Tech Info Library

Apple FORTRAN: Specifications (Discontinued)

--Order #: A2D0032

--Technical Specifications:

1. Format: 16-sector disks
2. Language:
   a. Pascal
   b. Produces P-code, which runs in the Apple Pascal Operating System
3. Intrinsic Functions:
   ABS, ACOS, AINT, ALOG, ALOG10, AMAX0, AMAX1, AMIN0, AMIN1, AMOD, ANINT, ASIN, ATAN, ATAN2, CHAR, COS, COSH, DIM, EOF, EXP, FLOAT, IABS, ICHAR, IDIM, IFIX, INT, ISIGN, LGE, LGT, LLE, LLT, MAX0, MAX1, MIN0, MIN1, MOD, NINT, REAL, SIGN, SIN, SINH, SQRT, TAN, TANH

--Package:

1. Disk: Apple FORTRAN System
2. Disk: Apple FORTRAN System
3. Manual: Apple FORTRAN Language Reference

--System Configuration:

1. Computer:
   a. Apple II
   b. Apple II Plus with Language Card
   c. Apple IIe
   d. Apple IIc
2. disk drive: Apple Disk II

NOTE: While a single drive system is adequate for very small programs, two drives are strongly recommended for ease of operation and more serious program development

3. video display: Monitor II
4. Apple Pascal package

--Features:

1. Industry standard, ANSI X3.9-1978

2. ANSI Standard Subset of the FORTRAN 77 standard

--Supports enhancements and facilities from the full FORTRAN 77 language

--Contains enhancements beyond the full FORTRAN 77 specifications:
1. Compiler directives in the source code permit many files in one compilation.
2. An additional parameter to the OPEN statement allows you to specify that the file is blocked or unblocked.

--Minor differences between the ANSI Standard Subset FORTRAN 77 and Apple FORTRAN:
1. Subprogram names cannot be passed as parameters.
2. INTEGER and REAL data types have different storage requirements:
   a. 2 bytes for INTEGER
   b. 4 bytes for REAL

NOTE: Apple FORTRAN does not support double-precision arithmetic.

3. Apple Pascal Operating System Linker links:
   --FORTRAN P-Code files
   --Compiled P-code
   --Assembled machine code

4. Interfaces to routines in Pascal system library
   --High-res graphics
   --Sound generation
   --Hand control routines

5. Subscript expressions may include array elements and function calls

6. DO statement limits may be defined by expressions, rather than just single variables

7. Input/output (I/O) units may be specified by expressions, rather than just constants or simple variables

8. The I/O list of a WRITE statement may include expressions

9. All combinations of FORMATTED/UNFORMATTED and SEQUENTIAL/DIRECT files are allowed, with the following restrictions:
   --BACKSPACE is supported only for files connected to the blocked devices -- it is not supported for UNFORMATTED SEQUENTIAL files;
   --DIRECT files must be connected to block devices

Apple Technical Communications

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