18/30 FORTRAN IV SOFTWARE DATA SHEET

PURPOSE

General Automation's 18/30 Fortran IV is designed to provide the engineering and scientifically oriented user with an easy to learn, easy to use method of communicating with a GA 18/30 computer.

FEATURES

- Problem oriented
- Superset of ANSI Basic Fortran X3.10-1966
- Compatible with IBM 1130 Fortran IV
- Runs under all three GA 18/30 operating systems (DMS, CMS, and DPS)
- Runs on a minimum GA 18/30 configuration

DESCRIPTION

Fortran IV consists of a mathematically oriented symbolic programming language and a compiler program; The user programs a solution to his problem using the Fortran IV language. The compiler program accepts the symbolic source program and produces a binary object program in 18/30 machine language format. The user is only concerned with solving his problem. Since he writes his program using a programming language which is simple to learn and easy to use, he needn't be concerned with the mechanics of hardware oriented programming.

General Automation's powerful 18/30 Fortran IV conforms to ANSI Basic Fortran standard (X3.10-1966) and, in addition, implements the following extensions:

- Mixed mode arithmetic
- Random Access I/O
- T format
- Literal format
- A format
- Expressions of the format A**B**C
- Machine indicator tests
- Accepts source characters @, &, #, <, %
- DO-extended range
- Declared array size in common
- EXTERNAL statement
- Type statements
- Dimension information in Type statement
- DATA statement
- Type specification in function statement
- Transmit external subprogram names in a Call

GA's 18/30 Fortran IV is fully compatible with IBM's 1130/1800 Basic Fortran IV. Programs written in Fortran for the 1130 will execute under GA's Disk Monitor System (DMS) without modification. It is not even necessary to recompile the programs. This high degree of compatibility virtually eliminates the time consuming and costly program conversion efforts frequently associated with hardware changes.

Fortran IV runs under all three of GA's major operating systems. The compiler runs as a batch language processor under GA's Disk Monitor System (DMS), Communications Monitor System (CMS), and Data Processing System (DPS). Thus, Fortran IV is available to users operating in a wide variety of data processing environments. Having Fortran IV available under DMS, CMS, and DPS helps ensure that a user can easily move from one GA 18/30 operating system to another.

CONFIGURATION

The General Automation 18/30 Fortran IV compiler will operate on the minimum standard 18/30 hardware configuration. This minimum configuration is as follows:
   18/30 CPU (8K, 16 bit words)
   Disk Drive (512K words)
   Line Printer (300 LPM)
   Card Reader (400 CPM)
   Console TTY

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