

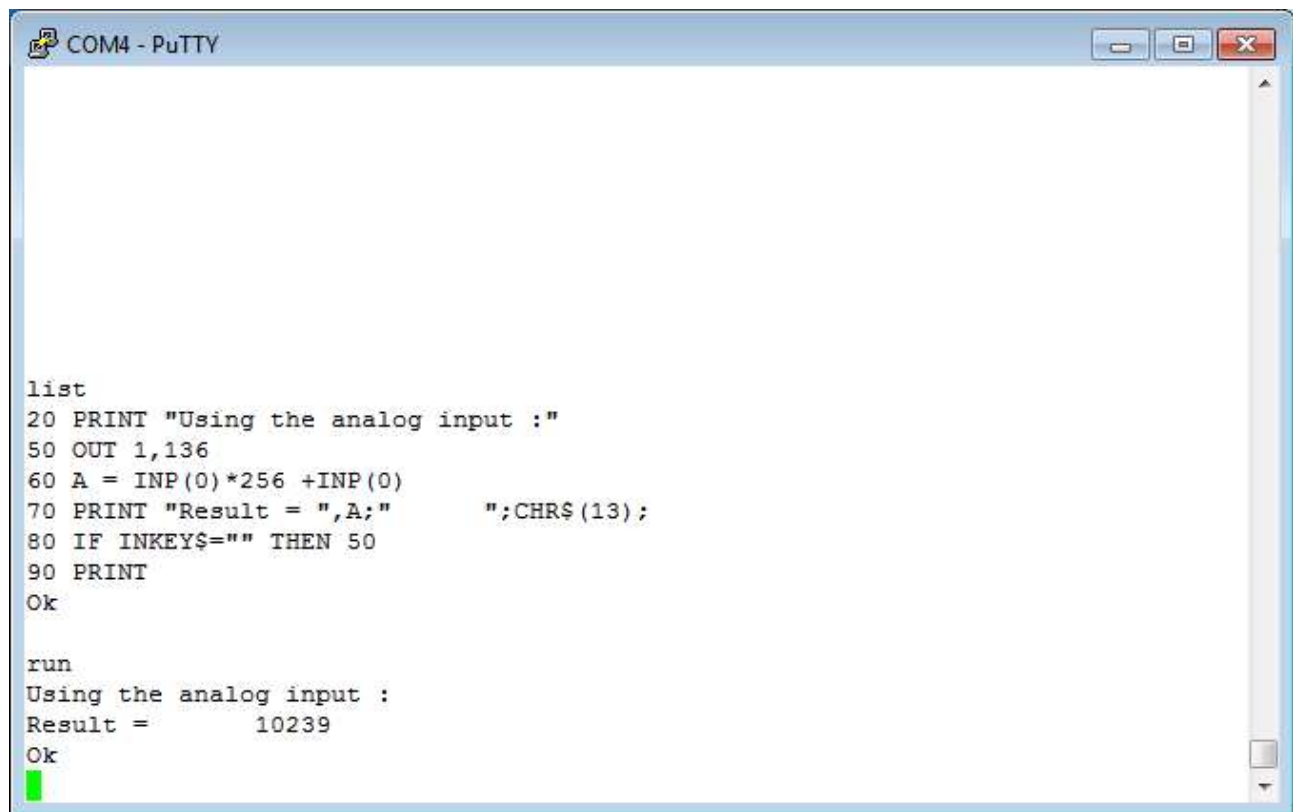
Application note : Using the analogue input of the Z80-MBC3.

The analogue input is continguously sampled by the ADC in the ATMEGA4809 microcontroller and updated 16 times per second. The resolution of the ADC converter is 10 bits, so producing a value in the range from 0 to 1023. The A-D conversion value is accumulated 16 times, so the result will be in the range from 0 - 16368.

To retrieve the result with the Z80 processor, the I/O commands listed below need to be executed :

```
OUT 1,136  
R = INP(0) * 256 + INP(0)
```

The following BASIC program shows how to code this in a MBASIC program :



```
list  
20 PRINT "Using the analog input :"  
50 OUT 1,136  
60 A = INP(0)*256 +INP(0)  
70 PRINT "Result = ",A;"      ";CHR$(13);  
80 IF INKEY$="" THEN 50  
90 PRINT  
Ok  
  
run  
Using the analog input :  
Result =      10239  
Ok
```