

MISRA C Rule Checker SQMLint V.1.00 Release 1 Released

We have released the SQMLint V.1.00 Release 1, a MISRA C rule checker, for the M32R and M16C families of Renesas MCUs.

1. Descriptions

1.1 Outline

The SQMLint, a MISRA C rule checker, is a tool for checking source programs written in C language under the MISRA C rules (*). When installed, the SQMLint automatically detects the faulty descriptions in a source program that violate the MISRA C rules by simply compiling the program with the option for using the SQMLint being selected. The detected faulty descriptions in the source program can be modified as easily as the compile errors in it.

Note:

- * The MISRA C is Guidelines for the Use of the C Language in Vehicle Based Software. They were prepared by a non-profit group MISRA (Motor Industry Software Reliability Association) organized by Japan's automobile industry for software reliability promotion. The guidelines lay down 127 rules regarding C-language programs for automotive use.

1.2 Features

- Checks can be made on 86 rules out of MISRA C's 127 rules.
- Using appropriate options can make checks at compilation.
- Options can be selected to conduct checks on all 86 supported rules, on the specified rules, and on all 86 rules except the specified ones.
- The results of checks are reported in the following two types of message:
 1. Message in Complaining Level
Delivered if any of the 86 supported rules is violated.
 2. Message in Warning Level
Delivered if any of the 86 rules may be violated.

- Checks can be conducted in a half or less of time required to compile a program.
- Supported by Renesas's integrated development environments, High-performance Embedded Workshop and TM: descriptions in a C source file can be displayed by tag-jumping from the output message and then modified (the SQMLint is not provided with the function for modifying C-source files).
- Supported by Renesas-specific C-compiler options: for example, when such a special option that interprets variables of type double as float is used, the SQMLint checks C-source files that have been affected by the option.

For details of the SQMLint, see its datasheet on the Web site.

1.3 Host System Requirements

Computer	OS
IBM PC/AT or compatible	Windows XP, Windows Me, Windows 98, Windows 2000, Windows NT 4.0

1.4 C Compilers

The following C compilers can run the SQMLint:

- M3T-CC32R V.4.10 Release 1 or later for the M32R family
- M3T-NC308WA V.5.10 Release 1 or later for the M32C/80 and M16C/80 series
- M3T-NC30WA V.5.20 Release 1 or later for the M16C/60, M16C/30, M16C/20 and M16C/10 series

NOTE:

We plan to run the SQMLint on the C compilers for the SuperH and H8 families of Renesas MCUs.

NOTICE:

The SQMLint adds checking functions on MISRA C rules to the C compiler that has already been installed in the host system, so it cannot be installed into the system where no C compiler resides.

2. How to Order the Product

When you place an order, please furnish the following information to your local Renesas Technology sales office or distributor:

Software : MISRA C rule checker SQMLint

Version No. : V.1.00

Release No. : Release 1

Type Name : R0C00000SCW01R

Host OS : Windows XP, Windows Me, Windows 98, Windows 2000, or Windows NT
4.0

NOTICE:

The SQMLint, a MISRA C Rule Checker, is managed by its license ID number in such a way that the user with one license ID number is allowed to install the software in one computer and use it in combination with one compiler.

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