

An Introduction to MPASM Assembler Syntax and the P1.ASM Example Program

55:036
Embedded Systems and Systems
Software

```

; P1 for OwlKit flash board
;
; Use 10 MHz crystal frequency.
; Use Timer0 for ten millisecond looptime.
; Blink "Alive" LED every two and a half seconds.
; Toggle C2 output every ten milliseconds for measuring looptime precisely.
;
; Program hierarchy
;
; Mainline
; Initial
; BlinkAlive
; LoopTime
;
; Assembler directives
;
list P=PIC18F452, F=INH32, C=180, N=0, ST=OFF, MM=OFF, R=DEC, X=ON
#include P18F452.inc
__CONFIG __CONFIG1H, HS_OSC_1H ;HS oscillator
__CONFIG __CONFIG2L, PWRT_ON_2L & BORV_ON_2L & BORV_42_2L ;Reset
__CONFIG __CONFIG2H, WDT_OFF_2H ;Watchdog timer disabled
__CONFIG __CONFIG3H, CCP2MX_ON_3H ;CCP2 to RC1 (rather than to RB5)
__CONFIG __CONFIG4L, LVP_OFF_4L ;RBS enabled for ID

; Variables
;
cblock 0x000 ;Beginning of Access RAM
    TMR0LCOPY ;Copy of sixteen-bit Timer0 used by LoopTime
    TMR0HCOPY
    INTC0COPY ;Copy of INTC0N for LoopTime subroutine
    ALIVECNT ;Counter for blinking "Alive" LED
endc
    
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Assembler
Options

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This include file contains
the symbol definitions for
the SFRs, etc. It should
be included in all programs

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Target Processor

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Hex File Format
(Hex File is the Executable file to be downloaded to the PIC Processor)

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of columns in the list file

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List file page headers turned off

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#include P18F452.inc
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Turns off Symbol Table inclusion in the List File

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Turns off inclusion of a memory map in the list table

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Sets default radix for literals to decimal

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Macro expansion in list file turned on