```
############# START OF PORT SPECIFICATION DEFINITIONS  ################################################
# index                Sets the index for which device you are communicating with.
#                       It is advised to use a separate instance of gmodbus with a
#                       separate gmodbus spec file for each device you're communicating
#                       with.
#                       If you specify multiple devices, A separate instance of gmodbus_child
#                       will be created for each device.

# modbus slave          If using a serial device, this is the serial port used to communicate
# device interface      with the device in the /dev directory.  This will normally be one of
#                       the onboard serial ports such as /dev/ser1, or if an expansion card
#                       such as a rocketport device is used, this could be /dev/ttyR0
#                       If communicating with a device over tcp, you must specify the IP address
#                       of the slave device and the port number.  Default port is 502.

# endian                Sets whether or not the device is little (intel) or big (motorolla)

# serial type           sets RS485 mode.  Default is RS232.  If you're using
#                       an RS485 device, you must enter the RS485 entry listed above.
#                       This entry is only REQUIRED when communicating with an RS485 device.
#                       RS232 has the capability to configure the port. Following the device port, use commas to
#                       separate the baud rate, data bits, stop bits and parity the default is ,9600,8,1,N.
#                       If you are using the default settings you do not have to include configuration options.

# timeout               This indicates the time in milliseconds a read/write will try to process before giving up.
#                       This only works with serial communication and not TCP. Default is 0 for no timeout
#                       This entry is optional, the recommendation is to use the default.

# polldelay             This indicates the delay in milliseconds between two Modbus read/writes
#                       This only works with serial communication and not TCP. Default is 0 for no poll delay
#                       This entry is optional, the recommendation is to use the default.
############# END OF PORT SPECIFICATION DEFINITIONS  ###############################################

#              Modbus Slave                          serial
#  index       device interface            endianness   type     timeout  polldelay
# RS485 serial example below
   0          /dev/ser1                    little       RS485    100       100
# RS232 serial example below. Enter baud rate, data bits, stop bits and partiy after the device port separated with commas.
   1          /dev/ser2,9600,8,1,N                     little
#RS232 serial example with device using the default configuration of 9600 baud, 8 data bits, 1 stop bit and parity of none(N).
   2          /dev/ser2                                little
# TCP example below.  Specify port(IP address) then port with a semi-colon inbetween.  Default port is 502
   3          192.168.1.254:502                        big
$


############# START OF VARIABLE SPECIFICATION DEFINITIONS  ################################################
# CyFlex Variable       This specifies the CyFlex variable that will be written to.  The variable must
# name                  already exist.

# CyFlex Units          Units that will be applied to the CyFlex variable
```

```
# Modbus Units          Units of the variable as it is being transmitted by the modbus device.
#                       If the units are of the same type, the gmodbus application will perform
#                       the unit conversion.  You must make sure the units are of the same type
#                       (for example, rpm to rad/s and not deg_c to rpm)
#                       as the application will incorrectly perform a units conversion if they
#                       are not.


# input/output          See explanation below:
# Some devices get both inputs and outputs from
# what is normally considered the 'output area' for a modbus device.
# To support this unique situation, place an 'i0' in the input/output column
# in the spec file.  Normally only a 'i' or an 'o' would be placed in this
# column.
#    i  -> Read from Input Register table 3:0000
#    o  -> Write to Hold Register table 4:0000
#    i0 -> Read From Hold Register table 4:0000
#
#  The exceptions are discretes (boolean) whichare as follows:
#  inputs (i)            -> table 1:0000
#  outputs (o)           -> table 0:0000 and
#  read output coils (i0)  -> table 0:0000.


# ms update rate         The rate modbus will read/write to the CyFlex variable.
#                        If a polldelay is specified to be a faster update rate (smaller ms interval)
#                        than the ms update rate, the polldelay rate will be used.  If the polldelay
#                        is not specified, the ms update rate is used.


# slave index            This correlates to the index of the device specified in the port configuration


# modbus address         The address of the device you're communicating with.  There can be up to 255
#                        devices on the same network.


# Register               This is the modbus register for the variable being read from or written to.
#                        This can usually be found in the device documentation.


# type                   b = boolean
#                        s = short
#                        l = long
#                        f = float


# scale slope            Multiplier which will be applied to the variable being read or written to.


# scale offset           Offset which will be applied to the variable being read or written to.
############## END OF VARIABLE SPECIFICATION DEFINITIONS  ###############################################

# CyFlex Variable,    CyFlex Units,   Modbus Units,  input/output,   ms update rate, slave index, Mbus address, Register, type,  scale slope, scale offset
#  name               PAM unit        PAM unit       i,i0,o or o0    2-1000          0-n          1-255         1         b,s,l,f  10.          0.
# Sample inputs from the read register table below
   spd1               rpm             rpm            i               100             0            1             1         l       0.1          0.
   spd2               rpm             rpm            i               100             0            1             2         l       0.000001     0.
   spd3               rpm             rpm            i               100             0            1             3         l       0.1          0.
   spd4               rpm             rpm            i               100             0            1             4         l       0.1          0.
```

```
# Sample outputs from the read from hold register table below
   av_freq          hz         hz         i0        1000        1        1        16385      f      1.0         0.0
   av_ln_v12        volt       volt       i0        1000        1        1        16395      f      1.0         0.0
   av_phase_i1      amp        amp        i0        1000        1        1        16403      f      240.0       0.0
   av_phase_pwr_a   kw         kw         i0        1000        1        1        16413      f      1.0         0.0

# Sample outputs from the write to hold register table below
# ASSET Variable,   Asset Units,   Modbus Units,   input/output,   ms update rate,   slave index,   Mbus address,   Register,   type,   scale slope,   scale offset
# name              PAM unit       PAM unit        i,i0,o or o0     2-1000          0-n           1-255            1          b,s,l,f  10.            0.
   MM1ResetInventory  none         none            o               100             2             1                4          b        1.0            0.0

$
```