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

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; Date : October 2003

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; File : ADCldr.asm

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; Hardware : ADuC842/ADuC843

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; Description : Performs repeated single ADC conversions on ADC0

; Adjusts output of DAC0 to vary with LDR

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$MOD842 ; Use 8052&ADuC842 predefined symbols

CHAN EQU 3 ; convert this ADC input channel..

; ..chan values can be 0 thru 8

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; BEGINNING OF CODE

CSEG

ORG 0000h

JMP MAIN ; jump to main program

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; INTERRUPT VECTOR SPACE

;====================================================================

; MAIN PROGRAM

ORG 004Bh

MAIN:

; PRECONFIGURE...

MOV ADCCON1,#0ACh ; power up ADC

MOV ADCCON2,#CHAN ; select channel to convert

MOV DACCON,#03DH ; Dac 0 0-5V 12bits

; PERFORM REPEATED SINGLE CONVERSIONS...

AGAIN: MOV A,#01H ; Delay length

SETB SCONV ; innitiate single ADC conversion

; ADC ISR is called upon completion

JNB ADCI,$

CLR ADCI

MOV DAC0H,ADCDATAH

MOV DAC0L,ADCDATAL

JMP AGAIN

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END