

The following statements and functions are found in ALL versions of the True BASIC Programming Language:

ORDINARY STATEMENTS AND STRUCTURES:

```
PROGRAM
END
LET
DO Loop Structure
    EXIT DO
    LOOP
FOR Loop Structure
    EXIT FOR
    NEXT

SELECT CASE Structure
    CASE
IF
IF Structure
    ELSEIF
    ELSE
    END IF
    END SELECT
CASE ELSE
```

OTHER STATEMENTS:

```
ASK FREE MEMORY
DIM
PAUSE
RANDOMIZE
REM
STOP
```

FOR LINE-NUMBERED PROGRAMS:

```
GOSUB
ON GOSUB
GOTO
ON GOTO
RETURN
```

TO SET VARIOUS OPTIONS:

```
OPTION ANGLE
OPTION NOLET
OPTION ARITHMETIC
OPTION TYPO
OPTION BASE
OPTION USING
OPTION COLLATE
```

INPUT AND OUTPUT STATEMENTS:

DATA
INPUT
LINE INPUT
MAT INPUT
MAT LINE INPUT
MAT PRINT
MAT READ
PRINT
READ
RESTORE

ASK MARGIN
SET MARGIN
ASK ZONEWIDTH
SET ZONEWIDTH

FILE STATEMENTS:

CLOSE #n
ERASE #n
INPUT #n:
LINE INPUT #n:
OPEN #n:
RESET #n:
PRINT #n:

FUNCTIONS AND SUBROUTINES:

CALL
DECLARE DEF (FUNCTION)
DEF
DEF Structure
 EXIT DEF
 END DEF
EXTERNAL
LIBRARY
LOCAL
SUB Structure
 EXIT SUB
 END SUB

FUNCTION
FUNCTION Structure
 EXIT FUNCTION
 END FUNCTION
DECLARE NUMERIC
DECLARE STRING
DECLARE SUB
CHAIN

GRAPHICS AND SOUND STATEMENTS:

BOX AREA
BOX CIRCLE
BOX CLEAR
BOX DISK
BOX ELLIPSE
BOX KEEP
BOX LINES

BOX SHOW
CLEAR
DRAW
SOUND
FLOOD
PICTURE Structure
 EXIT PICTURE
 END PICTURE
PLAY
PLOT
PLOT AREA
PLOT LINES
PLOT POINTS
PLOT TEXT
SET WINDOW
SET TEXT JUSTIFY
ASK BACK
ASK COLOR
ASK COLOR MIX
ASK CURSOR
ASK DIRECTORY
ASK MAX COLOR
ASK MAX CURSOR
ASK MODE
ASK NAME
ASK PIXELS
ASK SCREEN
ASK TEXT JUSTIFY
ASK WINDOW
BOX DISK
GET KEY
GET MOUSE
GET POINT
MAT PLOT
MAT PLOT AREA
MAT PLOT LINES
MAT PLOT POINTS
OPEN SCREEN
SET BACK
SET COLOR
SET COLOR MIX
SET CURSOR
SET DIRECTORY
SET MODE
SET NAME
WINDOW

MAT Statements:

MAT PRINT
MAT Assignment
MAT INPUT
MAT LINE INPUT
MAT REDIM
MAT READ
MAT WRITE
MAT PLOT AREA
MAT PLOT LINES
MAT PLOT POINTS

FILE Statements:

ASK #n: ACCESS
ASK #n: DATUM
ASK #n: ERASABLE
ASK #n: FILESIZE
ASK #n: FILETYPE
ASK #n: MARGIN
ASK #n: NAME
ASK #n: ORGANIZATION
ASK #n: POINTER
ASK #n: RECORD
ASK #n: RECSIZE
ASK #n: RECTYPE
ASK #n: SETTER
ASK #n: ZONEWIDTH
MAT INPUT #n:
MAT LINE INPUT #n:
MAT PRINT #n:
READ #n:
SET #n: MARGIN
SET #n: POINTER
SET #n: RECORD
SET #n: RECSIZE
SET #n: ZONEWIDTH
UNSAVE
WRITE #n:

MODULE Structures:

MODULE Structure
PRIVATE
PUBLIC
SHARE
DECLARE PUBLIC
END MODULE

Exception Handling:

CAUSE ERROR
CAUSE EXCEPTION
CONTINUE
HANDLER
END HANDLER
EXIT HANDLER
RETRY
WHEN Structure
USE
END WHEN

DEBUGGING STATEMENTS:

BREAK
DEBUG
TRACE

BUILT-IN SUBROUTINES:

Clipboard
ComLib
ComOpen
Divide

Object
 PackB
 Read_Image
 System
 Sys_Event
 TBD
 UnpackB (a function, not a subroutine)
 Write_Image

BUILT-IN FUNCTIONS:

MATHEMATICAL FUNCTIONS

Function	Result
ABS(x)	Absolute value
ACOS(x)	Arccosine
ANGLE(x,y)	Angle between x-axis and (x,y)
ASIN(x)	Arcsine
ATN(x)	Arctangent
CEIL(x)	Ceiling (-INT(-x))
COS(x)	Cosine
COSH(x)	Hyperbolic cosine
COT(x)	Cotangent
CSC(x)	Cosecant
DEG(x)	Translates radians to degrees
EPS	Smallest nonzero positive number
EXP(x)	Exponential function
FP(x)	Fractional part of x
INT(x)	Integer part
IP(x)	Greatest integer <= x
LOG(x)	Natural logarithm
LOG10(x)	Common logarithm (base 10)
LOG2(x)	Logarithm to the base 2
MAX(x,y)	Larger of two numbers
MAXNUM	Largest positive number
MIN(x,y)	Smaller of two numbers
MOD(x,y)	Remainder when x is divided by y
PI	Value of pi
RAD(x)	Translates degrees to radians
REMAINDER(x,y)	Remainder of x divided by y
RND	Random number between 0 and 1
ROUND(x,n)	Rounds x to n decimal places
SEC(x)	Secant
SGN(x)	Sign of x
SIN(x)	Sine
SINH(x)	Hyperbolic sine
SQR(x)	Square root
TAN(x)	Tangent
TANH(x)	Hyperbolic tangent
TRUNCATE(x,n)	Truncates x to n decimal places

DATE AND TIME FUNCTIONS

Function	Result
DATE	Year and day of year as a number
DATES\$	Year, month, and day of month as a string
TIME	Seconds since midnight
TIMES\$	24-hour clock time as a string

STRING TO NUMBER FUNCTIONS

Function	Result
CHR\$(x)	Character represented by ASCII number x
ORD(x\$)	Ordinal position of x\$ in ASCII character set
NUM(x\$)	Numeric value of IEEE 8-byte string
NUM\$(x)	IEEE 8-byte equivalent of numeric value
STR\$(x)	Changes number to a string
VAL(x\$)	Changes string containing digits to a number

STRING TRANSFORMING FUNCTIONS

Function	Result
LCASE\$(x\$)	Change letters to lowercase
UCASE\$(x\$)	Change letters to uppercase
LTRIM\$(x\$)	Remove leading blanks
RTRIM\$(x\$)	Remove trailing blanks
TRIM\$(x\$)	Remove leading & trailing blanks
REPEAT\$(x\$,n)	x\$ repeated n times

STRING SEARCH FUNCTIONS

Function	Result
LEN(x\$)	Number of characters in x\$
POS(x\$,y\$,n)	First occurrence of y\$ in x\$ after character n
POSR(x\$,y\$)	Ditto POS but starting from the end
CPOS(x\$,y\$)	First occurrence in x\$ of any character in y\$
CPOSR(x\$,y\$)	Ditto CPOS but starting from the end
NCPOS(x\$,y\$)	First occurrence in x\$ of any character not in y\$
NCPOSR(x\$,y\$)	Ditto NCPOS but starting from the end

ARRAY FUNCTIONS

Function	Result
DET(a)	Determinant of the square matrix a
DOT(a,b)	Dot product of vectors a and b
LBOUND(a,n)	Lower bound of dimension n for array a
UBOUND(a,n)	Upper bound of dimension n for array a
SIZE(a,n)	Number of element in dimension n of array a

MAT FUNCTIONS (that can appear only in MAT assignment statements)

Function	Result
CON	Array of ones
IDN	Identity matrix
INV(a)	Inverse of array a
NUL\$	Array of empty strings
TRN(a)	Transpose of array a
ZER	Array of zeroes

SILVER Edition has all the above, plus an additional 1,443 pre-written interface controls and additional subroutines in compiled form.

GOLD Edition has all the above, plus an additional 3,117 pre-written interface controls and additional subroutines in both compiled form and most also in source code.

True BASIC - <http://www.truebasic.com>