

Program Management

Input/Output

Commands

Functions

Options

```

OPTION AUTORUN OFF | ON
OPTION BASE 0 | 1
OPTION BAUDRATE nbr
OPTION BREAK nn
OPTION CASE UPPER | LOWER | TITLE
OPTION CLOCKTRIM ±n
OPTION COLOURCODE ON | OFF
OPTION CONSOLE ECHO | NOECHO
OPTION CONSOLE INVERT | NOINVERT
OPTION CONSOLE AUTO
OPTION DEFAULT FLOAT | INTEGER | STRING | NONE
OPTION DISPLAY lines [,chars]
OPTION ERROR CONTINUE | ABORT
OPTION EXPLICIT
OPTION KEYBOARD US | UK | FR | GR | BE | IT | ES
OPTION LIST
OPTION PIN nbr
OPTION RESET
OPTION TAB 2 | 4 | 8

```

Operators	NOT ^	Logical inverse, exponentiation
	* / \	Multiply, division (float & integer)
	MOD	Modulus (remainder)
	+ -	Addition and subtraction
	x << y x >> y	Shift bits left/right by y bits
	= <> < >	Equals, not equals, less/greater than
	<= >=	Less/greater than or equals
	AND OR XOR	Logical and, or, exclusive or

Variables	Identifier = [A-Z _] [A-Z 0-9 . _] Max 32 chars.	
	Variable Suffix:	FLOAT = ! INTEGER = % STRING = \$
	Number Prefix:	[&H &O &B] number
	MM.VER	MM.DEVICE\$
	MM.ERRNO	MM.ERRMSG\$
	MM.HRES	MM.VRES
	MM.FONTHEIGHT	MM.FONTWIDTH
	MM.WATCHDOG	
	MM.I2C	MM.ONEWIRE

GUI Controls (MM+)	OPTION CONTROLS nn	
	GUI AREA #ref, X, Y [, width, height]	
	GUI BUTTON #ref, caption\$, X, Y [, w, h, FC, BC]	
	GUI CAPTION #ref, text\$, X, Y [, just\$, FC], BC]	
	GUI CHECKBOX #ref, caption\$, X, Y [, size, colour]	
	GUI DISPLAYBOX #ref, X, Y [, width, height, FC, BC]	
	GUI FRAME #ref, caption\$, X, Y [, width, height, colour]	
	GUI LED #ref, caption\$, X, Y [, radius, colour]	
	GUI NUMBERBOX #ref, X, Y [, width, height, FC, BC]	
	GUI RADIO #ref, caption\$, X, Y [, radius, colour]	
	GUI SPINBOX #ref, X, Y, w, h [, FC, BC, Step, Min, Max]	
	GUI SWITCH #ref, caption\$, X, Y [, width, height, FC, BC]	
	GUI TEXTBOX #ref, X, Y [, width, height, FC, BC]	
	GUI DELETE #ref1 [,#ref2, ...] ALL	
	GUI DISABLE #ref1 [,#ref2, ...] ALL	
	GUI ENABLE #ref1 [,#ref2, ...] ALL	
	GUI HIDE #ref1 [,#ref2, ...] ALL	
	GUI REDRAW #ref1 [,#ref2, ...] ALL	
	GUI SHOW #ref1 [,#ref2, ...] ALL	
	GUI NUMBERBOX CANCEL	
	GUI TEXTBOX CANCEL	
	GUI BCOLOUR colour, #ref1 [, #ref2, ...]	
	GUI FCOLOUR colour, #ref1 [, #ref2, ...]	
	GUI BEEP msec	
	GUI INTERRUPT down [, up]	
	coordinate = TOUCH(DOWN UP LASTX LAST)	
	control = TOUCH(REF LASTREF)	
	value = CTRLVAL(#ref)	CTRLVAL(#ref) = value
	GUI SETUP #n	PAGE #n [,#n2, ...]
	button = MSGBOX (msg\$, b1\$ [,b2\$ [, b3\$ [, b4\$]]])	

Communications & File I/O	OPEN C\$ AS #fnbr	
	C\$ = "COMn: baud, buf, int, nbr, DE, 9BIT, INV, OC, S2"	
	I2C OPEN speed, timeout [, PU]	
	I2C WRITE addr, option, sendlen, data [,data]	
	I2C READ addr, option, rcvlen, rcvbuf	
	I2C SLAVE OPEN addr, mask, opt, i_send, i_rcv	
	I2C SLAVE WRITE len, data [, data]	
	I2C SLAVE READ len, buf, rcvd	
	I2C [SLAVE] CLOSE	
	ONEWIRE READ pin, flag, len, data, ...	
	ONEWIRE WRITE pin, flag, len, data, ...	
	ONEWIRE RESET pin	
	SPI[2] OPEN speed, mode, bits	
	received_data = SPI[2](data_to_send)	
	SPI[2] WRITE nbr, data1,, ... str\$ array()	
	SPI[2] READ nbr, array()	
	SPI[2] CLOSE	
	OPTION SDCARD CS [, CD [,WP]] DISABLE	
	OPEN fname\$ FOR mode AS [#]fnbr	
	'mode' = INPUT OUTPUT APPEND RANDOM	
	LOAD file\$ [,R]	LOAD IMAGE file\$ [, x, y]
	MKDIR dir\$	RMDIR dir\$
	CHDIR dir\$	dir = CWD\$
	NAME old\$ AS new\$	KILL file\$
	SAVE [file\$]	SAVE IMAGE file\$
	SEEK [#]fnbr, pos	FILES [fspec\$]
	fname\$ = DIR\$([fspec [, type]])	
	CLOSE [#]fnbr [,[#]fnbr] ...	
	State = EOF([#]fnbr)	
	INPUT #fnbr, var1 [, var2, ...]	
	LINE INPUT #fnbr, string variable\$	
	PRINT #fnbr, expression1 [, ;] [expression2, ...] [, ;]	
	INPUT\$(nbr, [#]fnbr)	
	nbr = LOC([#]fnbr)	nbr = LOF([#]fnbr)
	PLAY TONE left [, right [, duration]]	
	PLAY WAV file\$ [, interrupt]	
	PLAY PAUSE RESUME STOP VOLUME left, right	

Micromite MMBasic V5.04
(Micromite Plus extra features are in red)

Downloads: <http://geoffg.net/micromite.html>
Forum: <http://www.thebackshed.com/forum/Microcontrollers>

Copyright Geoff Graham, 2017 - 2018
Distributed under a Creative Commons Attribution-NonCommercial-ShareAlike 3.0 Australia license (CC BY-NC-SA 3.0)

Devices	IR dev, key , int CLOSE	
	KEYPAD var, int, r1, r2, r3, r4, c1, c2, c3 , c4 CLOSE	
	LCD INIT d4, d5, d6, d7, rs, en	
	LCD line, pos, text\$ CLEAR CLOSE	
	LCD CMD DATA d1 [, d2 [, etc]]	
	PWM channel, freq, pwm1 [, pwm2 [, pwm3]]	
	PWM channel, STOP	
	RTC GETTIME	
	RTC SETTIME year, month, day, hour, minute, second	
	RTC SETREG GETREG register, value var	
	OPTION RTC data, clock DISABLE	
	SERVO channel [, freq], out1 [, out2 [, out3]]	
	SERVO channel, STOP	
	TEMPR START pin [, precision 0 to 3]	
	Temperature = TEMPR(pin)	

LCD Display Panel	OPTION LCDPANEL type, orient, D/C, reset [,CS]	
	type = ILI9163 ST7735 ILI9341	
	OPTION LCDPANEL type, orient [, LCD-A] [, readpin]	
	type = SSD1963_[4][5][5A][7][7A][8]	
	OPTION LCDPANEL CONSOLE [font [, fc [, bc , [blight]]]]	
	OPTION LCDPANEL NOCONSOLE	
	OPTION LCDPANEL DISABLE	
	GUI CALIBRATE	
	GUI RESET LCDPANEL	
	GUI TEST LCDPANEL TOUCH	
	OPTION TOUCH T_CS pin, T_IRQ pin [, click pin]	
	OPTION TOUCH DISABLE	
	PIXEL x, y [, colour]	
	LINE x1, y1, x2, y2 [, lw [, colour]]	
	CIRCLE x, y, r [, lw] [, a] [, colour] [, fill]	
	TRIANGLE x1, y1, x2, y2, x3, y3 [, colour [, fill]]	
	BOX x, y, w, h [, lw] [, colour] [, fill]	
	RBOX x, y, w, h [, rc] [, colour] [, fill]	
	TEXT x, y, str\$ [, align\$] [, fnt] [, scale] [, colour] [, bc]	
	GUI BITMAP x, y, data [, w] [, h] [, s] [, colour] [, bc]	
	CLS [colour]	
	COLOUR fore [, back]	
	COLOR fore [, back]	
	FONT [#]font-number, scaling	
	BACKLIGHT percent	
	BLIT READ WRITE [#]buffer, x, y, w, h	
	BLIT CLOSE [#]buffer	
	BLIT x1, y1, x2, y2, w, h	
	colour% = RGB(red, green, blue colour listed below)	
	white black blue green cyan red magenta yellow brown gray	
	coordinate = TOUCH(X Y)	