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

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; Date : March 2001

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; File : ADCldr.asm

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; Hardware : ADuC831

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; Description : Performs repeated single ADC conversions on ADC1

; Adjusts output of DAC0 to vary with LDR

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$MOD831 ; Use 8052&ADuC831 predefined symbols

CHAN EQU 3 ; convert this ADC input channel..

; ..chan values can be 0 thru 6

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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,#080h ; power up ADC

MOV ADCCON2,#CHAN ; select channel to convert

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

; PERFORM REPEATED SINGLE CONVERSIONS...

AGAIN: 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