

## Example for multiple interrupts.

```
CHIP ROM8K
; This program is for multi-interrupt test
; In this program only could accept two interrupt, one from INTO(P8,2)
; one from TA.
; You could run this program in two way.
;
; 1'st. drop the instruction in "line #", and free run program, you will see P8,1 out
; a square wave. then tie P8,2 to low. the square wave will disappear. it's because
; program run loop within INTO ISR routine. you could stop the ICE and check the TA
; value, it is start counting from overflow. this means TAI ISR is not executed.
;
; 2'nd. keep the instruction in "line #", and free run, you could see the same condition as
; 1'st way, then connect P8,2 to low. the square will never stop. it's because even the
; program is executing INTO ISR, it still can accept TAI ISR.
;
;
; RAM definition
DSEG; data segment
;
; PROGRAM initial
CSEG; code segment
ORG 00H;
LBR RESET;
LBR INTO;
LBR HTCI;
LBR TA;
LBR TB;
LBR TIMEBASE;
LBR INT1;
;
INT1: RTI;
;
;/////////////////////////
INT0: EICIL 111111B; line #
; set EIF will accept TAI during INTO ISR
; drop this will hold on this loop and TAI will not happened
;/////////////////////////
TFP P8,2;
B INTO;
RTI;
;
;-----
;
HTCI:
TB: TFP P8,0;
B TB_0;
CLP P8,0;
RTI;
;
TB_0: SEP P8,0;
```

```

RTI;

;
TIMEBASE:
TA:      LDIA #00H;
         STATAL;
         STATAM;
         STATAH;
         STATBL;
         STATBM;
         STATBH;
         TFP P8,1;
         B TA_0;
         CLP P8,1;
         RTI;

;
TA_0:    SEP P8,1;
         RTI;

;
;-----
;
RESET:   LDIA #0CH;
         STASP;      initial spw
         LDIA #0000B;
         OUTA P21;
LOOP_X:  B LOOP_X;
;
         LDIA #0EH;
         STATAL;
         STATAM;
         STATAH;
;
         LDIA #1000B;
;
         OUTA P28;      initial TA
;
         LDIA #1001B;
;
         OUTA P29;
;
         LDIA #0100B;
;
         OUTA P25;
         LDIA #0000B;
         OUTA P11;
         LDIA #0000B;
         OUTA P10;
         LDIA #0100B;
         OUTA P31;
;
         LDIA #1111B;  only active mask for TAI
         EXAE;        mask has no effect on INTO
         EICIL 111111B; set EIF and reset IL's
;
;
MAIN:    B MAIN;
;
END;

```