



Tech Info Library

Apple III Business BASIC: Specifications (1 of 2) (Discontinued)

--Order #: A3D0004

--Technical Specifications:

1. Environment: SOS

2. Format: 16-sector disks

3. Variables:

--64 characters maximum, all significant

--Reserved variables:

ERR, KBD, EOF, VPOS, ERRLIN, HPOS, FRE, PREFIX\$

--Data types:

a. 16-bit binary integers:

--Range: -32768 to 3277

b. 64-bit binary integers:

--Range: - to + 9223372036854775807 or $2^{63}-1$

--Precision: 18 digits

c. 32-bit binary floating-point:

--Range: - to + 10^{38}

--Precision: 6 digits

d. Character strings:

--0 to 255 characters

--dynamic

e. String and numeric arrays:

--indexed starting with 0

--no dimensional limits

4. Operators:

--General:

+ - * / DIV MOD

(NOTE: DIV and MOD are only for long integer operations)

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--Binary logical:
    AND OR = < > <> >< >= <= =< =>

--Unary logical:
    NOT

--String:
    + (concatenation)

```

5. Statements:

(Note: No statement or statement list may exceed 254 characters, including delimiters.)

```

LET (optional)
REM
GOTO
IF...GOTO
IF...THEN
IF... statementlist: ELSE statementlist
FOR ctrl variable + expression TO expression STEP expression
    NEXT ctrl variable (other ctrl variable)
GOSUB
RETURN
POP
ON expression GOTO
ON expression GOSUB
ON ERR
ON KBD
ON EOF #
OFF ERR
OFF KBD
OFF EOF #
RESUME

```

--Utility Statements:

```

NEW    LOAD    STOP    CLEAR    SAVE    END    FRE    DELETE    CONT
PREFIX$    RUN    CHAIN prog name, line number

```

--User-Defined Functions:

```

FN functionname (argument)
DEF FN functionname (argument) = expression

```

--Debugging:

```

TRACE    NOTRACE

```

--Cursor and Screen:

```

LIST    VPOS    HOME    NORMAL    DEL    HPOS    TEXT    INVERSE

```

--String, Numeric, and File functions:

```

LEN    TEN    CONV    TAN    SQR    STR$    MID$    CONV%    ATN    EXP
VAL    LEFT$    CONV&    INT    LOG    CHR$    RIGHT$    CONV$    RND    TYP
ASC    SUB$    SIN    SGN    REC    HEX$    INSTR    COS    ABS

```

```

--Program Resident Data Statements:
    DATA    READ    RESTORE

--Machine Language Statements and Functions:
    INVOKE   PERFORM   EXFN   EXFN%

--File I/O:
    CATALOG   DELETE   RENAME   LOCK   UNLOCK   CREATE
    (f=filenumber r=recordnumber)
    OPEN # f (AS INPUT, AS OUTPUT, AS EXTENSION)
    CLOSE# f   CLOSE
    INPUT # f,r   OUTPUT # f
    PRINT # f,r   PRINT # f,r USING
    READ # f,r   WRITE # f,r

--Console I/O:
    INPUT    GET    TAB    SPC    SCALE    PRINT    PRINT USING
    IMAGE specification(s)

--String specifications:

    Reserve a character position:
        --A left-justified
        --R right-justified

--Literal specifications:
    a. X prints a space
    b. / prints a carriage return/line feed
    c. "literal" prints whatever is in quotes.

--Digit specifications:

    1. Reserve one numeric digit:
        a. # leading zeros suppressed
        b. Z leading zeros printed.
        c. & digit or comma (comma fill every three digits)

    2. Reserve a position for the:
        a. . decimal point
        b. + positive sign
        c. - negative sign (if negative)
        d. $ dollar sign:
            1. ** asterisk fill
            2. ++ floating sign
            3. floating sign (if negative)
            4. $$ floating dollar sign

--Scientific notation specification:
    E reserves a position for the exponent (power of 10)

--Engineering notation specification:
    same as scientific, except the exponent is always a multiple of

```

three.

Apple Technical Communications

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