

The following code example shows one assembly and one C function for changing the time-out value of the Watchdog Timer.

## Assembly Code Example<sup>(1)</sup>

```
WDT_Prescaler_Change:
    ; Turn off global interrupt
    cli
    ; Reset Watchdog Timer
    wdr
    ; Start timed sequence
    lds r16, WDTCR
    ori r16, (1<<WDCE) | (1<<WDE)
    sts WDTCR, r16
    ; -- Got four cycles to set the new values from here -
    ; Set new prescaler(time-out) value = 64K cycles (~0.5 s)
    ldi r16, (1<<WDE) | (1<<WDP2) | (1<<WDP0)
    sts WDTCR, r16
    ; -- Finished setting new values, used 2 cycles -
    ; Turn on global interrupt
    sei
    ret
```

## C Code Example<sup>(1)</sup>

```
void WDT_Prescaler_Change(void)
{
    __disable_interrupt();
    __watchdog_reset();
    /* Start timed sequence */
    WDTCR |= (1<<WDCE) | (1<<WDE);
    /* Set new prescaler(time-out) value = 64K cycles (~0.5 s) */
    WDTCR = (1<<WDE) | (1<<WDP2) | (1<<WDP0);
    __enable_interrupt();
}
```

Note: 1. See "Code Examples" on page 7.

Note: The Watchdog Timer should be reset before any change of the WDP bits, since a change in the WDP bits can result in a time-out when switching to a shorter time-out period.