



NEWS

Vol 2

North Texas IBM Personal Computer Users Group

No. 8

Special Interest Programs

Programmers

John Wilbanks of Lantech presented details of the soon-to-be-released uNETix operating system for the IBM PC at the July meeting of the Programmers Special Interest Group. uNETix allows true multitasking operation, multiple windows, disk directories, I/O redirection, and offers Unix Version 7-compatible system calls and PC-DOS emulation. In the informal session... users noted delivery delays on sophisticated add-in boards; the return of allocations on high-technology chips due to increasing demand; and how to enable members to also attend the Communications SIG program. Group chairman Neil Bennett requests that members contact him regarding possible programs for the August meeting. He also recommends a new book by Peter Norton, "Inside the IBM PC - Access to Advanced Features and Programming".

Dick Gall

Business Applications

We're happy to announce that Dick Barr is the new leader of the Business Applications Special Interest Group. Dick has given us a number of excellent presentations in the past, covering such subjects as Multiplan and Prokey. We're looking forward to many more interesting programs under his leadership.

Subject for this month will be announced during the general session on Saturday.

John Pribyl

Survey Results

The hardware survey distributed with the June issue of PC NEWS was returned by 71 members. Final results, compiled by Dick Gall, are given on page 4 of this issue.

Bylaws

A copy of our proposed bylaws are included with this issue of PC NEWS. This copy incorporates member comments from the various reviews and will be voted on at the September meeting. By that time we should have our incorporation paperwork squared away and adoption of the bylaws will be in order.

Thanks to all, and a special thanks to Fred Williams, Chairman of the Bylaws Committee, and Charles Awalt who did the legal work.

Agenda

The presentation this month will be Maintenance of the IBM Personal Computer. It will be given by Mr. Dennis LeDoux, a representative of SORBUS Service.

The general order of business will be:

1. Club Business
2. Presentation (see above)
3. Vendor Announcements
Club "Professional"
Members
4. Specialty Group Agendas
for Next Hour (Each
SIG Chairman makes
1-minute announcement)

Chris

Next Meeting August 20, 1983

Auditorium, Cox School of Business, Fincher Building
Southern Methodist University Campus, Dallas, Texas

(See map on page 7)

9:30 TO 12:00



North Texas PC NEWS

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Deadlines:

All material for publication in PC NEWS (articles and ads) must be received by the NEWS staff no later than the first Saturday of the month in which publication is desired.

North Texas IBM Personal Computer Users Group

A non-profit, independent group, not associated with IBM Corporation. The Group meets on the third Saturday of the month at 9:30 AM in the Auditorium, Cox School of Business, Fincher Building, SMU Campus, Dallas, Texas. (Check meeting notice on page 1 for any late changes.)

Officers:

President Alan Elliott (214)941-8475
 Program Chairman Chris Morgan (214)446-0484
 Treasurer Bill Hood (214)350-9784

Special Interest Groups:

Beginners Mike Durbin (214)271-8779
 Business Applications Dick Barr (214)692-2605
 Disk of the Month Will Janoschka (214)231-6449
 Programmers Neil Bennett (214)238-7650
 BASIC Applications Charles Loftin (214)492-3594
 Comm & Networking Bob Van Wyk (214)231-1400

x222

Special Group

Bylaws Committee Fred Williams (214)245-4319

Telephone (during business hours) (214)361-0304

Dues: Professional Membership - \$36.00 year
 Regular Membership - \$24.00 year
 Student membership - \$12.00 year

Payable in January, dues are prorated for balance of year when applicant joins after January. Dues should be mailed to Treasurer, NT IBM PC UG, 10400 N. Central Expy #210, Dallas, TX 75231

SIG Notes:

The BASIC Applications SIG does not meet every month... It meets only for special applications in BASIC as announced in PC NEWS. Contact Charles Loftin if you have a specific subject you would like to propose for a meeting.

CIRCULATION MANAGER NEEDED

Need manager for production and mailing of PC NEWS. Basically the job includes:

Maintenance of Mailing List

Reproduction of PC NEWS

Addressing/Mailing

If you take this job you will coordinate member names/addresses with Group Treasurer and maintain the mailing list database; receive PC News reproducible manuscript (ready for printing) from the Editor each month; reproduce, collate, address, and mail monthly and special issues; maintain code in member database for label sale; and print and mail labels when sets are ordered.

Member records presently reside on a SSDD 5 1/4 inch floppy disk (VersaText Data Base System).

Database furnished courtesy of TexaSoft.

This is a volunteer position. You'll have the satisfaction of being one of the Prime Movers of North Texas PC NEWS and the appreciation of all members of the Group, especially the newsletter Editor!

Contact me at the meeting, or by phone...

John (817/275-4109)

Membership
Classifications

REGULAR membership is that of any individual who is the owner of or has an interest in an IBM Personal Computer and compatible product lines, peripherals, operating systems and software and does not meet the requirements of any other membership classification.

PROFESSIONAL membership is that of any individual who engages in business either directly or indirectly related to the personal computer products and wishes at any time during the tenure of his/her membership to present products for sale to the membership at members' meetings.

STUDENT membership is that of any individual who otherwise qualifies as a User Group member and is also enrolled on a full time basis as a student in any public or private institution of learning.



DISK OF THE MONTH

by Will Janoschka

AUGUST HIGHLIGHTS

FUNCTION KEY HANDLER

Strings up to 24 characters long can be assigned to the F1-F10 keys by recall from a file. The key definitions can be listed, redefined, and saved. Operates under DOS 1.0 and 1.1. Customize your PC keyboard environment. Program FK.COM with good, brief documentation FK.DOC. Plus a program with improved assignments for use with BASIC called KEYS2.BAS.

TEXT EDITORS & PROCESSOR

Learn how text editing is done by studying these BASIC language editors: SGED.BAS and EDITOR. TEXTPROC.BAS is a text processing program. MX.BAS provides 8 options for Epson printer setup when its time to go to press.

BPRINT (.BAS, .DOC, .WDS)

A file and letter printing program for use with the MX-80 with GRAFTRAX. Uses graphics mode to print a logo heading for business letters. Makes paginated program listings, and prints one to five-line mailing labels in standard format from an ASCII file list.

WSMX806 WS8023B WS3530

WordStar installation programs for the MX-806, the parallel SpinWriter 3530, and the NEC 8023 printers. For use with WordStar 3.02. Also patches to provide superscripts and use the user-defined functions to change printer setup.

GENERAL UTILITIES

VDEL.COM deletes files (be careful!). WAIT.COM creates an occasionally-useful short time delay by counting down 3...2...1. CLS.COM accomplishes its namesake in only 256 bytes. GRAF2.COM prints the graphics screen on an Epson and SYSTAT.COM reports the system hardware configuration and diskette space usage & availability. MEMDUMP.BAS provides a HEX memory dump between specified starting & ending addresses. MENU.BAS provides a handy BASIC program selection chart.

EDUCATION

CAPSLock.BAS shows how PEEKS and POKES can be used to automatically toggle the CAPS LOCK and NUM LOCK keys.

FUN & GAMES

CLOCK2.BAS displays time & date in 2" headlines on the screen, also offering chimes on the quarter hour, 6 settable alarms, 12-hour or 24-hour time display, pm indicator, and elapsed time indicator/switch/reset. Yet another version of STARTREK.BAS is included, this one with sound effects.

DISKMODQ.BAS

This version of a program for viewing, editing, and modifying disk sectors was almost ready for publication when it was included in the August disk of the month. Its presented as a user study in debugging BASIC programs that go POKEing all around the PC. Volunteers are needed to:

- make DISKMODQ.BAS user-friendly (add "Y/N ?" to one of the prompts so innocent users are not trapped away from the menu, etc., etc.)
- fix up the example (selection 4) so that it does not terminate the program when selected.

- fix up the POKES etc. so that one can "BREAK" out of the program when it crashes without doing COLD START. Other items on the August Disk of the Month make it another in the long series of greats. Just CAVEAT EMPTOR on DISKMODQ.BAS until the volunteers have identified themselves and an improved version can be published. Continuing the long-standing policy of the Disk of the Month committee ["you get what you pay for"], DISKMODQ.BAS is included on the diskette at no charge.

DISK DETAILS . . .

Price: \$5.00. Available at the general membership meeting. Media: DSDD 5" diskettes formatted single-sided. Public domain software only, standard full disclaimers. Sales are made before and after the general membership meeting only. Call Will Janoschka at 231-6449 to submit material and programs for future Disk of the Month issues. All back issues available.

ADVANCED PREVIEW

On tap for the September issue is PC-TALK 9.0, an updated and improved version of an earlier distribution.

Will 

Free Product Listing - Softalk Magazine

Softalk magazine is offering free listings of your products in their IBM Softalk Gift Guide to be published in their December issue. This issue is mailed before Thanksgiving, and should be a good medium for a listing if you have a product in current distribution. They are also accepting photographs (b & w or color). Deadline is September 1st, so hurry!

I have the instructions and a blank form I'll copy for you if you'll call me before the meeting.
(Members only please.)

John 

PC Survey Results

The hardware survey distributed with the June PC NEWS was returned by 71 members. The average user's machine is an IBM PC with 300K of RAM memory, the IBM monochrome monitor, 2 double-sided diskette units, an Epson-style printer, a Hayes SmartModem (more than likely 1200 baud), and is used with PC-DOS 1.1 or 2.0. The composite survey results are presented below:

MACHINE BRAND: IBM-PC 65 IBM-PCXT 3 COMPAQ 2 COLUMBIA 1

SYSTEM RAM MEMORY SIZE (K):

64 128 192 256 320 384 448 512 576 640 768 832 896
4 17 4 7 25 2 1 2 4 2 1 1 1

MEMORY EXPANSION/MULTIFUNCTION BOARDS USED:

STB 19 AST 18 QUADRAM 7 IBM 2 PERSYST 2 APPARAT 2 ZOBEX 1
PRDRAM 1 APSTEK 2 ALPHA 1 ADDRAM 1 BABY-BLUE 1 MAYNARD 1 VISTA 1

DISPLAY TYPE:

IBM MONOCHROME 45 IBM COLOR 7 OTHER MONO 12 OTHER COLOR 12 TV 2

DISPLAY ADAPTERS: IBM MONOCHROME 42 IBM COLOR/GRAPHICS 30

DISKETTE DRIVES: 1-SS 10 2-SS 13 1-DS 13 2-DS 43

HARD DISKS: 8087 CHIPS: 6 MODEMS: 7 300 BAUD 17 1200 BAUD 23

PRINTERS: EPSON-TYPE 41 IDS 5 OKI 4 NEC 3 OTHER 11

OPERATING SYSTEM: PC-DOS 1.0 1 1.1 31 2.0 31 CP/M-86 5 OTHER 2

OTHER HARDWARE IN USE: Game adapter, joysticks, space tablet, Hercules monochrome graphics board, Artist I display & adapter, REI OCR wand.

MEMBER COMMENTS: Presentations at full membership meetings should be kept to a general level and detail presented at the SIG meetings. Special topics of interest: graphics, architectural and mechanical applications, process control, graphics standards, networking, Pascal, data bases, more "how to do it" programs.

Dick



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HARDWARE

	Retail Price	Wildcat Price
STB 64K Super Ram I/O	475.00	360.00
CDC 320 KB Dual Head Drive	580.00	285.00
Smartmodem 1200	699.00	545.00
PC Modem	389.00	349.00
IBM To Centronics Cables	80.00	40.00
STB Super I/O Board		186.25
Princeton Graphics RGB Monitor	589.00	522.00
Epson FX80	700.00	580.00
FX 100	995.00	805.00

BUSINESS SOFTWARE

	Retail Price	Wildcat Price
I.U.S. General Ledger	595.00	446.25
Multiplan	275.00	200.00
DBase II	695.00	486.50
The Home Accountant	150.00	112.50
Pyxel Visuals	79.95	79.95
PC Crayon	44.95	33.71
The Word Plus	150.00	112.50

CONVENIENCES

Smartcom II	119.00	89.25
Datacapture	120.00	90.00
Micro Cookbook	40.00	30.00

GAMES

Microsoft Flight Simulator	49.95	37.46
Suspended	49.95	37.46
Frogger	34.95	26.21
Temple of Apshai	39.95	29.96
Executive Suite	39.95	29.96
Snooper Troop	44.95	33.71

DISKS AND STORAGE

	Wildcat Price
Elephant DS DD /box	27.00
Verbatim DS DD /box	40.00
Flip N Files	18.00
Mini-Flex File	20.00
Library Case	2.00

TERMS & CONDITIONS

There is a \$2.00 shipping fee on all software and a 2% fee on hardware and supplies with a \$2.00 minimum. No overseas shipments. Texas residents add 5% on all products except software. Immediate shipment with money order, cashiers check or charge card. Allow 10 days for personal checks to clear. Exchange on defective merchandise only. Exchange made if returned within 10 days. Prices and availability subject to change without notice. Send for free catalog with complete listing of product line.



Wildcat Computing, Inc.
1830 Avenue K
Plano, Texas 75074
(214) 424-3582

**NWA STATPAK
Version 2.1**

reviewed by Harry J. Foxwell

Downloaded by Chris Jacobs on 04/02/83 from 817-473-6530
RBBS

Distributed by Northwest Analysis 1532 SW Morrison
Street, Portland, Oregon . List Price: \$495
Language: BASIC
Number of installations: 700 (150 on IBM PC)

System Requirements: PC DOS, 64K, 1 disk drive (2
highly recommended), any printer.

General Comments

NWA Statpak is an extensive collection of statistical programs. It includes various file- and data-manipulation utilities, mathematical and probability calculations and data analysis programs for computing frequencies and statistics, regression, contingency table analysis, ANOVA, non-parametric statistics, and time series. The programs are capable of processing arbitrarily large files, except for some programs that load all relevant data into memory. Approximate limitations for these programs are given in the manual for a 64K system. All programs, except the multiple regression procedure, use single-precision computation.

The "bottom line" for any statistical analysis package is whether the researcher can perform a desired procedure and get accurate results. In this respect, NWA can be used successfully for a wide variety of statistical analyses where numeric precision is not critical. However, it is by no means a user friendly system. No attempt has been made to integrate the nearly 75 programs into a coordinated, menu-driven system. The Statpak user must therefore be thoroughly knowledgeable about the operation of DOS and BASIC -- this is not a package for beginners.

Data Entry

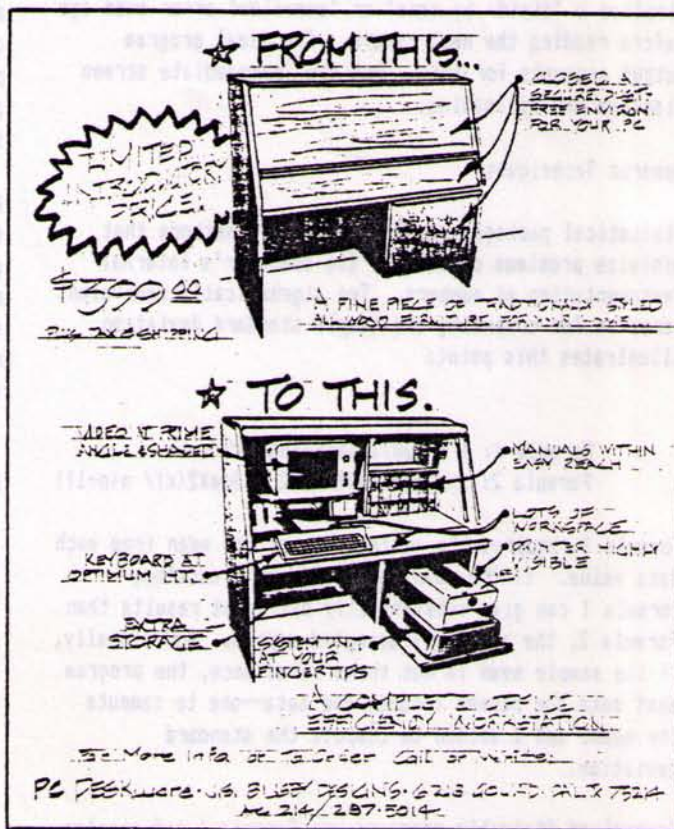
The Statpak data-entry facility is primitive but adequate, requiring the user to enter "rows" of data formatted as "columns" of values. I entered a 26-record test data set of 7 variables per record, taking care to keep the decimal points aligned. The resulting disk file, however, contained the data points left-justified and separated by single spaces, without decimal alignment. This format was difficult to

proofread and edit. The manual claims that data files may be created using word processing programs, data-base management systems, and spreadsheet programs. I was only able to test a few of these, but the claim is true with the caution that you may need to edit your data file before processing.

Documentation

The Statpak manual is marked "Preliminary," presumably indicating future improvements. The printing is of poor quality in places, and the format is very dense, with little blank space between unrelated sections. Although the instructions and examples are usually fairly clear, the manual frequently refers to the CP/M version of Statpak, which can cause confusion among MS-DOS users, and fails to mention some of the output of the programs.

The manual contains only brief explanations of the statistical theory behind each procedure, and generally lists the theoretical (not the computational) formulas used. There are some cryptic remarks, additionally, which could confuse non-statisticians. For example, the explanation of the program that computes probabilities using Bayes' formula simply states:



STATPAK

(continued)

- . BAYES uses Bayesian techniques to calculate the probability of one event as it relates to another.
- . Bayesian statistical theory is considered by many to be somewhat controversial.

There is nothing controversial about using Bayes' formula to compute conditional probabilities.

Program Operation

The user is required to manipulate the three Statpak diskettes, the DOS diskette, and whatever diskettes contain the data to be analyzed. The user must find and load the appropriate program, then give the command to run. Program prompts are clear and self-explanatory, but program output can be confusing in some cases. For example, although input errors are generally trapped and well-handled, unnecessary error messages sometimes appear on the screen. One program attempts to calculate several types of mean for data which may not be appropriate. (The geometric mean cannot be computed for non-positive data.) When the program reads a data value that cannot be used in a particular formula, it displays a "divide by zero" or "overflow" error message before reading the next record. The final program output accounts for this, but the intermediate screen displays are misleading.

Numeric Techniques

Statistical packages should use numeric methods that minimize problems caused by the computer's internal representation of numbers. Two algebraically equivalent formulas for computing the sample standard deviation illustrates this point:

- . Formula 1: $s = \sqrt{\text{Sum}(x-xbar)^2/n-1}$
- . Formula 2: $s = \sqrt{(n(\text{Sum}x^2 - \text{Sum}x^2(x)/n(n-1)))}$

Formula 1 requires the subtraction of the mean from each data value. If the mean is rounded or truncated, Formula 1 can give substantially different results than Formula 2, the generally accepted method. Additionally, if the sample mean is not known in advance, the program must make two passes through the data--one to compute the mean, and a second to compute the standard deviation.

Several of Statpak's programs use Formula 1 and similar procedures which, in conjunction with the use of

single-precision arithmetic, limit the system's usefulness.

Comments from the Software Developer

I invited NWA to respond to this review before printing it in the Monitor. NWA President Jeff Cawley, in a 3-page letter, agreed with some of my criticisms of Statpak and explained some of the design philosophy of the product:

- . "...Statpak is not designed for users who are unfamiliar with statistics and/or their computer...it is distressing to hear from users who have not been properly instructed in the use of their machine."

Cawley believes that a program library the size of Statpak (75 programs) should not be menu-driven. I suspect the real problem is diskette capacity -- if all programs and data could fit on one disk (such as a Winchester), a menu approach would be feasible.

Statpak uses single-precision arithmetic for most of its processing "for speed of execution" according to Mr. Cawley, but users may alter the source code if they need greater precision. Although 8-bit processors using double-precision arithmetic might suffer from slow computational speed, my experience using extended precision on the 16-bit PC indicates no serious performance problems. (Statpak was originally implemented on an 8-bit CP/M machine.)

Portions of the Statpak programs contain code and design from the original production in 1978 and 1979. NWA plans to update these programs in version 2.2, to be released about March 1983. Numeric methods, such as the standard deviation computation, will be improved in the new version, along with substantial improvements to the system's documentation.

Conclusion

In its present state of development as a general statistical tool, Statpak can be used only by researchers willing and able to invest a great deal of effort into their interaction with the system and its documentation. Considering this, its \$495 price seems a bit high compared with more integrated systems such as Ecosoft's Microstat.

I would not recommend it at all to those unfamiliar with statistics or microcomputers. The developer promises a new and improved version in the system's next update, and potential users should wait until it becomes available.

BLANK SCREEN...

If your PC is as old as mine (January 1982), you may soon start having trouble getting through the power-up checkout. If, someday soon, you turn on the master switch and all you get is hummmmm... no messages... hummmmm... no cursor... hummmmm... no request for date... no time... just hummmmm... you'll know how I felt last month while I was trying to get out the newsletter. I had sort of a sinking feeling... like "Sorry, folks, the July issue is going to be real short..."

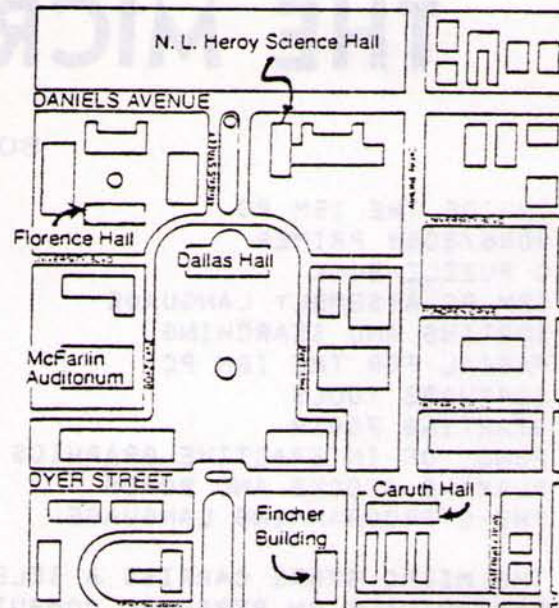
A call to my friendly Computerland technician gave me some ideas to try to isolate the problem.

First, I checked for low voltage, switching off the house air conditioner the next time the problem showed up. Great! The cursor came up, the friendly beep, and all the rest. Not so great! The next time it didn't work.

OK, so I kept trying. I took the cover off the computer and jiggled and re-seated every card and plug I could find. Back together it goes and, Bwalaa, there's the cursor, beep, date, time, and a live screen. Been working fine ever since.

Maybe this month we'll again have a full size newsletter.

John



Next Meeting
Auditorium,
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SOFTWARE ENGINEERING of Dallas

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Programming Topics

LOCAL PROGRAMS -

Text Editors

The DFW area has a large number of software developers, many of whom come to our meetings and participate in the discussions. This month, and for the next few months, I would like to give some visibility to some of the excellent products that have been produced locally, beginning with those which fall under the category of text editors.

A text editor is a utility program that allows you to view and manipulate an ASCII text file. This is a very typical thing to want to do. Computer programmers spend a great deal of time in front of text editors manipulating source code, BAT files, documentation, etc. Operating systems often provide some form of text editor with the system, the DOS EDLIN program is probably the most familiar example. Because manipulation of text files is such a common operation, much time can be saved if this process can be made as productive as possible. Designers of text editors are faced with the common tradeoff of providing a way for the expert user to use the most powerful features with a minimum number of keystrokes, and provide the new or occasional user with a way of knowing what operations are available at each point in the program.

There are several types of text editors. The first category is called the line editor, i.e. EDLIN. These usually assign a line number to each line of text, and you tell the computer what portion of the text to view or alter by referring to these line numbers. They are conceptually simple and a novice user can quickly get started. The problem with line editors is that they are not very productive tools because of the constant referral to the line numbers and the seesawing between list and change that is usually needed. If I have very trivial changes to make to a file, I will sometimes use a line editor, but if I have massive changes, the line becomes a slow and unproductive tool.

The next level of text editor is a screen editor. It eliminates the need to refer to the line number by displaying a portion of your file on the screen. To make a change, you simply position the cursor and type. The BASIC editor is kind of a hybrid between a line editor and a screen editor when it allows you to display a screen worth of data (by referring to line numbers), and modify those lines by positioning the cursor, and

updating a line at a time when you press the return key. Screen editors can remove the concept of line numbers entirely. You just point at things with the cursor. Screen editors are much more popular than line editors, and you typically find you can get a lot more done in a shorter period of time.

Another level of text editor is called a word processor. This is usually a screen editor with special features that make it easy to prepare documentation, books, or newsletter articles like the one you are reading. Where screen editors usually present to you exactly what is in your file, word processors usually embed some control information into the file and present you with an altered, more visually appealing result.

There are also lots of other, more exotic editors, for example, those used to edit binary files such as the DOS DEBUG program. Specialized editors exist to support programming languages, such as FORTH, whose text editor is sort of an extension to the FORTH language.

The locally produced product I would like to review this month is HelpWare, a product of SoftWrights Inc., a subsidiary of George Goode and Associates. It has 96 pages of well polished documentation. It has on-line help screens for additional documentation. It is a straightforward screen oriented editor, which I have been using for several months now and have become quite attached to. It retails for \$195, and is available in most of the local software stores.

The first thing that you notice about HelpWare is the window that it provides into DOS. When you begin a session, you are asked if you would like to list the directories on drive A, B, or both. You have the option of selecting only those files which have a specified suffix, or all files on the drives. You are then presented with an alphabetized scrollable display listing all files which met your selection criteria. The file name to select is highlighted and you can move the selection field by the arrow keys. There are a variety of things you can do to the files you select: Edit, Show, Copy, Delete, Print, Rename, Create new file, select new directory List, Output special printer code, Help, and Quit. The major utility of HelpWare is, of course, the editor, but the scrollable display of the DOS files I find preferable to the command oriented approach of DOS.

Once inside the editor, the entire screen is devoted to displaying the file with the exception of the bottom line which is used for prompting. The editor makes good use of all function keys and uses the Alt key followed

\$OLID GOLD SOFTWARE

APPLE II

		QT	TOTAL			QT	TOTAL
AE	\$24.50			Multiplan	\$192.50		
Zaxxon	\$28.00			FCM (First Class Mail)	\$87.00		
Witness	\$34.50			Piewriter 2.2	\$105.00		
Mastertype	\$28.00			Screenwriter II	\$91.00		
Ultima II	\$42.00			PFS File IIe	\$87.50		
Wizardry	\$33.00			PFS Report IIe	\$87.50		
Suspended	\$34.50			PFS Graph IIe	\$87.50		
Miner 2049er	\$27.00			Global PLE	\$45.50		
Castle Wolfenstein	\$21.00			Z-Term Pro	\$105.00		
Dark Crystal	\$28.00			Home Accountant	\$52.50		
Serpent Star	\$28.00			Locksmith	\$70.00		
Mask of Sun	\$28.00			Word Handler	\$94.50		

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IBM

		QT	TOTAL			QT	TOTAL
Crossfire	\$21.00			PC Tutor	\$55.00		
Witness	\$34.50			Multiplan	\$192.50		
PC Crayon	\$31.00			Smartcom	\$83.00		
METHOD OF PAYMENT <input type="checkbox"/> CHECK OR MONEY ORDER ENCLOSED <input type="checkbox"/> CHARGE TO MY (CIRCLE ONE): MASTERCARD VISA				Microsoft Flight Sim	\$35.00		
CARD NUMBER	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>			Wordstar 3.3	\$365.00		
BANK CODE	_____	EXP.	_____	Pro Blackjack	\$63.00		
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Programming Topics

(continued)

by a character to give you more than ten functions. Since it is hard to display all of this on a one line prompt, it provides a scrolling capability for your prompt line, alternating between (1) The name of the file you are editing with a line count, (2) what Alt keys are active, (3) what the function keys mean, and finally, (4) a blank line with only the time displayed in the lower right corner find this approach preferable to the Wordstar approach of taking up half the screen to tell you what you can do. When I am not sure of what to do, I can easily scroll the prompt line until I see what I want, otherwise, the entire screen with the exception of one line is devoted to the file being edited.

The editor provides simple find capabilities and good copy/delete capabilities. Find is a simple search from cursor to end of file. The move, copy, and delete has an effective way of highlighting the block of text you are selecting. The block commands are line oriented, meaning a block cannot consist of a partial line. Nice features that are often not present in editors include the ability to view other files from within the editor, or copy files into your edit file, are present in HelpWare.

It has a compose mode where you just type, and are not forced to hit the return key. It stuffs as many words as it can get on a line, then breaks the line at a word boundary. Another toggle allows you to select either a fixed, or floating left margin. That, however is about the extent of the word processing capabilities. It does not do things like justify your text, paginate, or things commonly associated with word processors. The function keys allow for kind of a manual word fill to end of line, split rest of line on next line, duplicate line, delete line. This allows you to manually fix up the jagged right margin after extensive editing.

HelpWare does not provide you a hexadecimal display for editing binary files, but it does display the funny looking screen characters and allow you to input most non-typable character by using Alt and the corresponding decimal code.

The help system is an extensive set of screens accessible by menu. The menus are contained in text files, and they are optional. If you need a version of the editor on a disk without the considerable extra disk space that help files require, you just don't copy them. HelpWare even allows you to create your own help screens.

HelpWare is an in memory editor, in other words, if your file size exceeds the memory space, you are out of luck. It is written in IBM Pascal, and the maximum data space is 64K regardless of how much memory you

have. It works well under DOS 2.0 provided you don't have any sub-directories. It also works with a hard disk provided you ASSIGN your drive to be A or B.

On the problem side, the program inserts tab characters where long strings of blanks appear, in an attempt to save disk space. This was a problem to some compilers (FORTRAN and COBOL). I understand updated HelpWare versions give an option of storing the files with the blanks expanded. Another irritation is if you accidentally hit Ctrl C instead of Alt C, you return to DOS. Speed is good in all areas except the find, which seems a little slow to me for an in-memory search.

In conclusion, HelpWare is a straight-forward, well engineered full screen text editor. It does not have every frill you will ever need for word processing, but it does have most of the capabilities needed for editing source code. It seems to be well debugged, in that I have found no major flaws in the two months that I have had it.

Tom Prickett



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HARDWARE

IBM introduced the 8087 floating-point processor for the PC which significantly increases speed and precision of floating-point arithmetic, logarithmic and trigonometric calculations at \$260 and a PC version of APL programming language, which is optimized for use with the new processor, for \$195. IBM also announced Logo for the PC at \$175, a game program, File Command directory listing program, and Learning to Use DOS 2.0.

Alloy Computer Products of Natick, MA introduced the ITS-PC tape drive for transferring data between the PC and 9-track tape drive or mainframes with 9-track tape capability. The drive offers high speed file-oriented backup for Minchesters. Backup storage is 42MB and disk tape transfer rate is 1MB per minute. The subsystem includes the PC-TIP (Tape Interface Package) software for controlling reading, writing and dumping operations and for customizing the drive operations. The drive supports 1600 bpi tapes for \$6,995 and is available now.

Alloy Computer Products also introduced the PC-Backup cartridge tape drive. The 4-track, 6400 bpi device accommodates 13.4MB of data per 450-foot tape and 16.5MB on a 555-foot cartridge. The drive which comes with PC-TIP software is \$1,995 and is available immediately.

AST Research of Irvine, CA announced four communications products for the PC and XT. PCnet is an integrated hardware and software local area network product based on standard 75-ohm CATV coaxial cable that allows devices to operate up to 7000 feet away from the processor. The price is \$695. AST-BSC is a communications package for 3270 emulation. Features include the ability to operate the PC as a 3274 Model 51C control unit. The price is \$895. Plusmodem is a modem card which consists of integrated Bell 212A-compatible, 1200 bps direct connect modem for \$595. The AST-5251 is a hardware and software product that allows the PC to emulate a 5251 terminal and costs \$895.

Caere of Los Gatos, CA introduced an optical character recognition system for the PC and XT. Retail price is \$1,145.

Chord Group of Ithaca, NY announced a turnkey Menu Management System based on the PC. The system includes basic recipe precosting and system maintenance, interactive menu planning, menu costing, production, purchasing and ordering, cash operations management and pricing and physical inventory. A system with 20MB Winchester disk, dual 320KB floppy disk drives, streaming tape cartridge for backup and 200 cps matrix printer is \$39,000.

Chancellor Computer of South San Francisco, CA announced a computer-aided-design workstation built around software and a graphics board for the PC. It includes the Cadgraph graphics editing package, Skimcap bill-of-materials extraction program and Simulog logic simulator. The capability is under \$30,000 and can function as a stand-alone system or as node in an Ethernet local area network.

CNC International of Bellevue, WA announced the Targa II hard disk subsystem. Subsystems are available with formatted storage of 5M, 10M or 15MB and in versions with spacer for a second drive or five additional cards. The prices range from \$1,490 to \$2,445.

3Com of Mountain View, CA announced network server support for PC DOS 2.0 and remote electronic mail capabilities for its Etherseries local-network system. The Etherlink board is \$950 for an IBM XT and the server software is \$500.

Colby Computer of Palo Alto, CA introduced the Colby PC-1 Conversion Kit that converts the PC into a 26-pound portable unit. The system includes 9" high resolution display and operates with the disk drive, system board, plug-in boards and keyboard from the PC. Once conversion is complete, the PC chassis acts as an expansion chassis that holds up to 5 standard PC plug-in boards, in addition to the 5 held by the Colby PC-1. The price is \$899.

Corvus Systems of San Jose, CA introduced the Corvus Mirror plug-in board for the XT that allows archival storage of up to 73MB on a video cassette. The board will be available in August.

CTC Electronics of Los Angeles, CA unveiled the CTC Quick Disc semiconductor device with up to 4MB of storage that appears as a disk drive. The price for 128KB of storage is \$1,130.

Hayes Microcomputer Products of Norcross, GA announced the Smartmodem 1200B board which fits inside the PC. The modem is \$595.

Informatics General of Woodland, CA is offering the Taps/PC Connection, a hardware/software link, which enables up to 128 PCs to communicate with each other. The product costs \$25,000 for the initial link and \$750 for each micro.

Innovative Data Technology of San Diego, CA introduced a 1/2" magnetic tape subsystem for the PC and XT microcomputers. The subsystem price is \$4,995.

Micro Link of Minneapolis, MN introduced a software/hardware interface device to allow a direct coaxial connection between an IBM PC and local 3274 or remote 3274/3276 cluster control units linked under either BSC or SNA/SDLC. The Coax-Link and interface adapter price is \$1,095.

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Nestar Systems of Palo Alto, CA was named a Value-Added Dealer with charter to resell the PC and XT with the firm's Plan 4000 lan directly to end users. Plan 4000 is a baseband, coaxial cable local area network transmitting data at 2.5MB per second using a token passing access method. The network uses ARCnet local area network protocols at its bottom level and Xerox Network Systems protocols at its higher level. Per terminal connection cost is \$595.

Northern Telecom introduced the PC interface card that connects the firm's SL-1 PBX to the PC or XT. The unit operates with standard IBM communications software on the PC to transmit data at up to 9,600 bps with an RS-422 communications interface. The card is \$200 and will be available this summer.

Novell of Orem, UT introduced the ShareNet X local area network, allowing up to 255 PCs, XTs and compatibles to share up to 320MB of hard disk storage. The network uses coaxial cable and CSMA/CD protocol and transmits at up to 1.43 M bps. The ShareNet Operating System runs on the XT which serves as the file server and allows different operating systems to run on different network nodes but to share the same network, directories and disk storage units. PC-DOS is currently supported, and support for USCD-p system and CP/M are planned. Options include an electronic mail system. The operating system is \$1,495, and each network interface module is \$695. The electronic mail option is \$995. ShareNet X will be available in August.

Von Leivendyke Enterprises of Norwalk, CT introduced the Graphics ConvertaBuffer printer buffer for the PC. It allows users to print business graphics generated by programs such as 1-2-3 and MBA on letter quality printers. The price \$499.

SOFTWARE

Applied Microsystems of Roswell, GA introduced the Personal Computer Data Interface which provides communications between the PC or XT and mainframes. The package incorporates telecommunications, data management and interactive graphics analysis. The interface can be used as a conventional communications terminal in ASCII or correspondence modes. An optional APL terminal is available.

Beaman Porter of Harrison, NY announced the Powerspell spelling-checker for use with its Powertext word processing software. The products are \$125 and \$399, respectively.

Buissoft of Loomis, CA announced the Buissoft Analyzer ratio analysis program for analyzing balance sheets and income statements. It runs on the PC and costs \$199.50

Corporate Software of Cambridge, MA was formed by Christopher D. Robert and two microcomputer consultants as a PC software distribution firm. Mr. Robert was former vice president of sales and field operations at Lexidata.

Data General introduced a terminal emulator package which makes the PC appear to be DG-based workstations to host DG computers in DG's Comprehensive Electronic Software system. The emulator provides both local and remote access for a \$150 license fee and will be available in 90 days.

Digital Research of Pacific Grove, CA released the DR Graph presentation quality graphics program that works with the firm's CP/M Graphics family for the PC running under CP/M or Concurrent CP/M. The price will be between \$300 and \$400.

Digital Research also unveiled languages for the PC. The products are a CBasic compiler for \$600, Pascal/MT for \$600, PL/1 for \$750, Level II COBOL for \$1,600 and programmers' utilities for \$200. All are available this month. Scheduled to be available in July were Access Manager for \$400, Display Manager for \$500 and a symbolic debugger for \$150. In August, C language will be available for \$600. All programs run under the PC-DOS operating system.

GMS Systems of New York, NY released a version of the PowerBase relational data base management system that adds a "flying command cursor" to allow the user to point to commands and execute instructions without keying words. The price is \$475.

Graphic Software of Cambridge, MA introduced the Chartman IV business graphics package for the PC in stand-alone or distributed processing applications. Monochrome or full-color images can be produced in two or three dimensions.

Innovative Software of Overland Park, KS introduced the Fast Facts executive filing system for the PC and compatibles. The software can store 1,000 forms and is \$195. Fast Facts is available immediately.

Intelligent Technologies International of Palo Alto, CA introduced the PC-to-PC 4800 Baud package that allows the PC to communicate at 4800 baud. The package operates with the firm's basic transfer product, PC Express, that allows file transfer between PCs in either asynchronous or 327X synchronous modes. The package is \$350 and will be available in the fourth quarter.

Micro Architect of Arlington, MA announced a screen writer for creating and saving screen formats. The program is \$98, or \$298 with the IDM-X data base manager.

Persoft of Madison, WI announced the Smarter/PC Model TE400-File Transfer capability which allows a PC to function as a Data General D100, D200 or D400 terminal and transfer program and data files to a host. The product is \$125. A DEC version of the product has been enhanced and is \$150.

Pyramid Data of Santa Ana, CA introduced the Number Cruncher financial modeling system for the XT for \$395.

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Quanteckna Research of Mountlake Terrace, WA announced the Quad-PC relational data base management system for the PC. The list price is \$695.

Redding Group of Richfield, CT introduced a 16-bit version of GrafTalk to run on the PC under the MS-DOS operating system and with Hewlett-Packard's 7470 plotter. GrafTalk is a business-oriented graphics tool with text editor and mini spreadsheet capability. The price is \$450. An upgrade from Version 2 of 8-bit GrafTalk is \$100.

Software Management Systems of Englewood, CO introduced Microtalk software package for the PC enabling the microcomputer to communicate with a Prime mini at speeds up to 9600 baud, for \$300.

STSC of Rockville, MD upgraded its APLPlus/PC system with improved execution time, improved use of user-supplied machine language subroutines, tone output using the computer's speaker, six new system functions and a terminal mode. APLPlus/PC is \$595.

VM Personal Computing of New York, NY introduced the Relay comprehensive communications package for the PC. The software permits sending and receiving messages between PCs while printing and editing locally. Relay permits communication with mainframe hosts, uploading and downloading of data, and operation as an APL terminal. The package provides access to service bureaus and dial-up computers. When used with a VM/370 system running PC3270, Relay simulates a locally attached 3270 terminal on the PC. The retail price is \$89.

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Hoare's Law of Large Programs

Inside every large program there is a small program struggling to get out.