

PREFACE

Congratulations! You are about to discover the unique and powerful properties of XYBASIC, the only BASIC interpreter specifically designed for process control, data acquisition and real time applications with 8080-based microcomputer systems.

Until now, the 8080 (like other computers) could be programmed for most applications of this type only in assembly language. But even experienced professional programmers admit that assembly language programming is awkward and time consuming, and therefore expensive. To develop a program in assembly language you must (1) write it, (2) load the editor, (3) type in the program, (4) load the assembler, (5) assemble the program, (6) load the loader, (7) load the program, (8) execute the program, and (9) debug the program. And every time you find a bug you must repeat all the steps.

The programming language BASIC, designed for people with no previous knowledge of computers as well as for the experienced programmer, makes programs much easier to write and understand. Since the 8080 actually executes machine language, though, an interpreter is required to translate BASIC programs; the interpreter permits the computer to execute the given BASIC commands immediately.

Others have implemented BASIC on the 8080, but until now there have been no BASIC interpreters specifically designed for process control applications. Now this vital need has been filled with the introduction of the powerful XYBASIC interpreter. Almost anyone can use it to create process control programs quickly and easily -- in as little as one tenth of the time it used to take!

Here's how it works

All you need is the XYBASIC interpreter, available on floppy disk, paper tape or EPROM, plus of course an 8080-based computer such as the 8080, Z-80 or 8085 with 14K of memory (8K for Integer XYBASIC) and a console. After you load XYBASIC into the computer in as little as five seconds and go through a short initialization dialog, you just type in your program and execute it. When you find a bug you can change the program and execute it again without loading any other programs.

Look at all these features

Of course XYBASIC includes the standard BASIC commands, such as READ, DATA, FOR, NEXT, GOTO, GOSUB, RETURN, ON / GOTO, ON / GOSUB, PRINT and CONT... plus arrays, user-definable functions and others. XYBASIC lets you use fast integer arithmetic, and Extended XYBASIC gives you the full power of floating point and strings.

But XYBASIC has many other features specifically designed for process control, giving you the power of assembly language programming with the ease of programming in BASIC.

You can examine and modify any locations in your computer's memory with PEEK and POKE. The IN and OUT commands let you perform machine-level input