



Tech Info Library

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

Revised: 9/10/93
Security: Everyone

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--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)

--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
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--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
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--Machine Language Statements and Functions:

INVOKE	PERFORM	EXFN	EXFN%
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--File I/O:

CATALOG	DELETE	RENAME	LOCK	UNLOCK	CREATE
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(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
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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

Tech Info Library Article Number:272