C51 COMPILER V5.50, PWM841 20/10/03 09:04:48 PAGE 1

DOS C51 COMPILER V5.50, COMPILATION OF MODULE PWM841

OBJECT MODULE PLACED IN PWM841.OBJ

COMPILER INVOKED BY: C:\ADUC\BIN\C51.EXE PWM841.C DB

stmt level source

1 //pwm841.c

2 /\*

3 Author: Eckart Hartmann Date:15/10/2003

4 Description of Software:

5 This program demonstrates the PWM functions

6 <A HREF="/mcc/softw/841/pwm/Pwm841Cfg.html">PwmCfg()</A>,<A HREF="/mcc/softw/841/pwm/Pwm841W16.html">PwmW

-16()</A>, <A HREF="/mcc/softw/841/pwm/Pwm841W8.html">PwmW8()</A>.

7 Development progress: <A HREF="/mcc/softw/834/pwm/Pwm834Df.html">pwm834.df</A>.

8 \*/

9 #include"..\kei841.h" //;<A HREF="/mcc/softw/841/Kei841Sfr.html">SFR definition file</A>.

10 #include"..\lib841.h" //;<A HREF="/mcc/softw/841/Lib841H.html">Function and variable declaration file</A>.

11 #include<stdio.h> //"stdio.h"

12 #include<ctype.h> //"ctype.h"

13

14 unsigned int uPwm;

15

16 //Use T1 interupt to ramp uPwm at constant rate.

17 void t0int(void) interrupt 1 using 0

18 {

19 1 uPwm += 4;

20 1 P34 = !P34;

21 1 }

22

23 void t1int(void) interrupt 3 using 0

24 {

25 1 uPwm += 4;

26 1 P34 = !P34;

27 1 }

28

29 void main(void)

30 {

31 1 unsigned int u1;

32 1 double dY; //Factor to liniarize PWM in NRZ mode.

33 1

34 1 PwmW8(0,0,0);

35 1 uPwm = 16000;

36 1 TH0 = 10;

37 1 TL0 = 10;

38 1 TMOD |= 0x2; //T0 reload.

39 1 TR0 = 1; //Start T0.

40 1 IE = 0x82; //Enable T0 interupt.

41 1 /\* TH1 = 40;

42 1 TL1 = 40;

43 1 TMOD |= 0x20; //T1 reload.

44 1 TR1 = 1; //Start T1.

45 1 IE = 0x88; //Enable T1 interupt.

46 1 \*/ UrtCfg(0x02,-72); //<A HREF="/mcc/softw/841/urt/Urt841Cfg.html">UrtCfg</A> configures UART.

47 1

48 1 printf("\n\nADuC841 PWM Demonstration Program\n");

49 1 printf("=======================================\n");

50 1 printf("Connect 10k resistor from P2.6 (PWM out)\n");

51 1 printf("via 100nF to ground. Connect oscilloscope\n");

52 1 printf("accross capacitor. Repeat for P2.7.\n");

53 1 printf("Oscilloscope will show slow ramps.\n");

54 1

55 1 dY = 0.001; //Typical value.

56 1 PwmCfg(0x067); //Dual RZ sigma delta at fosc/4.

57 1

58 1 while(1)

C51 COMPILER V5.50, PWM841 20/10/03 09:04:48 PAGE 2

59 1 {

60 2 u1 = uPwm-(int)((uPwm-0x8000)\*dY);

61 2 if(uPwm<0x8000) u1 = uPwm;

62 2 PwmW16(1,u1); //Corrected.

63 2 PwmW16(0,uPwm); //Plain.

64 2 // PwmW16(1,uPwm); //Plain.

65 2 } }

66

MODULE INFORMATION: STATIC OVERLAYABLE

CODE SIZE = 229 ----

CONSTANT SIZE = 236 ----

XDATA SIZE = ---- ----

PDATA SIZE = ---- ----

DATA SIZE = 4 6

IDATA SIZE = ---- ----

BIT SIZE = ---- ----

END OF MODULE INFORMATION.

C51 COMPILATION COMPLETE. 0 WARNING(S), 0 ERROR(S)