
RX Family Real-time OS RI600V4 V1.02.00

R20UT2157EJ0100

Rev.1.00

Release Note

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Chapter 1. Packaged Tools

Agreement type and contents are different according to the product.

Product Name	Agreement Type	Contents
R0R5RX00TCW011	Evaluation License, Limited 1 host	A
R0R5RX00TCW01A	Evaluation License, Unlimited hosts	A
R0R5RX00TCW01K	Mass-production License, 3000 copies	A
R0R5RX00TCW01U	Mass-production License, Unlimited copies	A
R0R5RX00TCW01Z	Mass-production License, Unlimited copies, With source code	B

The following tools are provided.

Contents	Name	Version	
B	A	Realtime OS RI600V4 Kernel Object	V1.02.00
		Command-line Configurator "cfg600"	V1.02.00
		Table Generation Utility "mkritbl"	V1.02.00
		Plug-ins for CubeSuite+	
		Realtime OS Build Tool Plug-in (Common)	V1.03.00
		Realtime OS Build Tool Plug-in (RI600V4)	V1.01.00
		Realtime OS Analysis Control Plug-in (Common)	V1.01.01
		Realtime OS Analysis Control Plug-in (μ ITRON4)	V1.01.01
		Realtime OS Analysis Control Plug-in (RI600V4)	V1.00.01
		Realtime OS Resource Information Displaying Plug-in (Common)	V1.02.00
		Realtime OS Resource Information Displaying Plug-in (μ ITRON4)	V1.02.00
		Realtime OS Task Analyzer Plug-in (Common)	V1.00.00
		Realtime OS Task Analyzer Plug-in (Panel)	V1.00.00
		Realtime OS Task Analyzer Plug-in (RI600V4)	V1.00.00
GUI Configurator "GUI600"	V1.01.00		
Realtime OS RI600V4 Kernel Source Code	V1.02.00		

Chapter 2. User's Manual

The following user's manuals are included with this version. Please read these manuals together with this document.

Manual Name	Document Number
RI Series Real-Time Operating System User's Manual: Start	R20UT0751EJ0102
RI600V4 Real-Time Operating System User's Manual: Coding	R20UT0711EJ0102
RI600V4 Real-Time Operating System User's Manual: Debug	R20UT0775EJ0101
RI600V4 Real-Time Operating System User's Manual: Analysis	R20UT2185EJ0100
RI Series Real-Time Operating System User's Manual: Message	R20UT0756EJ0102

These PDF files are provided by this package or Renesas Electronics Home page.

Chapter 3. Target Devices

The following devices are supported by the product.

RX600 series MCU

RX200 series MCU

Chapter 4. Operating Environment

Below is described the operating environment for using the product.

4.1 Hardware Environment

Processor:	At least 1GHz (supported for hyper threading/multicore CPU)
Memory capacity:	2 GB or more recommended. Minimum requirement is 1 GB or more (64-bit Windows® 7 requires 2 GB or more)
Display:	Resolution at least 1024 x 768; at least 65,536 colors

4.2 Software Environment

The following software environments are supported.

Windows® XP (32bit)
Windows Vista® (32bit, 64bit)
Windows® 7 (32bit, 64bit)
.NET Framework 3.5 SP1 (For Windows 7, it is not required.)
Runtime library of Microsoft Visual C++ 2008 SP1
Internet Explorer 6.0 or later

Remark: For any of these, we recommend having the latest service pack installed.

4.3 Supported Tools

The following tools are supported.

Tool Name	Manufacturer	Version
Integrated development environment CubeSuite+	Renesas Electronics	V1.03.00 or later
C/C++ Compiler CC-RX	Renesas Electronics	V1.02.01 or later

Chapter 5. Installation Cautions

This section provides cautions for installation and uninstallation.

5.1 Cautions for Installation

5.1.1 Cautions for administrator privileges

Windows® administrator privileges are required to install the software.

5.1.2 Cautions for execution environment

The Internet Explorer 6.0 (or later), the .NET Framework and the Visual C++ runtime libraries are required to run the installer.

5.1.3 Cautions for network drives

The software cannot be installed from a network drive.

It also cannot be installed to a network drive.

5.1.4 Cautions for installation folder name

The available characters for specifying the installation folder are the same as for Windows®.

The 11 characters / * : < > ? | " \ ; , cannot be used. Folder names also cannot start or end with a space.

Specify folders as absolute paths. Do not use relative paths.

Use the backspace character (\) as the path separator for the installation folder. Do not use the forward slash (/).

5.1.5 Cautions for required files after installation

The following folder is created after installation. Do not delete it, because it contains files that are necessary for the tools to run.

(If Windows® is 32bit and the installation drive is C:)

C:\Program Files\Common Files\Renesas Electronics CubeSuite+\

(If Windows® is 64bit and the installation drive is C:)

C:\Program Files (x86)\Common Files\Renesas Electronics CubeSuite+\

5.1.6 Cautions for modifying and repairing functions

To modify or repair the function of a tool that has already been installed, have the tool's installer package on hand, and run the installation program. The program maintenance program will start; select Modify or Repair.

Clicking [Modify] from the Add or Remove Programs (Windows® XP), or Uninstall or change a program (Windows Vista® / Windows® 7) dialog boxes will cause an error.

5.1.7 Cautions for changing the installation folder

To change the folder that tools are installed to, you must first uninstall all tools, and then perform installation again.

To uninstall all tools, start the Integrated Uninstaller, and after deleting all the tools that are displayed.

5.1.8 Cautions for version of installed tools

If the newer version tool is already installed, the older version tool may not be installed.

5.1.9 Cautions for starting installer

If the installer is started on a non-Japanese version of Windows®, then if the path contains multi-byte characters it will cause an error, and the installer will not start.

5.1.10 Cautions for installation order

Before installing, please install CubeSuite+. Note that this package will be installed to the same folder that CubeSuite+ was installed to.

5.2 Cautions for Uninstallation

5.2.1 Cautions for administrator privileges

Windows® administrator privileges are required to uninstall the software.

5.2.2 Cautions for uninstallation folder name

Depending on the order in which tools are uninstalled, the folders may not be completely deleted. If this happens, remove any remaining folders via Explorer or the like.

5.2.3 Cautions for adding/repairing via other than the installer

If you added or modified files to the folders in which tools and manuals were installed using other means than the installers, they cannot be deleted during uninstallation.

Chapter 6. Key Word for Uninstallation

There are two ways to uninstall this product.

Use the integrated uninstaller (uninstalls CubeSuite+)

Use separate uninstaller (uninstalls this product only)

To use the separate uninstaller, select the following from the Control Panel:

Add/Remove Programs (Windows® XP)

Programs and Features (Windows Vista® / Windows® 7)

After the applet appears, delete from the following.

CubeSuite+ Realtime OS Common Plugins

CubeSuite+ Realtime OS RI600V4 Plugins

CubeSuite+ Realtime OS RI600V4 Object Release, or CubeSuite+ Realtime OS RI600V4 Source Release

Chapter 7. Changes from Previous Version (V1.01.00)

7.1 Added or Updated Tools

Name	Before	After
Realtime OS RI600V4 Kernel Object	V1.01.00	V1.02.00
Command-line Configurator "cfg600"	V1.01.00	V1.02.00
Table Generation Utility "mkritbl"	V1.01.00	V1.02.00
Plug-ins for CubeSuite+		
Realtime OS Build Tool Plug-in (Common)	V1.02.00	V1.03.00
Realtime OS Build Tool Plug-in (RI600V4)	V1.00.01	V1.01.00
Realtime OS Analysis Control Plug-in (Common)	V1.01.01	No change
Realtime OS Analysis Control Plug-in (μITRON4)	V1.01.01	No change
Realtime OS Analysis Control Plug-in (RI600V4)	V1.00.01	No change
Realtime OS Resource Information Displaying Plug-in (Common)	V1.02.00	No change
Realtime OS Resource Information Displaying Plug-in (μITRON4)	V1.02.00	No change
Realtime OS Task Analyzer Plug-in (Common)	-	V1.00.00
Realtime OS Task Analyzer Plug-in (Panel)	-	V1.00.00
Realtime OS Task Analyzer Plug-in (RI600V4)	-	V1.00.00
GUI Configurator "GUI600"	V1.01.00	No change
Realtime OS RI600V4 Kernel Source Code	V1.01.00	V1.02.00
RI Series Real-Time Operating System User's Manual: Start	Rev.1.01	Rev.1.02
RI600V4 Real-Time Operating System User's Manual: Coding	Rev.1.01	Rev.1.02
RI600V4 Real-Time Operating System User's Manual: Debug	Rev.1.01	No change
RI600V4 Real-Time Operating System User's Manual: Analysis	-	Rev.1.00
RI Series Real-Time Operating System User's Manual: Message	Rev.1.01	Rev.1.02

7.2 Add the Realtime OS Task Analyzer

For details, refer to "RI600V4 Real-Time Operating System User's Manual: Analysis".

7.3 Added Kernel Sections

The DRI_ROM, RRI_RAM and BRI_TRCBUF sections are added. For details, refer to "2.6.4 Arrangement of section" in "RI600V4 Real-Time Operating System User's Manual: Coding".

7.4 Timer Template File

The supported MCUs are enhanced. For details, refer to "9.3 Timer Template File".

7.5 Cancel the Restriction

There are no canceled restrictions.

Chapter 8. Changes by On-line Update

There is no updating after the release of this version.

Chapter 9. Cautions

This section describes cautions for .

9.1 Shift from a Previous Version

When you shift from a previous version, please be sure to re-build.

9.2 GUI Configurator

9.2.1 Summary

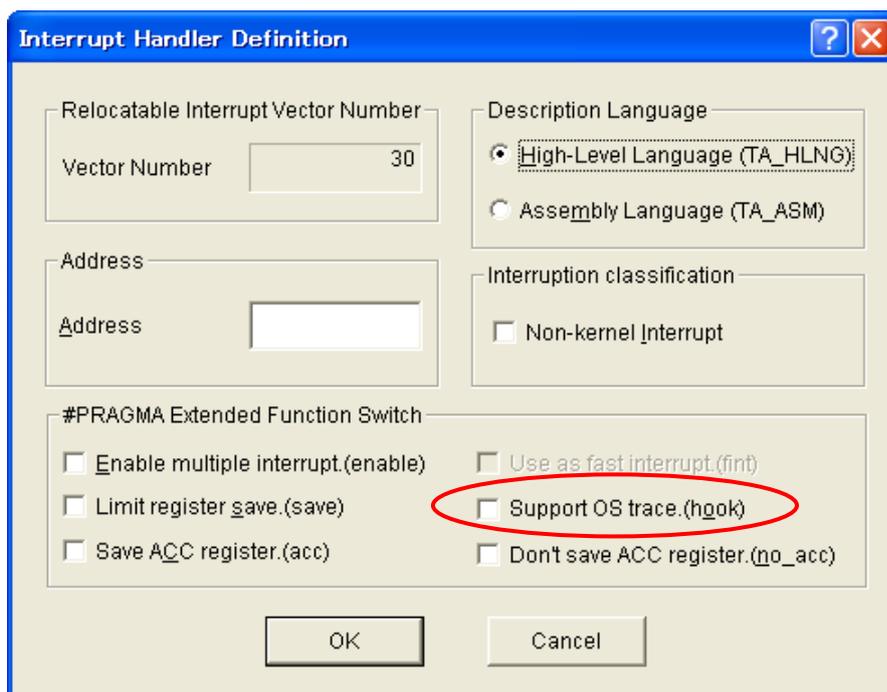
The GUI configurator is a tool that permits the user to generate a system configuration file by entering various kernel configuration information from GUI screen. Using the GUI configurator, it is possible to build the kernel without the need for learning how to write a system configuration file.

To start the GUI configurator, run "< installation folder >\bin600\Guiconfig_RI600.exe".

See online help for details on how to use the GUI configurator.

9.2.2 [Interrupt Handler Definition] dialog box

The setting of the [Support OS trace (hook)] check box in the [Interrupt Handler Definition] dialog box is ignored.



9.3 Timer Template File

The relation between timer template file provided by RI600V4 and corresponded MCUs is shown as follows.

The timer template file is specified to "clock.template" in the system configuration file.

Template File	Corresponded MCUs
rx610.tpl	RX600 series RX610 group
rx62t.tpl	RX600 series RX62T group
rx62n.tpl	RX600 series RX62N group RX600 series RX621 group
rx630.tpl	RX600 series RX630 group RX600 series RX631 group RX600 series RX63N group RX600 series RX63T group RX200 series RX21A group
rx210.tpl	RX200 series RX210 group RX200 series RX220 group

9.4 How to Build Kernel Source Code¹

Since the RI600V4 kernel is provided in the library form, it does not usually need to build the kernel.

The kernel source code is stored in "< installation folder >\src600". To build the kernel, set current folder to this folder, and run "nmake.exe"². The environment variable settings are needed by compiler when building the kernel.

Example:

```
C:\Program Files\Renesas Electronics\CubeSuite+\RI600V4\src600> nmake(RET)
```

The kernel library is generated to the following folders.

Kernel Library Name	Contents
product\big\debug\ri600big.lib	Big endian library with debugging information
product\big\release\ri600big.lib	Big endian library without debugging information
product\little\debug\ri600lit.lib	Little endian library with debugging information
product\little\release\ri600lit.lib	Little endian library without debugging information

Please copy "src600" folder to the writable folder if you don't have the write-access permission to the product installation folder. After the build, copy the generated library to the "lib600" folder under the product installation folder by the user who has write-access permission to the product installation folder.

¹ The source code is only attached to R0R5RX00TCW01Z.

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.

9.5 Stack Consumption

9.5.1 Stack consumption of base clock interrupt handler (*clocksz1*, *clocksz2*, *clocksz3*)

The value of *clocksz1*, *clocksz2* and *clocksz3* described in appendix D.4 of “RI600V4 Real-Time Operating System User's Manual: Coding” are as follows.

clocksz1 = 120

clocksz2 = 120

clocksz3 = 176

9.5.2 Stack consumption of service calls (*svcsz*)

In the service call, the stack is used as follows.

(1) Called from the task context

The stack in the task context execution is a user stack. The service call is using following.

(a) User stack (Former call stack)

(b) System stack

(2) Called from the non-task context

The stack in the non-task context execution is a system stack. The service call is using following.

(c) System stack (Former call stack)

The use size of former stack ((a), (c)) which the service call uses is displayed by Call Walker.

Moreover, to calculate consumption of the system stack described in appendix D.4 of “RI600V4 Real-Time Operating System User's Manual: Coding”, the size of (b) and (c) is needed. (Appendix D.4 has described as *svcsz*.) The size of (a), (b) and (c) of each service call is shown as follows.

	Service call	The use size of User stack(a)	The use size of System stack ((b),(c))	Note
Task Management Function				
1	act_tsk	0	44	
2	iact_tsk	0	48	
3	can_act	0	48	
4	ican_act	0	48	
5	sta_tsk	0	44	
6	ista_tsk	0	48	
7	ext_tsk	0	60	ext_tsk is called at the return from the task beginning function.
8	ter_tsk	0	104	
9	chg_pri	0	44	
10	ichg_pri	0	52	
11	get_pri	0	48	
12	iget_pri	0	48	
13	ref_tsk	0	48	
14	iref_tsk	0	48	
15	ref_tst	0	48	
16	iref_tst	0	48	
Task Dependent Synchronization Function				
17	slp_tsk	0	44	
18	tslp_tsk	0	44	
19	wup_tsk	0	44	
20	iwup_tsk	0	52	
21	can_wup	0	48	
22	ican_wup	0	48	
23	rel_wai	0	100	
24	irel_wai	0	108	
25	sus_tsk	0	44	
26	isus_tsk	0	48	
27	rsm_tsk	0	44	
28	irmsm_tsk	0	48	
29	frsm_tsk	0	44	
30	ifrsn_tsk	0	48	
31	dly_tsk	0	44	
Semaphore				
32	sig_sem	0	44	
33	isig_sem	0	52	
34	wai_sem	0	44	
35	pol_sem	0	48	
36	ipol_sem	0	48	
37	twai_sem	0	44	
38	ref_sem	0	48	
39	iref_sem	0	48	
Eventflag				
40	set_flg	0	52	
41	iset_flg	0	68	
42	clr_flg	0	48	
43	iclr_flg	0	48	

	Service call	The use size of User stack(a)	The use size of System stack ((b),(c))	Note
44	wai_flg	0	44	
45	pol_flg	0	48	
46	ipol_flg	0	48	
47	twai_flg	0	44	
48	ref_flg	0	48	
49	iref_flg	0	48	
Data Queue				
50	snd_dtq	0	44	
51	psnd_dtq	0	44	
52	ipsnd_dtq	0	52	
53	tsnd_dtq	0	44	
54	fsnd_dtq	0	44	
55	ifsnd_dtq	0	48	
56	rcv_dtq	0	44	
57	prcv_dtq	0	44	
58	iprcv_dtq	0	56	
59	trcv_dtq	0	44	
60	ref_dtq	0	48	
61	iref_dtq	0	48	
Mailbox				
62	snd_mbx	0	44	
63	isnd_mbx	0	52	
64	rcv_mbx	0	44	
65	prcv_mbx	0	48	
66	iprcv_mbx	0	48	
67	trcv_mbx	0	44	
68	ref_mbx	0	48	
69	iref_mbx	0	48	
Mutex				
70	loc_mtx	0	44	
71	ploc_mtx	0	44	
72	tlloc_mtx	0	44	
73	unl_mtx	0	52	
74	ref_mtx	0	48	
Message Buffer				
75	snd_mbf	0	44	
76	psnd_mbf	0	44	
77	ipsnd_mbf	0	56	
78	tsnd_mbf	0	44	
79	rcv_mbf	0	56	
80	prcv_mbf	0	56	
81	trcv_mbf	0	56	
82	ref_mbf	0	48	
83	iref_mbf	0	48	
Fixed-sized Memory Pool				
84	get_mpf	0	48	
85	pget_mpf	0	48	
86	ipget_mpf	0	48	

	Service call	The use size of User stack(a)	The use size of System stack ((b),(c))	Note
87	tget_mpf	0	48	
88	rel_mpf	16	44	
89	irel_mpf	0	56	
90	ref_mpf	0	48	
91	iref_mpf	0	48	
Variable Size Memory Pool				
92	get_mpl	24	80	
93	pget_mpl	0	88	
94	ipget_mpl	0	88	
95	tget_mpl	24	80	
96	rel_mpl	0	92	
97	ref_mpl	0	48	
98	iref_mpl	0	48	
Time Management Function				
99	set_tim	0	48	
100	iset_tim	0	48	
101	get_tim	0	48	
102	iget_tim	0	48	
Cyclic Handler				
103	sta_cyc	0	48	
104	ista_cyc	0	48	
105	stp_cyc	0	48	
106	istp_cyc	0	48	
107	ref_cyc	0	48	
108	iref_cyc	0	48	
Alarm Handler				
109	sta_alm	0	48	
110	ista_alm	0	48	
111	stp_alm	0	48	
112	istp_alm	0	48	
113	ref_alm	0	48	
114	iref_alm	0	48	
System State Management Function				
115	rot_rdq	0	44	
116	irotd_rdq	0	48	
117	get_tid	0	48	
118	iget_tid	0	48	
119	loc_cpu	0	48	
120	iloc_cpu	0	48	
121	unl_cpu	0	44	
122	iunl_cpu	0	48	
123	dis_dsp	0	48	
124	ena_dsp	0	44	
125	sns_ctx	0	48	
126	sns_loc	0	48	
127	sns_dsp	0	48	
128	sns_dpn	0	48	
129	vsta_knl	0	52	After the system stack pointer is initialized,

	Service call	The use size of User stack(a)	The use size of System stack ((b),(c))	Note
130	ivsta_knl	0	52	it uses it.
131	vsys_dwn	0	44	
132	ivsys_dwn	0	44	
Interrupt Management Function				
133	chg_ims	0	48	
134	ichg_ims	0	44	
135	get_ims	4	4	
136	iget_ims	4	4	
137	Kernel interrupt handler	0	48	When a kernel interrupt handler ends, 48 bytes of the system stack is consumed from just before generating of the interrupt.
System Configuration Management Function				
138	ref_ver	0	48	
139	iref_ver	0	48	
Object Reset Function				
140	vrst_dtq	0	44	
141	vrst_mbx	0	44	
142	vrst_mbf	0	44	
143	vrst_mpf	0	44	
144	vrst_mpl	0	60	

9.5.3 When the kernel library is built

Please note that the stack consumption might change when a version and/or an optional setting of the compiler are changed and the kernel library is built.

9.6 Cautions When Using RX610 Group

The value specified as follows should be less than 8 because the PSW.IPL is configured in 3-bit widths.

- Interrupt mask specified in `chg_ims` and `ichg_ims`
- “system.system_IPL” in the system configuration file
- “clock.IPL” in the system configuration file

9.7 Cautions for Realtime OS Resource Information Panel

9.7.1 View after real-time OS is initialized

View the Realtime OS Resource Information Panel after the real-time OS has been initialized. Before the real-time OS has been initialized, the information in the Realtime OS Resource Information Panel is undefined.

9.7.2 Use programs with debug information generated

When using the Realtime OS Resource Information Panel, download a program for which debug information has been generated. Downloading a program without debug information and viewing it in the Realtime OS Resource Information Panel will cause an error.

To generate debug information, under Build Tool, under the Link Options properties, set "Generate debug information" to "Yes".

9.8 Cautions for Realtime OS Task Analyzer

9.8.1 Change in the trace mode

When the trace mode is changed, you should build the program.

9.8.2 Select “Taking in trace chart by hardware trace mode” when using E1 emulator

Please set up [Trace] category of [Debug Tool Settings] tab in the debug tool’s property panel as follows.

- [Trace data type] : Data access
- [Output timestamp] : Yes
- [Trace clock count source [MHz]] : Suitable value³
Ex: The setting of the sample program for RX610 is 100.000.

9.8.3 Select “Taking in trace chart by hardware trace mode” when using simulator

Please set up [Connect Settings] tab in the debug tool’s property panel as follows.

- [System clock (ICLK) frequency [MHz]] in [Clock] category : Suitable value³
Ex: The setting of the sample program for RX610 is 100.000.
- [CMT] in [Peripheral Function Simulation] category : Use
- [ICU] in [Peripheral Function Simulation] category : Use
- [Peripheral clock rate] in [Peripheral Function Simulation] category : Suitable value³
Ex: The setting of the sample program for RX610 is 4.

And do not assign the following combination to [Trace] category in [Debug Tool Settings] tab.

- [Clear trace memory before running] : No
- [Accumulate trace time] : Yes

³ The Realtime OS Task Analyzer displays various kinds of time information based on this value.

9.9 Sample Programs

The provided sample programs are set up to use the Realtime OS Task Analyzer by “Taking in trace chart by hardware trace mode”.

When the trace mode is changed to “Taking in trace chart by software trace mode” or “Taking in long-statistics by software trace mode”, the following description should be added to the system configuration file. For details, refer to “15.3 User-Own Coding Module for Software Trace Mode” in “RI600V4 Realtime Operating System User’s Manual : Coding”. In addition, these descriptions are commented out in the system configuration file at the time of shipment.

(1) “Taking in trace chart by software trace mode”

```
interrupt_vector[29]{           // CMT CH1
    os_int      = NO;
    entry_address = _RIUSR_trcSW_interrupt(); // in trcSW_cmt.src
};
```

(2) Taking in long-statistics by software trace mode”

```
interrupt_vector[29]{           // CMT CH1
    os_int      = NO;
    entry_address = _RIUSR_trcLONG_interrupt(); // in trcLONG_cmt.src
};
```

9.10 Cautions for RI600/4 Users

The RI600V4 is the Real-Time Operating System product which has been changed from the RI600/4 to be able to use on the CubeSuite+. This section explains the changes from the RI600/4 V.1.01 Release 00 to the .

9.10.1 Delete the correspondence to the realtime OS trace for the High-performance Embedded Workshop

In the RI600/4, “H” needed to be specified as “interrupt_vector[].pragma_switch” and “interrupt_fvector[].pragma_switch” in the system configuration file to trace interrupt handlers.

In the RI600V4, “pragma_switch=H” is ignored.

9.10.2 Version information

Item	Before	After
TKERNEL_PRVER, T_RVER.prver, which is returned by the ref_ver and iref_ver	0x0110	0x0120

9.10.3 Cautions for CubeSuite+

When you convert a High-performance Embedded Workshop project for RI600/4 into the CubeSuite+ project, you should run a rebuild.

Chapter 10. Restrictions

This section describes restrictions on

10.1 Restrictions of CubeSuite+

There is the following restriction when using CubeSuite+ V1.03.00.

10.1.1 Convert a High-performance Embedded Workshop project.

(1) Description

When a High-performance Embedded Workshop project for the RI600/4 is converted into a CubeSuite+ project, the following settings are not reflected in a CubeSuite+ project.

- On the RX Standard Toolchain [RI600/4] tab, in the [Configuration] category, the [Miscellaneous options] settings except for the "[v] Displays the command option descriptions and detailed information on the version" option.
- On the RX Standard Toolchain [RI600/4] tab, in the [Configuration] category, the [User-defined options] settings.
- On the RX Standard Toolchain [RI600/4] tab, in the [Mkritbl] category, the "Search directory of MRC files" settings.

(2) Workaround

Please perform a setup required by [Property panel] of the system configuration file.

10.1.2 “Optimizes accesses to external variables” compiler option

(1) Description

When the following setting is performed by [Property panel] of “CC-RX (Build Tool)”, the error shown below may occur.

- Setting of [Property panel] of “CC-RX(Build Tool)”

Tab	Category	Item	Setting
Compiler Options	Optimization	Optimizes accesses to external variables	Yes(Optimizes the intermodule) (-map)

- Error

```
(O) : A3001 (F) Can't open file 'DefaultBuild\ritable.src'
```

(2) Workaround

Please set “.lst” into “The path that contains the service call information file.” in [Property panel] of the system configuration file and perform “Build -> Clean Project”.

10.1.3 The path that contains the service call information file

(1) Description

When the following setting is performed by [Property panel] of the system configuration file, the load module generated by build operation may be inaccurate. In that case, a part of service call(s) returns E_NOSPT error.

- Setting of [Property panel] of the system configuration file

Tab	Category	Item	Setting
System Configuration File Related Information	Service Call Information File	The path that contains the service call information file.	String containing a blank

(2) Workaround

Please set the path which does not contain a blank to [The path that contains the service call information file.].

Or please copy required service call information files to the build mode folder before build operation.

10.1.4 "Time Left" in "Realtime OS Resource Information Panel"

(1) Description

The value displayed on the following items may become larger TIC_NUME than the original value at the maximum.

- "Time Left" item in [Task] tab
- "Time Left" item in [Cyclic Handler] tab
- "Time Left" item in [Alarm Handler] tab

(2) Workaround

The original value can be calculated by the following formulas.

- When (The value displayed on "Time Left") > TIC_NUME
The original value = (The value displayed on "Time Left") - TIC_NUME
- When (The value displayed on "Time Left") ≤ TIC_NUME
The original value = 0

10.1.5 Realtime OS Task Analyzer : Error/warning

(1) Description

When the following error or warning occurs, applicable help is not displayed even if the help button or F1 key is pressed.

Number	Message
E1150000	The file < <i>filename</i> > does not exist.
E1150001	Reading trace data failed. The file type is invalid.
E1151001	Could not switch the trace of task analyzer on. The point trace is full.
W1151000	The setup of the property is not reflected in the load module. Build the program, it will be solved this warning.

(2) Workaround

Press F1 key when the Realtime OS Task Analyzer panel is active, and search the number of the error or warning which occurred.

10.1.6 Realtime OS Task Analyzer : Extracting the analysis range

(1) Description

While extracting the analysis range, when operation which updates a display of the Realtime OS Task Analyzer is performed, the value mistaken in "CPU Usage Rate" may be displayed.

- When "The newest (Update)" is selected, run the program and the execution stops.
- Change from "Not update" to "The newest (Update)".
- "Open trace data..."

(2) Workaround

Cancel extracting the analysis range before operation which updates a display of the Realtime OS Task Analyzer is performed.

10.1.7 Realtime OS Task Analyzer : "Display User/Kernel Ratio" and "Display Total Ratio"

(1) Description

While extracting the analysis range, when "Display User/Kernel Ratio" and "Display Total Ratio" is changed, the value mistaken in "CPU Usage Rate" will be displayed.

(2) Workaround

Cancel extracting the analysis range, and set extracting the analysis range again.

Chapter 11. Correction of Document

There is no correction of document.

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