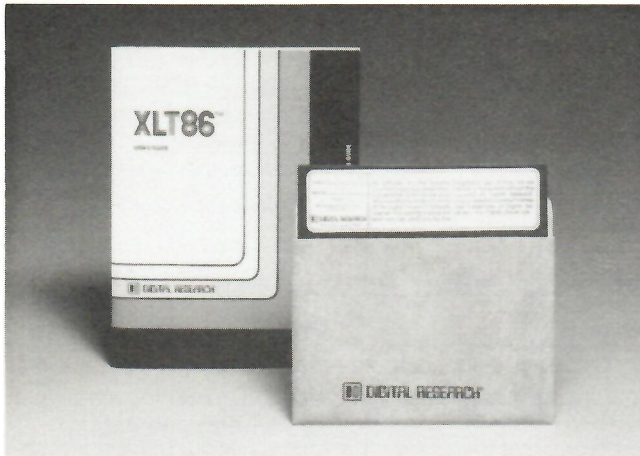


XLT86™**XLT86 OVERVIEW**

XLT86 permits a user to translate an 8080 assembly source code file into an optimized 8086 assembly source code file that is compatible with Digital Research ASM-86™ for the Intel 8086 or 8088 microprocessor chip. XLT86 is an aid to software and hardware manufacturers wishing to convert their existing 8-bit 8080 programs to the 16-bit 8086 microcomputers.

XLT86 optimizes the translation process through global optimization techniques. The program keeps track of the source program logical flow and selects the appropriate optimal 8086 instructions for the object 8086 assembly file.

To ease program development and maintenance, XLT86 preserves all existing labels, comments and symbols of the 8080 source program. This feature reduces the amount of time required to develop and support 8086 code. Additionally, it minimizes the documentation problems involved in generating new code.

XLT86 COMPATIBILITY

XLT86 will translate 8080 code to Digital Research's ASM-86 8086 assembly language code. As a by-product of the translation process, sufficient information is generated to aid in program analysis and debugging. XLT86 will run on any 8-bit CP/M® or MP/M™ system with at least 40K of free user space. The object code is compatible with Digital Research's ASM-86 assembler running under CP/M-86™ or MP/M-86™.

XLT86 FEATURES

- Translates code to 8086 code
- Produces "BASIC BLOCK" listings for program flow analysis
- Produces 8080 pseudo assembly with machine code listing to assist in program debugging
- Optimization techniques insure more efficient code
- Preserves original program comments and documentation
- Useful teaching tool for introducing 8086 coding techniques
- VAX version available for large program translation

XLT86 ORGANIZATION

The distribution version of XLT86 provides not only the ability to translate from 8080 to 8086 assembly language code, but also provides intermediate steps that aid in understanding the code translation and program logic. These steps are as follows:

Symbol Setup:

XLT86 passes through the 8080 source code and sets up a table of symbols and locations to be referenced in later stages.

Basic Block Setup:

During this phase of the translation process by XLT86, the 8080 source program is divided into logical blocks.

Block Join:

XLT86 next creates a "directed graph" that connects the basic logical blocks.

Block List:

At this point XLT86 may be called upon to list the basic blocks and the status of each register before, during and after each block.

Translation:

Finally XLT86 translates the original 8080 source code to an 8086 source code using the information derived from the intermediate steps to achieve a high degree of efficiency.

During these processes, XLT86 analyzes the program flow so that the 8080 instructions can be replaced with the proper 16-bit 8086 instructions.

THE XLT86 PACKAGE

XLT86 is shipped on one single-sided, single-density 8" floppy disk in IBM compatible format. The disk contains the following machine-readable files:

XLT86.COM
XLT00.OVL
XLT01.OVL
DUMP.ASM
DUMP.PRN
DUMP.A86

The XLT86 package includes full documentation for the product. Documentation is also available separately.

HARDWARE REQUIREMENTS

Two versions of XLT86 are available. One version runs on the VAX™ 11/780 or 11/750 under the VMS operating system. The second version runs on a microcomputer using CP/M or MP/M. Both versions are written in Subset G of PL/I.

The CP/M-MP/M version requires the following hardware:

- 8080, 8085 or Z-80® based system
- Minimum of 48K RAM per user
- CP/M or MP/M operating system
- One disk drive (2 or more recommended)

The VAX version requires:

- VAX 11/780 or 11/750
- VMS operating system
- Magnetic tape drive (1600 BPI)
- 128K memory

Please contact Digital Research for information on the VAX/VMS version.

DIGITAL RESEARCH

Digital Research, Pacific Grove, CA is the leading producer of microcomputer operating systems and utilities. For eight years Digital Research has been involved with the design, development and support of microcomputer software. The single user operating system, CP/M, multi-user MP/M II™ and software network, CP/NET™, form the basis of a family of operating system software products spanning 8 and 16 bit microcomputers. Digital Research users include over 250,000 systems, 300 OEMs and 400 independent software houses.

XLT86 ORDERING INFORMATION

Product	Order Description
XLT86 (CP/M version)	One single-density, single-sided 8" diskette and XLT86 documentation.
XLT86 (VAX/VMS version)	One reel 1600 BPI magnetic tape and XLT86 documentation.
XLT86 Documentation	XLT86 User's Guide

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