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M16C/63 Group

Procedure for Rewriting Time Data Registers for the Real-Time Clock

1. Abstract

This document describes the procedure for rewriting the real-time clock time data registers.

2. Introduction

The application example described in this document applies to the following microcomputer (MCU):

- MCU: M16C/63 Group

This application note can be used with other M16C Family MCUs which have the same special function registers (SFRs) as the above group. Check the hardware manual for any modifications to functions. Careful evaluation is recommended before using the program described in this application note.

3. Procedure for Rewriting the Time Data Registers for the Real-Time Clock

When rewriting the real-time clock data registers, make sure that the RSTADJ bit in the TRHIFR register is set to 1 (TRHSEC register becomes 00 and the internal counter is initialized).

Steps (1) to (7) describe how to rewrite the real-time clock time data registers.

- (1) Confirm that the BSY bit in the TRHSEC register is 0 (not while data is updated).
- (2) Set the RUN bit in the TRHCR register to 0 (count stopped).
- (3) Wait at least three cycles of the sub clock.
- (4) Read the BSY bit in the TRHSEC register.
 When the bit is 0 (not while data is updated), move on to step (5).
 When the bit is 1 (while data is updated), set the RUN bit in the TRHCR register to 1 (count started), and return to step (1).
- (5) Set the RSTADJ bit in the TRHIFR register to 1 to reset the second counter.
- (6) Wait at least four cycles of the sub clock.
- (7) Rewrite the time data.

Figure 3.1 shows the flowchart of Procedure for Rewriting the Time Data Registers for the Real-Time Clock.

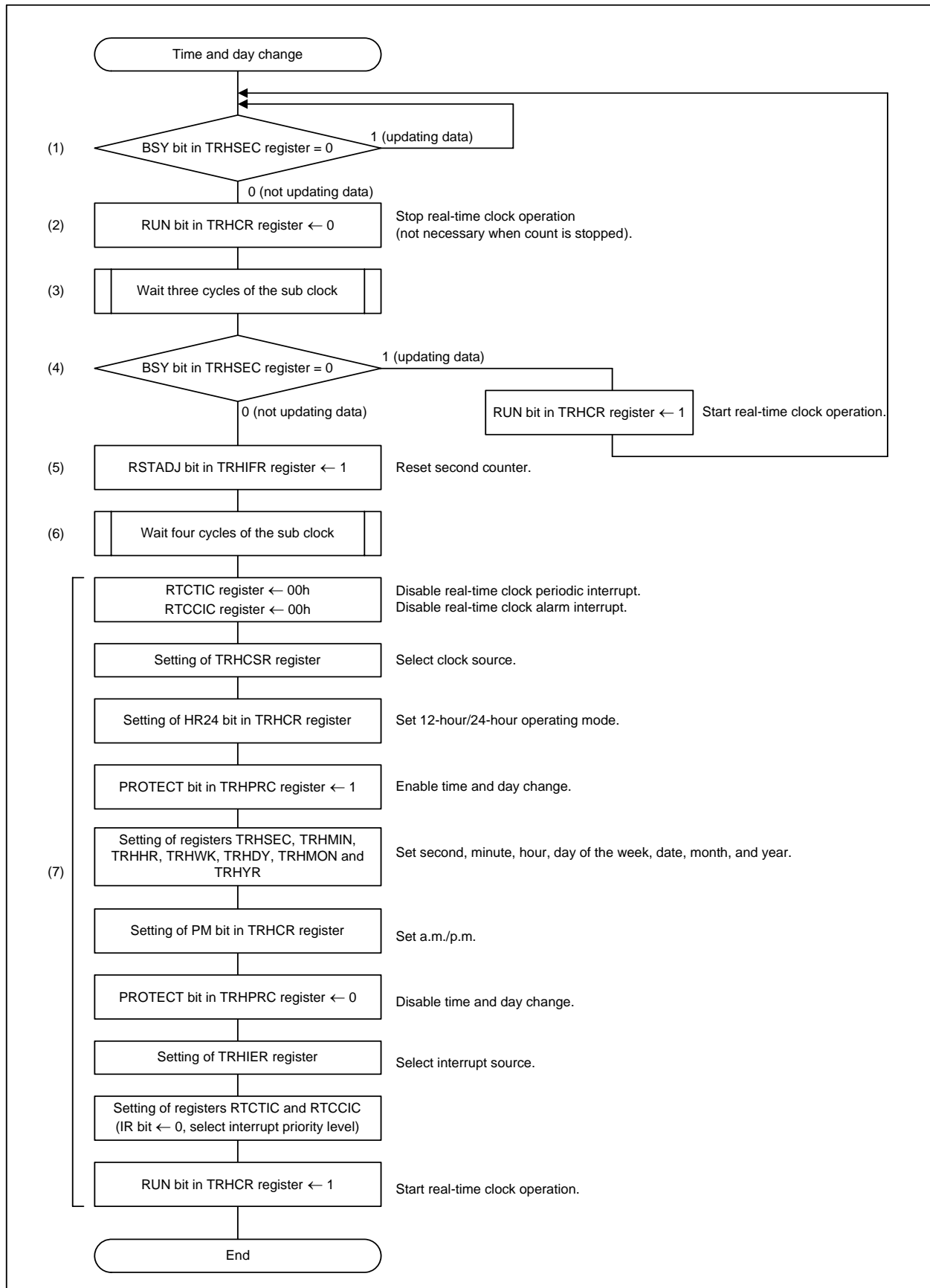


Figure 3.1 Procedure for Rewriting the Time Data Registers for the Real-Time Clock

4. Reference Documents

Hardware Manual

M16C/63 Group Hardware Manual Rev.1.00.

The latest version can be downloaded from the Renesas Technology website.

Technical Update/Technical News

The latest information can be downloaded from the Renesas Technology website.

C Compiler Manual

C complier package V.5.45 for M16C Series and R8C Family.

C compiler user's Manual Rev.1.00.

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REVISION HISTORY	M16C/63 Group Procedure for Rewriting Time Data Registers for the Real-Time Clock
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Rev.	Date	Description	
		Page	Summary
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