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2 ; ** PROGRAM MADE BY FADISHOP Card: FADIBUS http://www.fadishop.eu FADITECO, S.L.U. Lleonard García **
3 ; ** This program is INCREASING EVERY SECOND PORT_1 **
4 ; ** I2C SLAVE ADDRESS IS $ 42 SW2(A=0, B=0, C=1) **
5 ; ** SW1(I0=0, I1=0, I2=0, portC=0, Rpullup=0) **
6 ; **
7 ; *****
8 #picaxe 28x2
9 ; SETTINGS
10 let dirsB=%10000000 ; 1=output 0=input
11 let dirsC=%00000000 ; 1=output 0=input
12 ; C.3 I2C_SCL
13 ; C.4 I2C_SDA
14 ;adcsetup = %00000000 ; SETTING ANALOG
15 ;setfreq em16 ; Oscillator / external oscillator to 16Mhz.
16 ; DEFINITIONS AND INITIALIZATIONS DEVICES.
17 device_PCA9555N: ;INTERNAL ADDRESS BUS EXPANDER PCA9555N
18 symbol inport_0 = 0 ; Read register inputs port_0.
19 symbol inport_1 = 1 ; Read register inputs port_1.
20 symbol outport_0 = 2 ; Write register outputs port_0.
21 symbol outport_1 = 3 ; Write register outputs port_0.
22 symbol polaritat_port_0 = 4 ; Polarity register port_0 inputs -> 0 = no_inverted, 1 = inverted.
23 symbol polaritat_port_1 = 5 ; Polarity register port_1 inputs -> 0 = no_inverted, 1 = inverted.
24 symbol config_port_0 = 6 ; Configuration register port_0 as input or output. 1=input 0= utput.
25 symbol config_port_1 = 7 ; Configuration register port_1 as input or output. 1=input 0= utput.
26 ; SETTINGS
27 config_PCA9555N_A: ;DEVICE_A SETUP (A, B, C, D, E, F, G, H. Maximum 8)
28 symbol adress_slave_A =$42 ; I2C Address PCA9555N %0100ABC(rw). SLAVE PCA9555N (0X4E-0X4F).
29 symbol polport0_A = %00000000 ; polarity port_0 inputs: 0-no inverted 1-logical inverted.
30 symbol polport1_A = %00000000 ; polarity port_1 inputs: 0-no inverted 1-logical inverted.
31 symbol confport0_A = %00000000 ; OUT ; configuration port_0 1=input 0=output.
32 symbol confport1_A = %00000000 ; OUT ; configuration port_0 1=input 0=output.
33 transfer_config_PCA9555N_A: ;TRANSFER ALL SETTINGS TO DEVICE_A.
34 i2cslave adress_slave_A, i2cslow, i2cbyte ; send/call to address the peripheral/slave.
35 writei2c polaritat_port_0,(polport0_A,polport1_A); polarity send entries and port_1 port_0
36 writei2c config_port_0,(confport0_A,confport1_A); send configuration and puerto_1 puerto_0.
37 ;READ SETTINGS(NEGLIGIBLE)
38 lectura_inicial_debug_A: ;READING THE INTERNAL REGISTERS DEVICE_A
39 i2cslave adress_slave_A, i2cslow, i2cbyte ; I2C Address PCA9555N %0100ABC(rw). SLAVE PCA9555N (0X4E-0X4F).
40 readi2c inport_0,(b0,b1) ; Read input ports.
41 readi2c outport_0,(b2,b3) ; Read output ports.
42 readi2c polaritat_port_0,(b4,b5) ; Read polarity registers of the inputs.
43 readi2c config_port_0,(b6,b7) ; Read configuration registers of the ports.
44 ;DEFINITIONS AND INITIALIZATIONS VARIABLES.
45 symbol counter=b16 ; The RAM register is called "counter"
46 let counter=0 ; Register "counter" is initially to $00.
47 ;CYCLIC PROGRAM
48 main: ; ;CYCLIC PROGRAM
49 i2cslave adress_slave_A, i2cslow, i2cbyte ; I2C Address PCA9555N %0100ABC(rw). SLAVE PCA9555N (0X4E-0X4F).
50 writei2c outport_1,(counter) ; Write on the port_1 what's on the register "count".
51 pause 1000 ; Wait 1 second.

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52 debug ; Take a pop all registros.Añande delay.  
53 let counter=counter+1 ; Add "counter" register byte.  
54 goto main ; Start over.
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