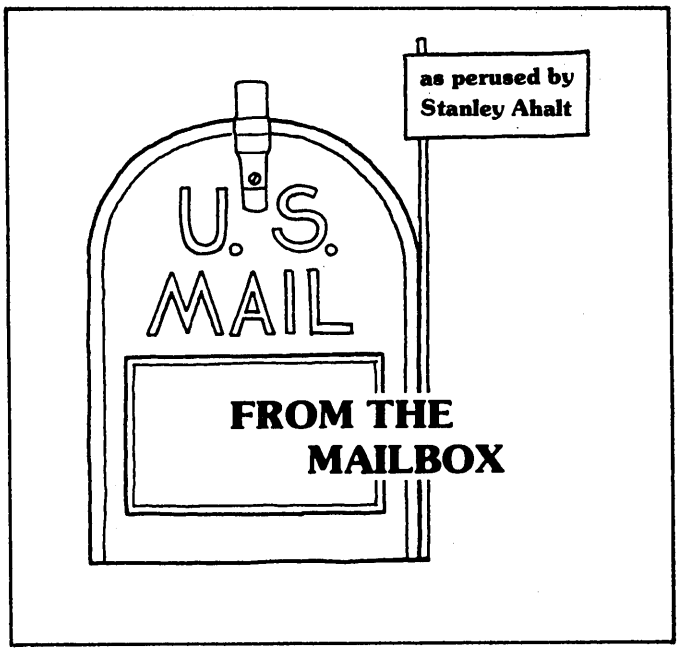


Greetings! As most of you already know, this column is a public forum for the exchange of interesting tidbits, rumors, and questions. Please keep on sending those letters. I can be reached at: 102B Victoria Lane, Clemson, SC 29631 (803) 654-2748 MCI: SAHALT

Attention other newsletters: From time to time I try to tell the MOR readership about the interesting articles that can be found in other Morrow-oriented newsletters. Credit is given where credit is due. Please keep me on your mailing lists. I can't afford to join every User's Group around the country!

This issue, I'm going to cover just two topics. The recent Comdex computer show in Atlanta and a letter that I received that I wanted to share with you all.

Report from your intrepid reporter on the recent Atlanta Comdex:

As you all probably know, the two Comdex shows (spring and fall) are about the biggest computer shows going. I recently attended the Spring Comdex and here are my impressions.

First of all, the conference was huge! I'm sure I didn't even see everything that was in the one convention center that I limited myself to (other convention halls in the area were also filled with booths). So you'll have to forgive me if I missed something.

Morrow was there in force! They had the most distinctive booth of the show (in my opinion). The "booth" consisted of a huge red Mac (I think) truck which sat gleaming in the midst of a horde of Pivots. The truck was supposed to reinforce the Pivot motto, "Power on the road."

The Pivot seems to be a pretty neat machine. I played with one while I was there, and everything seemed to work just fine. (Morrow promised me a unit to play with and evaluate for MOR, but that has never shown up, despite repeated phone calls.) The display is barely legible, however, which is par for the course with LCD displays, or at least the ones I have seen. Morrow's screen is no better or worse than the others. Curiously, when I asked to see WordStar running on the machine, they didn't even have the cursor keys programmed to send the appropriate WS commands, which meant that you were forced to use the control key. Boy, you would think that people would learn how to show off their hardware to the best advantage!

George Morrow was there! I got to see the great man! I tried to talk to him, but he was always surrounded by serious business-types in three-piece suits, so I didn't want to bother him. (I was "casually" dressed.) I'll bet he was making big deals.

Oh, yeah . . . about the MD series so many of us are fond of. They were there. Kind of hidden in a corner, being represented by VAR's. I think they were running medical billing software. Disappointing. The MD series is obviously not real important to Morrow.

But that truck . . . Wow! Neat! Keen!

****

The following is a letter (slightly edited) that I received from MOR reader Don DeMaio. I include it here because it so closely mirrors my own views of the situation with Morrow, and because it contains some interesting news. It originated as a response to my Letter to the Editor in a recent issue.

Dear Stan:

I agree with you about Morrow. But there is an underlying message to your letter that I'm not sure I do agree with. I know how you feel about Morrow, because I have felt all along the same way. They sell machines but don't want to accept the responsibility for the merchandise they sell. They like to sell cheap --and have carved a niche for themselves in that area --but, heck, anyone can sell cheap if there is no follow-through, right? What they call "holding people's hands" is what other manufacturers like IBM call "customer service." My problem is that I bought a machine, thinking that the manufacturer might be useful if there were problems with it, but have found that Morrow's relationship to their customers ended when they cashed my check.

Now I learn that Xerox is dropping Morrow from the list of computers that it will repair in its Americare service. Our local repairman in Rhode Island is being transferred and tells me that Morrow did everything but block his attempts to fix the machines. Morrow would never reimburse Xerox for warranty repairs, took six weeks to ship badly needed parts, and was a general pain in the ass. As for my local dealer here, he continues to sell the Morrow line but says the factory

is virtually non-existent when he needs telephone support.

So, talk about abrogating responsibility! I'm not even sure where I'll be able to get the thing repaired.

But, on the other hand, maybe it will never need it. The critics say the Morrow is a damn fine piece of work. I've come to love the machine, myself, and have made a sort of peace with it . . .

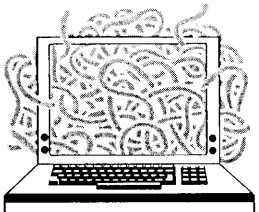
I wonder if one of the problems you are experiencing now--as I myself did--is a feeling that the industry is leaving us in the dust. It occurred to me that I had inadvertently bought into the critics' view of the world, a view that is often distorted by flashy reviews of new equipment. I mean, did I really need a graphics-based environment to write my letters to mom? And was I willing to pay another $1,200 to get it? There's a lot of postage stamps in there somewhere. It turns out the Morrow was a good match for what I wanted --an inexpensive but flexible word processing machine that would sustain a home business in typesetting and word processing.

Don't give up the ship. Go to 16-bit if you must, but these are good computers. They are only "outdated" if they are no longer useful to you. If they are still of use, they are still valuable.

As for Morrow, I had a good relationship once with an employee there named Rene Potter who was kind and honest [I have just the same feelings--Stan] and even sent me a SmartKey disk with no request for payment. But she's gone, and I get the impression the new gang is fighting for its life in a stale market that is still groping.

******

Well, I hope all of you folks keep well, and busy with your MD's (and Pivots--are there any of you out there?). Next issue, I'll return to a more traditional format, so KEEP THOSE LETTERS AND QUESTIONS COMING!



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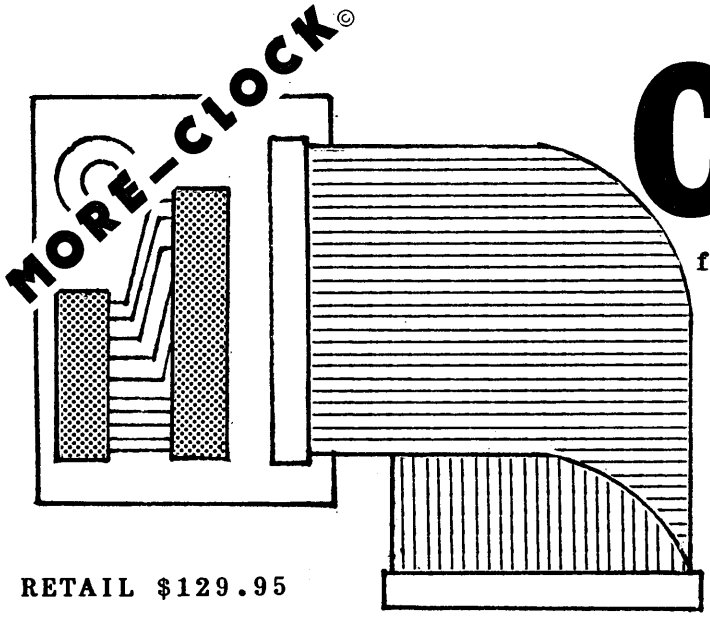

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Morrow Disk M1
Modem software

This disk is absolutely priceless if you will be using a modem to communicate with bulletin boards, other micros or mainframes.
MMODEM: Morrow version of MODEM 795. You can change your baud rate inside the program. Includes source and library so you can customize it if you wish.
SMODEM: This is MODEM7 setup for SMARTMODEM compatible modems. Handles autodial and autoanswer.
SQ/USQ: Programs to squeeze and unsqueeze files for faster transfer.

Morrow Disk M2
Utilities

Really oodles of spiffy little (and big) programs to help you get full use of your Morrow.
ZESOURCE.COM: A true Zilog format disassembler for 8080 and Z80 object(.COM) files. Now you can turn .COM files into . MAC files.
UNERA.COM: Simply enter "UNERA" followed by the name of the file you just erased and presto, the erased file is back! A lifesaver.
FINDBD54.COM: Checks an entire disk, reports bad sectors, and then creates a special file containing those sectors. You save a bundle on disks.
CAT2: This a group of programs which create and maintain a single directory of all the programs you have on all your disks. Even keeps track of which programs are backed up and which aren't.
DUMPX, DU-77, COMPARE, FORMFEED, DIR-DUMP,... and all have documentation on disk.

Morrow Disk M3
Games

PACMAN.COM: Despite the Morrow's lack of graphics, this one looks and plays amazingly like the real thing! Keep it hidden.
ZCHESS.COM: Chess with a 1-6 level look ahead.
OTHELLO.COM: You learn it in minutes, master it in years.
BIO.COM: Generates custom graphic biorhythm.
MM.COM: Master Mind.
WUMPUS.COM: Classic wumpus hunting.
ADVENTURE.COM: This is the famous 550 point super version of Adventure. There isn't room on one disk for this program and all the data files (the cave is huge) so the data files are on Disk M4.

Morrow Disk M4
Adventure Data & Aliens

ADVT.DAT: This disk contains the data files for the 550 point Adventure (the latest, greatest, most cussed version ever devised by half-mortals). You must have both M3 and M4 to play Adventure.
ALIENS: This is the game that made arcades famous. Keep this one hidden from the younger set or you won't get to play Adventure.

Morrow Disk M5
MX-80 Graphics

A complete Epson MX-80 graphics printer package including example files. Same as M6 except for MX-80 (or compatible) printers.

Morrow Disk M6
Prowriter Graphics

This is a complete Prowriter printer graphics package written by the same Micro C subscriber who wrote the MX-80 graphics package. Plot points, lines, circles, boxes, and more. Examples, documentation, and more.

Morrow Disk M7
Small C Version 2 Compiler

This is a greatly extended version of Ron Cain's Small C compiler. Version 2 has more expressions and larger library, true subset of Unix C. Disk contains compiler, documentation, and library —everything you need.

Morrow Disk M8
Small C Version 2 Source

This disk contains the source (written in Small C) of the Small C version 2 compiler. Get M8 if you want to try extending the compiler. (You must have M7.)

Morrow Disk M9
ZCPR

ZCPR: The big news on this disk is the self-installing version ZCPR available only from Micro C. Once you have ZCPR in your CP/M, you'll never go back to straight CP/M! For instance, ZCPR searches drive A for any program not found on drive B, so, even an empty disk in drive B appears to contain every program on A. It's great for text editors, compilers, etc. Plus many more new features to make CP/M easier to live with. In fact, Digital Research incorporated many features of ZCPR into CP/M 3.0.
EX14: a super replacement for SUBMIT.

Morrow Disk M10
Assemblers

We've received a lot of requests for a Z80 assembler. So Dana put in some long hours getting the Crowe Z80 assembler to run on the Morrow (and every other Z80 machine).
CROWECPM: This is a first class Z80 assembler. We use this assembler daily (and we included its source). Takes standard Zilog mnemonics.
LASM: This is a more powerful version of the ASM assembler you received with the Morrow. This will link multiple programs together at assembly time.
PRINTPRN: This program makes it easy to print the listing files generated by the Crowe assembler.

Morrow Disk M11
Library & Checkbook Programs

CHECKS: This has been a very popular group of programs. Categorizes checks so you can keep track which are tax deductible and which get charged to which projects. Includes source and excellent example check files. Very powerful.
LIBR: This is a complete set of library routines which let you group files into a single file called a library. Then CP/M sees them as a single program, but with the library routines, you can list them out separately, run them separately, or divide them up again. Almost like a unix environment.

Morrow Disk M12
Pascal Compiler

This is a real Pascal compiler. It supports only a subset of the language (no records, pointers, booleans, reals or complex) but it generates a real .COM file. Everything is on this disk: the compiler, its source, example programs and documentation.

Morrow Disk M13
Z80 Tools

This is for those of you who are into Z80 assembly language.
XLATE.COM: A very good 8080 to Z80 translation routine.
DASM.COM: An easier to use version of ZZSOURCE (the Z80 disassembler). This full disk includes source and documentation for both routines.

NEW!

Morrow Disk M14
Z80 Macro Assembler

This is a real Z80 macro assembler! Syntax closely follows RMACK and MAC. Also includes pseudo-ops to support conditional assembly, etc. No phase or relocatable code.

NEW TRICKS FOR WORDSTAR

by Ted Silveira

Because I write a lot, I barely have to think about the basic WordStar commands. I've even dreamed about control-key sequences. But sometimes I want to do things that WordStar can't do or can only do awkwardly, usually because it thinks in terms of characters, lines, and screens, while I think in terms of words, sentences, and paragraphs.

I once thought I had only two choices--put up with WordStar as it is or get another word-processing program (and learn a whole new set of commands). Then I found out about XtraKey, SmartKey II, and the other key-redefinition programs. With these programs, I can use my terminal's function keys as nature intended. Better yet, I can also make any regular key into a function key by using a "supershift" character, usually the backslash (\), so that **\A**, for example, becomes a function key while the regular **A** is unaffected.

Now I can redefine a key so that one or two keystrokes will send out a string of characters, either plain text (like my name, address, and phone number) or a program command (like ^Q^Q^B for WordStar). When I load a set of these key-redefinitions into my computer and then run WordStar, nothing special happens--until I cue in one of the redefined keys. At that point, the computer spits out the stored string of characters just as if I'd typed it at the keyboard, only much faster.

This new trick is more than just handy--I've found I can use it to make WordStar think more like I do. I can create new features for WordStar by redefining one key to send a whole sequence of commands that would otherwise be too complicated to remember and too awkward to type. And as a bonus, these command sequences run faster than normal, because when WordStar receives a string of commands in one burst, it doesn't stop to redisplay the screen after every command.

The one drawback I've found so far is that many of the new features I like only work if I use a consistent text format. I usually do--a one-tab indent (five spaces) at the beginning of every paragraph and two spaces after the end of each sentence--but even so, I have to use two different sets of definitions, one for double-spaced text and one for single-spaced.

Below are some of my favorite new features for WordStar. In the key definitions, **<SP>** means "hit the space bar," **<CR>** means "hit key marked RETURN," and **<ESC>** means "hit the key marked ESC." I'll point out the tricky spots as I go so you can adjust my definitions to your own style. I've never used NewWord, so those of you who do will have to be alert for minor differences, though I suspect that most of these command strings will work without any problems.

Save File and Resume Place

This new feature pleases me out of all proportion to its complexity. It saves the file I'm working on and returns me to my previous position in the file. I set one key to send the sequence:

```
^KS^QP
```

Of course, all WordStar users know these keystrokes by heart, so you might think that assigning them to a single key isn't worth the effort. But since I can now save-and-resume with one keystroke instead of four, I do it more often and run less risk of losing my work to gremlins.

Delete Word to Left of Cursor

In WordStar, I can delete the word to the right of the cursor with a single ^T. But often I want to delete the words I've just typed, the words to the left of the cursor. I can use the DEL key to delete backward character by character, or I can use ^A to move back past the words I want to delete and then use ^T to delete them, but both these methods feel clumsy. So I've set one key to send out the command sequence:

```
^A^T
```

Now I can delete the word to the left of the cursor with a single keystroke. With repeated strokes, I can chew my way backward through a sentence, deleting mistakes a word at a time. Like the save-and-resume command, this command is simple but very satisfying.

Move One Page Forward

WordStar lets you move by screens but not by pages. So here's a command that moves you from your present position on one page to the same position on the next page (from line 12 of page 2 to line 12 of page 3, for example) and leaves your cursor on the same line of the screen. The command is:

```
^C^C^C^X^X^X^X^Z^Z^Z^Z^Z
```

This command works fine if you're using the standard WordStar page of 55 lines (not counting headings and footings) and have a help level of 2 or lower (no menus showing on the screen). If you're using a different length page or a help level of 3, you'll have to adjust the number of ^C's, ^X's, and ^Z's.

You can get almost the same effect by using:

```
^QF^N<CR>55<CR>
```

This sequence searches for the carriage return (represented by ^N) which ends every WordStar line; it takes you to the next page by repeating the search 55 times (for 55 lines). It moves a little more slowly than the first command and always leaves your cursor in the middle of the screen.

Move One Page Backward

This command moves you from your present page position to the same position on the previous page. As with the page-forward command, you can do it two ways. The faster way is:

```
^R^R^R^W^W^W^W^W^E^E^E^E^E
```

This sequence assumes you're using a 55-line page and a help level of 2 or lower.

Notice that this command isn't quite the reverse of the page-forward command--I don't know why it shouldn't be exactly the reverse, but it isn't. And the order of the commands is important, too--if you put the ^E's before the ^W's, the command won't position you properly in all cases.

You can also use the search command to move one page backward. The sequence is:

```
^QF^N<CR>B55<CR>
```

Again, this method seems slightly slower than the first, and your cursor always ends up in the middle of the screen.

Move to Beginning of Sentence

As I said, I think in sentences, but WordStar thinks in lines. That makes it awkward to get to the beginning of a sentence that falls in mid-line, so I set up one key with the following sequence:

```
^QF<SP><SP><CR>B<CR>^D^D
```

It works like a charm, <u>if</u> you consistently put two spaces after every sentence and indent the beginning of every paragraph with a TAB (or at least two spaces). If you put only one space between sentences, you'll have to think up another method--a search for just one space will stop at every word. (Two spaces after the end of a sentence is standard for typewritten letters, manuscripts, and such.)

Move to End of Sentence

To move to the end of a sentence, I use this sequence:

```
^QF<SP><SP><ESC>
```

As long as you use two spaces between sentences, this command works fine, with one possible exception--the last sentence in a paragraph. Most people don't put two spaces after the last sentence; they just hit a carriage return and move on to the next paragraph. In that case, the command will pass the end of the last sentence and search until it finds two spaces, usually at the indent beginning the next paragraph. Just hit ^A once or twice to get back to where you want to be.

<u>Special Note</u>: This command works for WordStar version 3.3 but must be altered for WordStar version 3.0. When you search forward for a string of characters, WordStar 3.3 leaves you at the beginning of the string it finds, but WordStar 3.0 leaves you at the <u>end</u> of the string. If you're using WordStar 3.0, the sequence should be:

```
^QF<SP><SP><ESC>^S^S
```

The ^S's move you back two spaces to the actual end of the sentence.

Mark Sentence as Block

This command sequence marks the sentence your cursor is in as a block so that you can do a block move, copy, or delete. It really just combines the previous two commands with the block marking commands. Again, because of the way the search command works, there's a difference between WordStar 3.3 and WordStar 3.0. For WordStar 3.3, the sequence is:

```
^QF<SP><SP><CR>B<CR>^D^D^KB^QF<SP><SP><ESC>^D^D^KK
```

This command puts the beginning block marker just before the first letter of the sentence, excluding the two preceding spaces, and puts the ending block marker just after the two spaces ending the sentence. You have to include either the leading or the trailing spaces in the marked block, or you'll be left with four spaces between sentences after your marked sentence is gone.

For WordStar 3.0, the sequence is:

```
^QF<SP><SP><CR>B<CR>^D^D^KB^QF<SP><SP><ESC>^KK
```

It's just like the WordStar 3.3 command, except that you omit the last two ^D's because WordStar 3.0 will automatically move to a point <u>after</u> the two trailing spaces.

Delete Sentence

This command deletes the sentence that your cursor is in. It's exactly like the previous command, with the addition of a ^KY at the end. For WordStar 3.3, the sequence is:

```
^QF<SP><SP><CR>B<CR>^D^D^KB^QF<SP><SP><ESC>^D^D^KK^KY
```

And for WordStar 3.0, it's:

```
^QF<SP><SP><CR>B<CR>^D^D^KB^QF<SP><SP><ESC>^KK^KY
```

I don't really recommend this command; it's too easy to delete more than one sentence if you

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accidentally leave only one space between sentences or have a format that confuses the search command. It's safer to delete the sentence in two steps: mark the sentence as a block, and then use ^KY to delete the block. That way you can make sure you've only marked one sentence. On the other hand, the one-step deletion is convenient, and I've never written a sentence so wonderful I couldn't rewrite it.

Delete from Cursor to End of Sentence

This command may seem like an odd one to want, but I find it very useful. When I'm revising sentences, I often want to change the ending but leave the opening alone. So I move my cursor to the point at which I want to start my changes and type in my new ending. Because I always use the insert mode (rather than overtype), I'm left with the old sentence-ending still hanging on after the new one. Instead of deleting it word by word, I created a command to delete the leftover chunk in one keystroke. For WordStar 3.3, the command is:

```
^KB^QF<SP><SP><ESC>^KK^KY
```

And for WordStar 3.0, it's:

```
^KB^QF<SP><SP><ESC>^S^S^KK^KY
```


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As always, this command depends on your having placed two spaces at the end of each sentence. You may want to play it safe by removing the ^KY so that the command will just mark the remainder of the sentence as a block. Then you can give the delete command yourself.

Move to the Beginning of a Paragraph

Often, when I'm in the middle of a paragraph, I find I want to jump back and alter the paragraph opening. Since I start each of my paragraphs with a five-space indent (that's how WordStar interprets a TAB), it's easy enough to find the paragraph beginning. I set one key to send the command:

```
^QF<SP><SP><SP><SP><CR>B<CR>^F
```

After the search backward, WordStar leaves me at the beginning of the five-space indent, so I added a ^F at the end to move to the first word.

Move to the Beginning of a Paragraph and Reform It

I love this command. Any time I start editing a WordStar paragraph--adding and deleting words and so forth--the paragraph formatting gets all messed up. So I set one key to send the command:

```
^QF<SP><SP><SP><SP><CR>B<CR>^B
```

This command cleans up the mess by zipping the cursor to the beginning of the paragraph and then reforming it with a ^B. Of course, if you have any columns or other special formatting set up with soft (rather than hard) carriage returns, this command will mess them up. But it's better to avoid such "soft" formatting anyway.

Move to the End of a Paragraph

Since you can move to the beginning of a paragraph, you'll want to be able to move to the end of one also. To place the cursor after the last character of your current paragraph, use the command:

```
^B^A
```

This method is easy and fast, but the ^B reforms your paragraph.

If you don't want your paragraph reformed, you'll have to use a different command. This command varies slightly, depending on whether you have one carriage return at the end of a paragraph (single-spaced text, no blank line between paragraphs) or two (either double-spaced text, or single-spaced with a blank line between paragraphs). The command also varies depending on whether you have WordStar 3.3 or 3.0. For WordStar 3.3, one carriage return at the end of a paragraph, use the command :

```
^QF^N<SP><SP><SP><SP><SP><ESC>
```

For WordStar 3.3, two carriage returns at the end, use the command:

^QF^N^N<SP><SP><SP><SP><ESC>

For WordStar 3.0, the commands are slightly different, because WordStar 3.0 places the cursor at the end of the search string after a search forward. So for WordStar 3.0, one carriage return at the end of a paragraph, use the command:

^QF^N<SP><SP><SP><SP><ESC>^A

And for WordStar 3.0, two carriage returns at the end, use the command:

^QF^N<SP><SP><SP><SP><ESC>^A^A

To keep matters straight, I have two separate key-redefinition files, one for each kind of paragraph.

Mark a Paragraph as a Block

This command is handy because you can use it as a prelude to moving, copying, or deleting your current paragraph. For paragraphs with only one carriage return at the end, use the command:

^QF<SP><SP><SP><SP><CR>B<CR>^KB^B^KK

And for paragraphs with two carriage returns at the end, use the command:

^QF<SP><SP><SP><SP><CR>B<CR>^KB^B^X^KK

This command sets the begin-block mark at the start of the five-space indent which begins my paragraphs and sets the end-block mark so that it includes any space that comes after the paragraph. This way, I avoid having extra space once the marked paragraph is gone and avoid having to add space if I move it to a new location. Notice also that I used the ^B command to get to the end of the paragraph. If you don't want to use the ^B, substitute the alternate method explained for the "Move to the End of a Paragraph" command.

You can turn this command into a **Delete Paragraph** command just by adding a ^KY at the end. I don't recommend it, though; make a few simple formatting errors and the command will wipe out two or three paragraphs instead of just one. I'll risk accidentally trashing a few sentences, but three paragraphs? Too cavalier.

Delete from Cursor to End of Paragraph

This command lets me delete everything in a paragraph from the present cursor position to the end. I use it mostly on first and second drafts, when I'm making wholesale revisions to the second half of a paragraph. Rather than editing and moving individual sentences, I move my cursor to the spot where my changes will start, rewrite the last part of the paragraph using the old sentences for reference, and then erase the rest of the old paragraph (now dangling at the end of my new one) in one stroke. I set one key to send the command:

^KB^B^A^KK^KY

To play it safe, eliminate the ^KY. Then the command will mark everything from your cursor to the end of the paragraph as a block, and you can give the delete command yourself, after making sure you haven't marked anything you want to keep.

Print a Marked Block

Sometimes it's handy to be able to print out a short section of the file you're working on, without having to exit the file or stop what you're doing. The following command will print any marked block of text without interrupting you for more than a few seconds, provided your printer is installed to allow concurrent editing and printing. Set one key to send the command:

^KWA:PRINT.FIL<CR>Y^KPA:PRINT.FIL<ESC>

This command writes the marked block to a file on the A: drive named PRINT.FIL, tells WordStar it's OK to overwrite the old PRINT.FIL, and then prints PRINT.FIL. I put PRINT.FIL on the A: drive because I always have room there, but if your A: disk is absolutely full, you'll have to write it on the B: drive. The Y after the block-write command tells WordStar it's OK to overwrite the old A:PRINT.FIL. Unless you create a dummy PRINT.FIL, this command will insert a Y in your text the first time you use it (because there'll be no PRINT.FIL to overwrite so WordStar won't ask the question). Just delete it, and after that, everything will be fine.

Once you've given the command, use ^KH to remove the block markers.

Remove Ghost Characters from Screen

Most people who use WordStar have had ghosts--those stray characters that show up on your screen (but not in your file) and can be so hard to get rid of. These stray characters do no harm, but they're confusing and annoying.

To get rid of these ghosts, I use the following trick, which I picked up from the KAY*FOG bulletin board (near San Francisco) where it's called the "ghostbuster." In its present form, it's credited to Martin Nicolaus. The command is:

^K0^QE^QS^KB^QX^QD^KK^Q0^K0

This command marks the screen as a block (which causes WordStar to rewrite the screen, eliminating the ghosts) and returns the cursor to its previous position. You can unmark the block by using ^KH or by hitting the "ghostbuster" key again.

(continued)

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Print Screen

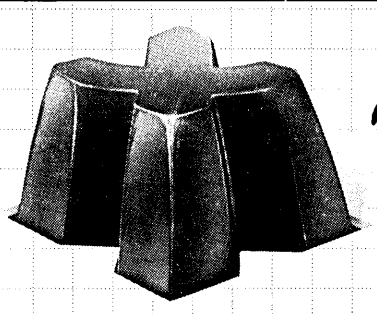
This last command will take a snapshot of your screen and send it to the printer. Set one key to send the command sequence:

```
^K0^QE^QS^KB^Z^QX^QD^KK^W^Q0^K0^KWA:PRINT.FIL<CR>Y
^KPA:PRINT.FIL<ESC>^KH
```

This command combines the "Print a Marked Block" and "Remove Ghost Characters" commands. It marks your present place, marks the whole screen as a block, writes the block to a file on the A: drive named PRINT.FIL, prints A:PRINT.FIL, returns you to your original place, and removes all the markers. I added a ^Z and a ^W to make sure that the very bottom line of the screen gets included in the block.

Still More Tricks

Once people get the hang of using a key-redefinition program, they tend to get fanatical about working out new definitions. If you want to get a feel for just how far you can go, call the KAY*FOG bulletin board (415-285-2687) and download an online article by Dick Ezzard called "Shades of WS" (filename SHADES.ART). He describes a nifty method for yanking notes, outlines, or other outside material into the file you're working on. You should also look at two other articles of his--DESTRUCT.ART and MOVIES.ART--for more good ideas about using WordStar.



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SOFTWARE REVIEW

PROGRAM:	**EUREKA!**
VERSION TESTED:	Version 2.14 for CP/M (For all Morrows)
AUTHOR:	Bruce Haanstra
MANUFACTURER:	Mendocino Software Co. P.O. Box 1564 Willits, CA 95490 (707) 459-9130
DISK SPACE:	22K
PRICE:	$50 (protected)

by Erik Lee Preminger

Have you ever found yourself sitting in front of your computer, looking at a list of cryptic file names on a disk directory and wondering what lay hidden in each file? If so, you're not alone. And the cataloguing program, **EUREKA!** might be just what you need.

"Eureka" is Greek for "I found it." Supposedly, it is what Archimedes exclaimed when he discovered the principle of specific gravity while bathing in a public bath. He is said to have been so excited by his discovery that he ran home, through the streets, naked. Well, if you've ever found a certain file after searching through your disks for hours, you might feel inspired to do the same as Archimedes (although using your computer in the bath is definitely not recommended). Keeping track of what files are on which disks and coming up with names to describe the contents of those files within the limitations of CP/M becomes more and more difficult as your number of files and disks multiply--which they inevitably do. Now the EUREKA! disk and file cataloger offers you an elegant solution.

EUREKA! is a menu-driven cataloger for CP/M based computers with at least two disk drives (one a floppy) and 48K of available memory. It is distributed on a single-sided floppy disk with an excellent manual and tutorial for $50 in a copy-protected version. Also on the disk are an installation program and a number of sample files which are referenced in the tutorial. A non-protected version will be available shortly for $75; however, I used the copy protected version in preparing this review and never found the protection intrusive.

The initial set-up is a breeze. The tutorial leads you step-by-step through installing the software, creating your first "catalog disk," making your first entries on it, and then using the catalog to locate files in various different ways. In less than an hour, you can become familiar with most of EUREKA!'s possibilities. After that, the menus and the indexed manual can lead you into the more sophisticated features of the program or serve as a handy reference and reminder.

Each of your catalog disks contains the EUREKA! program, the CP/M operating system, and the actual catalog listing of disks and files. File entries in the catalog can each include comments up to a total of 108 characters in up to four different fields. Each catalog disk can hold data for a maximum of 255 disk entries, and within each disk entry, a maximum of 255 file names. (A disk entry is the name of a floppy disk or a user area, if you have a hard disk machine.) In actuality, these maximums are generally much lower and, of course, depend on the capacity of the disk you're using, the number of comments you add to each cataloged file and other variables. My unscientific calculations suggest an upper limit in the area of 2500 commented files in each catalog on a MD3, DS/DD disk. You can create an unlimited number of catalog disks.

Using EUREKA! is very simple. Place your catalog disk in Drive A; at the A>, type: **EUREKA <cr>**. You will be asked to enter the **Date** or another **<cr>**. Then the Opening Menu appears, giving you the choice of accessing the catalog, updating it, creating a new catalog disk, or performing a number of housekeeping utilities.

To "access the catalog" is EUREKA!'s way of saying "find out what you want to know about your files and disks." You can access the information in the catalog through any of four basic types of "reports." Each of these can be viewed on your terminal and, if desired, printed out in hard copy.

1) An alphabetical list of the **disks** in the catalog, by title only.

2) An alphabetical list of the **disks** in the catalog, including for each disk its size, remaining space available, number of cataloged files within it and the total amount of space they occupy, and the date when the catalog for that disk was last updated.

3) A list of all cataloged **files,** including for each its size, its disk name and user area number, and whatever comments you have entered (discussed below).

4) A complete annotated list, combining 2) and 3) above, of **all disks and files.**

A typical EUREKA! report might look something like this:

```
REVIEW    8k   -MISC   Date:06.25.85    Pub:MOR
Due:06.28.85   Review of EUREKA! software
```

To explain, this review for MOR is in a file labeled **REVIEW** on a disk labeled **-MISC.** At the beginning of the actual file itself, I have written four ".." comment lines:

```
..Desc:Review of EUREKA! software.
..Date:06.25.85
..Pub:MOR
..Due:06.28.85
```

The two periods tell NewWord not to print these lines in my document. But EUREKA! will recognize this information as it searches the first 256 characters in each file it catalogs. **Desc:**, **Date:**, and the two colons after **Pub** and **Due** are flags signifying information for the catalog. (The words "Pub" and "Due" could be replaced by any word of your choice up to four characters long.) When EUREKA! finds these flags, it transfers whatever follows them into the catalog as comments. They appear in either of the file reports indicated in 3) and 4) above. (An option in the "access" menu also allows comments to be excluded from reports.)

You can also use EUREKA! to come up with a report on a selected subset of disks and files. You do this by specifying disk labels, file names and types, or even a selection of wildcard characters in filenames and filetypes, such as * or ?. EUREKA! can also search for up to fifty characters in the four "comment" fields. Moreover, either singly or in combination, the logical conditions of and, not, and or can be placed on the search. I could, for example, search through all my disks for a review that: 1) was written sometime in June 1985 and 2) did not appear in Esquire magazine. The command to EUREKA! would look in part like this:

06/??/85+!Esquire

where ?? expresses the uncertainty of the day in June, and +! declares the logical condition "and not."

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Updating the catalog is easy and very fast. Simply place in Drive B the disk that you want to either add to the catalog or update, and press Return. You will be asked if you want to include comments in your catalog and whether you want to name the disk if you haven't previously done so. That's all there is to it. Fifteen seconds later, the catalog for that disk is complete and the disk can be removed from Drive B. You can then add or update the listing for another disk, exit the program, or access the catalog.

EUREKA! has a number of other features: 1) User area numbers are recognized by the program. 2) Up to five different file types, such as $$$, BAK and so on, can be excluded from the catalog as you are creating it. 3) Although certain commercial files cannot have comments added to them in the normal EUREKA! way, the program offers a way to override this restriction. (Bruce Haanstra, President of Mendocino Software, assured me that these comments are searched exactly as those added in the normal way; however, I haven't yet been able to figure that out.)

EUREKA! is not without its drawbacks. To get the most out of it, you really should go to the trouble of adding comments to all your cataloged files. If you already have a huge library of disks that you want to catalog, you'll either have to add the comments to each file, which is very time consuming, or do without them on those disks. Searching for files without comments is a lot harder, since you have less information to base your search on--unless you're familiar with the contents of your files by name.

For anyone with a small library of disks who doesn't plan on expanding it, EUREKA! would be a waste of time and money. But then there are the rest of us. I would expect anyone with a large or expanding collection of disks to consider it a very useful program, well worth its cost. ■

HOT TIPS

Use NewWord's built-in Merge Print function to avoid long files. Break your long document into several pieces, then create a file that looks like the following, and name it "longfile."

```
.fi filename.01
.fi filename.02
.fi etc.
```

Print your long document, by picking the "M" option from the No-File menu (Merge Print) and tell NW to print "longfile." Each of the small files will be printed in turn, and your final printout will look like a single document.

--Tim Evans

SOFTWARE REVIEW

PROGRAM:	**Punctuation + Style**
VERSION TESTED:	1.21 for Morrow Micro Decision (Two disk drives recommended)
AUTHOR:	Wayne Holder
MANUFACTURER:	Oasis Systems 7907 Ostrow Street San Diego, CA 92111 (619) 279-5711
DISK SPACE:	46K
PRICE:	$125

by Arent Greve

Many readers are familiar with Correct-It, the word processing tool that checks spelling of words. Well, now it is possible to have your Micro Decision similarly check your text for errors in punctuation as well as evaluate your writing style, even offering suggestions for improvement! These two functions of the **Punctuation + Style** program are called CLEANUP and PHRASE.

CLEANUP searches your texts for errors in capitalization, misplaced punctuation (such as punctuation outside of quotation marks), too much punctuation or too little (missing periods), misuse of ellipses, quotes, brackets, etc. CLEANUP also looks for repeated words in the text, like this, for for instance. The program marks these errors and writes error messages between each paragraph. You can then search your text and correct these by using edit mode of NewWord or WordStar. CLEANUP offers you several options, for example, the **C**(oncise) switch lets you mark the error without writing the type of error into the text.

You can use CLEANUP in either an interactive or continuous mode. In interactive mode, the program reads the text, stopping at each error to ask you to Mark (with **#**) or Ignore it. Using the **Q**(uiet) option, your file is marked for all errors without stopping. This option increases the speed, of course, and for most texts--without special mathematical symbols, etc.--is usually preferable. Too many special symbols or signs in the text will result in a lot of false errors being noted. It is also possible to pause and resume the Q-option checking of a text by using a dot command. An additional benefit of P + S is its option to read **D**(ouble-spaced) files.

The PHRASE function of Punctuation + Style reads your text, matching it against its own dictionary of more than 700 questionable phrases and suggested revisions. This file PATTERNS.TXT is divided into eight categories: awkward phrases, cliches, erroneous phrases, folksy phrases, muddy phrases, pompous phrases, redundant phrases, and wordy phrases. You may add or delete phrases to customize PHRASE to your own writing. The PASSIVE.TXT file marks sentences written in the passive voice, e.g., "This text was written by me." It does not, however, suggest that you rewrite it as "I wrote this text," but rather leaves that revision up to you.

In interactive mode, PHRASE stops and shows the phrase match and prompts you for Mark, Ignore, Print, or Suppress. Mark and Ignore function in essentially the same way as described in CLEANUP. You can either have the error message and suggestion appear at the end of each paragraph on the screen or send the messages to your printer for a hard copy. With the suppress option, PHRASE will ignore all subsequent phrase matches of that type. (Maybe you prefer "was written," after all.)

Punctuation + Style is customized for WordStar and NewWord users. You can simply copy the files from the distribution diskette to a working diskette. If you use other word processors, installation procedures are simple and easy to follow. WordStar and NewWord users may customize the program to their own needs. As I use a Norwegian keyboard on my MD3, I have installed the program to use a symbol other than **#** for marking errors, for example.

The 90-page instruction manual not only explains how to run the program, but also how to improve your writing through examples of edited text and a

ALL IN A PHRASE

The real secret of the PHRASE program of **Punctuation + Style** lies in a little book by Richard A. Lanham called Revising English (1979). This book is intended for people in government, business and education "who want to translate bureaucratic prose, their own or someone else's, into plain English." Lanham re-issued the book in 1981 as Revising Business Prose. This title change identifies the audience for which it is intended. I would recommend looking at the book before buying Punctuation + Style to see if the two of you are compatible. (New York: Scribner, 1981; ix, 98 pages; available in paperback $9.95; in libraries, Dewey call number: 808.066651 LAN.) While the book is a fine piece of work by the Director of UCLA Writing Programs, the advice is not easy to implement if you have been accustomed to writing in a relaxed style. It demands new habits of thought. I have found that if I have a vested interest in ambiguity and creative confusion, am writing very informally, or simply don't understand what I am talking about myself, PHRASE means trouble. But if I want to move ideas around with maximum clarity and effectiveness, PHRASE will take out many of the roadblocks.

--John Nicol

bibliography of helpful books. The manual also lists all phrase matches and punctuation rules for word processors.

The program does not require more than 46K disk space; I have Punctuation + Style, NewWord, and Correct-It on the same disk, together with a few frequently used boiler plates. When I'm ready to put my text to the test, first I run Correct-It (using the R option from the Opening Menu of NewWord), because all words have to be correctly spelled to be detected by PHRASE. Then I run CLEANUP and PHRASE, also from NewWord, return to NW and make the changes.

In checking the text for this article, CLEANUP used 45 seconds in interactive mode. However, I ignored several warnings because of special use of symbols. PHRASE checked the text in twenty seconds in Q(uiet) mode, marking three phrase matches and seven passive sentences. PASSIVE.TXT needed 210 seconds in interactive mode and gave 63 matches; I ignored some of them, and other matches were false negatives. After each check I used the word processor to correct mistakes. Total time used to improve my text with Punctuation + Style was about 40 minutes.

As I am Norwegian and write a lot in English, the program has helped me to improve my texts. For anyone who writes and wants the reader to understand and appreciate their text, this program can definitely help. And it may even ask you to be more precise! ■

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NEW PRODUCT! TURBOLINK 1200 SMARTMODEM

by Sypko Andreae

The Turbolink 1200 is a 300/1200 Baud smartmodem, fully Hayes compatible, manufactured in Taiwan by Electronics Technologies, Inc., and distributed in the US and Canada by Worthington-Babcock, Inc., 487 SW Nineteenth Drive, Portland, OR 97201, (503) 224-0137. Price for CP/M 80 users: $259.95 + $5.00 shipping and handling. Includes cable and Micro Link II software.

The first thing I noticed was that this modem looks just like a Hayes Smartmodem 1200: same size, same number of indicator lights. I opened it up to take a look inside and it even smells like a Hayes! Identical clone? Not quite, there are minor differences, but they seem totally unimportant. For example, the eight LED's (Light Emitting Diode indicator lights) have identical functions but are arranged in a different order. Who cares? Browsing through the well-written manual, I discovered that it seems to spend less words on the same subjects as the Hayes manual does. An enclosed leaflet states that a new design has been used that takes advantage of VLSI (Very Large Scale Integration) circuitry. The Hayes circuitry I looked at is not that advanced. If it makes any difference in performance, I could not detect it.

However, Turbo Link 1200's new design may be the the key to one major distinction: the price for the modem itself is $249.95. That includes a two year warranty on parts and labor which you can extend to four years for another $30. How secure do you want to get? There is also a 60-day money back guarantee.

I tested the modem with MDM730 and Micro Link II, using the Auxilliary Serial Port of my MD11. The solid-looking cable, part of the $259.95 package deal noted above, did not work because it did not have the wires between connecter pins 2 and 3 crossed, which is required for a Morrow-to-modem connection. I am sure the distributor is aware of that now. In the meantime, my trusty homemade cable (cost of parts--$13) does the job. Everything works fine and . . . just like a Hayes.

Then I tried the Micro Link II software. It is a delight to use! Three .COM files are provided. One is for Rev. 1 machines, one for Rev. 2, and the last one for hard-disk machines like the MD11. You don't need to install anything. Just rename the proper .COM file to ML.COM and run it. It may not be so versatile as MDM730 but is much easier to use thanks to the menus. You can "capture" and print simultaneously in terminal mode. You can change the byte configuration. I tried error-checked file transfers with a remote XMODEM system and it worked easily and smoothly. The Turbolink 1200 modem with Micro Link II software at this price seems a fine deal to me.

SOFTWARE REVIEW

PRODUCT:	**ShadowPrint (SPRINT)** (available for CP/M 2.x only)
VERSION TESTED:	3.1
MANUFACTURER:	Common Sense Systems Associates (CSSA) P.O. Box 563 Winchester, MA 01890 (617) 861-7333
DISK SPACE:	24K
PRICE:	$50

by Mike Allen

One of the most annoying things about using a computer as a word processor is that while it is printing, you can't do anything else with it. It sure seems like a waste to have that nice machine tied up feeding characters to your slow printer. If we don't want to get into a NewWord patch, we Morrow owners are left with two options: 1) to get a print buffer, a piece of hardware that stores the file you want to print and feeds it to the printer at its own speed; or 2) to get some software that uses the small "periods of time" when a computer isn't actively engaged--when it's waiting for a disk drive or a slow human to do something--to send bits of a file to the printer. ShadowPrint is just such a piece of software.

What ShadowPrint does is intercept all the data that is supposed to go to your printer and put it on several disk files. It then sets up a queue of those files and sends them out to the printer whenever there is time.

I installed ShadowPrint on my Rev. 2, MD3 (with ROM 2.5), according to the special Morrow instructions provided by CSSA. This installation puts the actual program on your NewWord disk and puts a modified version of the Micro-Menu on your system disk. For the purpose of this review, I made a new sysgened NewWord disk not including Correct-It and the several other utilities I have on my usual disks. If I hadn't done this, I would have run into substantial space problems. As it was, I noticed right away that part of the installation erases PIP.COM and STAT.COM as well as the practice documents from the NewWord disk to make room for the ShadowPrint program (SPRINT.COM, 22K), a couple of small special files that SPRINT creates and the buffer files which can be quite large, depending on how much printing you wish to do. This is rather unfortunate. If you're not using some other program, most of you probably use STAT.COM to find out how much disk space you have left.

Checking the installation out a little more closely, I found that SPRINT gets installed when NewWord is selected from the Micro Menu or when the NewWord disk is cold booted. As long as you are in NewWord, ShadowPrint is engaged. But as soon as you leave NewWord, ShadowPrint is not only disengaged, but aborted! So you have to stay in NewWord until the printing is finished.

This is no real problem if you use your Morrow mainly as a word processor. If, however, you do other things with your Morrow, then you really haven't gained much since you still have to wait for the printing to finish before you can do anything but use NewWord or run a program (such as Correct-It) from NewWord.

Given these conditions, ShadowPrint works well. I had it printing files from three different drives while I was editing a file on a fourth. Only occasionally did it cause NewWord to miss a character that I was typing, and only then when I had been silent on the keyboard for a while. Once I got its attention, SPRINT gave the keyboard top priority. I could see no appreciable slowing of the operation of NewWord.

I then ran a small file through Correct-It under four different conditions; SPRINT not installed, SPRINT installed with nothing to print, SPRINT installed with something to print but "suspended" and SPRINT installed and printing. The first three all ran the file in about 42 seconds. The last took about 51 seconds. Not too bad a slow down.

Then came the first inkling of problems. I stuck a disk into Drive B and tried to log on. Up came the old familiar "R, A or I" message. I noticed I had forgotten to close the door on the drive--but since I didn't really want to log into that drive anyway, I told it to Abort. It didn't. Up came the "R, A or I" message again. I finally discovered you had to tell it to Abort, wait for the message, tell it to Ignore, wait for the message and then tell it to Abort again to get free. It seemed to me that the time had come for a little further investigation.

Reading further in the "User Reference Manual," I discovered that SPRINT replaces the CCP, something that I had suspected since it flat wouldn't run under ZCPR3. It does give you some ZCPR-like functions, such as the modified prompt to show the user number as well as a default search to Drive A, user 0, for programs not found on the drive or user area you are logged into currently. It would seem that CSSA was aware that CP/M 2.2 for Morrows is a little different, since they state that "The MD3 release of ShadowPrint is MD3-specific." It would also seem that CSSA did not do their homework as well as they should have with regard to the MD3. I found the three following serious problems with ShadowPrint:

1) If you log into a drive above E, such as F, you get the "CP/M error: Drive F invalid" message. You get it over and over again. It fills the screen with the message. There is no way to abort this condition other than the reset button. This is not a problem if you

are operating out of NewWord since NewWord checks the drive validity prior to trying to log in the drive. (But WordStar does not check drive validity and will get you in trouble.)

2) If you try to log into a virtual drive, such as E, you get the normal "Your lower drive is being reassigned..." message. Upon swapping disks and hitting a <cr> nothing happens. Hit another <cr> and it gives you the same message except for telling you that the bottom drive is again Drive A. Swap the disks again, hit <cr> and strange things happen, ending with the MD3 completely locking up. The only way out is the reset button. Upon resetting the MD3, the memory diagnostics are run, indicating that location 0 in memory has been altered!

3) As when running from NewWord, the "R, A, or I" functions are screwed up.

Another drawback is that SPRINT--after it is installed--uses 5.5K of the transient program area (TPA) in memory. I discovered this (it is mentioned in the User Manual) when trying to run an already compiled TurboPascal program. Although the program was only 12K, I got the "Not enough memory, program aborted" message. TurboPascal uses a table in memory called a "stack" at the top of the TPA as known at the time of compiling the program. If the program is compiled while SPRINT is installed, the TPA space restrictions caused by SPRINT are known and there is no problem. I suspect that if one were to install ShadowPrint and SmartKey, the loss of memory would become noticeable.

THE SHADOW DO

It happened again. My printer had been running for about an hour, cranking out personal letters to my mailing list, when I remembered something else I wanted to work on. What to do? It would be at least another two hours until the printer was finished. (I have an MP100, and those of you who have them know what that means!) What to do? I looked around frantically for one of those early word processors, a pencil. Finally finding one in the back of a drawer, I breathed a sigh of relief as my thoughts got onto paper, just as they were simultaneously about to go off into oblivion. Had I owned ShadowPrint, I could have just called up NewWord while the printing continued, and put my thoughts on disk.

One problem I had with ShadowPrint, however, has nothing to do with the program itself but rather with the manual. Chapter one starts out by stating, "To begin using ShadowPrint, it is only necessary to read this chapter (Chapter I)." Now this may be true if you are the author, but I had to read it, and then re-read it before I stumbled onto the modus operandi.

--Peter Campbell

All of the methods the SPRINT manual lists for loading the queue for printing files seem to work. By printing a lot of documents from NewWord, I was able to get to the point where the disk could handle no more documents. (This was with my "virgin" disk. My normal NewWord disk would have filled long before that.) There is a way to re-configure ShadowPrint so that it puts the print queue with all its files on another disk. The method is not particularly clean, especially for the novice user. It also means that you cannot change that disk while the print queue is being serviced. Ideally you would have a separate drive dedicated to ShadowPrint. This is not practical with a 2-drive MD3.

In conclusion, I cannot recommend ShadowPrint. It defeats too many of the error handling features of the MD3 for the novice user, and it is too limited for the advanced user. The price is right ($50) but the performance is not. A great deal of thought has been put into ShadowPrint, but not enough. It needs to go back to the drawing board. I suggest that you take that fifty bucks and put it into a hardware print buffer fund. ◘

SHADOWPRINT AT THE MOR OFFICE

by Sypko Andreae

At the MOR office we use ShadowPrint on a Rev. 2 MD3 (with a Rev. 3.1 ROM) during production to keep on top of all the printing. I didn't bother to install ShadowPrint with NewWord like the manual said and Mike Allen did. Instead I took a shortcut--that apparently kept us out of a heap of trouble. I simply copied SPRINT.COM on the WordStar disk used to print our galleys. I also took care to delete enough files from that disk to allow for at least 120K of file space to be used by ShadowPrint for its "invisible" spooling files.

With AUTO.COM on the WordStar, I could enter **AUTO SPRINT** and a **<cr>** at the A>. Once I had done that, now we only have to **Reset** the computer, ShadowPrint is installed and the A> appears. We then operate WordStar as usual. After entering a file to print, a lot of disk grinding goes on--about a minute for a 28K file as it goes into the spooler. Then, once that file is printing, you can enter the next file you want to print, and the next, and so on.

While the printer is rolling, you can do all sorts of other things, provided you leave the WordStar disk in Drive A. That disk holds all the invisible spooling files that ShadowPrint needs to print. But unlike Mike Allen's situation, we can run other programs and print their files. I tried this by putting NewWord, SuperCalc2 and NSWEEP on the same floppy with SPRINT.COM. Then after I Reset the machine, I used the ^P command from CP/M to print something from the keyboard, which it did. Then I asked each of the three

programs on the disk to print a file. ShadowPrint faithfully spooled everything and passed it to the printer. But I noticed that the printer slowed down to a near stop when I called in the next program, gave a print command or edited a file in NewWord. Typing fast I was able to stop the printer completely; and when I would pause, the printer would start up again. That convinced me that ShadowPrint and NewWord were sharing a resource of which there was not enough around. Still, it works, although haltingly. For our purposes, it doesn't really matter.

There are two more things you ought to know. First, ShadowPrint only runs under CP/M 2.2 and not under CP/M 3.0, so Morrow hard-disk machine users are left out altogether. Second, after ShadowPrint is installed, several other programs don't operate properly anymore. One obvious victim is our beloved NSWEEP which shows "No Files" in any conceivable disk or user area after the first NSWEEP "L" command. After resetting the machine--with ShadowPrint gone--everything is fine again. Peter Campbell, who also investigated ShadowPrint for MOR, suspects that there are many more probable victims like NSWEEP. SmartKey is a likely candidate, but we have not tried it.

My conclusion: ShadowPrint works if you use it in a very simple way. It has lots of drawbacks, but they may not be important. It has unpredictable effects on the operation of some programs, so watch out. Is it worth one quarter the price of a printer buffer? I'd say so. ◘

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SOFTWARE REVIEW

PROGRAM:	**MultiForm**
VERSION TESTED:	Version 6.8 for MD2
AUTHOR:	Paul Bartholomew
MANUFACTURER:	Bartholomew Software 1563 Parkside Court Freeport, IL 61032 (815) 235-1352
PRICE:	$59.95 (MSRP) + $5 P&H

by Tim Evans

[In the April '85 issue of MOR (Vol. 2, #2 p. 23), we ran Tim Evan's review of UniForm, a file transfer utility made by Micro Solutions of Dekalb, Il. Here a similar utility, MultiForm, is reviewed and also compared to UniForm. While the two programs have a lot in common, they differ in some essential ways, as these reviews reveal. --Ed.]

Summary

Like UniForm, MultiForm from Bartholomew Software allows you to reconfigure a disk drive on your Morrow to make it read and write diskettes from any of a large number of other computers, as well as to format diskettes to be used in the other computers. Version 6.8 lists 69 non-Morrow formats; many are double-sided, however, and are, therefore, unavailable to MD1 and MD2 owners. (Bartholomew Software and Micro Solutions are engaged in a numbers game on how many foreign formats they support. For the record, while each claims support for more or less a dozen formats which the other does not support, both support around 70 formats. You should be able to find what you want in either.)

MultiForm operates in both menu-driven and direct-command modes, and Version 6.8 includes COPYDOS, a new utility for copying to and from PC-DOS/MS-DOS (IBM PC and compatibles) diskettes. All buyers of MultiForm receive two non-copy-protected diskettes--one for MD1 and MD2 machines, the other (a double-sided diskette) for the MD3 and the hard-disk Morrow computers.

Using It

MultiForm consists of three separate but related programs. READIT configures your Morrow drive to read (and write) other computers' diskettes; FORMAT formats diskettes for use in other machines; COPYDOS copies files to or from PC-DOS/MS-DOS diskettes.

READIT and FORMAT operate virtually identically, presenting you with menus of diskette formats, from which you pick the format you want. (Like UniForm, MultiForm can be operated in a direct-command, or "Quick Entry Mode," bypassing the menus.) FORMAT double-checks to see if you really want to format the diskette by asking for a <RETURN> to start the initializing process; the other option, <CTRL>-C, returns you to CP/M. The latter is, incidentally, a nagging inconvenience: if my clumsy fingers hit the wrong menu number, I like to be able to go back to the menu, rather than being dumped back to CP/M and having to reload the program to get the right format. Exiting from both READIT and FORMAT from the menu is also accomplished with a <CTRL>-C; sadly for the novice, this is not documented (I discovered it through trial and error). Bartholomew Software promises to remove this pesky problem in its next update.

With MultiForm, you are not hamstrung by the limitation that only one disk drive can be reconfigured at a time, as is the case with UniForm. Both READIT and FORMAT allow you the option of designating which drive you wish to use. This valuable feature makes it possible for MultiForm to run on an MD1. More important, it enables you to copy a file directly from one non-Morrow diskette to a different non-Morrow diskette with READIT by designating Drive B as, say, a KayPro and Drive C (your "Virtual Drive") as a Zenith. If you have more than two disk drives, you can simultaneously reconfigure two (or more) of them to emulate different computers' drives, then copy directly from one foreign diskette to another.

COPYDOS, too, is menu-driven, with options for copying files in both directions between CP/M diskettes and PC-DOS/MS-DOS diskettes, getting sorted directories (including file sizes and remaining diskette space), erasing files, and exiting the program. COPYDOS allows you to put the diskette you want to work with into any disk drive except Drive A; similarly you can put your CP/M diskette in any of your disk drives except the one you've defined as a PC- DOS/MS-DOS drive. UniForm, on the other hand, insists on your putting the PC-DOS/MS-DOS diskette in Drive B.

Performance

All in all, while decided nods go to UniForm for its integration of the format and reconfiguration programs, its online help, and its smooth-operating CP/M <-> PC-DOS/MS-DOS copy utility, MultiForm's ability to reconfigure more than one drive at a time (including a Morrow Virtual Drive) and to format PC-DOS/MS-DOS diskettes, gives it the edge--at least as far as Morrow owners are concerned--in the multiple-format wars.

An important note for Rev. 2 MD 2 owners: Do not--repeat, do not--attempt to run the installation program for MultiForm Version 6.7, because you will run out of disk space in the process. (It's okay to install it if you have Version 6.8.) Version 6.7 will run on Rev. 2, MD2 machines without installing. but one format--Superbrain--is not available to you. Owners of Version 6.7 who need access to Superbrain should contact Bartholomew Software about an upgrade to the current version.

Warning for all MD owners: The install program makes changes in your BIOS, or basic Output/Input System.

Documentation

The current MultiForm documentation package does not contain any doc's for the COPYDOS program; the maufacturer promises it "soon." While the program is menu-driven--and therefore simple to operate--buyers should be aware of the undocumented fact that COPYDOS operations should be implemented from the "Quick Entry Mode." Otherwise, Bartholomew Software's decidedly unfancy, plain-paper documentation is wholly adequate for its purpose. The fact is, the program is easy to use and, once you've used it once or twice, you're unlikely to need to refer to the doc's. Unlike the situation with UniForm, a printed list of your version's supported formats is included with MultiForm. This is particularly valuable in using MultiForm in its "Quick Entry Mode." For example, the Texas Instruments' Professional is Number 50 on MultiForm's menu; you can format a TI Pro diskette by putting your target diskette in Drive B and issuing the following command from your CP/M prompt:

FORMAT 50 B:<CR>

Miscellaneous

Disturbing reports of MultiForm inadvertently reformatting Morrow hard disks have surfaced from time to time. Bartholomew Software categorically states that MultiForm itself has not reformatted anyone's hard disk. The company acknowledges that MD5/16/34 owners who attempted to use the MD11 version of MultiForm--a version which did not purport to support those machines--did in fact suffer hard disk "problems" upon attempting to install MultiForm on their machines. Some of these people, believing their hard disks had "crashed," did re-run Morrow's Format on their machines, which caused them to lose the contents of their hard disks. Although this is of little solace to those who suffered this problem, the author of MultiForm explains that there is a simple procedure that would have eliminated this problem and restored the hard disks. In any event, Version 6.8, which supports all Morrow hard-disk machines, asks, during its installation procedure, for you to enter the model of your computer.

I have a wish list for future versions of MultiForm. First, paging through MultiForm's Readit/Format menus requires you to hit "p" (for page) and a Carriage Return to access the next menu; there's no reason to have to hit the <CR>--"p" ought to be enough. Second, COPYDOS is a bit clumsy in its primary function of copying files between CP/M and PC-DOS/MS-DOS diskettes. When you tell COPYDOS to copy a file, it comes back with a blank screen and asks for a filename; if you don't remember the exact filename, you have to exit back to COPYDOS's main menu, get a directory, then issue the copy command again. UniForm's method of automatically presenting a numbered directory at this stage of the game is preferred. (The fact that you can tell COPYDOS to copy *.* is not documented, but this does work. *.* is the wildcard filename for "all files on this disk of user area.") Last, COPYDOS is maddeningly slow (much slower than UniForm).

Bartholomew Software reports that current MultiForm owners who submit new diskette formats which can be incorporated into MultiForm receive free upgrades. (Upgrades regularly cost $15, which includes P&H.) And, like Micro Solutions, Bartholomew Software offers substantial discounts for group buyers of MultiForm.

Tip-off: For a comprehensive guide to customizing WordStar, see "WordStar Deluxe," by Ted Silveira in Profiles, the magazine for Kaypro users, Vol. 3, #1, July/August 1985, p. 32.

FLOPPY OF THE BI-MONTH

Starting with this issue, we are offering MOR subscribers the opportunity to acquire a special floppy related to the themes of each issue. The floppy for August/September 1985 focuses on tools for word processing. Send one DSDD formatted floppy or two SSDD formatted floppies in a SASE floppy mailer to MOR. Make sure you don't forget the return postage! Please enclose a donation to cover handling and copying costs. (Suggested minimum $2, cash preferable.) All these files are in the Public Domain. The programs generally do work, but no guarantees. The .LBR (Library) files can be opened up with pd library programs like LU3 or NULU. Long text files are "squeezed" to save space. Use NSWEEP Q-command to unsqueeze them.

Word Processing and Writers' Tools, August 1985, MOR

CHECKWS .COM	6k	Checks a WS file and counts words and lines.
CHGCHAR .COM	2k	Program to replace all characters of one kind for
CHGCHAR .DOC	4k	characters of another kind. Faster than ^QA.
COMPARE .COM	2k	Compares two files: COMPARE FILE1.TXT FILE2.TXT <CR>
DIF .COM	16k	Checks for differences: DIF FILE1.TXT FILE2.TXT <CR>
ENSOFT2 .LBR	14k	Converts "hard formatted" files into D-type WS files.
FILTER .LBR	10k	Various filter programs for text files.
FTNOTE .LBR	38k	Good PD footnoting program for WS files.
HARDSOFT.COM	2k	Converts "hard formatted" files in D-type WS files
HARDSOFT.DOC	2k	and visa versa. Another "filter" program.
NOTEPAD .LBR	24k	Program to organize notes, keep an appointment calendar.
NSWP206 .DQC	16k	NEW SWEEP manual and program. See article by
NSWP207 .COM	12k	Peter Campbell in this issue (August 1985).
OUTLINE .COM	14k	A simple outline processor with about 1% the capability of KAMAS. Play with it and learn about
OUTLINE .DOC	2k	outline programs.
RESQ12 .LBR	12k	Various tools to rescue files after machine locks up.
SHALLIS .DQC	20k	Report on Shallis lecture: Computers/Society/Human Soul.
TYPLEARN.LBR	28k	Touch-type teaching program.
VDO25 .LBR	42k	A fast, small-sized full-screen editor.
WCOUNT .COM	6k	Counts words in a file.
WINDEX20.LBR	10k	Indexing program for WordStar files.
WS-CMDS .DOC	10k	Nearly all WS commands organized in a readable way.
WS30/33 .LBR	56k	All you need to know to patch WS 3.0 and WS 3.3.
WSENV .LBR	12k	To help print addresses on envelopes from letters.

NSWEEP: A PUBLIC DOMAIN JEWEL

by Peter Campbell

I remember it well. I had joined the newly-formed Bay Area Micro Decision Users Group (BAMDUA). The first volume of the software library had just come out. Eagerly I took it home to see what I had just purchased. I knew it would be good--public domain software had a good reputation, and as a neophyte I was anxious to try all I could get my hands on. There it was, a file called WASH.COM. As I deciphered my manuals and studied this little 4K program, its power slowly began to dawn on me.

Then BAMDUA Software Library Volume 2 appeared. Not wanting to miss out on anything, I likewise took it home and discovered a program called SWEEP.COM. True, this one required 28K but, what the heck, with 384K per disk at my disposal that didn't matter. (Although I couldn't convince my friends with the Osborne's.) What a great program--able to do everything WASH could do and more.

One exceptionally bright day my brother (who has an OS 1) gave me a new program called NSWEEP. Only took 14K, so he was happy. And it did everything SWEEP did, and more. Since that fateful day, NSWEEP has become one of the most used programs in my library.

This little program was written by Dave Rand (formerly of Canada, now of California). It has been through several revisions, and the current one, version 2.07, is only 12K long (unless there is an even more recent one--this guy seems to put out a new version once a month or so). The current version fixes a few minor problems with earlier versions and speeds up some operations on Hard Disk machines, but it still does all the same wonderful stuff. For those of you who don't yet have it, version 2.07 can be found on your local R/CPM, or you can order it from the BAMDUA Software Library, Volume 23. (Write to BAMDUA Box 5152, Berkeley, CA 94705, $8.00. Earlier versions, 2.02 and 2.05, are on Volume 15.) NSWEEP is like having all the best public domain programs rolled into one. Don't go another day without it.

"Why?", you ask. "Let me count the ways . . . ." Copying individual files, renaming files, one-stroke printing right from the directory, mass file transfer with or without verification, squeezing/unsqueezing files--want more? Read on.

How often have you picked up an old disk you haven't used in months. You look at the directory and see things like REAL.OCP, or 918RAM.003. Thanks to your less than perfect filing system, you have no idea what these contain. NSWEEP to the rescue. With the **V**(iew) command, you can peruse all the ASCII files on the disk in a matter of seconds, stopping automatically at each screen. You can even get enough information this way from some non-ASCII files to determine the contents.

Or let's say you are in the midst of a big project and you forgot to buy extra disks. The files on a particular disk you have on hand are worthless, except for two or three. What do you do? You hate the drudgery of ERA(sing) all the unwanted files. NSWEEP to the rescue. Just "tag" the wanted files and erase the rest. The whole process takes maybe all of fifteen seconds. Or say you don't want these files to clutter up the directory, but you want to keep them on the disk. Transfer them to another disk or user area. With NSWEEP the process again takes mere seconds to accomplish. Or say you want to free up some space by removing all the BAKup files. Just tell NSWEEP to tag all the files with its Wildcard command, then erase them. It is an almost instantaneous process.

NSWEEP is a simple program to learn. A thorough DOC file is on the disk, but it is not even necessary to read it for most commands. A built in "Help" file, actually a menu, is displayed every time the **?** key is pressed at the prompt. It is reproduced here and, as you can see, is quite self-explanatory.

```
A - Retag files          :  Q - Squeeze/Unsqueeze
B - Back one file                 tagged files
C - Copy file            :  R - Rename file(s)
D - Delete file          :  S - Check remaining space
E - Erase T/U files      :  T - Tag file for transfer
F - Find file            :  U - Untag file
L - Log new disk/user    :  V - View file
M - Mass file copy       :  W - Wildcard tag of files
P - Print file           :  Y - Set file status.
X - Exit to CP/M         :  ? - Display this help
                         :  cr, sp - Forward one file
```

To use NSWEEP, type **<NSWP207>** at the A> prompt line. The following information will appear.

```
A>NSWP207

NSWEEP - Version 2.07       07/17/1984
 (c) Dave Rand, 1983, 1984
     Edmonton, Alberta

Drive A0:????????.???  170K in  25 files. 16K free.
       1. A0: -BAMDUA .023    2K :
```

The first command you will want to learn is the **X** command. This gets you back to CP/M from the NSWEEP prompt line. The second command to learn is the **?** which gets you the above menu. From here you will be able to explore all the power of the program just by trying out all the commands.

Certain of the commands only operate on "tagged" files. These are the **E, M, Q, U,** and **Y** commands. You tag the file first by typing **T** at the cursor next to the file you want to manipulate. You may tag more than

one file and then perform the same operation on all of them at once. If you want to do more than one operation on the same set of tagged files, just press **A** at the prompt after completing the first function, and the files are retagged and ready for the next operation. The **Y** command can be used to set the file status to [Read Only], [System] and [Archive]. While this command does function with all models, it can be especially useful to you MD5,11,16,32 owners when you need to change the status on a number of files at one time.

Four other flags are designed for use on an MP/M system, but can be used to mark files for any purpose you may desire. The program as distributed needs to be modified per the instructions in the .DOC file to make full use of the flags. When the modification is made (done most easily with EDFILE, also found on BAMDUA Software Library Volume #23), NSWEEP will display in half-intensity the corresponding tagged characters in the file name and file type.

The **W**(ildcard) function is particularly useful. Over a period of time, for example, the number of .BAK files can become large, cluttering up the directory and filling up the disk. So I press **W** and when it asks, "Tag what?" I type in ***.BAK**. SHAZAM! All .BAK files are now tagged to **E**(rase). Or perhaps you want to **M**(ove) all TXT files to Drive B, and then erase them from A. The Wildcard command makes it a snap.

When you Move files to another disk or area, NSWEEP offers you the additional option of verifying the transfer by typing in **v** after entering the destination area--not to be confused with **V**(iew). For example, in response to "Copy to?" you might enter: "a2v" and watch NSWEEP first copy your file onto user area A2 and then notify you that it is verifying the transfer. An assuring message.

After using NEWSWEEP for a few days, you will wonder what you ever did without it. You will wonder why it is in the public domain library and not sold commercially. Actually, it is what is known as "User Supported" software. The author suggests that, if you use the program and like it, you send him a donation. [David Rand, 72 Longfellow St., Thousand Oaks, CA 91360, $20 suggested donation.) While there is no requirement to send it, these donations do encourage the writing and upgrading of this type of software. After using it for a while, you will probably think it is worth at least twice that much. If you don't have NSWEEP yet, I urge you to get it. You will never regret it. Happy Sweeping.

[If you display a WordStar or NewWord file with the **V**(iew) command of NSWEEP, it can have various detrimental effects on the terminal display, such as overwriting previously displayed text. This is caused by some control characters embedded in the file. The affect varies according to the type of terminal and may be corrected by turning the terminal (only) off and on again. --Ed.]

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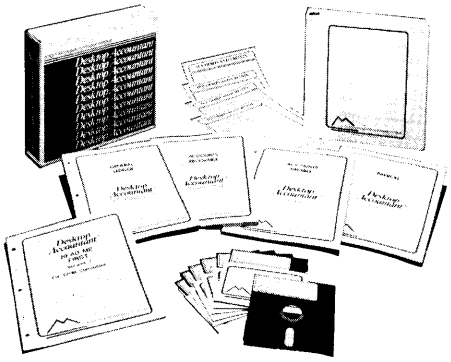

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Accounts Payable **1.** Daily Voucher Report **2.** Daily Credit Report **3.** Checks with Detailed stubs **4.** Check Register **5.** General Ledger Transfer Report **6.** Cash Requirements Report **7.** Transaction Register **8.** Open Voucher Report **9.** Aged Payables Report **10.** Detailed Vendor Activity Report **11.** Summary Vendor Account Report **12.** Vendor Mailing Labels

Payroll **1.** Federal Tax Tables **2.** State Tax Tables **3.** Payroll checks with stubs **4.** Payroll Check Register **5.** Monthly Payroll Summary **6.** Quarterly Payroll Summary **7.** General Ledger Transfer Report **8.** Detailed Employee File Listing **9.** Produces 941 Worksheet **10.** Prints annual W-2 Forms **11.** Employee Mailing Labels

System Requirements: CP/M® with 64K RAM or PC-DOS (MS-DOS) with 128K • Microsoft BASIC • Two disk drives or hard disk • 132 column wide carriage printer, *or* an 8½"x11" printer with compressed print mode (an Epson MX-80 or similar printer).

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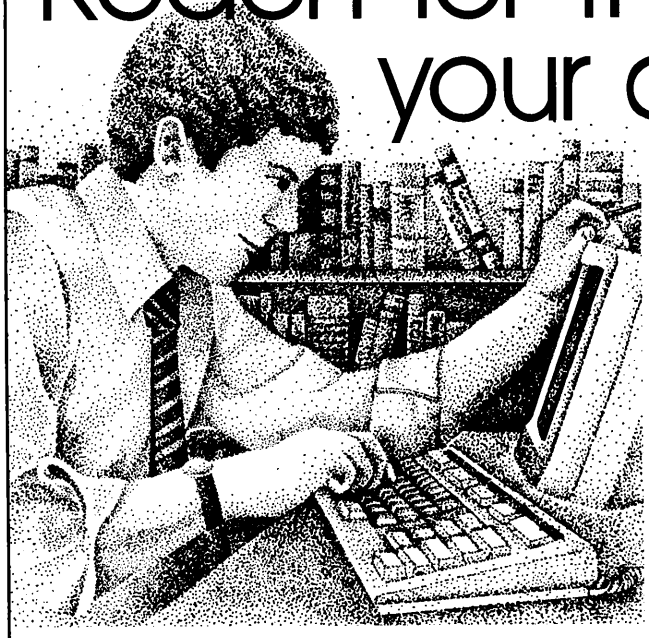

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