

[Notification]

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Perform MISRA-C Rule Check During Compilation

to Reduce Man-hours and Improve Quality for Program Development!

MISRA-C Rule Checking Feature of Renesas Compiler Professional Edition

Outline

This document introduces one of the features of the Renesas Compiler (CC-RL, CC-RX, or CC-RH) professional edition, MISRA-C:2004/2012. This feature enables you to check the C source code against the MISRA-C rules during compilation.

It means you won't have to switch back and forth between the compiler and a tool for the MISRA-C rule check. This reduces the overhead per man-hours for debugging and prevents execution omission errors of MISRA-C rule check. Once compilation is complete, the compiler can "modify compiler errors" and "modify MISRA-C check errors" concurrently, which makes it easier to manage the debugging progress for each source program.

MISRA-C rule checking feature helps to reduce man-hours for debugging during product development and improve the quality of your programs. For details regarding the professional edition as well as MISRA-C, please refer to the following URL:

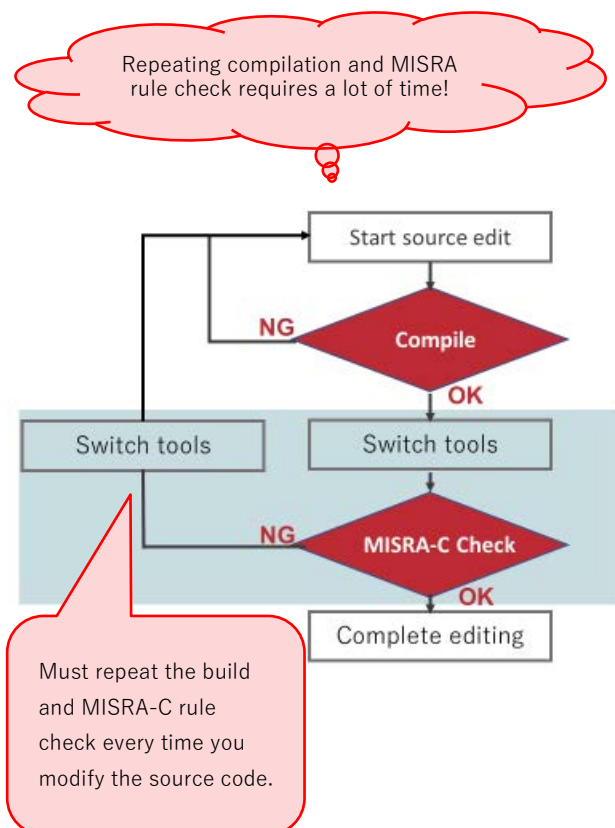
<https://www.renesas.com/search/keyword-search.html#genre=document&q=r20pf0024>

1. Features

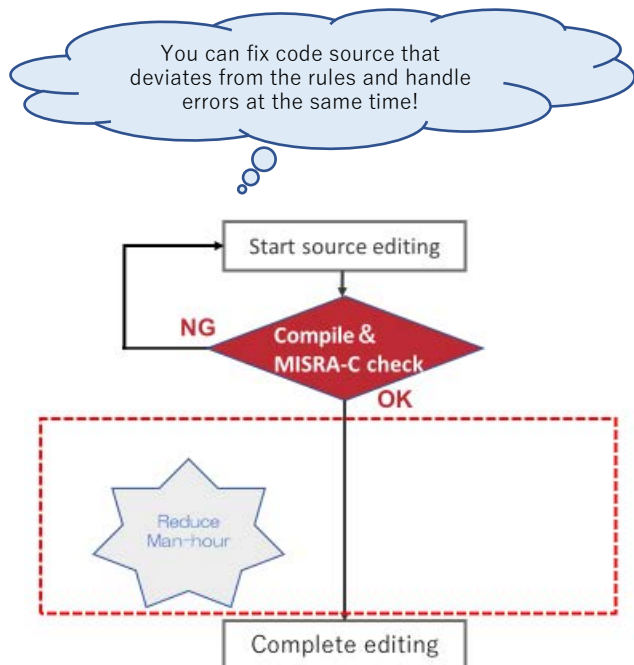
1.1 Reduces Man-Hours for Program Development

The compiler checks the code against MISRA-C during the compilation. This saves you the trouble of switching between tools repeatedly and reduces man-hours for development. The following flowchart shows the performance improvement while using the Renesas Compiler professional edition.

When using the Compiler and MISRA-C Rule Check



When using the Renesas Compiler Professional Edition



1.2 Improves Quality for Program Development

You can specify MISRA-C rule check options and view the check results on the IDE (CS+ or e2 studio) you use for programming.

As there is no need to use extra tools to set up the environment, you can immediately start the checking as well as prevent the setting errors in selecting the files to run the check against.

(1) Control the rules to apply on the IDEs (CS+/e2 studio)

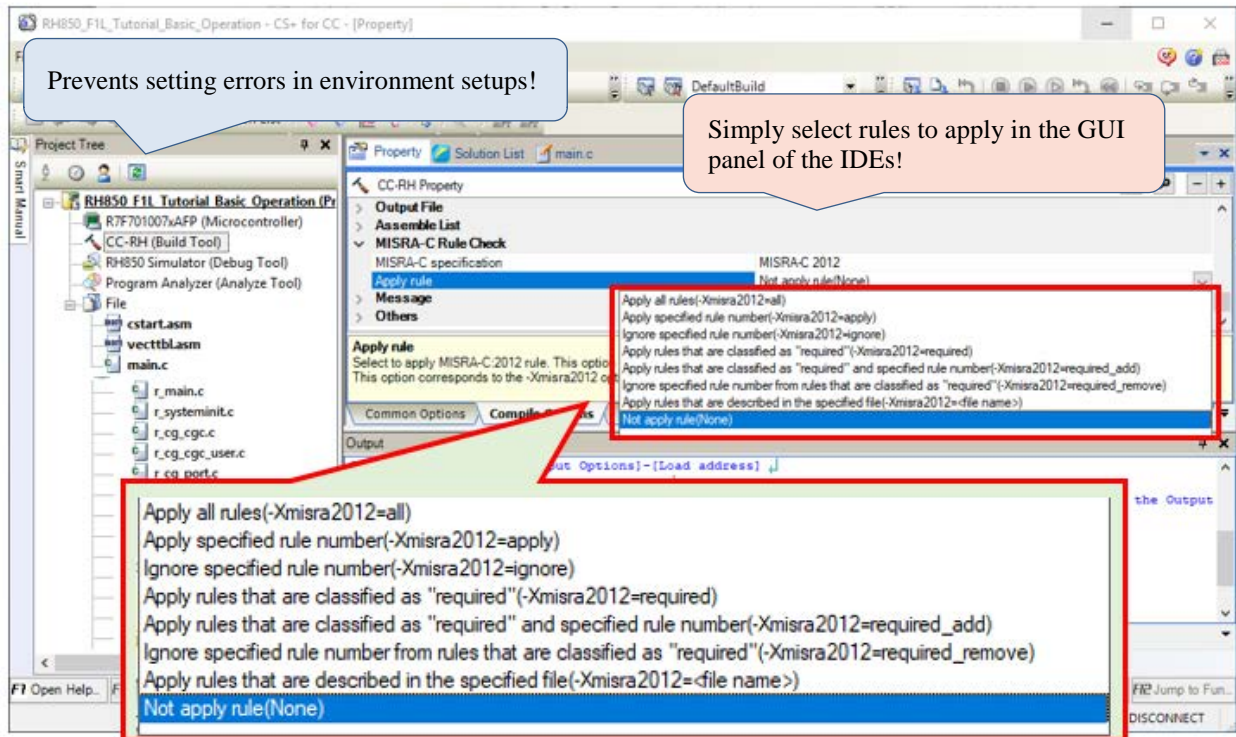


Figure 1-1 Applying MISRA-C Rule Check (CS+)

(2) Check results are displayed in the output window of the IDE.

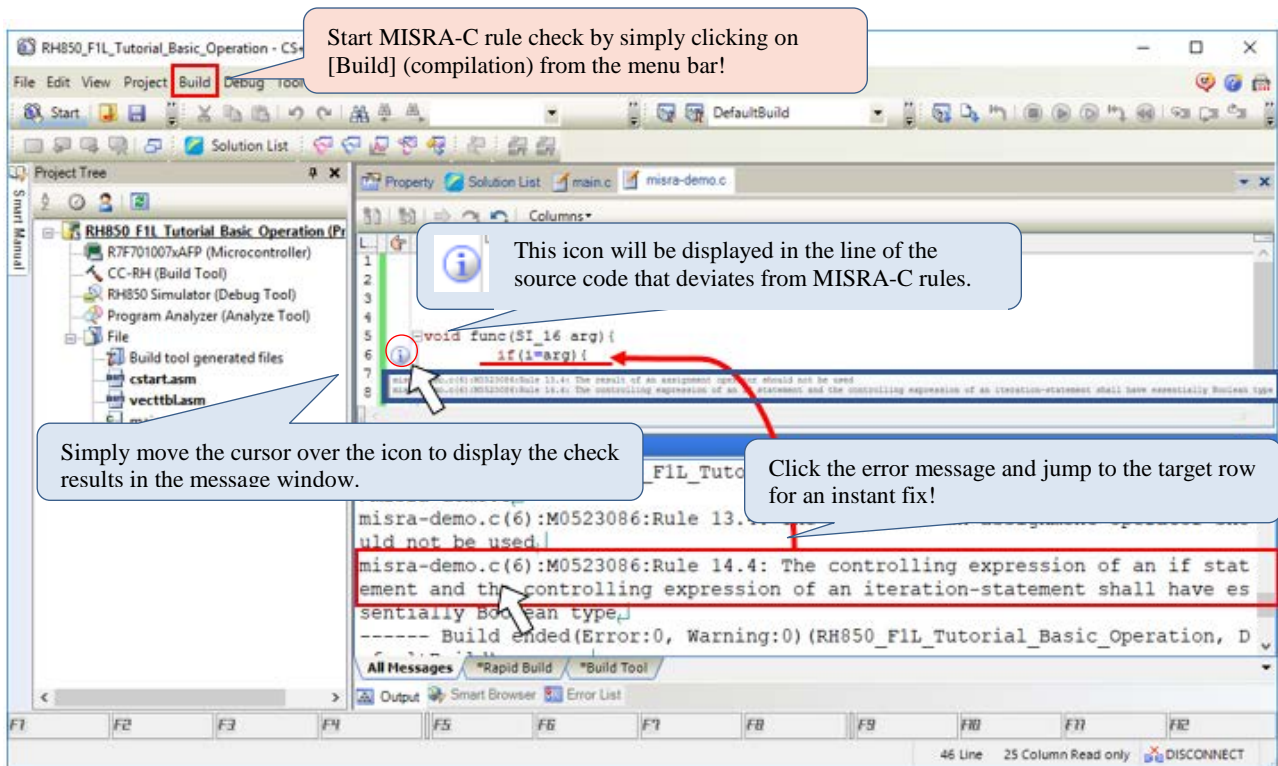


Figure 1-2 MISRA-C Rule Check Results Output Window during Build (CS+)

2. More Features of Professional Edition

For details on the functions of the Renesas compiler Professional edition, refer to the following application note:

<https://www.renesas.com/search/keyword-search.html#genre=document&q=r20ut4026>

In addition to MISRA-C rule check function, the application note introduces more features which help to improve the quality of your programs and shorten development periods. There is also an example of the C source code which you can copy and paste to try out instantly.

3. Schedule for Upcoming News on Compiler Feature

We will be introducing one of the features of Renesas compiler professional edition, "Synchronization Features in the Updating of Control Registers (RH850)" in the upcoming news, which is scheduled to be released on Oct. 16.

4. How to Purchase the Product

For product ordering, contact your local Renesas Electronics marketing office or distributor.

If you have a node-locked license for a standard edition, you can upgrade your compiler from standard edition to professional edition by additionally purchasing an upgrade (edition) license. For orderable part number, refer to the following web pages for the compiler packages.

CC-RL: https://www.renesas.com/rl78_c

CC-RX: https://www.renesas.com/rx_c

CC-RH: https://www.renesas.com/rh850_c

Revision History

Rev.	Date	Description	
		Page	Summary
1.00	Sep. 16, 2018	-	First edition issued

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