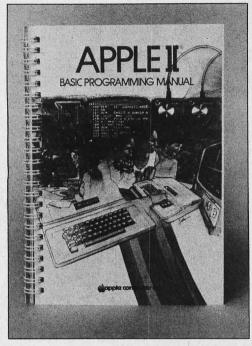
# What's New?

## SOFTWARE

## Apple BASIC Instructions. . .



#### Photo 1.

We recently received copies of the new Apple II BASIC Programming Manual, written by Jef Raskin of Apple Computer Inc, 20863 Stevens Creek Blvd, Bldg B3-C, Cupertino CA 95014. The manual measures about 6 by 8.5 inches (15 by 22 cm) with 125 pages bound within its covers. The book (see photo 1) is intended to be a working manual for familiarizing its reader with the Apple II computer. Whenever necessary, internal graphics include representations of the machine's keyboard highlighted with a green color to emphasize a point being made. Listings of computer output are often printed in green, as produced by a matrix printer. When a full screen image is represented,

## it is typically printed on the matrix printer and reproduced photographically as white on black to emphasize the image of a television screen. Full color reproduction is used for the several pages where actual Apple II output to a color TV is shown.

The manual begins with an introduction on the basics of the hardware and its interconnection. There is a description of the built-in 5 K integer BASIC. The introduction concludes with operation of one of the standard games supplied on cassette with the machine, Breakout. The next chapter is entitled Beginning BASIC, which in turn is followed by Elementary Programming. The formal presentation ends with Strings, Arrays and Subroutines as the last chapter. Several appendices com-Photo 2.

plete the book. Photo 2 illustrates several points about the Apple II BASIC Programming Manual. First, note the light type and the heavy type in the photograph. The lighter printing is green in the original, the heavier printing is black. Second, there is Jef Raskin's inimitable sense of humor which makes the manual an enjoyable experience. Look at page 24 of the Apple II BASIC Programming Manual at a local computer store for one of the most elegant modifications of a standard typing test string ever seen. (The string begins "THE QUICK BROWN FOX . . . and in its original form is known to everyone, but in its modified form shows a certain humorous familiarity with the urban geography of the northeastern United States.)

While not a reference document by intent, users of Apples will find much information and a verbal delight in the form of this BASIC manual by Jef Raskin...CH=

Circle 597 on inquiry card.

E	
On, yes-still want to see your name spelled backwards? Here's a program	Add this statement to your program. Then type
mat will do just that:	230 PRINT R# .LEN( R# ) and RUN the program. Does AS now contain XYZA? Next, retype line 220 as
106 CALL -SUST REN CLEAR SCREEN	
LIS DIN NORES(188)	and RUN the program again. Surprised at the result? In concessenation, the
128 INPUT "TYPE YOUR NAME. I WILL SH	AB(4)
OW IT TO YOU. SPELLED BACKWARDS.	represents that part of AS beginning at the fourth element. Thus, its Prie law version of the program, AB(4) became the letter A, AB(5) became the letter B
130 REN STEP BACKWARDS THROUGH THE	and so on. You have just concerentiated the string
HAME	ASCOE onto the string XVZ
140 FOR I= LENCHRHER > TO 1 STEP	
-1	Erase the program you just used and type this portion of a new program.
150 REM PRINT OHLY THE HERT LETTER	HEU
168 PRINT HRMEACI, 1)	100 DIM FIRST#(100).SECOND#(100) 110 INPUT *GIVE NE ABOUT HALF OF H S
ISA PRINT I REN "CANCEL" THE SENICO	ENTENCE: ",FIRSTs
LON,	120 INPUT FAND NOW THE SECOND HALF D
190 PRINT & REN SKIP B LINE.	F THE SENTENCE: ".SECONDS
200 REN DO LT ALL AGAIN	Now, suppose you wish to concetenate FIRSTs and SECONDS, sloring th
218 6070 128	combined string in FIRSTS. From the last program, you know that you ample start SECONDS one element after the last character in FIRSTS. But you don
	Incertify the two strings by using this statement.
	130 FIRSTAC LEN FIRSTA )+1 >= SECONDA
a is possible to add a second string to the end of an axisting string-	This line reveals the trick. You know that you want to place the second string
It is possible to add a second string to the end of an asseting entrop- assumery the Data asserters for the salaring entrop adcased authority room to portain both strings. Ford end or to entrop the the extension	one element beyond the end of the first string. Since LEN(FIRSTS) tells when the end of FIRSTS is, then LEN(FIRSTS) + I is one element after it ends. S
100 fits 64(28)	Plat is where you went SECONDS to begin.
parmate A5 to be a string of characters up to 75 characters long. The actual tanges of A5 is LENIAS). For exemple, if you type	To watch this program work, type
108 DIM As(75)	140 PRINT FIRSTS
206 ASATAY2"	RUN
EIS PRINT LEN(AT)	And that's how you can do concatenation.
FILM	
the number ponted should be 3. To add a character onto the end of A8—as it stands now — you can hope	The second s
220 H1 4 1 4 14	T
and the second	
	69

#### Software for the North Star Disk System

According to its developers, the Comprehensive Mailing List Program Package, #ML-1NS, is a modular program set which enables the user to start and maintain one or more mailing lists. Operations include: add, delete, search, sort, auto-sort, and sequential printout. Features include: user selectable defaults for ease of entry, user selectable number of labels across page for different printers and label sheets, and user selectable 3 or 4 line address for each independent entry. The software is available with documentation and diskette for \$25 from Williams Radio and TV Inc, Computer Division, 2062 Liberty St, POB 3314, Jacksonville FL 32206. Circle 598 on inquiry card,

**EMPL Interpreter for 8080** 

EMPL is a micro version of APL for the Intel 8080. It resides in the first 5632 bytes of memory. EMPL has numeric and character vectors, user defined niladic, monadic and dyadic functions, 22 primitive functions and nine system commands. It can be run either in the ASCII or APL character set. The range is  $\pm 32767$  and double byte integer arithmetic is used. EMPL comes with a user's manual that includes information on implementing it on any system using Z-80 or 8080 processors with at least 8 K of memory. EMPL is \$10 on Tarbell cassette; \$20 on paper tape, North Star disk, CUTS cassette, or MITS cassette from Erik T Mueller, Britton House, Roosevelt NJ 08555. Circle 599 on inquiry card.

### Utility Package for North Star Micro Disk System

A complete disk utility package for the North Star Micro Disk System is now said to be available from Micro Logistics, POB 922, Madison Square Station, New York NY 10010. PKGUT1 on diskette includes the following four 8080 machine language programs origined at 0: Packit: packs and unpacks disk files so you can get more storage per disk; Changit: prints, dumps and/or changes data in disk files up to a global level; Sortit: a generalized sorting utility; Compit: file comparison utility which will compare disk files sequentially or by key and display differences. Diskette with full user's documentation is priced at \$80.

Circle 600 on inquiry card.