

OpenTimer0

Function: Configure and enable timer0.

Include: `timers.h`

Prototype: `void OpenTimer0(unsigned char config);`

Arguments: *config*

A bitmask that is created by performing either a bitwise AND operation ('&') or bitwise OR operation ('|'), which is user configurable, with a value from each of the categories listed below. These values are defined in the file `timers.h`.

Enable Timer0 Interrupt:

<code>TIMER_INT_ON</code>	Interrupt enabled
<code>TIMER_INT_OFF</code>	Interrupt disabled

Timer Width:

<code>T0_8BIT</code>	8-bit mode
<code>T0_16BIT</code>	16-bit mode

Clock Source:

<code>T0_SOURCE_EXT</code>	External clock source (I/O pin)
<code>T0_SOURCE_INT</code>	Internal clock source (TOSC)

External Clock Trigger (for `T0_SOURCE_EXT`):

<code>T0_EDGE_FALL</code>	External clock on falling edge
<code>T0_EDGE_RISE</code>	External clock on rising edge

Prescale Value:

<code>T0_PS_1_1</code>	1:1 prescale
<code>T0_PS_1_2</code>	1:2 prescale
<code>T0_PS_1_4</code>	1:4 prescale
<code>T0_PS_1_8</code>	1:8 prescale
<code>T0_PS_1_16</code>	1:16 prescale
<code>T0_PS_1_32</code>	1:32 prescale
<code>T0_PS_1_64</code>	1:64 prescale
<code>T0_PS_1_128</code>	1:128 prescale
<code>T0_PS_1_256</code>	1:256 prescale

Remarks: This function configures timer0 according to the options specified and then enables it.

File Name: `t0open.c`

Code Example: **With bitwise AND ('&') mask:**

```
OpenTimer0( TIMER_INT_OFF &
            T0_8BIT      &
            T0_SOURCE_INT &
            T0_PS_1_32 );
```

With bitwise OR ('|') mask:

```
OpenTimer0( TIMER_INT_OFF |
            T0_8BIT      |
            T0_SOURCE_INT |
            T0_PS_1_32 );
```