



V.4.01 Release 00

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M3T-MR30/4 V.4.01 Release 00

Release Notes

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WARNING

Take a countermeasure such as a fail safe on the system against personal injury, fire hazard, or other damages of your system due to the operation of this product. If the countermeasure cannot be taken, do not use this product.

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Section 1 Components of the Product

M3T-MR30/4 is comprises the following. If any of the above is missing, contact either Renesas Electronics Corporation's office or its distributor from which you purchased the product.

1. Software (CD-R)
The CD-R contains the software product and electronic manual necessary for program development.
2. M3T-MR30/4 V.4.01 Release 00 Release note
This is the latest version of the M3T-MR30/4.
3. License Agreement (R0R30600TRW021E, R0R30600TRW025E, R0R30600TRW02AE)
Please read it before using. By using the software, you are accepting and agreeing to such term.
4. License ID Certificate
A license ID is required when you install this product in your computer. The License ID Certificate certifies that you are an official user of the product. Please keep this certificate in a safe place because it will be needed when the product is upgraded in the future.

Section 2 Required System

- Host computer : IBM PC or compatible machine, which runs following host OS.
Microsoft(R) Windows(R) XP, Windows Vista(R), Windows 7(R)
- Memory capacity : 128 Mbytes at least; 256 Mbytes or more recommended.
- I/O device: CD-ROM drive
- Other requirement: A pointing device such as a mouse
- C/C++ Compiler Package for M16C Series and R8C Family [M3T-NC30WA].

Section 3 Tool News

Tool News provides information on our products so that customers can use the products more efficiently. The Tool News pages are available on our Web site.

<http://tool-support.renesas.com/eng/toolnews/index.htm>

Get the latest information about new products, upgraded versions and precautions from Tool News, and take advantage of it in your development projects. Since the release notes do not include information issued after the release of the product, be sure to check the latest issue of Tool News.

Section 4 Installation and Uninstallation

4.1 Installation of M3T-MR30/4

The administrator authority of the computer that uses it is required for installing this product.

Before installing M3T-MR30/4 in your computer, please read the "License Agreement" and "Release Note" included with the product. You need to select the same directory in installing as installing M3T-NC30WA .

1. Starting up the installer

- Start up the installer and follow the messages displayed on the screen as you install M3T-MR30/4.
- You need to input a license ID in the middle of installation. Before you start installing M3T-MR30/4, check your license ID.
- The data you input in the middle of installation is necessary to create a file for user registration.
- The installer programs included with the product are listed below.

Product Name	Version number of M3T-NC30WA	Installer Name
M3T-MR30/4 Evaluation License	V.5.4x	\\MR30_C3\forV54x\Setup.exe
	V.6.00	\\MR30_C3\forV600\Setup.exe
M3T-MR30/4 Mass-production License(Without Source)	V.5.4x	\\MR30_C1\forV54x\Setup.exe
	V.6.00	\\MR30_C1\forV600\Setup.exe
M3T-MR30/4 Mass-production License(With Source)	V.5.4x	\\MR30_B1\forV54x\Setup.exe
	V.6.00	\\MR30_B1\forV600\Setup.exe

To uninstall M3T-MR30/4, select [M3T-MR30/4 V.4.01 Release 00] from [Add/Remove Program] of the Control-Panel.

4.2 Installation of High-performance Embedded Workshop Patch Program

When M3T-NC30WA V.6.00 Release 00 is used, it is necessary to execute the High-performance Embedded Workshop patch program. The patch program is installed according to the following procedures.

1. Decompress the downloaded HEW_PATCH_100910.zip file in any directory.
2. Execute the decompressed PatchTool.exe file.
3. In the list of the compilers to be updated, select the check box for the compiler to which you want to apply the patch; then click the Update button.
4. The following message appears in the dialog box:
"Close all High-performance Embedded Workshop.
Click OK to start the update."
So exit High-performance Embedded Workshop if operating; then click OK.
5. When update is completed, and the message "The update has finished" displayed, click OK.
6. If you have installed two or more High-performance Embedded Workshop programs, switch the active one to another by using Install Manager, and repeat the steps 2 through 5.

4.3 Setting environment after installation

Please set the following environment variable when you develop the application with the command line base. The following examples are the cases where it is installed in C:\Program Files\Renesas\Hew\Tools\Renesas\nc30wa\v600r00.

Environment Variable	Example of setting
BIN30	SET BIN30= C:\Program Files\Renesas\Hew\Tools\Renesas\nc30wa\v600r00\bin
INC30	SET INC30= C:\Program Files\Renesas\Hew\Tools\Renesas\nc30wa\v600r00\inc30
LIB30	SET LIB30= C:\Program Files\Renesas\Hew\Tools\Renesas\nc30wa\v600r00\lib30
Command path	SET PATH=%PATH%; %BIN30%

Section 5 How to build kernel source code¹

The kernel source code is stored in the directory under the "< installation directory >" as the table below.

C interface library source	Kernel library source
src30\c30mr	src30\mr30

It moves to the source code installation directory to build the kernel, and "nmake.exe"² is executed.

The environment variable settings are needed by compiler when building the kernel.

Example:

```
C:\src30\mr30>nmake -f makefile.dos
```

Makefile used for the argument of nmake.exe is different according to the version of the compiler and CPU type. Please change makefile used according to the table below.

Version of M3T-NC30WA	CPU Type	File name of Makefile
V.5.4x	-	Makefile.dos
V.6.00	M16C	Makefile.dos
	R8C	Makefile.r8c
	R8CE	Makefile.r8ce

[Note]

Please copy "src30" directory to the writable directory if you don't have the write-access permission to the product installation directory. After the build, copy the generated library to the "lib30" directory under the product installation directory by the user who has write-access permission to the product installation directory.

¹ The source code is only attached to a mass production contract version (R0R30600TRW02ZE).

² "Nmake.exe" is a tool to build the project provided by Microsoft Corporation in United States. "Nmake.exe" is included in Microsoft Visual Studio 2008 etc.

Section 6 Cautions

6.1 About the use of the watch dog timer

In the sample start-up routine of the product attachment, to invalidate the watch dog timer, the following correspondences are executed with `c_sec.inc(asm_sec.inc)`. Please correct it if necessary according to your system.

- For M16C project
 1. 0FFH is set to OFS1 area (0FFFFFFH)
- For R8C project
 2. 0FFH is set to OFS register (0FFFFFFH)
 3. 0FFH is set to OFS2 register (0FFDBH).

6.2 Use of GUI Configurator

1. Execution of GUI Configurator

From the Start menu, select [MR30 GUI Configurator] from the [Renesas] -> [M3T-MR30-4 V.4.01 Release 00] to start up the configurator.

Also, when “Guiconfig_mr30.exe” in the “bin” directory under the M3T-MR30/4 install directory is executed, the GUI configurator starts up.

2. GUI Configurator Manual

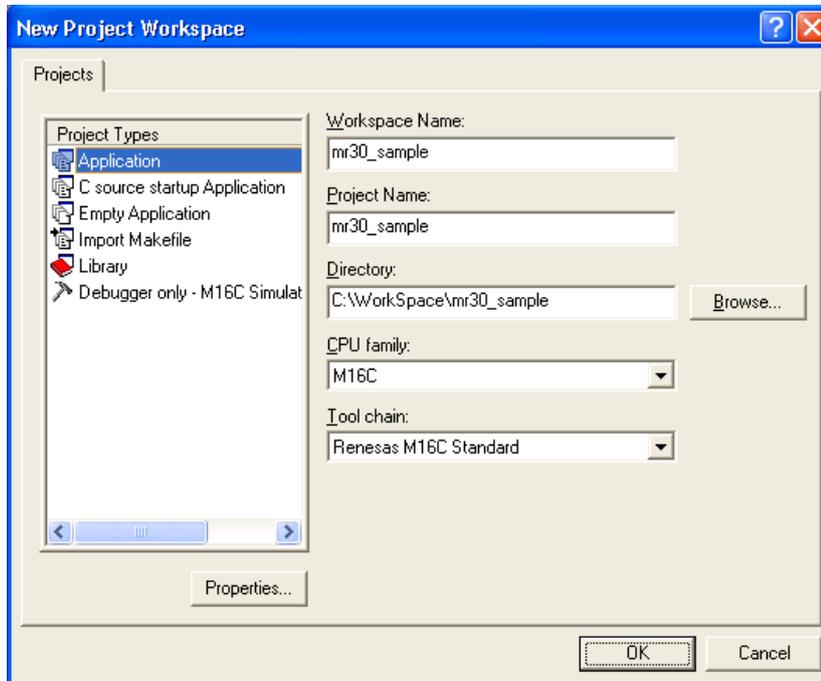
For the GUI configurator, the user’s manual is prepared in the Help format. From the GUI screen of GUI configurator or by selecting [MR30 GUI Configurator HELP] from [Renesas] -> [M3T-MR30-4 V.4.01 Release 00], the Help can be referenced.

Section 7 Creation and build of M3T-MR30/4 project

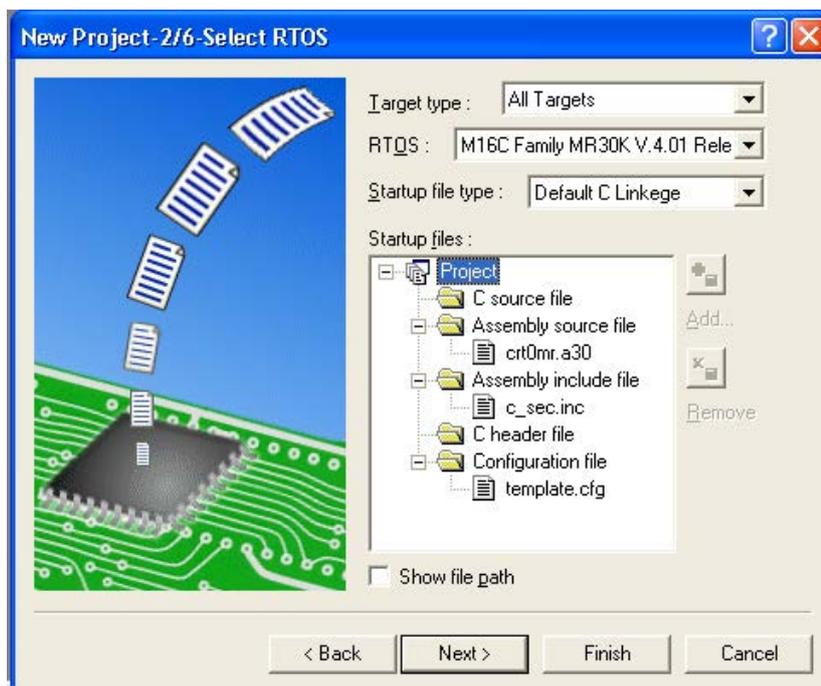
When M3T-NC30WA V.6.00 is used, it is necessary to install the High-performance Embedded Workshop patch program to make the project corresponding to M3T-MR30/4. Please install the patch program according to 4.2.

7.1 Creation of M3T-MR30/4 project

1. Select "Application" as the project type.



2. Select "MR30" in the RTOS select dialog.



3. Please edit the cfg file and C source file of the template to develop the application after the project generation is completed.

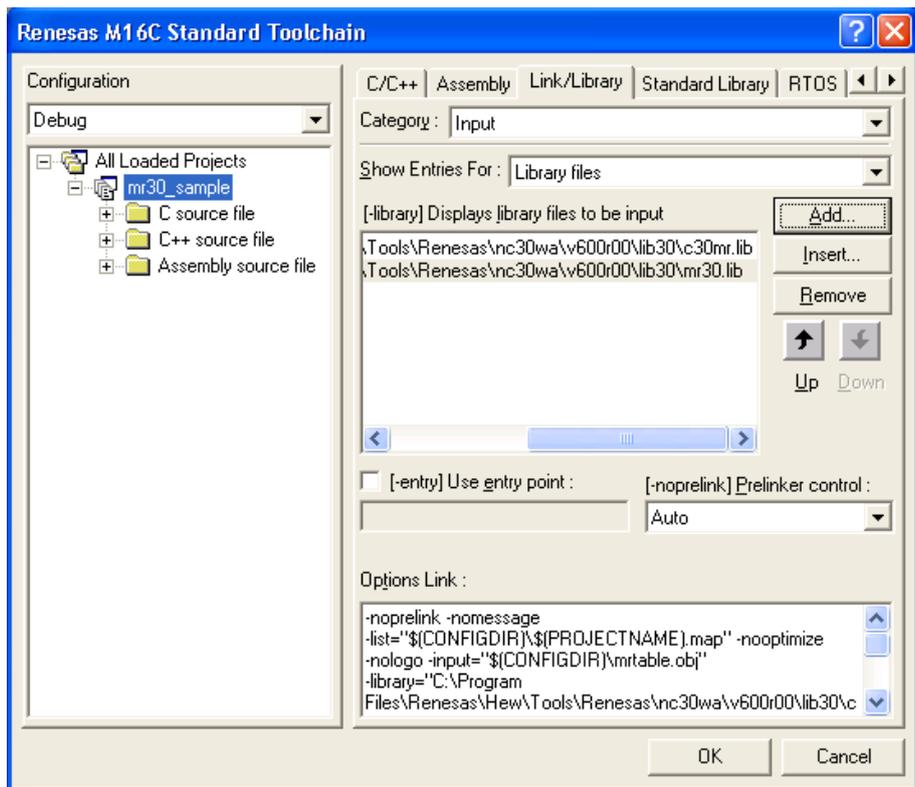
7.2 Build of M3T-MR30/4 project

7.2.1 In use of M3T-NC30WA V.5.4x

Please select "Build->Build all" or "Build- > Build" from the menu and execute the build.

7.2.2 In use of M3T-NC30WA V.6.00

1. Specify the kernel libraries (mr30.lib,c30mr.lib) to be linked.
Please specify libraries linked according to the option specified by the build of the application.
The libraries without "- R8CE" nor "-R8C" option are stored in < installation directory > \lib30.
The libraries with "- R8CE" option are stored in < installation directory > \lib30\R8CE.
The libraries with "- R8CE" option are stored in < installation directory > \lib8c\R8C.



- Allocate the sections.

When the project is generated, any section is not allocated.

Please import and edit the sample section information file (*.hsi file) .

The file of section information on the sample is < installation directory > \smp30\mr30\M16C.hsi or R8C.hsi.

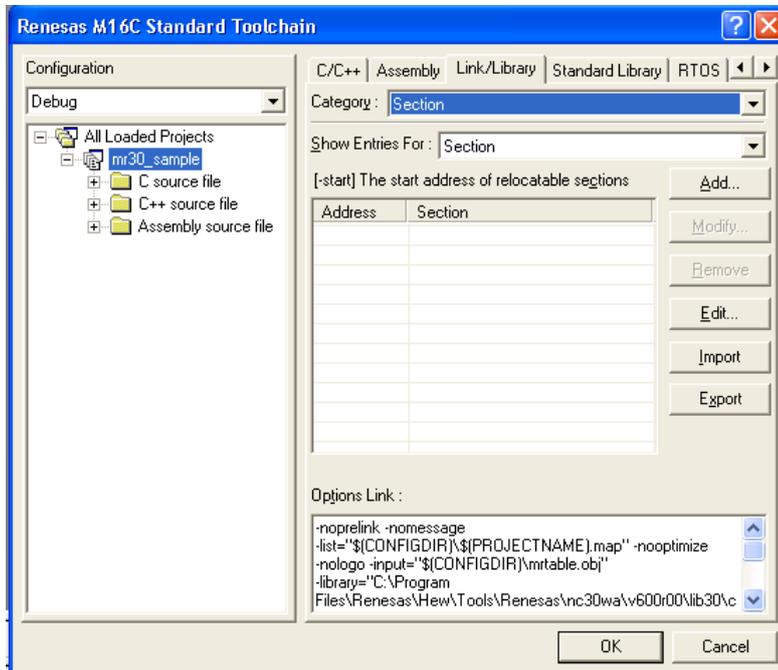


Figure 1 The section allocation after project generation

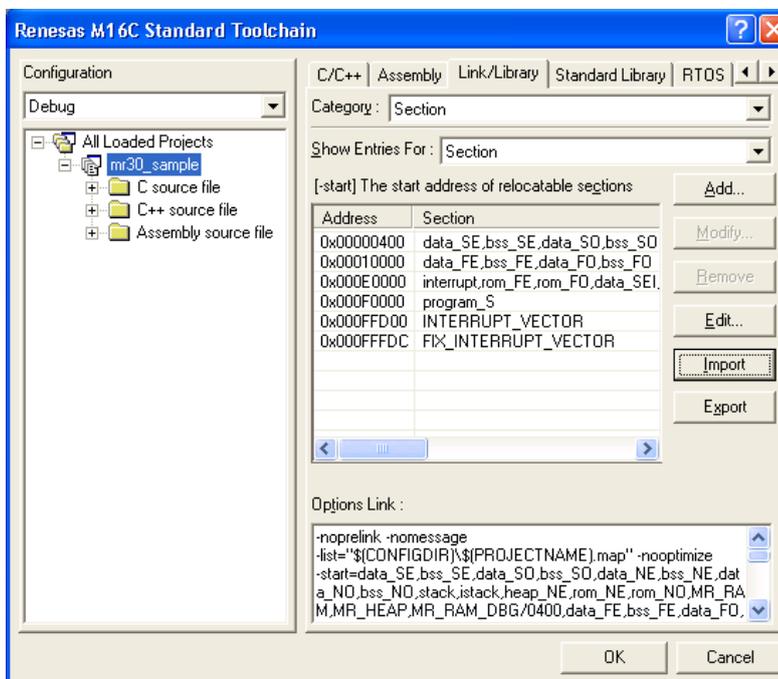


Figure 2 The section allocation after importing “hsi” file

- Please select "Build->Build all" or "Build-> Build" from the menu and execute the build.

Section 8 Contents of Update

The contents of update from MR30/4 V.4.00 Release 01 to V.4.01 Release 00 are shown below.

8.1 New feature

1. It is corresponded to the C/C++ Compiler Package for M16C Series and R8C Family [M3T-NC30WA].
2. The timer of M16C/64, 65, and 50 groups and the timer RA and RB of R8C families can be registered as a system timer, and it is able to initialize it automatically.
3. The project for R8C Family can be generated.
4. The user's manual is improved for "How to control interrupt" and added about power management.

8.2 The following problems are fixed.

1. Problem with using the GUI configurator
(See 2008/7/1 Tool News.)
2. With selecting values of timeout and delay time
(See 2008/9/1 Tool News.)
3. It was corrected to the BOOL type that the return value of the sns_xxx service call was ER type.
4. The problem that "/F" switch was able to be selected in the interrupt handler register dialog box of the GUI configurator was corrected.
5. The problem that "F" switch was able to be defined for "pragma_switch" item in the interrupt handler definition in the ".cfg" file.

M3T-MR30/4 Release Notes

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