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C51 COMPILER V7.04, COMPILATION OF MODULE ADCPIN

OBJECT MODULE PLACED IN ADCPIN.OBJ

COMPILER INVOKED BY: C:\Keil\C51\BIN\C51.EXE ADCPIN.C BROWSE DEBUG OBJECTEXTEND

stmt level source

1 /\*;\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

2 ;

3 ; Author : ADI - Apps www.analog.com/MicroConverter

4 ;

5 ; Date : October 2003

6 ;

7 ; File : ADCpin.asm

8 ;

9 ; Hardware : ADuC841

10 ;

11 ; Description : Performs hardware pin driven ADC conversions and

12 ; outputs results on UART. Continuously flashes

13 ; LED (independently of ADC routine) at approximately

14 ; 5Hz.

15 ;

16 ;\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/

17

18 #include<stdio.h>

19 #include<aduc841.h>

20 void DELAY(long int); // function prototype

21

22 void adc\_int() interrupt 6{

23 1 printf("%02BX%02BX\n",ADCDATAH,ADCDATAL);

24 1 return;

25 1 }

26

27

28 sbit LED = 0x0B4; // P3.4

29

30 void main(void)

31 {

32 1 int CHAN = 0;

33 1

34 1 /\*set up UART \*/

35 1 T3CON = 0x086;

36 1 T3FD = 0x08;

37 1 SCON = 0x052;

38 1

39 1 /\*PRECONFIGURE...\*/

40 1

41 1 ADCCON1 = 0x08C; // power up ADC

42 1 ADCCON2 = CHAN; // select channel to convert

43 1

44 1 /\*LAUNCH CONTINUOUS CONVERSIONS...\*/

45 1

46 1 EA = 1; // enable interrupts

47 1 EADC = 1; // enable ADC interrupt

48 1 ADCCON1 |= 0x01; // enable hardware CONVST pin

49 1

50 1 /\*CONTINUE WITH OTHER CODE...\*/

51 1

52 1 for(;;)

53 1 {

54 2 LED ^= 1;

55 2 DELAY(30600);

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56 2 }

57 1

58 1 /\*

59 1 the micro is free to continue with other tasks (flashing the LED in

60 1 this case) while the ADC is converting, synchronously to the

61 1 external CONVST pin. results are being handled by the ADC

62 1 interrupt service routine.\*/

63 1 }

64

65 void DELAY(long int length)

66 {

67 1 while (length >=0)

68 1 length--;

69 1 }

70

MODULE INFORMATION: STATIC OVERLAYABLE

CODE SIZE = 154 ----

CONSTANT SIZE = 12 ----

XDATA SIZE = ---- ----

PDATA SIZE = ---- ----

DATA SIZE = ---- 4

IDATA SIZE = ---- ----

BIT SIZE = ---- ----

END OF MODULE INFORMATION.

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