SerialTx

This is an embedded C module which can add any number of serial output ports to the Micromite. The SerialTx module has the following features:

- It is a transmit only function (a SerialRx function is separately available).

- Will transmit at any baudrate from 110 bps to 76800 bps.

- Will work with any I/O pin.

- Can switch from I/O pin to I/O pin with each call, so the one function can be used to drive many different serial outputs at different baudrates.

NOTE: This is an updated version of the original SerialTx CFunction. It requires MMBasic 4.7 or later and its usage and parameters have changed

Adding the SerialTx to MMBasic

To add the SerialTx subroutine to MMBasic you must insert the following code somewhere in your BASIC program (you can use copy and paste from this document). The exact spot is not important but at the end of the program is typical.

```
CSub SerialTx
   00000008
   00001021 40824800 40024800 0044102b 1440fffd 00000000 03e00008 00000000
   27bdffc8 afb40020 3c149d00 8e820000 afb00010 8c500000 8ca30000 00108042
   0203001b 006001f4 afb10014 8e820010 00808821 8c840000 afbf0034 afb60028
   afb3001c afb20018 00c0b021 24050008 00003021 afbe0030 afb7002c afb50024
   0040f809 00008012 8e240000 8e820014 0040f809 24050001 8e240000 8e820024
   0040f809 24050006 00409021 8e240000 8e820024 0040f809 24050005 00409821
   8e240000 8e820028 0040f809 2610fffb 82c30000 18600027 24110001 00518804
   24150001 ae710000 02002021 0411FFC4 00000000 241e0008 24170001 10000009
   02d5a021 ae510000 02002021 0017b840 27deffff 0411FFBA 00000000 13c0000d
   32f700ff 82820000 02e21024 1440fff5 00000000 ae710000 02002021 0017b840
   27deffff 0411FFAE 00000000 17c0fff5 32f700ff ae510000 02002021 0411FFA8
   00000000 82c20000 02a2102a 1440ffdd 26b50001 8fbf0034 00001021 00001821
   8fbe0030 8fb7002c 8fb60028 8fb50024 8fb40020 8fb3001c 8fb20018 8fb10014
   8fb00010 03e00008 27bd0038
End CSub
```

Parameters

The SerialTx subroutine (created by adding the above code) takes three parameters:

SerialTx(pin, baud-rate, string)

Where   *pin* is the I/O pin
         baud-rate is the desired transmit speed
         string is the string of characters to send

Note that the maximum workable *baud-rate* ranges from 76800 at 40MHz to 19200 at 10MHz.

Using the Function

To send a string out of a serial port using SerialTx you simply use it as a command. For example:

```
SerialTx 2,  19200,  "Hello World"
```

The function will not return until all of the characters in the string have been sent.

You can send data out of as many I/O pins as you want simply by changing *port* and *baud-rate* as required every time the function is used.