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Using MMBasic

Editing the Command Line

When entering a line at the command prompt the line can be edited using the left and right arrow keys to move along the line, the Delete key to delete a character and the Insert key to switch between insert and overwrite modes. At any point the Enter key will send the line to MMBasic which will execute it.

The up and down arrow keys will move through a history of previously entered command lines which can be edited and reused.

The command line can be up to 255 characters. This will wrap to the next line as required on the VT100 terminal and also the LCDPANEL if OPTION LCDPANEL CONSOLE is used.

Key	Action
Enter	Adds command to buffer and sends to console
BackSpace	Destructive backspace. Moves 1 character left and clears the character, pulls any characters to the right across 1 character. Turns on edit mode so Up and Down arrows are disabled.
Left Arrow	Moves cursor one character left. INS (Insert Mode) is turned on so any character type will be inserted at the the cursor position. Turns on edit mode so Up and Down arrows are disabled. An additional Left Arrow issue at the home position will turn on OVR (overwrite) mode.
Right Arrow	Moves cursor one character right. OVR (Overwrite Mode) is turned on so any character type will overwrite the character at the the cursor position. Turns on edit mode so Up and Down arrows are disabled.
DEL	Will delete the character under the cursor and pulls any characters to the right across 1 character. Turns on edit mode so Up and Down arrows are disabled.
INS	Toggles between Insert Mode and Overwrite Mode. INS (Insert Mode). Any character type will be inserted at the cursor position. OVR (Overwrite Mode). Any character type will overwrite character at the cursor position.
HOME HOME+HOME	Returns cursor to first character position. Turns on edit mode so Up and Down arrows are disabled. HOME pressed while at the home position will turn off edit mode so Up and Down arrows are enabled. i.e. HOME+HOME abandons the current edit and allows a new command to be selected from the buffer with the Up Arrow and a new blank command field with the Down Arrow.
END	Moves cursor to last position. Turns on edit mode so Up and Down arrows are disabled.
F2	Sends RUN command to console
F3	Sends LIST command to console
F4	Sends EDIT command to console
F5	Sends ESC sequence to VT100 to clear the screen. Also clears the LCDPANEL if OPTION LCDPANEL CONSOLE is set.
F10	Sends AUTOSAVE (Use CNTRL+C to abort if pressed by accident)
F11	Sends XMODEM RECEIVE
F12	Sends XMODEM SEND
Up Arrow	Recalls command from buffer in to edit buffer.
Down Arrow	Recalls command from buffer into the edit buffer.

In commandline mode there is no indication on the VT100 whether you are in INS or OVR mode.

The INS key will toggle between OVR and INS but you don't have an indication of which mode you are in.

Using the arrow left/right keys, if your last key is arrow right you can assume OVR, if last key is arrow left you can assume INS. (arrow back 1 extra character and arrow forward 1 puts you on the character you want to overwrite in OVR mode.)

The VT100 emulations provided by TeraTerm, Putty, GFXTerm and MMCC have been tested to support command lines that extend beyond one line on the terminal. i.e. wrap to next line as required until up to 255 characters are used. This relies on the terminal width being set to the expected size.

Setting the terminal size with OPTION DISPLAY lines[,chars] will send an ESC sequence to set the VT100 terminal to the matching size. TerraTerm, Putty and MMCC respond to this sequence and set the terminal width (if the option is enabled in the terminal setup).

Shortcut Keys

The function keys on the keyboard used for the console can be used at the command prompt to automatically enter common commands. These function keys (except for F5 which sends back to the VT100 terminal) will insert the text followed by the Enter key so that the command is immediately executed:

F2 RUN

F3 LIST

F4 EDIT

F5 Sends ESC sequence to clear the VT100 screen. Also clears the console.

F10 AUTOSAVE

F11 XMODEM RECEIVE

F12 XMODEM SEND

Function keys F1, and F5 to F9 can be programmed with custom text. See the OPTION FNKey command.

If F5 is programmed it will no longer clear the screen or console.

Shortcut Keys in AUTOSAVE

The AUTOSAVE commands sets the console waiting to accept a program. Anything typed to pasted in is interpreted as a program. The following keys sequences can be used to signal the end of the program and to trigger the saving of the entered text.

CNTRL+Z Saves the program

F1 Saves the program

F2 Saves the program and immediately runs it.

Full Screen Editor

Long Lines in the Editor

MMBasic lines can be up to 255 characters. The editor will only show the number of characters that will fit into the available columns in the display.e.g. 80. This is a limitation of all MMBasic versions other than the CMM2 and MMB4W which have much more memory to allow sideways scrolling in a completely re-written editor.

For long lines the easiest way is to import the program from a PC (autosave or XModem).

There is a workaround in the editor to allow inserting or editing lines longer than 80 columns. To enter/edit a long line type the line over two rows by hitting return at an appropriate point and continue typing/editing on the next line. Once complete combine the lines back to a single line by either deleting the inserted return at the end of the first line or entering a backspace while positioned at the first character on the second line. You can't see the characters at the end of the combined line, but they are there.

Commands

I2C CHECK not mentioned that I can see.

<p>I2C CLOSE</p> <p>I2C CHECK addr</p>	<p>Disables the master I²C module and returns the I/O pins to a "not configured" state. They can then be configured using SETPIN. This command will also send a stop if the bus is still held.</p> <p>Will set MM.I2C to 0 if a device responds at the address. MM.I2C is set to 1 if no response. Will give an error if the I2C has not been opened.</p>
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<p>LOAD file\$ [,R]</p>	<p>Loads a program called 'file\$' from the current drive into program memory. If the optional suffix ,R is added the program will be immediately run without prompting (in this case 'file\$' must be a string constant) . If an extension is not specified ".BAS" will be added to the file name.</p> <p>The enhanced RUN command effectively supersedes the [,R] option and also allow a string variable to be used.</p>
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Appendix B – I2C Communications

I2C CHECK addr

Following an I2C CHECK *addr* MM.I2C will be set as follows:

0 if a device responds at the address, 1 if no response.

Will give an error if the I2C has not been opened.