

## MAXIPACK EXTENDED BASIC CALL SYNTAX:

### NOTES:

Some EXTENDED BASIC CALLs have aliased name versions that do the identical operation. 4051 BASIC does not allow for, and will usually fail, any conditional string comparisons unless they are enclosed in (parentheses). EXTENDED BASIC programs do not exhibit the string comparison parsing error and they do not catch loop termination type errors.

Logical Statements also include AND and OR used in any combination.  
The vertical bar "|" means OR; select one the choices shown.  
Numeric means a Numeric Constant or Numeric Variable.  
Literal means a Quoted String not a String Variable.  
String means a Quoted String or String Variable.  
Constant means a Numeric Constant.  
HHHH means a 4 hex digit address.

There are multiple identical CALL names among the MAXIPACK ROM PACKs. Thus as a result some EXTENDED BASIC CALL routines can never be executed since other ROM PACKs happen to use the same CALL name; meaning that they always get executed instead of the EXTENDED BASIC version since the latter is at the end of the CALL list in the MAXIPACK. This document shows the MAXIPACK CALL syntax so non-MAXIPACK EXTENDED BASIC CALLs may have a different syntax or usage.

The current list of duplicate ROM PACK CALL names is shown below:

DISPLAY: VIEWTO

UTILITY: CLIST VLIST PEEK POKE PWRON

MAG TAPE: IGHEAD MTFWD MTBACK MTREAD MTBUFF MTPACK NEWTAP TAPEIN TNAME

### WHILE LOOP:

CALL "WHILE", <Constant>|<Numeric>|<String>|<Logical Statements> Starts the WHILE loop.  
<execute these lines>  
CALL "EXITWH" Early exits the enclosing WHILE Loop.  
CALL "ENDWHI"|"ENDW" Terminates the WHILE Loop.

### REPEAT LOOP:

CALL "REPEAT" Starts the REPEAT loop.  
<execute these lines>  
CALL "EXITRE"|"EXITR" Early exits the enclosing REPEAT Loop.  
CALL "UNTIL", <Constant>|<Numeric>|<String>|<Logical Statements> Terminates the REPEAT Loop.

### CASE BLOCK:

The CASE type and WHEN types must be consistent; i.e. WHEN cannot be a number if CASE is a string.  
After a WHEN match is found no GOTO is required; all remaining WHENs will be skipped even if they match.  
CALL "CASE", <Constant>|<Numeric>|String> Starts the CASE Block.  
CALL "WHEN", <Constant>|<Numeric>|String> Selects a matching CASE entry.  
<execute these lines>  
CALL "ENDCAS"|"ENDC" Terminates the CASE Block.

### IF THEN ELSE BLOCK:

CALL "IF", <Constant>|<Numeric>|<String>|<Logical Statements> Starts the IF THEN ELSE block (THEN is implicit).

<execute these lines>  
CALL "ELSE" Starts the ELSE alternative.  
<execute these lines>  
CALL "ENDIF"|"ENDI" Terminates the IF THEN ELSE block.

#### NAMED SUBROUTINES:

CALL "GOSUB", "<Literal>" CALLs a named Subroutine.  
CALL "BEGINSUB", "<Literal>" Names a Subroutine. Note that all 8 characters must be used even though only 6 are required for CALL name match!

#### ASSERT MODE:

CALL "ASSERT",<Constant>|<Numeric>|<String>|<Logical Statements> Aborts the running program if the expression is false.  
CALL "DISASS" Disables ASSERT MODE.  
CALL "ENASSE" Enables ASSERT MODE.

#### NAMED GOTO:

CALL "GOTO", <Literal> Jumps to a named program line.  
CALL "LABEL", <Literal> Names a program line.

#### DISPLAY:

CALL "ENINDE" Enables LIST loop and block indenting.  
CALL "DISEND" Disables LIST loop and block indenting.  
CALL "ONEMAR"|"CLRMAR" LIST does normal 72 character lines with wrapping, PAGE FULL after 35 lines; default 4051 behavior.  
CALL "TWOVAR" Does normal 72 character lines with wrapping, wraps mid screen half lines after 35th line, PAGE FULL after 70 lines.  
CALL "TWOCOL" LIST wraps lines after 35 characters using 2 columns. PRINT uses 2 columns but no 35 character limit on left column, PAGE FULL after 70 lines.  
CALL "QDRAW" Draws a Fast Graphics Image string, but slower than the equivalent Fast Graphics version.  
CALL "VIEWTO" Maximizes the CRT flood gun current for a brief time.

#### UTILITY:

CALL "EBDEBU" Enables EXTENDED BASIC debug mode; prints PC,SP,CC,X,A,B, and some stack contents before executing PWRON (fatal error).  
CALL "EBVERS" Displays the EXTENDED BASIC version and author.  
CALL "CLIST"|"CLIS" Lists all ROM PACK CALL names.  
CALL "VLIST"|"VLIS" Lists all user BASIC variables, their types, and values.  
CALL "HEXEC",<String> Loads hexadecimal code into SCRATCH memory with error checking, appends RTS and then jumps to the code start.  
CALL "PEEK",<String>,<String Variable> Copies memory at HHHH String address into a String Variable.  
CALL "POKE",<String>,<String Variable> Copies String Variable into memory at HHHH String address.  
CALL "LOADGO"|"POKEGO",<String Variable> Copies Hex String (FORMAT:"@HHHH;<hex code>") to memory and executes it. Executes at HHHH if no <hex code>.  
CALL "FIXCPY" I don't know what this does, it is quite strange.  
CALL "PWRON" Executes the 4051 firmware POWER ON routine without requiring a power cycle.  
CALL "STK@CL",<String Variable>,<Constant>|<Numeric>|<String>|<Logical Statements> Copies the CPU stack into the String Variable. The String Variable must have a current length >0! Does NOT match detailed listing description; destination String Variable must be the first rather than the last parameter.

#### MAG TAPE:

CALL "FIXTAP" Does a subset of CALL "NEWTAP", skipping the check for an already existing mag tape.

CALL "HEADER" Displays the current file number and many file header bytes.

CALL "IGHEAD" Skips past the current file header.

CALL "LASTFL"|"LAST" Finds the LAST mag tape file and prints that file number on the screen.

CALL "MTFWD" Moves the mag tape forward one block (usually 256 bytes).

CALL "MTBACK" Moves the mag tape backward one block (usually 256 bytes).

CALL "MTREAD" Reads the mag tape?

CALL "MTBUFF" Displays the current file mag tape buffer, substituting periods (".") for non-ASCII bytes.

CALL "MTPACK" Spools the mag tape to the end and back to the beginning to repack the tape on the flangless spools.

CALL "NEWTAP" Finds the previous mag tape file when a mag tape is first accessed after being inserted. Not using this call results in a full rewind.

CALL "TAPEIN", <String Variable> Reads a mag tape block into a String Variable.

CALL "TNAME", <String> Names a mag tape file with up to 11 characters, with no "S" in position 6. The S restriction is due to the fact that the 4051 mag tape file header has an S in that location for SECRET files.

#### SOUNDS:

CALL "SLIDE" Plays a specific sound on the speaker.

CALL "CHIMES" Plays a specific sound on the speaker.