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Ultra Rom Board/Editor APB-102 Quick Reference Guide

GENERAL NOTES

- 1) Escape functions are produced by hitting the "ESC" key and THEN the command key shown below. No RETURN is required, as the action takes place as soon as the command key is pressed.
- 2) Characters enclosed in square brackets are control characters (e.g. [A] = CTRL A). They are produced by holding the CTRL key down WHILE pressing the key in the brackets.
- 3) Commands marked with an asterisk (*) are repetitive, which means that after they execute they remain in the same mode. Examples are Escape functions like the cursor control keys "[J,K,M]" which can be used repetitively without having to hit ESC before each one.
- 4) The symbol "<cr>" is used to indicate a Carriage Return ([M]), either typed at the keyboard or embedded in the text.

ESCAPE FUNCTIONS (ROM MACROS)

COMMAND KEY	FUNCTION
[B]	* B (prefix to LOAD, SAVE, RUN, as in BLOAD)
[C]	CATALOG
[D]	Prints GPLE version number
[E]	Duplicates [E] (Edit)

[F]	PEEK (A) + PEEK (A+1) * 256 (used by other MACROS)
[V]	VTAB PEEK (37) <cr> - moves up one line
[X]	Add a formatted REM statement to Basic program line (leaves you in insert mode)
[I]	Print left bracket ([)
[\]	Print backslash (\)
[#]	Print underscore (_)
[S]	Print Ctrl left bracket ([[)
[%]	Print Ctrl backslash ([\])
[&]	Print Ctrl underscore ([_])
[/]	PRINT
[*]	Enter the monitor (CALL -151)
[~]	* L<cr> list in MONITOR
[+]	30 forward spaces (used by RUN, SAVE, etc.)
[(]	POKE -16368,0 (clear keyboard strobe)
[)]	PEEK (-16384) (check for key press)
[0]	CALL-936 <cr> (HOME in Integer Basic)
[1]	CATALOG,D1
[2]	CATALOG,D2
[4]	CATALOG,S4
[5]	CATALOG,S5
[6]	CATALOG,S6
[7]	CHRS(n) where you supply the n
[8]	CALL -868 (clear to end of line)
[9]	CALL -958 (clear to end of page)
[L]	LIST
[P]	PRINT PEEK(n) where you supply the n
[Q]	Print value of the two byte number at the address pointed to by variable A
[R]	RUN <cr>
[S]	Print free sectors on last disk accessed (**ASSUMES A STANDARD DOS**)
[T]	TEXT:POKE -16300,0 (text page 1)
[V]	VTAB 1 <cr> (without clearing screen)
[=]	Display the Address and Length of the current RAM MACRO table
[SHIFT-M]	Save current RAM MACRO table to disk with the suffix = M\$
[L]	LOAD <filename> on current screen line
[S]	SAVE <filename> on current screen line
[R]	RUN <filename> on current screen line

[Z]	DELETE <filename> on current screen line
[X]	LOCK <filename> on current screen line
[Z]	UNLOCK <filename> on current screen line
@	Clear screen and home cursor
A,B,C,D	Cursor moves, as per Apple manual
E,F	Clear keys, as per Apple manual
I,J,K,M	* Cursor moves, as per Apple manual (Autostart Rom versions)
<	* 40 left arrows (affects data)
>	* 40 right arrows (affects data)
←	* Eight back spaces (affects data)
→	* Eight forward spaces (affects data)
↑	* Same as I (Apple IIe only)
↓	* Same as M (Apple IIe only)

SYSTEM COMMANDS

Note: All system commands except [W], [A], and RESET must be the first key typed after a <cr>.

COMMAND

KEY FUNCTION

[E]	Edit BASIC program line(s)
[R]	Reset Rom board, Warm Start. Easy way to turn off a printer or exit from monitor
[@]	Reset Rom board, Cold. Resets Macro table and rehooks Ampersand rom.
[W]	Edit line being typed. This can be used at any time if you are not already in the EDIT mode
[A]	Switch between upper and lower case entry. (If you start getting funny characters when you type, try hitting [A] twice.)
[C]	Returns to BASIC from the Monitor
[Q]	Quit GPLE and restore Apple to normal function
RESET	Reconnect GPLE (if active) and return to BASIC

LIST CONTROL COMMANDS

[S]	Starts and stops any listing
SPACE	Single steps any listing
[P]	Lists next page (20 lines) of any listing
[C]	Cancel current listing and returns to BASIC. (Works with CATALOG's also)

THE EDIT MODE

Note: Editing is invoked by typing [E] as the first key after a <cr>. The EDIT prompt will appear and you can enter the line numbers or parameters you wish to edit. The EDIT command can have the following forms:

- 1) EDIT n1 Edits the line represented by n1
- 2) EDIT n1,n2 Edits the range of lines from n1 to n2
- 3) EDIT "ABC" Edits all lines containing ABC
- 4) EDIT "AB?" Edits all lines containing a 3 character word starting with "AB"
- 5) EDIT "ABC";"DEF" Edits all lines containing ABC and replaces with DEF. Stops at each line so that you may accept the change or restore the line
- 6) EDIT "ABC";"DEF"/F Fast search. Editor does not stop at each line
- 7) EDIT "ABC";"DEF"/R Raw search. Editor will find ABC even if it is embedded in a longer string
- 8) EDIT n1,"AB?","DEF" Any combination of parameters may be used so long as commas are included in the correct locations
- 9) EDIT. Re-edits the most recently edited Basic line
- 10) EDIT ESC n Edits or creates a Macro for the first key typed after the ESC key
- 11) EDIT ? Lists the complete macro table

EDIT MODE COMMANDS

COMMAND KEY	FUNCTION
(I) *	Inserts character(s) at cursor position
(D)	Deletes character(s) at cursor position
(O)	Inserts next control character into text
(B)	Moves cursor to Beginning of line
(N)	Moves cursor to End of line
(F) *	Finds the next character typed
(Z) *	Zaps (deletes) all characters up to the next character typed
(R)	Restores Basic line to its condition before Editing began
(P)	Packs line, removing all spaces
(C)	Converts character at the cursor to the opposite case and advances the cursor
(G)	Accepts the line up to the cursor and exits the Edit mode. (This means you lose everything after the cursor)
(M)	Same as a carriage return or <cr>. Enters the entire line, regardless of the position of the cursor, and exits the Edit mode
(X)	Cancels any change to the line and exits the Edit mode

AMPERSAND (&) FUNCTIONS

Note: All ampersand functions can be used in the Immediate mode (no program running). Several Ampersand functions can be used in Applesoft Basic programs, just like any other Basic command. An "ILLEGAL RUNTIME ERROR" will occur if you attempt to use an Immediate mode utility in a program.

- & Immediate
Catalogs the available ampersand functions
- &BIN Immediate
Prints the address and length of the last BLOADED or BRUN binary file. (**ASSUMES A STANDARD DOS**)
- &HIM Immediate
Prints the current value of HIMEM:
- &LOM Immediate
Prints the current value of LOMEM:
- &NOTNEW Immediate
Recovers from accidental use of NEW, FP, or INT. Program will have been damaged if a variable has been defined or a SYNTAX ERROR has occurred
- &SM"<string>".Rr,ss Immediate
Searches all memory except \$C000 to \$CFFF (I/O space) for a match to "string". The high bit is ignored. If Rn is specified then bank "r" of the ram card in slot "s" is searched in the \$D000 - \$FFFF memory space. If no slot is specified then slot 0 is assumed
- &SM"\$<hexadecimal>".Rr,ss Immediate
Same as above, except that it searches for a list of hexadecimal numbers (e.g. &SM"20 ED FD" would find all occurrences of "JSR \$FDED" in memory). Spaces between numbers are not required if all numbers are two bytes long
- &SP<string> Immediate
Searches the program in memory for a match to "string". Similar to the Raw search in GPLE. If you are looking for a word which may contain an Applesoft command (e.g. strONg) then the first character of the search string should be a quote. The quote will not be included in the search
- &# Immediate
Returns the Hexadecimal and Binary equivalent of Decimal #
- &\$# Immediate
Returns the Decimal and Binary equivalent of Hexadecimal #
- &%# Immediate
Returns the Decimal and Hexadecimal equivalent of Binary #

- &MOVMAC Immediate
Moves the Macro Table to a location 256 bytes below the current HIMEM and relocates HIMEM to protect it
- &RESMAC Immediate
Resets the Macro Table to Page 3 and moves HIMEM up 256 bytes. If the Macro Table is already in Page 3 then no action will be taken. To be safe, this command should be used only if &MOVMAC has been used first
- &DISCHR Immediate
Displays control characters as inverse characters. If GPLE is active, turn off with (R). If not, use RESET. This utility is useful for finding control characters embedded in file names, programs, etc.
- &(P)xxx Runtime
Passes the command "xxx" on to an Ampersand utility that was active when Rom Board was connected
- &ASC Runtime
Returns the ASCII value of the next key pressed
- &FRESEC Runtime
Prints the number of free sectors remaining on the most recently accessed disk. (**ASSUMES A STANDARD DOS**)
- &CEOL Runtime
Clears to end of line. Same as "CALL -868"
- &CEOP Runtime
Clears to end of page. Same as "CALL -958"
- &HGR Runtime
Same as HGR without clearing the screen
- &HGR1 Runtime
Allows the selection of HGR page 1, but without text at the bottom. This is useful for switching back and forth between two full screens of graphics
- &HGR2 Runtime
Same as HGR2 without clearing the screen
- &IF exp THEN exp : &ELSE exp Runtime
If the expression after the &IF is true then the expression(s) between THEN and &ELSE will be executed. Otherwise the expression(s) after the &ELSE will be executed. &IF / THEN / &ELSE structures can be nested but they must be on one line
- &PRINT USING:string;variable(s) Runtime
Prints the Integer, Real, or Array variable(s) following the semicolon using the format of the string or string variable as a template