

TOSHIBA

SP-870-008

TBTCLOCK

--Creating TOD Clock Using TBT Interrupts--

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1. Target MCU

This sample program is created targeting at the TLCS-870/X series.
When using an MCU other than the TLCS-870/X series, refer to the data sheet for that MCU.

2. Overview

This sample program provides a time-of-day (TOD) clock function using TBT interrupts.

3. Description

The program creates a TOD clock using a time-base timer.
It uses the low-frequency oscillation (32.768 kHz) as the source clock and TBT interrupts at $f_s/2^{13}$ (250 ms), which are available even in SLOW mode.

4. Passing Data

Set data in the following RAM areas (contiguous addresses):

GCLKQUD	1/4 seconds	00—03 (decimal)
GCLKSEC	Seconds	00—59 (decimal)
GCLKMIN	Minutes	00—59 (decimal)
GCLKHOR	Hours	00—23 (decimal)
GCLKDAY	Day	00—06 (decimal)

5. Interrupts

- TBT interrupts (250-ms cycle)

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