

### Apple BASIC Instructions. . .

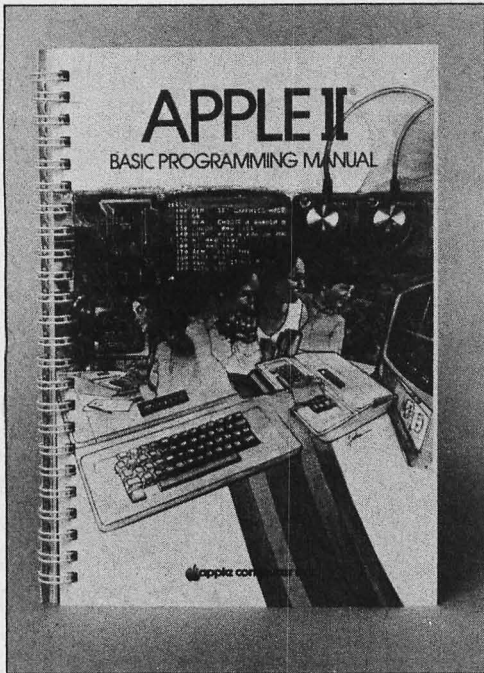


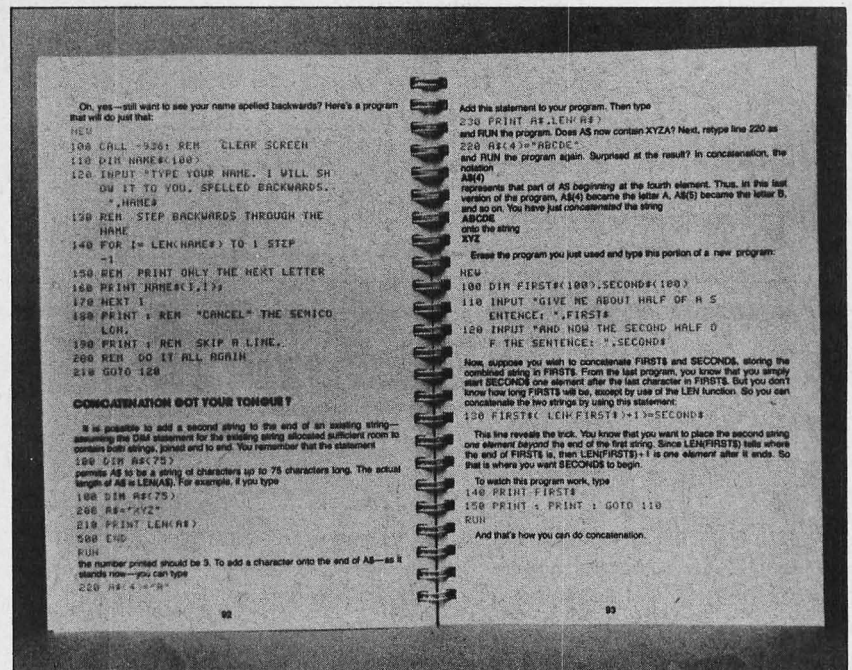
Photo 1.

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.

### 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.■

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### 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.■

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### 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 originated 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.■

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