

MICROSOFT AND TRS-80™ MODEL II. RUNNING THE SHOW.

TRS-80 Model II is designed for professional business applications. Your ultimate goal for your Model II is probably a fast, turnkey system that's easy to use and easy to expand. To get there you need dependable, flexible system software to write the programs that run the whole show.

Microsoft's COBOL-80 and BASIC compilers are now available in versions fully compatible with Model II TRSDOS. You can have either of these universally popular programming languages plus all the advantages of a compiler: faster execution times, compact executable code, security for your programs.

With Microsoft's compiled languages you get a complete program development system, including our standard MACRO-80 Assembler and LINK-80 Linking Loader. Your compiled programs are relocatable modules that can be linked to each other or to Z80 assembly language subroutines.

COBOL-80 Compiler

Microsoft's COBOL-80 is an ANSI-74 standard COBOL that supports such advanced data manipulation verbs as COMPUTE, INSPECT, STRING, UNSTRING, and SEARCH. Plus three-dimension arrays, full COPY facility, compound and abbreviated conditions, and an optional packed decimal format that saves on mass storage by as much as 40%. In addition to Sequential and Relative files, COBOL provides Indexed files, allowing records to be retrieved with a user-specified key instead of a record number.

Interactive Screen Handling Most business applications require machine interaction, formatted screen displays, and the ability to insert and delete information as the machine prompts the user. The COBOL ACCEPT/DISPLAY verbs are implemented for this purpose—to DISPLAY formatted screens and ACCEPT operator input.

CHAIN and Segmentation Ideal for menu-driven application programs is COBOL-80's CHAIN feature. With

```

SHIP TO: ZAKS, ZEPHYRYM
COMPANY: ZAKSWIDG
ADDRESS:
*****
ITEM      QTY      AMOUNT
TOTAL
    
```

COBOL-80 formatted screen display

CHAIN, control is transferred from the menu program to any executable module as specified at runtime. COBOL-80 also supports Segmentation to make maximum use of memory when large programs are executing.

BASIC Compiler

The Microsoft BASIC Compiler has the fastest execution times of any BASIC available. It is language compatible with the Model II's interpreter so you can write and test your programs using the interpreter, then compile them for secure storage and efficient execution.

New BASIC Features In addition to those language features provided with the interpreter, the BASIC compiler supports all the latest features of Microsoft BASIC 5.1: WHILE conditional statement, CALL, long variable names, and ANSI compatibility. Plus the compiler has double precision transcendental functions (SIN, COS, TAN, ATN, LOG, EXP, SQR).

Secure Besides being an indispensable system software tool for developing your own utilities and application programs, the BASIC compiler is ideal for producing programs for resale. The machine code for any application program may be placed on a diskette, ROM, or other media, but the BASIC source program need not be distributed. Thus the original application program is protected from unauthorized alteration.

```

110 I = 4*J: K = (4*J-1) AND &H0FF0
**0025' L00110: LD HL,(J%)
**0028' ADD HL,HL
**0029' ADD HL,HL
**002A' LD (I%),HL
**002D' DEC HL
**002E' LD A,L
**002F' AND FO
**0031' LD L,A
**0032' LD A,H
**0033' AND OF
**0035' LD H,A
**0036' LD (K%),HL
    
```

BASIC compiler object code listing

Optimized Machine Code Compiled BASIC programs are fast and compact due to extensive optimizations performed during compilation:

1. Expressions are reordered to minimize temporary storage and eliminate common subexpressions
2. Constants are folded wherever possible
3. Peephole optimizations are performed
4. The code generator is template-driven, allowing optimal sequences to be generated for the most commonly used operations
5. String operations and garbage collection are extremely fast

Get Microsoft BASIC Compiler or Microsoft COBOL-80 and get serious with your Model II. After all, who's running this show?

Prices for COBOL-80 and BASIC Compiler include the MACRO-80 Assembler and LINK-80 Linking Loader and all documentation. Documentation purchased separately, \$20.

COBOL-80 \$750.
BASIC Compiler \$395.

**For TRS-80 Model II software,
contact Microsoft Consumer
Products.**

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We set the standard.