

```

;*****
; This file is a basic code template for assembly code generation *
; on the PIC16F628. This file contains the basic code *
; building blocks to build upon. *
; *
; If interrupts are not used all code presented between the ORG *
; 0x004 directive and the label main can be removed. In addition *
; the variable assignments for 'w_temp' and 'status_temp' can *
; be removed. *
; *
; Refer to the MPASM User's Guide for additional information on *
; features of the assembler (Document DS33014). *
; *
; Refer to the respective PIC data sheet for additional *
; information on the instruction set. *
; *
; Template file assembled with MPLAB V4.00.00 and MPASM V2.20.12 *
;*****
;
; Filename:      xxx.asm *
; Date: *
; File Version: *
; *
; Author: *
; Company: *
; *
;*****
;
; Files required: *
; *
; *
;*****
;
; Notes: *
; *
; *
; *
;*****

list      p=16f628          ; list directive to define processor
#include <p16f628.inc>      ; processor specific variable definitions

__CONFIG _CP_OFF & _WDT_ON & _BODEN_ON & _PWRTE_ON & _ER_OSC_CLKOUT & _MCLRE_ON & _LVP_ON

; '__CONFIG' directive is used to embed configuration data within .asm file.
; The labels following the directive are located in the respective .inc file.
; See respective data sheet for additional information on configuration word.

;***** VARIABLE DEFINITIONS
debut_buffer EQU 0x70      ; debut du buffer RS232 de 8 octets
; adresse 0x70 = adresse du bit de poids fort de concatene
; adresse 0x77 = adresse du bit de poids faible de concatene
compteur EQU 0x78         ; compteur
concatene EQU 0x79        ; message concatene

;*****
ORG 0x000                 ; processor reset vector
goto debut                ; go to beginning of program

ORG 0x004                 ; interrupt vector location
retfie                    ; return from interrupt

;*****

; TEST PIC16F628
debut
    movlw 8                ; valeur d'origine (8 bits)
    movwf compteur        ; compteur d'octets du message
    clrf concatene        ; initialiser l'octet de resultat
    movlw (debut_buffer-1) ; W pointe le debut du buffer de 8 caracteres - 1
    movwf FSR             ; Le registre pointe l'adresse de l'octet courant

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```

bitsuivant
    incf   FSR
    bcf   STATUS,C           ; mettre la CARRY à 0
    btfs  INDF,0           ; bit 0 de *FSR = 0 ?
    bsf   STATUS,C           ; non, mettre la CARRY à 1
    rlf   concatene,f       ; decaler a gauche en entrant la CARRY
    decfsz compteur,f       ; compteur à 0 ?
    goto  bitsuivant        ; non, on continue
termine
    goto  termine
END                                     ; directive 'end of program'

```