```
' MATLAB Connection - DumpData.bs2
' Transmit 270 samplings of data from 3 different sensors to MATLAB.
'
' By: Aaron Klapheck
' Data: 8-25-08
'
'
' {$STAMP BS2}
' {$PBASIC 2.5}
'
'
' -----[ Variables/Constants/Pins ]-----------------------------------------

PiezoSp     PIN   4               ' Speaker

CMD         VAR   Byte            'Hold returning command code
X           VAR   Word            'General counting variable

StoreVal1   VAR   Word
StoreVal2   VAR   Word
StoreVal3   VAR   Word

ReadStart   CON   1
ReadEnd     CON   270


sPin        CON   16              'Serial Pin - P16, Programming port
Baud        CON   84              'Baud mode for a rate of 9600, 8-N-1
                                  'BS2P, BS2SX use 240 for 9600, 8-N-1

FreqDetectable    CON    3000


' -----[ Initialization ]---------------------------------------------------

FREQOUT PiezoSp, 1000, FreqDetectable               'Signal program start/reset.


SEROUT sPin, Baud, [LF]                             'Send a lone LF to ensure StampDAQ buffer is
ready


' -----[ Main ]-------------------------------------------------------------------

SEROUT sPin, Baud, ["Location", LF]
SEROUT sPin, Baud, ["PRRight", LF]
SEROUT sPin, Baud, ["Temp(C)", LF]

DUMP:                                   'Dump Data from memory to StampDAQ

   FOR X = ReadStart TO ReadEnd STEP 3  'Count through memory locations of stored data
     READ X, StoreVal1                  'Read memory location to StoreVal1
     READ (X+1), StoreVal2              'Read memory location to StoreVal2
     READ (X+2), StoreVal3              'Read memory location to StoreVal3
     SEROUT sPin, Baud, [DEC StoreVal1, ",", DEC StoreVal2, ",", DEC StoreVal3, LF]  'Send DATA
to StampDAQ for use
   NEXT

   PAUSE 1000                           'Wait one second

END
```