User's Manual

CS+

Integrated Development Environment

User's Manual: CC-RX Build Tool Operation

Target Device

RX Family

Renesas Electronics
www.renesas.com

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How to Use This Manual

This manual describes the role of the CS+ integrated development environment for developing applications and systems for RX family, and provides an outline of its features.

CS+ is an integrated development environment (IDE) for RX family, integrating the necessary tools for the development phase of software (e.g. design, implementation, and debugging) into a single platform.

By providing an integrated environment, it is possible to perform all development using just this product, without the need to use many different tools separately.

Readers	This manual is intended for users who wish to understand the functions of the CS+ and design software and hardware application systems.
Purpose	This manual is intended to give users an understanding of the functions of the CS+ to use for reference in developing the hardware or software of systems using these devices.
Organization	This manual can be broadly divided into the following units. 1.GENERAL 2.FUNCTIONS A.WINDOW REFERENCE
How to Read This Manual	It is assumed that the readers of this manual have general knowledge of electricity, logic circuits, and microcontrollers.

Conventions

Data significance:	Higher digits on the left and lower digits on the right
Active low representation:	XXX (overscore over pin or signal name)
Note:	Footnote for item marked with Note in the text
Caution:	Information requiring particular attention
Remarks:	Supplementary information
Numeric representation:	Decimal ... XXXX Hexadecimal ... 0xXXXX

TABLE OF CONTENTS

1. GENERAL

This chapter explains the overview of the build tool plug-in of CC-RX.

1.1 Overview

The build tool plug-in can be used to set build options for creating load modules or user libraries.

1.2 Features

The features of the build tool plug-in are shown below.

- Build option setting
  Most build options can be set via the graphical user interface (GUI).
- Speeding-up of build
  Two types of facilities are provided to speed up build: simultaneous build and parallel build.
  The build time can be shortened in simultaneous build by simultaneously compiling or assembling the files with a single call of the build command and in parallel build by executing multiple build commands in parallel.

2. FUNCTIONS

This chapter describes the build procedure using CS+ and about the main build functions.

2.1 Overview

This section describes how to create a load module and user library.

2.1.1 Create a load module

The procedure for creating a load module is shown below.

Remark See "CS+ Integrated Development Environment User's Manual: Project Operation" for details about (1), (2), (3), (7), and (8).

(1) Create or load a project
Create a new project, or load an existing one.

(2) Set a build target project
Set a build target project.

(3) Set build target files
Add or remove build target files and update the dependencies.

(4) Set speeding-up of build
Set a build speed-up facility as required (see "2.2Speeding-up of Build").

(5) Set the type of the output file
Select the type of the load module to be generated (see "2.3Set the Type of the Output File").

(6) Set build options
Set the options for the compiler, assembler, linker, and the like (see "2.4Set Compile Options", "2.5Set Assemble Options", "2.6Set Link Options", and the like).

(7) Run a build
Run a build.

Remark If there are any commands you wish to run before or after the build process, on the Property panel, from the [Common Options] tab, in the [Others] category, set the [Commands executed before build processing] and [Commands executed after build processing] properties.
If there are any commands you wish to run before or after the build process at the file level, you can set them from the [Individual Compile Options(C)] tab (for a C source file), [Individual Compile Options(C++)] tab (for a C++ source file), and [Individual Assemble Options] tab (for an assembly source file).

Caution When the build tool starts the compiler, the path to the temporary folder of Windows is always set as environment variable TMP_RX.

(8) Save the project
Save the setting contents of the project to the project file.

2.1.2 Create a user library

The procedure for creating a user library is shown below.

Remark See "CS+ Integrated Development Environment User's Manual: Project Operation" for details about (1), (2), (3), (6), and (7).

(1) Create or load a project
Create a new project, or load an existing one.
When you create a new project, set a library project.

(2) Set a build target project
Set a build target project.

(3) Set build target files
Add or remove build target files and update the dependencies.

(4) Set speeding-up of build
Set a build speed-up facility as required (see "2.2Speeding-up of Build").

(5) Set build options
Set the options for the compiler, assembler, librarian, and the like (see "2.4Set Compile Options", "2.5Set Assemble Options", "2.8Set Librarian Options").

(6) Run a build
Run a build.

Remark If there are any commands you wish to run before or after the build process, on the Property panel, from the [Common Options] tab, in the [Others] category, set the [Commands executed before build processing] and [Commands executed after build processing] properties.
If there are any commands you wish to run before or after the build process at the file level, you can set them from the [Individual Compile Options(C)] tab (for a C source file), [Individual Compile Options(C++)] tab (for a C++ source file), and [Individual Assemble Options] tab (for an assembly source file).

Caution When the build tool starts the compiler, the path to the temporary folder of Windows is always set as environment variable TMP_RX.

(7) Save the project
Save the setting contents of the project to the project file.

2.2 Speeding-up of Build

The build speed-up facilities of this build tool are described here.

There are the following types of build speed-up facilities.

Simultaneous build	Multiple files are simultaneously passed by a single call of the build command. See "2.2.1Running simultaneous build" for details about simultaneous build.
Parallel build	Multiple build commands are executed in parallel. See "2.2.2Running parallel build" for details about parallel build.

2.2.1 Running simultaneous build

Simultaneous build is a facility to simultaneously compile or assemble the files with a single call of the ccrx command when there are multiple files to be built.

An image of calling the ccrx command is shown below.

Example When build target files are aaa.c, bbb.c, and ccc.c

- When a build is run simultaneously

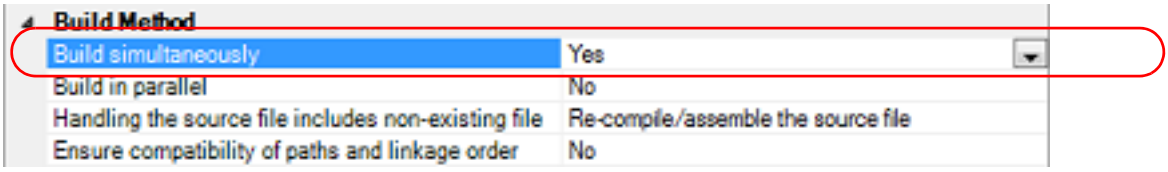
```
>ccrx aaa.c bbb.c ccc.c        <- "aaa.obj", "bbb.obj", and "ccc.obj" are
                                  generated.
>rlink aaa.obj bbb.obj ccc.obj <- "aaa.abs" is generated.
```

- When a build is not run simultaneously

```
>ccrx aaa.c                    <- "aaa.obj" is generated.
>ccrx bbb.c                    <- "bbb.obj" is generated.
>ccrx ccc.c                    <- "ccc.obj" is generated.
>rlink aaa.obj bbb.obj ccc.obj <- "aaa.abs" is generated.
```

Whether to run a build simultaneously is made with the property.
Select the build tool node on the project tree and select the [Common Options] tab on the Property panel.
Select [Yes] in the [Build simultaneously] property in the [Build Method] category.

Figure 2.1 [Build simultaneously] Property



Remark 1. The files with the individual build options and files to be executed prior to the build are excluded from running build simultaneously.
A build of the file that is not targeted for a simultaneous build is run separately.

Remark 2. If the source file is older than the generated object module file or related properties and project or the like, the object module file will be used for the build instead of the source file.

Another facility to speed up build is parallel build.
See "2.2.2Running parallel build" for details about parallel build.

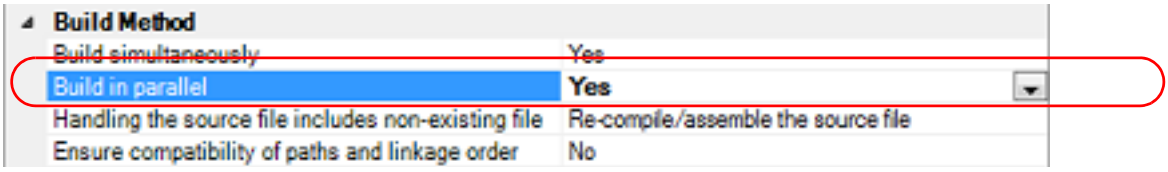
2.2.2 Running parallel build

Parallel build is a facility to build multiple source files in parallel at build in order to reduce the build time.
In parallel build, since build is performed simultaneously for the number of logical CPUs in the host machine, the effect is greater in a machine with a large number of CPU cores.

There are two types of parallel build facilities. Each processing and its setting method are given below.

(1) Parallel build between source files
When running parallel build between multiple source files registered in a project, make the setting in the [Build in parallel] property in the [Common Options] tab on the Property panel.

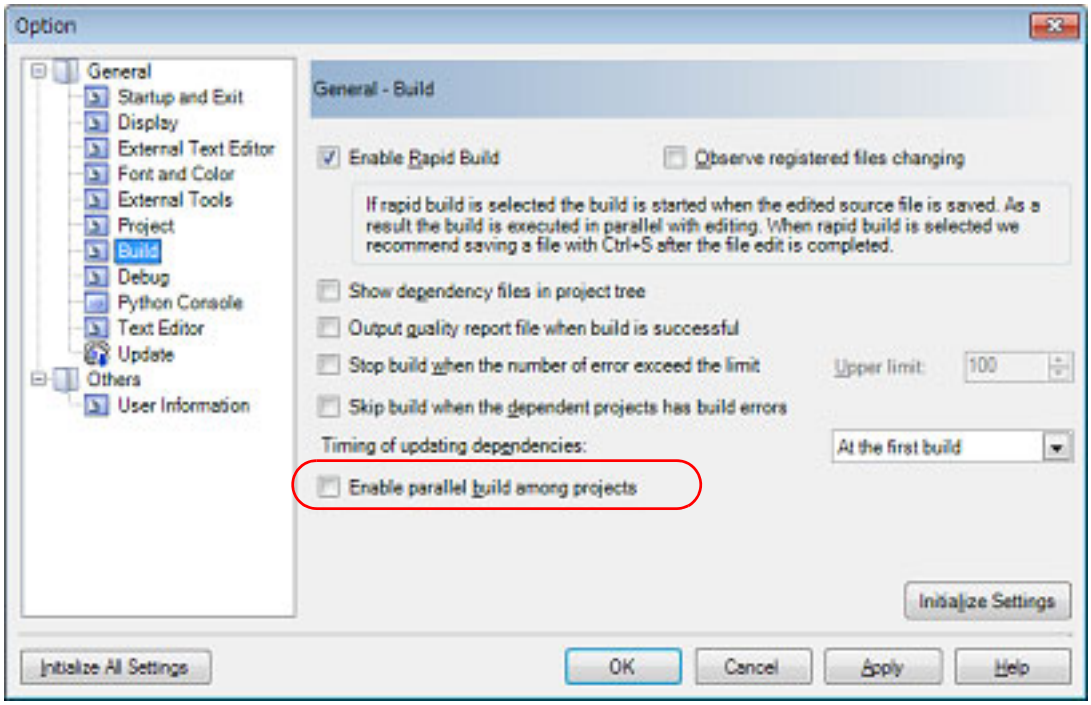
Figure 2.2 [Build in parallel] Property



Remark Another facility to speed up build is simultaneous build.
Simultaneous build is a facility to process the build command for multiple source files at once, and specifying it simultaneously with parallel build has no effect due to its nature. Generally, the more CPU cores there are in the host machine in use or the more source files there are registered in a project, parallel build is faster than simultaneous build.
However, as there are properties that need to be used together with simultaneous build, such as inter-module optimization, use the suitable facility for the situation.
See "2.2.1Running simultaneous build" for details about simultaneous build.

(2) Parallel build between projects
When running parallel build between the main project and subprojects, make the setting in [Enable parallel build among projects] of the [General - Build] category of the Option dialog box.

Figure 2.3 Option Dialog Box ([General - Build] Category)



In addition, select [Yes] in the [Build in parallel] property in the [Common Options] tab on the Property panel.

Remark When there are dependencies between projects, set the dependencies between the projects correctly before using the parallel build facility. If a parallel build is performed for the main project and subprojects without the dependencies being set, build is performed in parallel regardless of the build order of the projects.

For details on setting the dependencies between projects, see "CS+ Integrated Development Environment User's Manual: Project Operation".

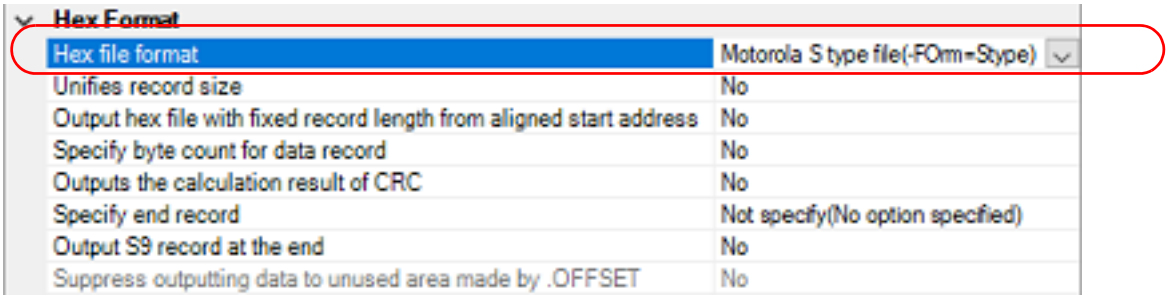
2.3 Set the Type of the Output File

Set the type of the file to be output as the product of the build.

(1) For the application project
A load module file is generated.
The load module file will be the debug target.
Select the type of the convert file to be output as the product of the build other than the load module file.

Select the build tool node on the project tree and select the [Hex Output Options] tab on the Property panel. Select the file type in the [Hex file format] property in the [Hex Format] category.

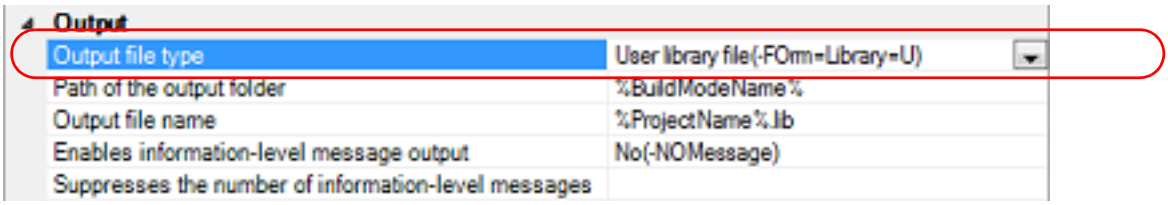
Figure 2.4 [Hex file format] Property



- When [Hex file (-FOrm=Hexadecimal)] is selected
  A hex file is output from the generated load module file.
- When [S record file (-FOrm=Stype)] is selected (default)
  A Motorola S type file is output from the generated load module file.
- When [Binary file (-FOrm=Binary)] is selected
  A binary file is output from the generated load module file.

(2) For the library project
Select the build tool node on the project tree and select the [Librarian Options] tab on the Property panel. Select the file type in the [Output file type] property in the [Output] category.

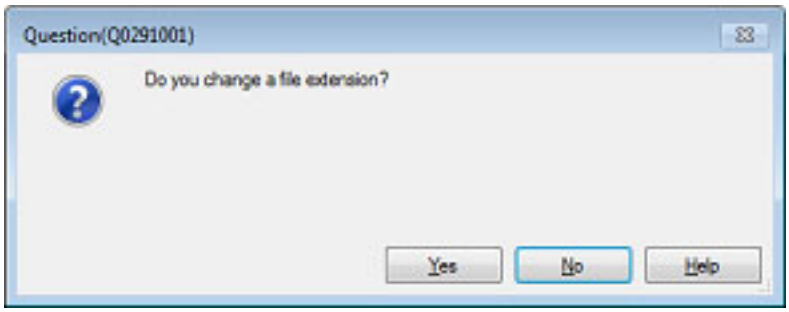
Figure 2.5 [Output file type] Property



- When [User library file (-FOrm=Library=U)] is selected (default)
  A user library file is generated.
- When [System library file (-FOrm=Library=S)] is selected
  A system library file is generated.
- When [Relocatable module file (-FOrm=Relocate)] is selected
  A relocatable module file is generated.

If the extension of output files is changed, the following message dialog box will open.

Figure 2.6 Message Dialog Box



Clicking [Yes] in the dialog box replaces the current file extension with the one for the output file type. Clicking [No], on the other hand, does not replace the current file extension.

2.3.1 Change the output file name

The names of the load module file, hex file, S record file, binary data file, relocatable module file, and library file output by the build tool are set to the following names by default.

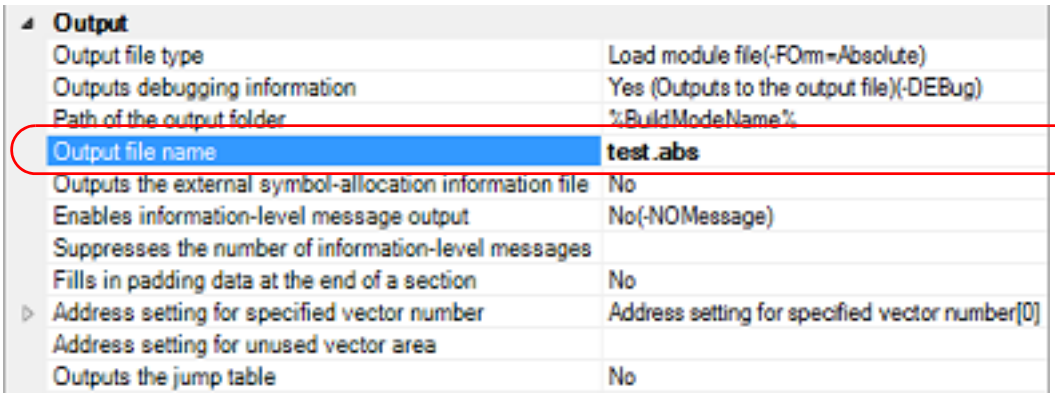
Load module file name: %ProjectName%.abs
Hex file name: %ProjectName%.hex
S record file name: %ProjectName%.mot
Binary data file name: %ProjectName%.bin
Relocatable module file name: %ProjectName%.rel
Library file name: %ProjectName%.lib

Remark "%ProjectName%" is a placeholder. It is replaced with the project name.

The method to change these file names is shown below.

(1) When changing the load module file name
Select the build tool node on the project tree and select the [Link Options] tab on the Property panel. Enter the file name to be changed to on the [Output file name] property in the [Output] category.

Figure 2.7 [Output file name] Property (For Load Module File)



This property supports the following placeholders.
%ActiveProjectName%: Replaces with the active project name.
%BuildModeName%: Replaces with the build mode name.
%MainProjectName%: Replaces with the main project name.
%ProjectName%: Replaces with the project name.

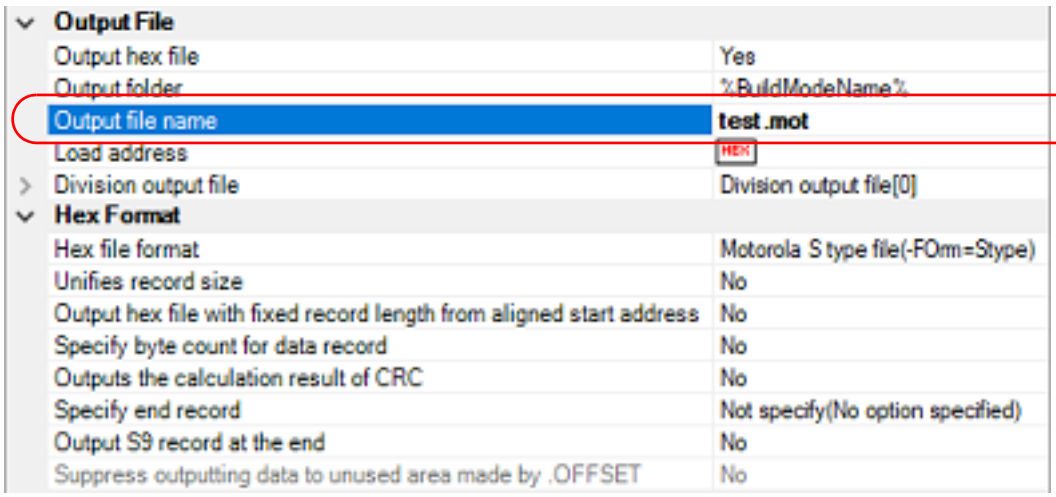
(2) When changing the hex file name
Select the build tool node on the project tree and select the [Hex Output Options] tab on the Property panel. Enter the file name to be changed to on the [Output file name] property in the [Output File] category.

Figure 2.8 [Output file name] Property (For Hex File)

This property supports the following placeholders.
%ActiveProjectName%: Replaces with the active project name.
%BuildModeName%: Replaces with the build mode name.
%MainProjectName%: Replaces with the main project name.
%ProjectName%: Replaces with the project name.

(3) When changing the S record file name
Select the build tool node on the project tree and select the [Hex Output Options] tab on the Property panel. Enter the file name to be changed to on the [Output file name] property in the [Output File] category.

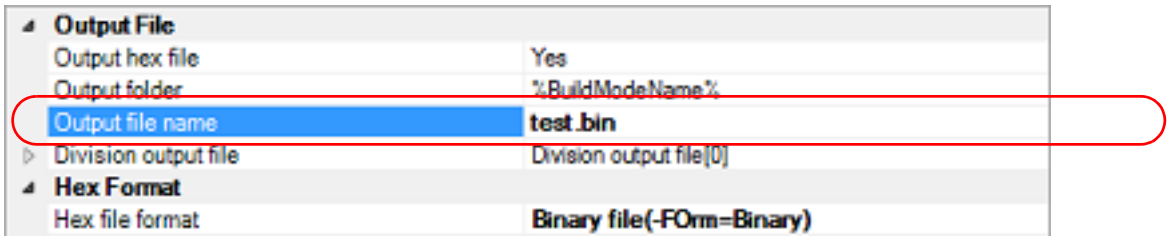
Figure 2.9 [Output file name] Property (For S Record File)



This property supports the following placeholders.
%ActiveProjectName%: Replaces with the active project name.
%BuildModeName%: Replaces with the build mode name.
%MainProjectName%: Replaces with the main project name.
%ProjectName%: Replaces with the project name.

(4) When changing the binary data file name
Select the build tool node on the project tree and select the [Hex Output Options] tab on the Property panel. Enter the file name to be changed to on the [Output file name] property in the [Output File] category.

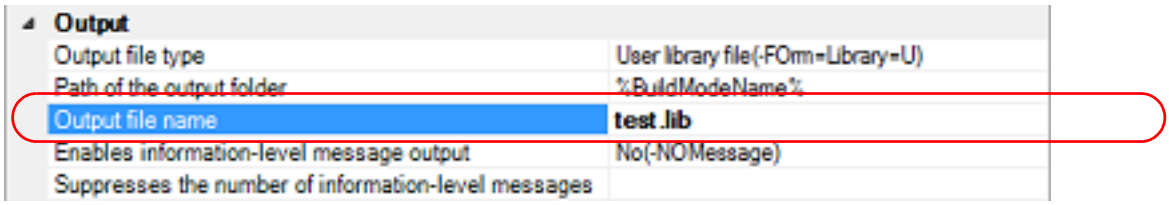
Figure 2.10 [Output file name] Property (For Binary Data File)



This property supports the following placeholders.
%ActiveProjectName%: Replaces with the active project name.
%BuildModeName%: Replaces with the build mode name.
%MainProjectName%: Replaces with the main project name.
%ProjectName%: Replaces with the project name.

(5) When changing the user library file name
Select the build tool node on the project tree and select the [Librarian Options] tab on the Property panel. Enter the file name to be changed to on the [Output file name] property in the [Output] category.

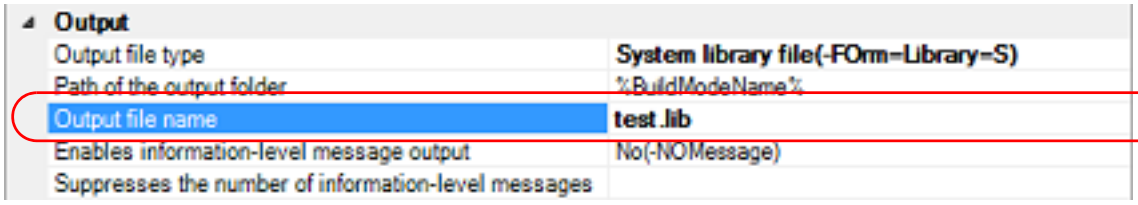
Figure 2.11 [Output file name] Property (For User Library File)



This property supports the following placeholders.
%ActiveProjectName%: Replaces with the active project name.
%BuildModeName%: Replaces with the build mode name.
%MainProjectName%: Replaces with the main project name.
%ProjectName%: Replaces with the project name.

(6) When changing the system library file name
Select the build tool node on the project tree and select the [Librarian Options] tab on the Property panel. Enter the file name to be changed to on the [Output file name] property in the [Output] category.

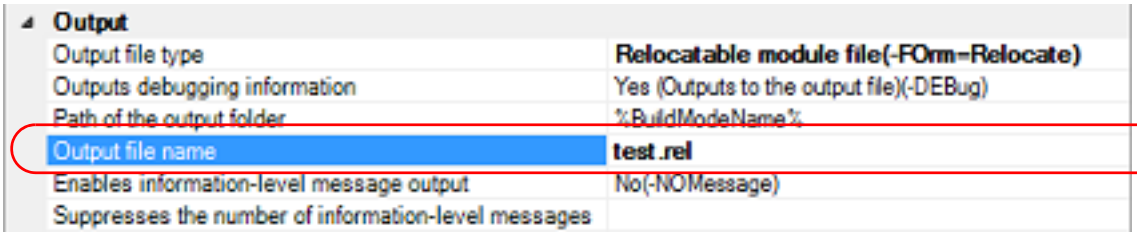
Figure 2.12 [Output file name] Property (For System Library File)



This property supports the following placeholders.
%ActiveProjectName%: Replaces with the active project name.
%BuildModeName%: Replaces with the build mode name.
%MainProjectName%: Replaces with the main project name.
%ProjectName%: Replaces with the project name.

(7) When changing the relocatable module file name
Select the build tool node on the project tree and select the [Librarian Options] tab on the Property panel. Enter the file name to be changed to on the [Output file name] property in the [Output] category.

Figure 2.13 [Output file name] Property (For Relocatable Module File)



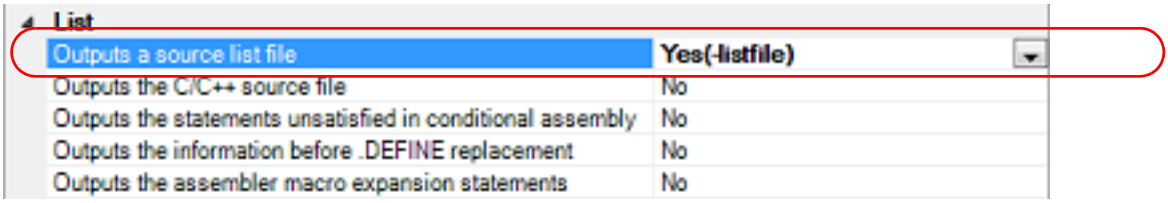
This property supports the following placeholders.
%ActiveProjectName%: Replaces with the active project name.
%BuildModeName%: Replaces with the build mode name.
%MainProjectName%: Replaces with the main project name.
%ProjectName%: Replaces with the project name.

2.3.2 Output an assemble list

The results of the assembly are output to the assemble list file.

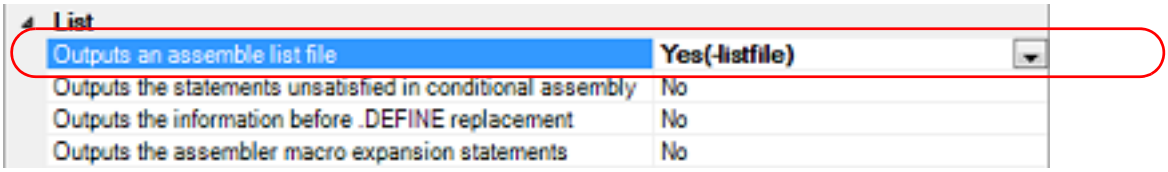
(1) For a C source file and C++ source file
Select the build tool node on the project tree and select the [Compile Options] tab on the Property panel.
To output the assemble list, select [Yes (-listfile)] on the [Outputs a source list file] property in the [List] category.

Figure 2.14 [Outputs a source list file] Property



(2) For an assembler source file
Select the build tool node on the project tree and select the [Assemble Options] tab on the Property panel.
To output the assemble list, select [Yes (-listfile)] on the [Outputs an assemble list file] property in the [List] category.

Figure 2.15 [Outputs an assemble list file] Property



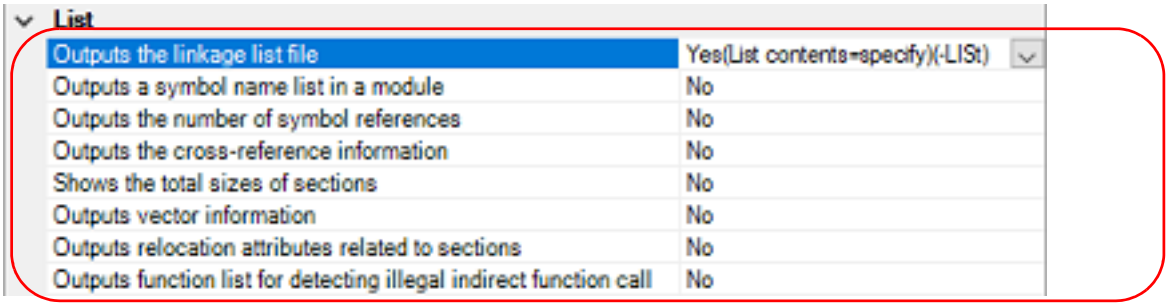
Remark See "CC-RX Compiler User's Manual" for the assemble list.

2.3.3 Output map information

The map information (i.e. information on the result of linkage) is output to the linkage list file.

(1) For the load module file
Select the build tool node on the project tree and select the [Link Options] tab on the Property panel.
The setting to output the linkage list file is made with the [List] category.

Figure 2.16 [Outputs the linkage list file] Property



To output the linkage list file, select [Yes (List contents=specify) (-LISt)] in the [Outputs the linkage list file] property.
When outputting the linkage list file, you can select the contents of the linkage list output by the linker.

(a) When outputting a symbol name list in a module
Select [Yes (-SHow=SYmbol)] in the [Outputs a symbol name list in a module] property.

(b) When outputting the number of symbol references
Select [Yes (-SHow=Reference)] in the [Outputs the number of symbol references] property.

(c) When outputting the cross-reference information
Select [Yes (-SHow=Xreference)] in the [Outputs the cross-reference information] property.

(d) When outputting the total sizes of sections
Select [Yes (-SHow=Total_size)] in the [Shows the total sizes of sections] property.

(e) When outputting the vector information
Select [Yes (-SHow=VECTOR)] in the [Outputs vector information] property.

(f) When outputting relocation attributes related to sections
Select [Yes (-SHow=RELOCATION_ATTRIBUTE)] in the [Outputs relocation attributes related to sections] property.

(g) When outputting a list of functions that are safe in terms of the detection of illegal invalid function calls
Select [Yes (-SHow=CFI)] in the [Outputs function list for detecting illegal indirect function call] property.

(2) For the relocatable module file
Select the build tool node on the project tree and select the [Librarian Options] tab on the Property panel.
The setting to output the linkage list file is made with the [List] category.

Figure 2.17 [Outputs the linkage list file] Property

To output the linkage list file, select [Yes (List contents=specify) (-LISt)] in the [Outputs the linkage list file] property.
When outputting the linkage list file, you can select the contents of the linkage list output by the linker.

(a) When outputting a symbol name list in a module
Select [Yes (-SHow=SYmbol)] in the [Outputs a symbol name list in a module] property.

(b) When outputting the cross-reference information
Select [Yes (-SHow=Xreference)] in the [Outputs the cross-reference information] property.

(c) When outputting the total sizes of sections
Select [Yes (-SHow=Total_size)] in the [Shows the total sizes of sections] property.

Remark See "CC-RX Compiler User's Manual" for the linkage list file.

2.3.4 Output library information

The library information (i.e. information on the result of linkage) is output to the library list file.
Select the build tool node on the project tree and select the [Librarian Options] tab on the Property panel.

The setting to output a library list file is made with the [List] category.

Figure 2.18 [Outputs the linkage list file] Property

To output the library list file, select [Yes (List contents=specify) (-LISt)] in the [Outputs the linkage list file] property. When outputting the library list file, you can select the contents of the library list output by the linker.

(1) When outputting a symbol name list in a module
Select [Yes (-SHow=SYmbol)] in the [Outputs a symbol name list in a module] property.

(2) When outputting a section list in a module
Select [Yes (-SHow=SEction)] in the [Outputs a section list in a module] property.

Remark See "CC-RX Compiler User's Manual" for the library list file.

2.4 Set Compile Options

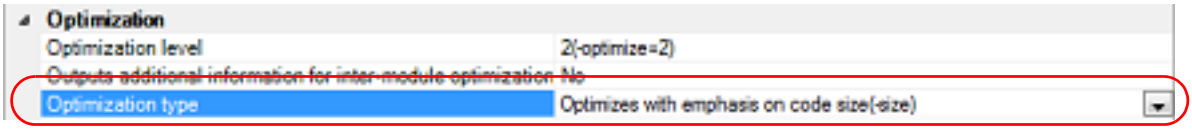
To set options for the compile phase, select the Build tool node on the project tree and select the [Compile Options] tab on the Property panel.
You can set the various compile options by setting the necessary properties in this tab.

Remark Often used options have been gathered under the [Frequently Used Options(for Compile)] category on the [Common Options] tab.

2.4.1 Perform optimization with the code size precedence

Select the build tool node on the project tree and select the [Compile Options] tab on the Property panel.
To perform optimization with the code size precedence, select [Optimizes with emphasis on code size (-size)] on the [Optimization type] property in the [Optimization] category.

Figure 2.19 [Optimization type] Property (Code Size Precedence)

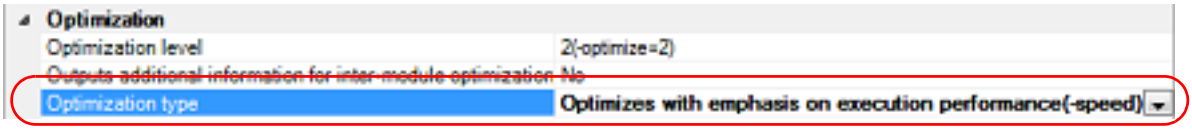


Remark You can also set the option in the same way with the [Optimization type] property in the [Frequently Used Options(for Compile)] category on the [Common Options] tab.

2.4.2 Perform optimization with the execution speed precedence

Select the build tool node on the project tree and select the [Compile Options] tab on the Property panel.
To perform optimization with the execution speed precedence, select [Optimizes with emphasis on execution performance (-speed)] on the [Optimization type] property in the [Optimization] category.

Figure 2.20 [Optimization type] Property (Execution Speed Precedence)

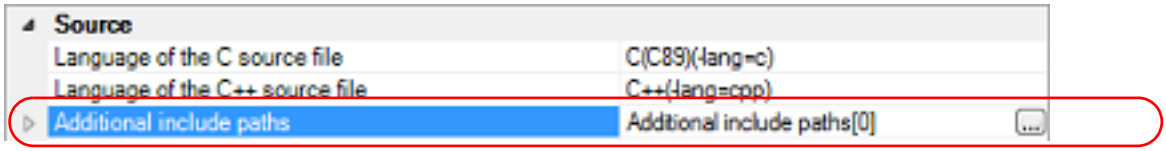


Remark You can also set the option in the same way with the [Optimization type]] property in the [Frequently Used Options(for Compile)] category on the [Common Options] tab.

2.4.3 Add an include path

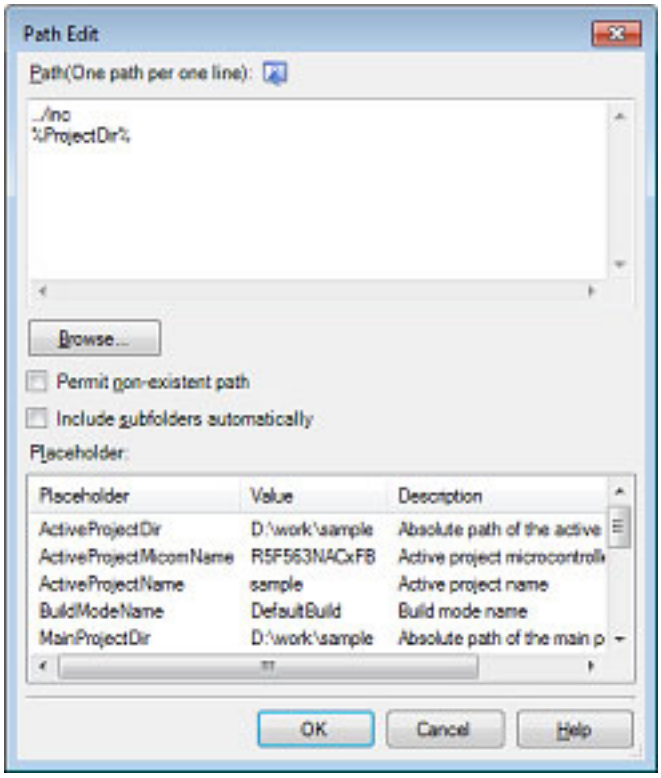
Select the build tool node on the project tree and select the [Compile Options] tab on the Property panel.
The include path setting is made with the [Additional include paths] property in the [Source] category.

Figure 2.21 [Additional include paths] Property



If you click the [...] button, the Path Edit dialog box will open.

Figure 2.22 Path Edit Dialog Box



Enter an include path per line in [Path(One path per one line)].
You can specify up to 247 characters per line.

Remark 1. This property supports placeholders.
If a line is double clicked in [Placeholder], the placeholder will be reflected in [Path(One path per one line)].

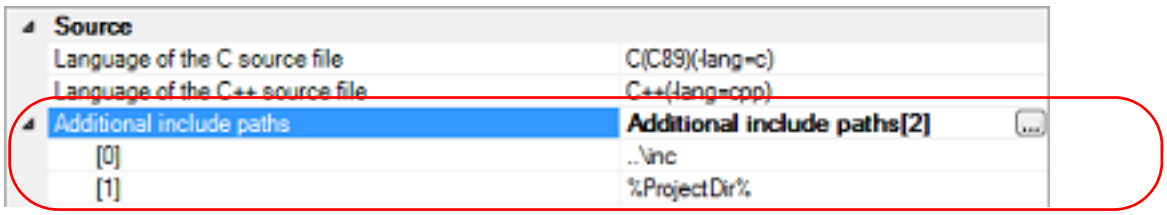
Remark 2. You can also specify the include path by one of the following procedures.

- Drag and drop the folder using such as Explorer.
- Click the [Browse...] button, and then select the folder in the Browse For Folder dialog box.
- Double click a row in [Placeholder].

Remark 3. Select the [Subfolders are automatically included] check box before clicking the [Browse...] button to add all paths under the specified one (down to 5 levels) to [Path(One path per one line)].

If you click the [OK] button, the entered include paths are displayed as subproperties.

Figure 2.23 [Additional include paths] Property (After Adding Include Paths)



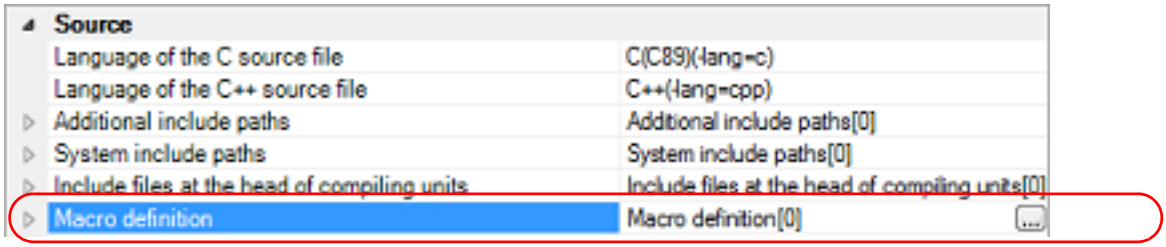
To change the include paths, you can use the [...] button or enter the path directly in the text box of the subproperty.
When the include path is added to the project tree, the path is added to the top of the subproperties automatically.

Remark You can also set the option in the same way with the [Additional include paths] property in the [Frequently Used Options(for Compile)] category on the [Common Options] tab.

2.4.4 Set a macro definition

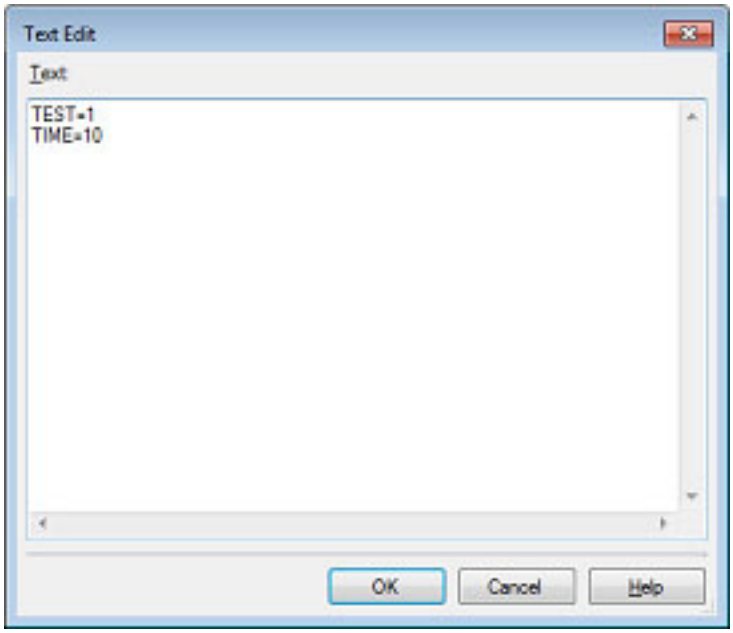
Select the build tool node on the project tree and select the [Compile Options] tab on the Property panel.
The macro definition setting is made with the [Macro definition] property in the [Source] category.

Figure 2.24 [Macro definition] Property



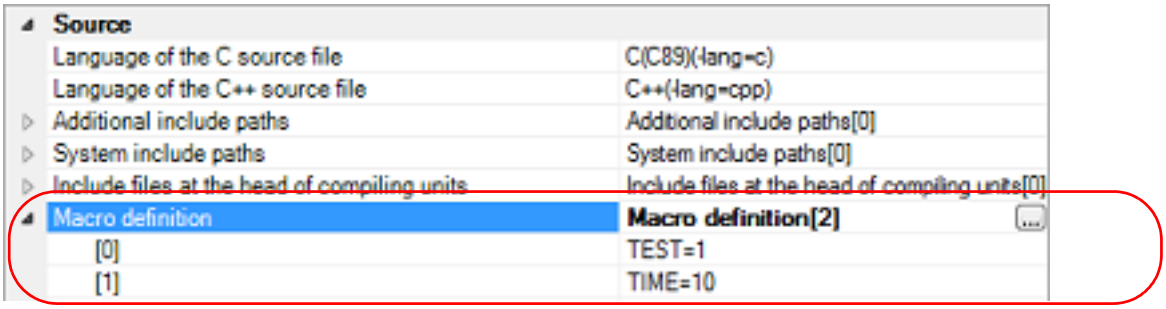
If you click the [...] button, the Text Edit dialog box will open.

Figure 2.25 Text Edit Dialog Box



Enter the macro definition in the format of "*macro name=string*", with one macro name per line.
You can specify up to 32767 characters per line, up to 65535 line.
The "=*string*" part can be omitted, and in this case, the macro name is assumed to be defined.
If you click the [OK] button, the entered macro definitions are displayed as subproperties.

Figure 2.26 [Macro definition] Property (After Setting Macros)



To change the macro definitions, you can use the [...] button or enter the path directly in the text box of the subproperty.

Remark You can also set the option in the same way with the [Macro definition] property in the [Frequently Used Options(for Compile)] category on the [Common Options] tab.

2.5 Set Assemble Options

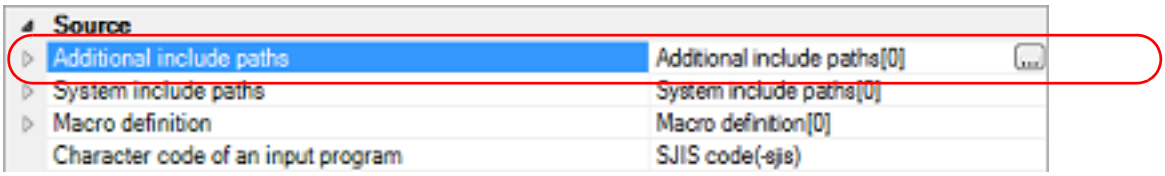
To set options for the assemble phase, select the Build tool node on the project tree and select the [Assemble Options] tab on the Property panel.
You can set the various assemble options by setting the necessary properties in this tab.

Remark Often used options have been gathered under the [Frequently Used Options(for Assemble)] category on the [Common Options] tab.

2.5.1 Add an include path

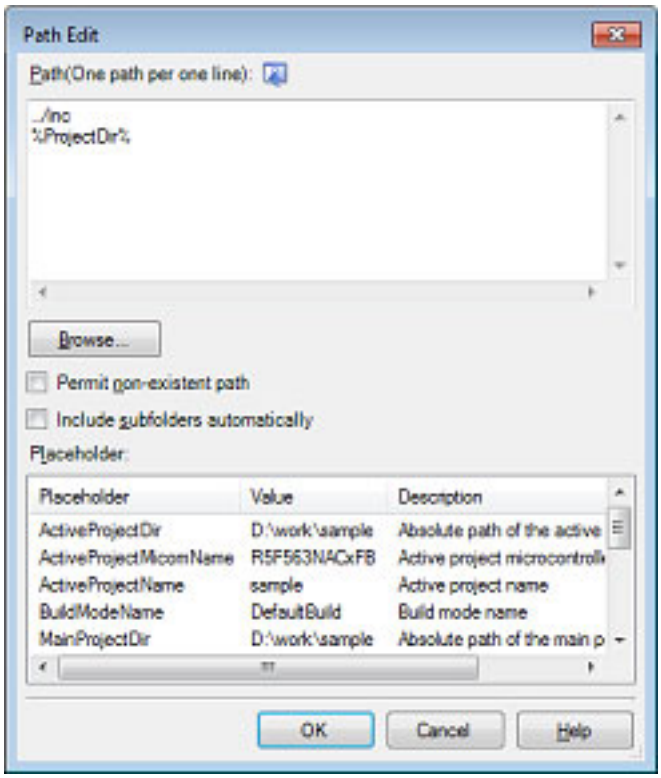
Select the build tool node on the project tree and select the [Assemble Options] tab on the Property panel.
The include path setting is made with the [Additional include paths] property in the [Source] category.

Figure 2.27 [Additional include paths] Property



If you click the [...] button, the Path Edit dialog box will open.

Figure 2.28 Path Edit Dialog Box



Enter the include path per line in [Path(One path per one line)].
You can specify up to 247 characters per line.

Remark 1. This property supports placeholders.
If a line is double clicked in [Placeholder], the placeholder will be reflected in [Path(One path per one line)].

Remark 2. You can also specify the include path by one of the following procedures.

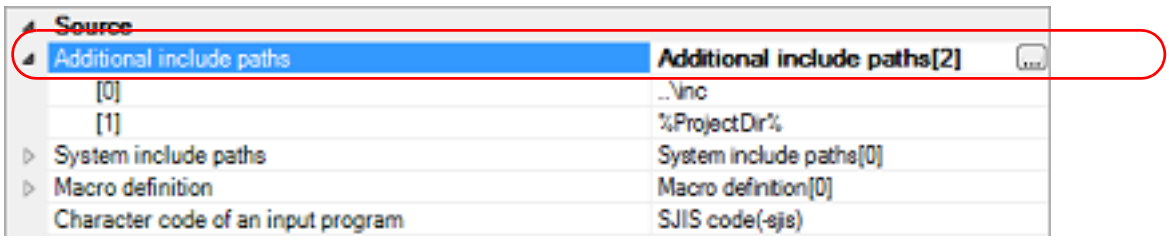
- Drag and drop the folder using such as Explorer.
- Click the [Browse...] button, and then select the folder in the Browse For Folder dialog box.

- Double click a row in [Placeholder].

Remark 3. Select the [Subfolders are automatically included] check box before clicking the [Browse...] button to add all paths under the specified one (down to 5 levels) to [Path(One path per one line)].

If you click the [OK] button, the entered include paths are displayed as subproperties.

Figure 2.29 [Additional include paths] Property (After Adding Include Paths)



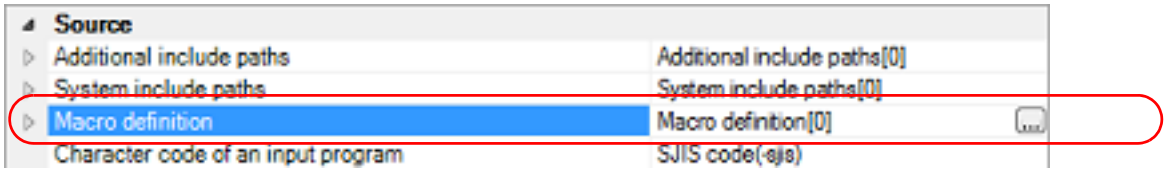
To change the include paths, you can use the [...] button or enter the path directly in the text box of the subproperty. When the include path is added to the project tree, the path is added to the top of the subproperties automatically.

Remark You can also set the option in the same way with the [Additional include paths] property in the [Frequently Used Options(for Assemble)] category on the [Common Options] tab.

2.5.2 Set a macro definition

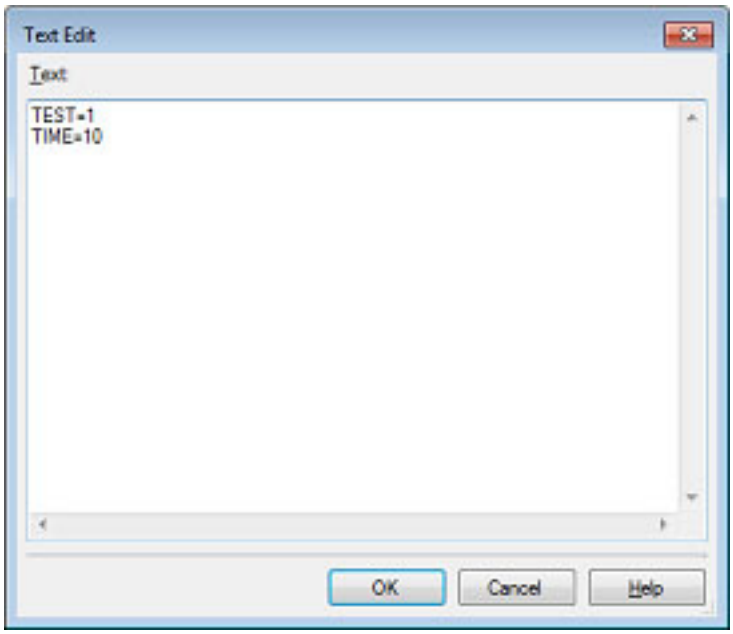
Select the build tool node on the project tree and select the [Assemble Options] tab on the Property panel. The macro definition setting is made with the [Macro definition] property in the [Source] category.

Figure 2.30 [Macro definition] Property



If you click the [...] button, the Text Edit dialog box will open.

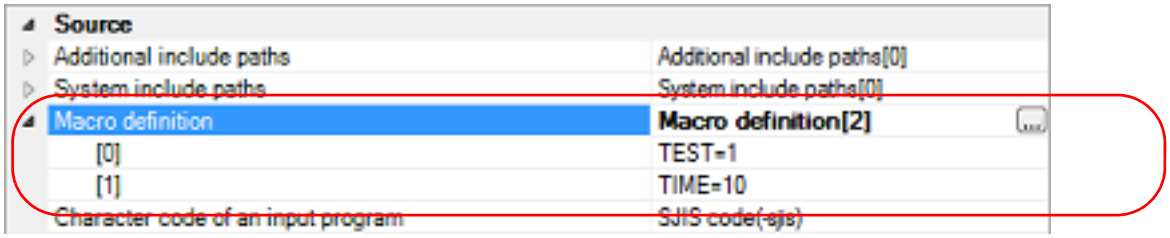
Figure 2.31 Text Edit Dialog Box



Enter the macro definition in the format of "*macro name=string*", with one macro name per line.
You can specify up to 32767 characters per line, up to 65535 line.

If you click the [OK] button, the entered macro definitions are displayed as subproperties.

Figure 2.32 [Macro definition] Property (After Setting Macros)



To change the macro definitions, you can use the [...] button or enter the path directly in the text box of the subproperty.

Remark You can also set the option in the same way with the [Macro definition] property in the [Frequently Used Options(for Assemble)] category on the [Common Options] tab.

2.6 Set Link Options

To set options for the link phase, select the Build tool node on the project tree and select the [Link Options] tab on the Property panel.

You can set the various link options by setting the necessary properties in this tab.

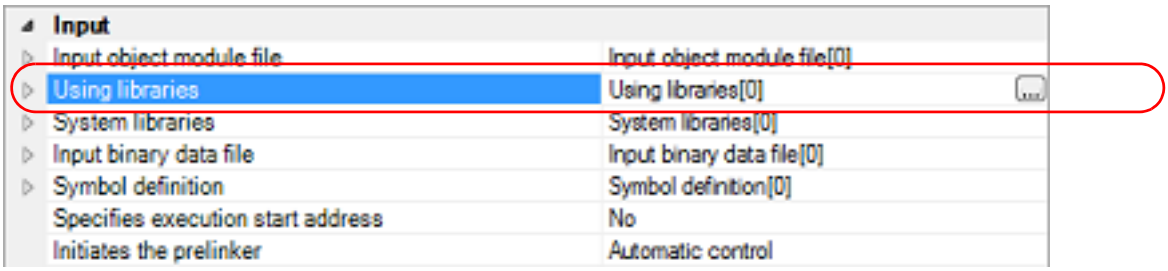
Caution This tab is not displayed for the library project.

Remark Often used options have been gathered under the [Frequently Used Options(for Link)] category on the [Common Options] tab.

2.6.1 Add a user library

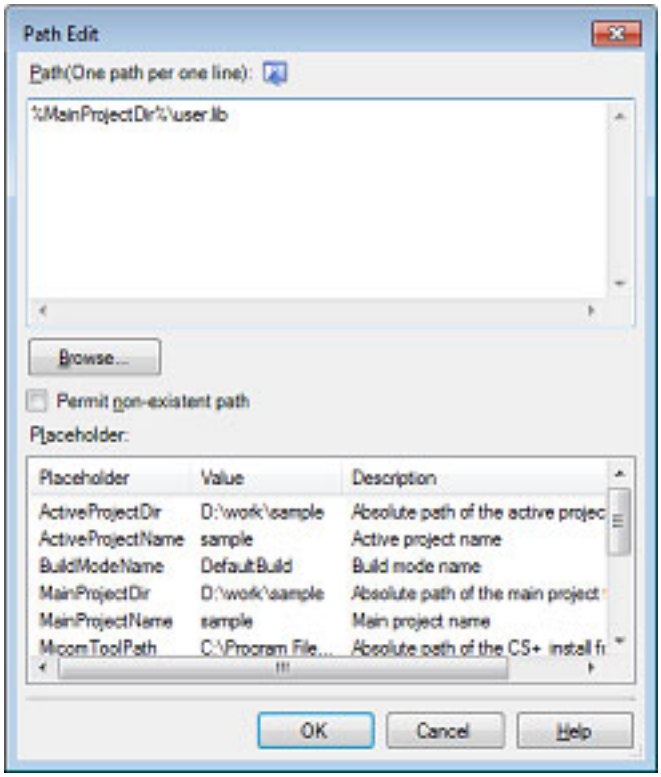
Select the build tool node on the project tree and select the [Link Options] tab on the Property panel.
Adding a user library is made with the [Using libraries] property in the [Input] category.

Figure 2.33 [Using libraries] Property



If you click the [...] button, the Path Edit dialog box will open.

Figure 2.34 Path Edit Dialog Box



Enter the library file (including the path) per line in [Path(One path per one line)].
You can specify up to 259 characters per line, up to 65536 lines.

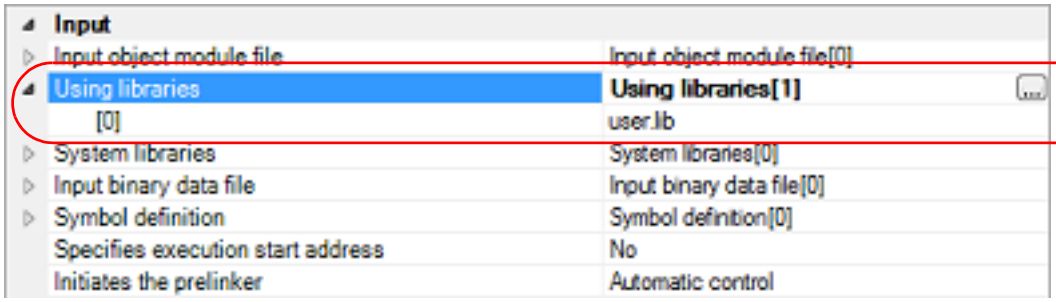
Remark 1. This property supports placeholders.
If a line is double clicked in [Placeholder], the placeholder will be reflected in [Path(One path per one line)].

Remark 2. You can also specify the library file by one of the following procedures.

- Drag and drop the folder using such as Explorer.
- Click the [Browse...] button, and then select the folder in the Specify Using Library File dialog box.
- Double click a row in [Placeholder].

If you click the [OK] button, the entered library files are displayed as subproperties.

Figure 2.35 [Using libraries] Property (After Setting Library Files)



To change the library files, you can use the [...] button or enter the path directly in the text box of the subproperty.

Remark You can also set the option in the same way with the [Using libraries] property in the [Frequently Used Options(for Link)] category on the [Common Options] tab.

2.6.2 Prepare for using the overlaid section selection function

The optimizing linker (rlink) used by CC-RX can allocate multiple sections defined in a program to the same address. The sections allocated in this way are called "overlaid sections".

The debug tool provides a function to select the debug target section from the overlaid sections (priority sections) allocated to the same address. The function is called "overlaid section selection function".

A load module using overlaid sections can be debugged with switching of the priority section before program execution.

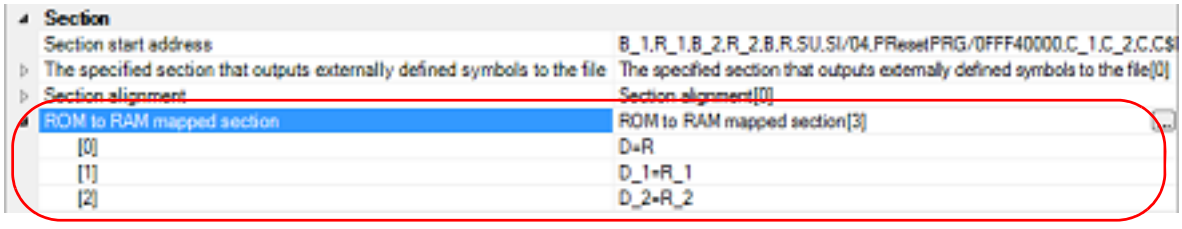
The method for generating a load module to use the overlaid section selection function is shown below.

(1) Copy the ROM area contents to RAM
Copy the ROM area contents to the RAM area to expand the code and data in the RAM.

(2) Set build options
Set the ROM-to-RAM mapped sections and overlaid sections to use the overlaid section selection function.
Select the build tool node on the project tree and select the [Link Options] tab on the Property panel.

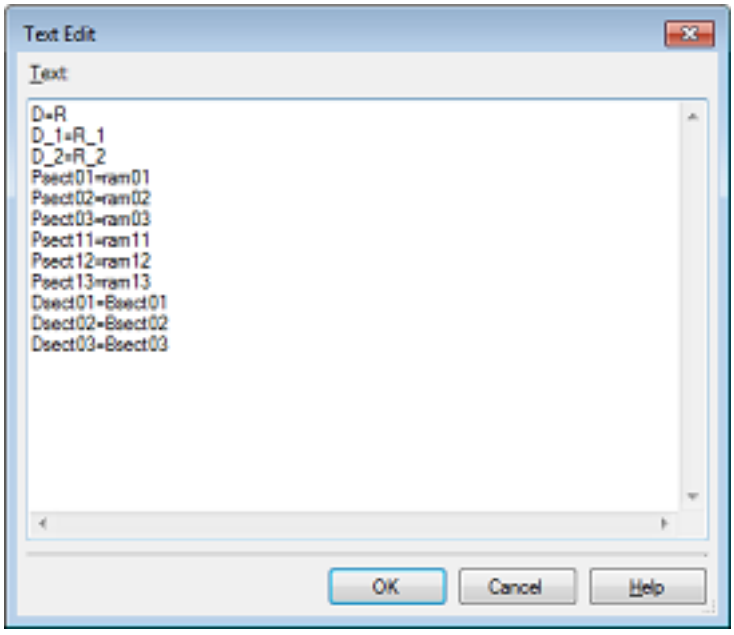
(a) Set ROM-to-RAM mapped sections
Setting the ROM-to-RAM mapped sections is made with the [ROM to RAM mapped section] property in the [Section] category.
This reserves the RAM section with the same size as that of the ROM section and relocates the symbols defined in the ROM section to addresses in the RAM section.

Figure 2.36 [ROM to RAM mapped section] Property



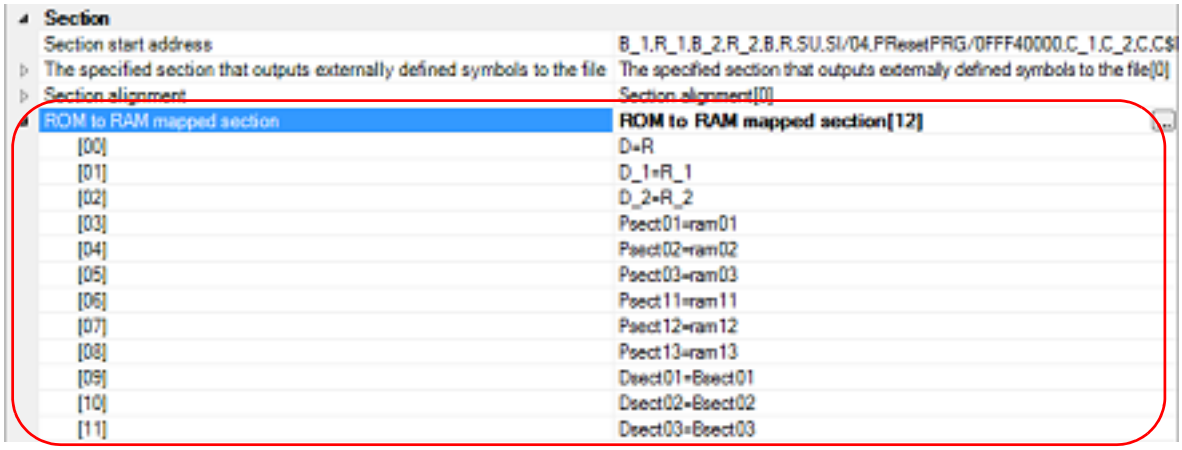
If you click the [...] button, the Text Edit dialog box will open.

Figure 2.37 Text Edit Dialog Box



Enter the section name in [Text] in the format of "*ROM section name=RAM section name*", with one section name per line.
You can specify up to 32767 characters per line, up to 65535 lines.
If you click the [OK] button, the entered section names are displayed as subproperties.

Figure 2.38 [ROM to RAM mapped section] Property (After Setting Sections)



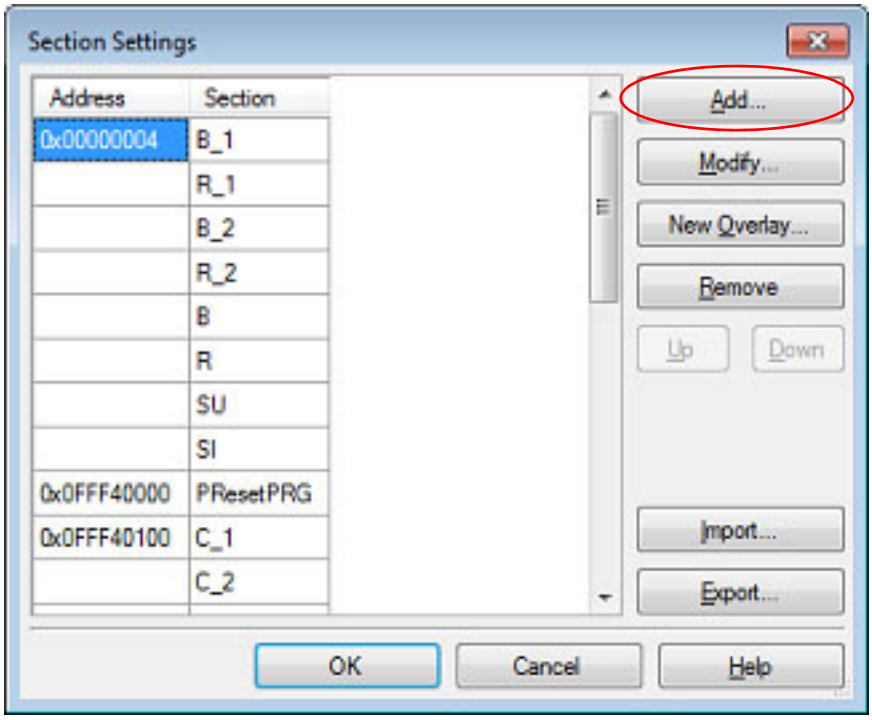
To change the section names, you can use the [...] button or enter them directly in the text box of the subproperty.

(b) Set ROM sections and RAM sections (overlaid sections)
Setting the sections is made with the [Section start address] property in the [Section] category.

Figure 2.39 [Section start address] Property

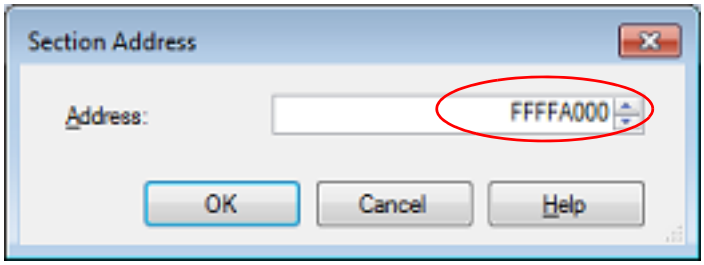
<1> Set ROM sections
If you click the [...] button, the Section Settings dialog box will open.

Figure 2.40 Section Settings Dialog Box



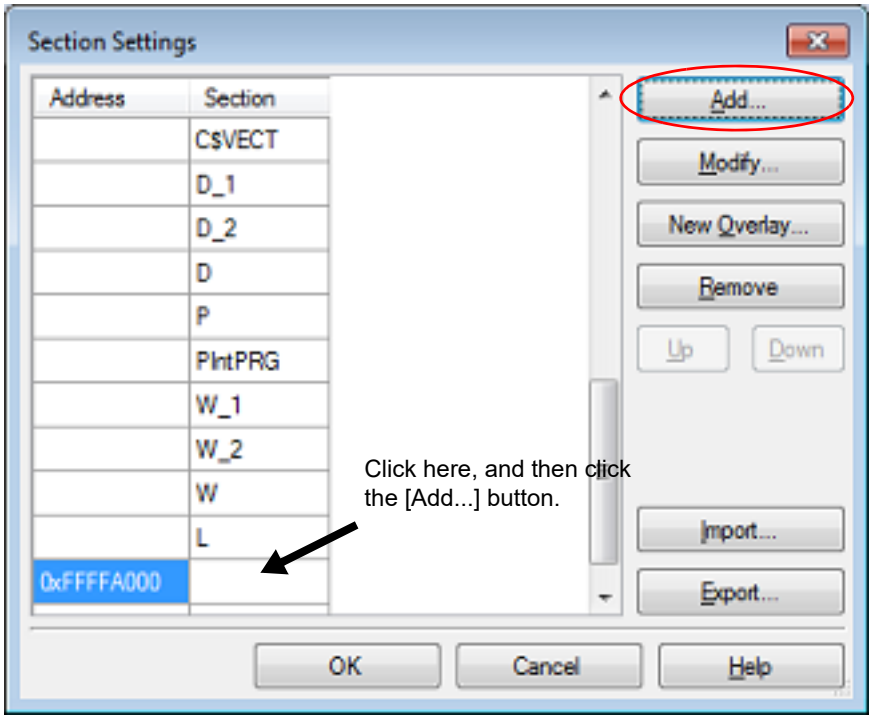
If you click the [Add...] button, the Section Address dialog box will open.

Figure 2.41 Section Address Dialog Box



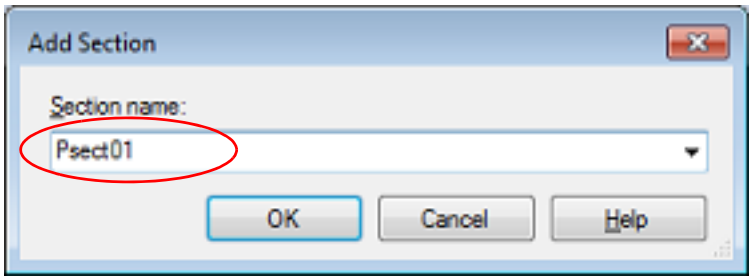
Enter in [Address] the address of the ROM section to be added and click the [OK] button to add the entered address to [Address] in the Section Settings dialog box.

Figure 2.42 Section Settings Dialog Box (After ROM Section Addresses Are Added)



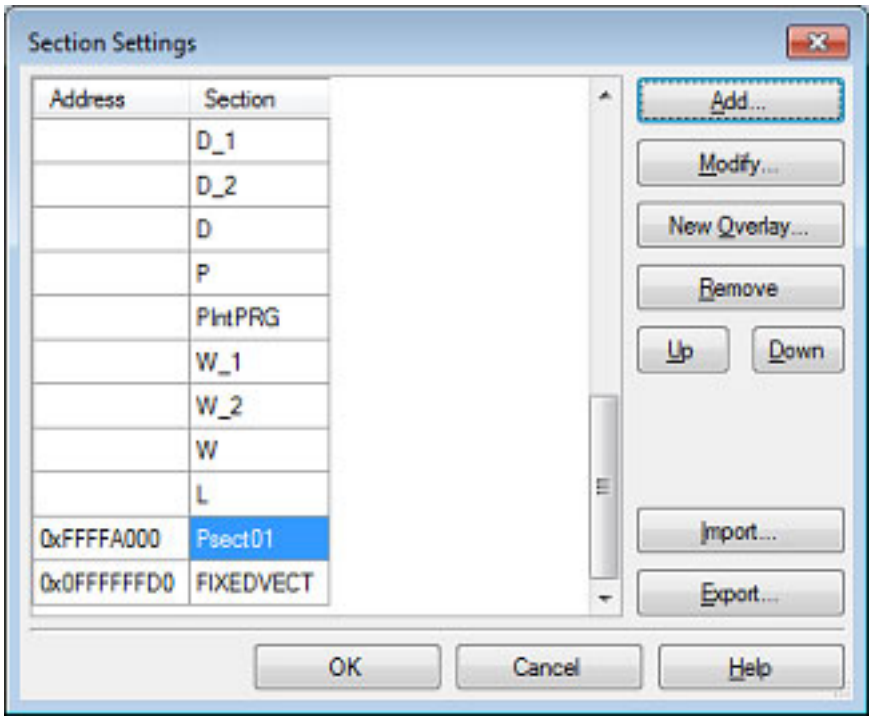
Click the Section column on the added address row and click the [Add...] button to open the Add Section dialog box.

Figure 2.43 Add Section Dialog Box



Enter in [Section name] the name of the ROM section to be added and click the [OK] button to add the entered section to [Section] in the Section Settings dialog box.

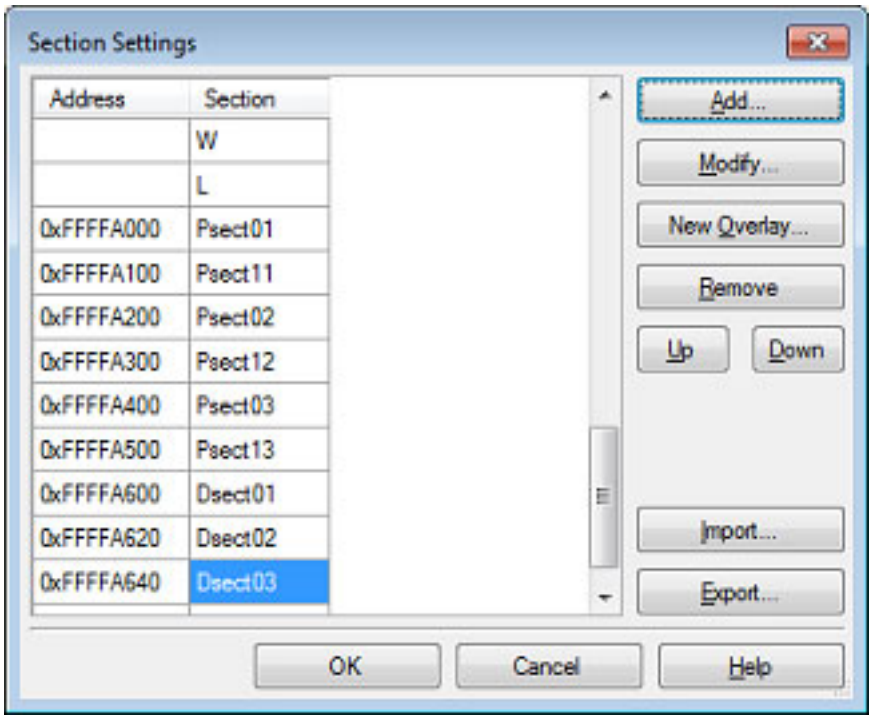
Figure 2.44 Section Settings Dialog Box (After ROM Sections Are Added)



For other ROM sections, set addresses and section names in the same way.

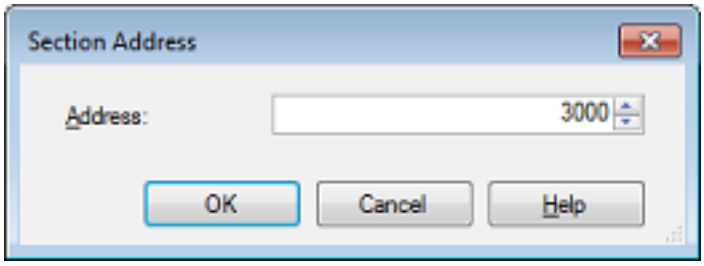
Remark Click the Address column and click the [Add...] button to open the Section Address dialog box, allowing you to add a new address.

Figure 2.45 Section Settings Dialog Box (After Multiple ROM Sections Are Added)



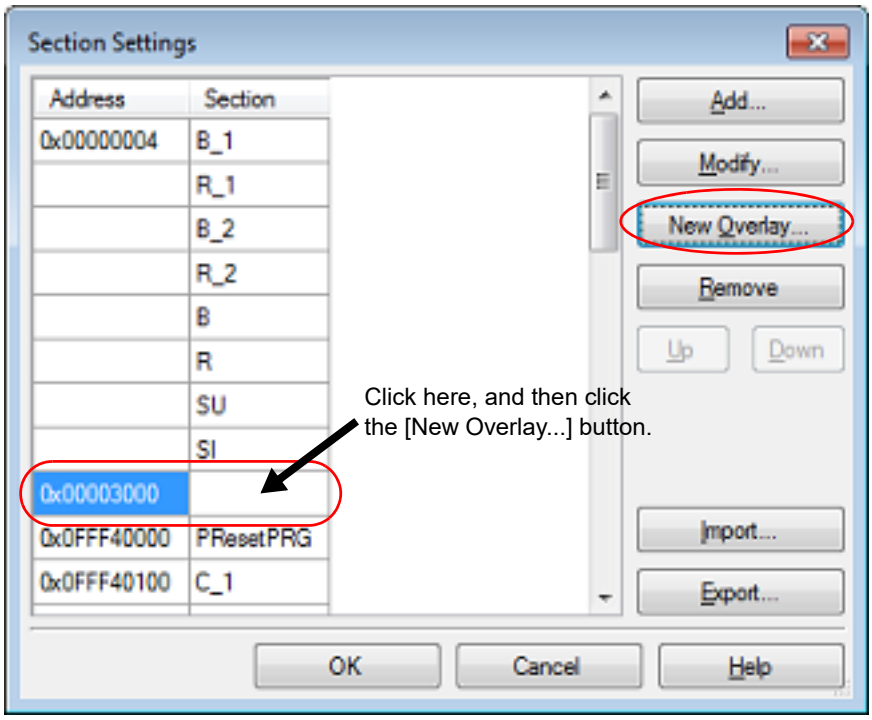
<2> Set RAM sections (overlaid sections)
Click an added address and click the [Add...] button to open the Section Address dialog box.

Figure 2.46 Section Address Dialog Box



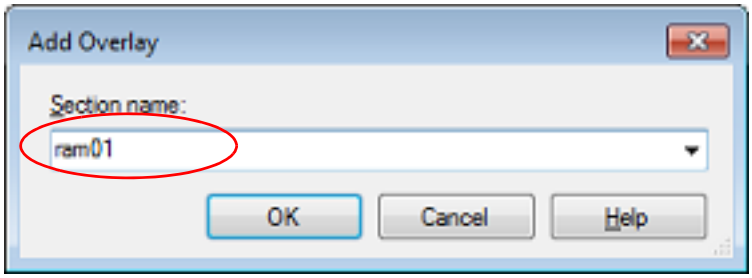
Enter in [Address] the address of the RAM section to be added and click the [OK] button to add the entered address to [Address] in the Section Settings dialog box.

Figure 2.47 Section Settings Dialog Box (After RAM Section Addresses Are Added)



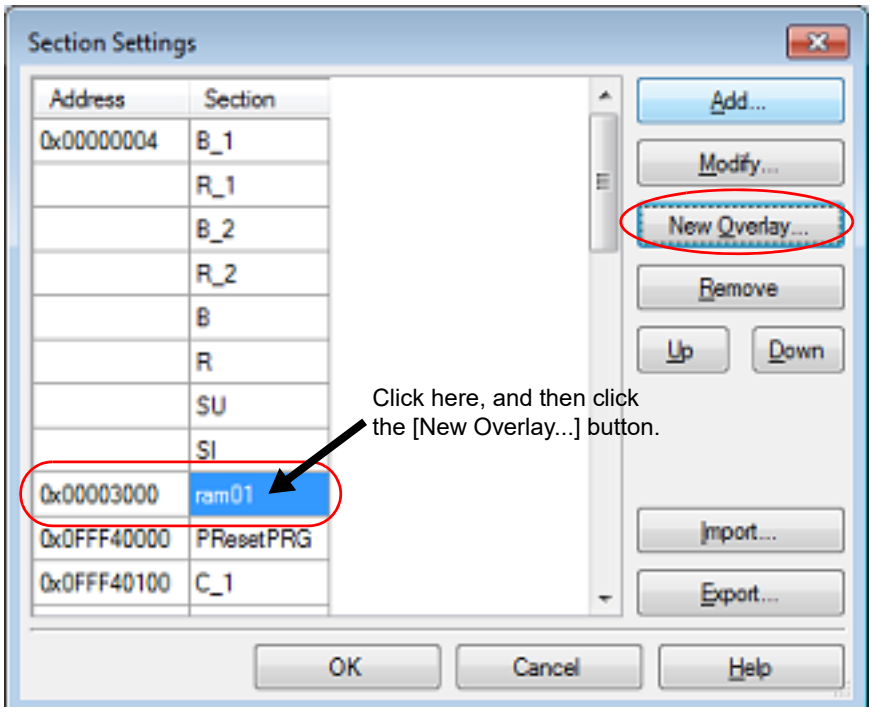
Click the added address row (Address column or Section column) and click the [New Overlay...] button to open the Add Overlay dialog box.

Figure 2.48 Add Overlay Dialog Box



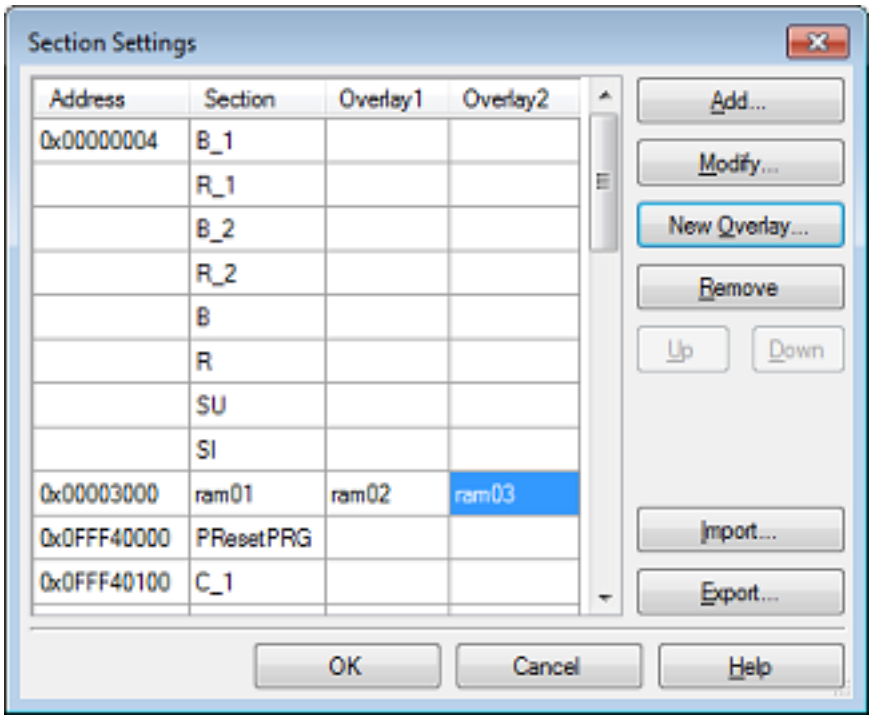
Enter in [Section name] the name of the RAM section to be added and click the [OK] button to add the entered section to [Section] in the Section Settings dialog box.

Figure 2.49 Section Settings Dialog Box (After RAM Sections Are Added)



Add the sections to be allocated to the same address by using the [New Overlay...] button in the same way. The added sections are displayed under [Overlay *n*] (*n*: number starting with "1").

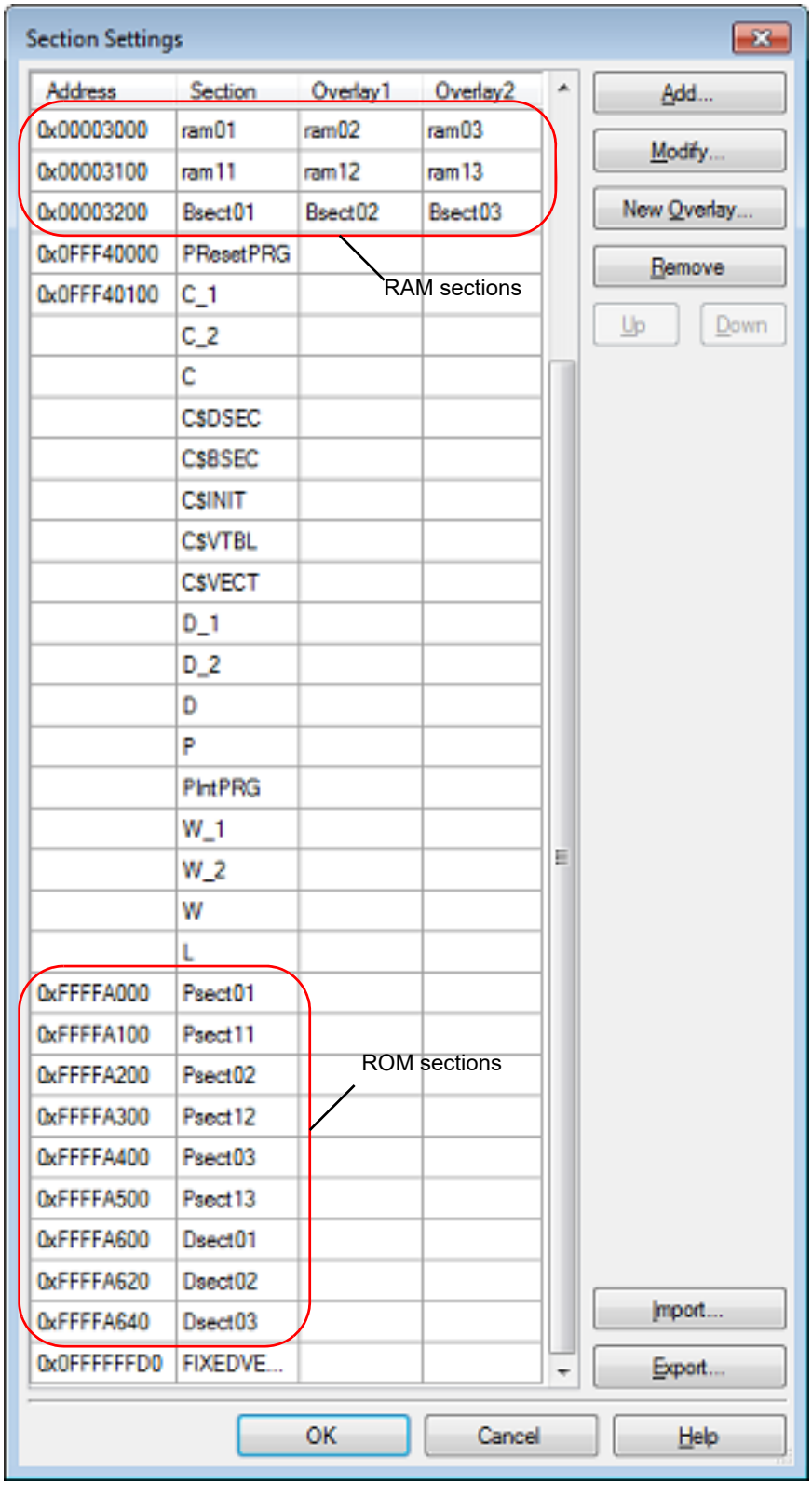
Figure 2.50 Section Settings Dialog Box (After Overlaid Sections Are Added)



For other RAM sections, set addresses and section names in the same way.

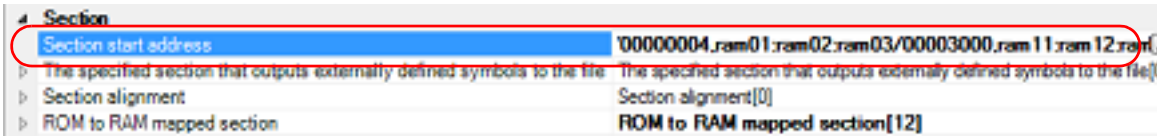
Remark Click the Address column and click the [Add...] button to open the Section Address dialog box, allowing you to add a new address.

Figure 2.51 Section Settings Dialog Box (After Multiple RAM Sections Are Added)



Click the [OK] button. The specified ROM sections and RAM sections (overlaid sections) will be displayed in the text boxes.

Figure 2.52 [Section start address] Property (After Setting Sections)



(3) Run a build of the project
Run a build of the project.
A load module file to use the overlaid section selection function is generated.

2.7 Set Hex Output Options

To set options for the hex output phase, select the Build tool node on the project tree and select the [Hex Output Options] tab on the Property panel.
You can set the various hex output options by setting the necessary properties in this tab.

Caution 1. This tab is not displayed for the library project.

Caution 2. This tab is displayed when you have selected [Always latest version which was installed] or V2.00.00 or a later version for the [Using compiler package version] property under the [Version Select] category on the [Common Options] tab in an environment where V2.00.00 or a later version of the CC-RX compiler has been installed.
When the version of the compiler package is V2.00.00 or lower, the properties from this tab are included in the [Convert Load Module File] category from the [Link Options] tab. See "Property panel" in "A.WINDOW REFERENCE" for details.

Remark Often used options have been gathered under the [Frequently Used Options(for Hex Output)] category on the [Common Options] tab.

2.7.1 Set the output of a hex file

Select the build tool node on the project tree and select the [Hex Output Options] tab on the Property panel.

(1) Set the output of a hex file
The setting to output a hex file is made with the [Output hex file] property in the [Output File] category.
To output a hex file, select [Yes], to not output a hex file, select [No].

Figure 2.53 [Output hex file] Property

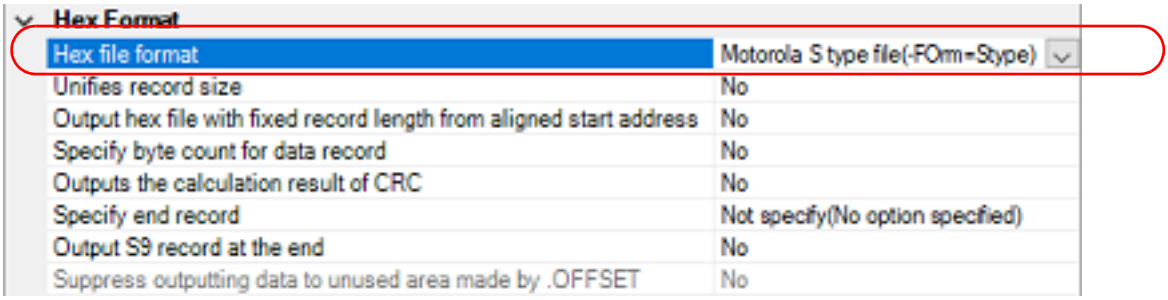
When outputting a hex file, you can set the output folder and output file name.

(a) Set the output folder
Setting the output folder is made with the [Output folder] property by directly entering to the text box or by the [...] button.
Up to 247 characters can be specified in the text box.
This property supports the following placeholder.
%ActiveProjectDir%: Replaces with the absolute path of the active project folder.
%ActiveProjectName%: Replaces with the active project name.
%BuildModeName%: Replaces with the build mode name.
%MainProjectDir%: Replaces with the absolute path of the main project folder.
%MainProjectName%: Replaces with the main project name.
%MicomToolPath%: Replaces with the absolute path of the install folder of this product.
%ProjectDir%: Replaces with the absolute path of the project folder.
%ProjectName%: Replaces with the project name.
%TempDir%: Replaces with the absolute path of the temporary folder.
%WinDir%: Replaces with the absolute path of the Windows system folder.
"%BuildModeName%" is set by default.

(b) Set the output file name
Setting the output file is made with the [Output file name] property by directly entering to the text box.
Up to 259 characters can be specified in the text box.
This property supports the following placeholders.
%ActiveProjectName%: Replaces with the active project name.
%MainProjectName%: Replaces with the main project name.
%ProjectName%: Replaces with the project name.
"%ProjectName%.mot" is set by default.

(2) Set the hex file format
Select the format in the [Hex file format] property in the [Hex Format] category.

Figure 2.54 [Hex file format] Property



You can select any of the formats below.

Format	Configuration
Intel HEX file(-FOrm=Hexadecimal)	Outputs an Intel HEX file.
Motorola S-record file(-FOrm=Stype)	Outputs a Motorola S-record file.
Binary file(-FOrm=Binary)	Outputs a binary file.

Remark See "CC-RX Compiler User's Manual" for details about the Intel Hex file and Motorola S-record file.

2.7.2 Fill the vacant area

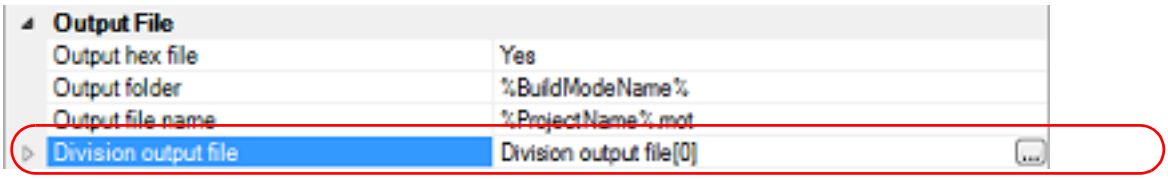
You need to set the hex file output range to fill the vacant area. The property to fill the vacant area is displayed after setting the hex file output range.
The procedure for the setting is shown below.

- Set the hex file output range
- Set the method for filling the vacant area

Select the build tool node on the project tree and select the [Hex Output Options] tab on the Property panel.

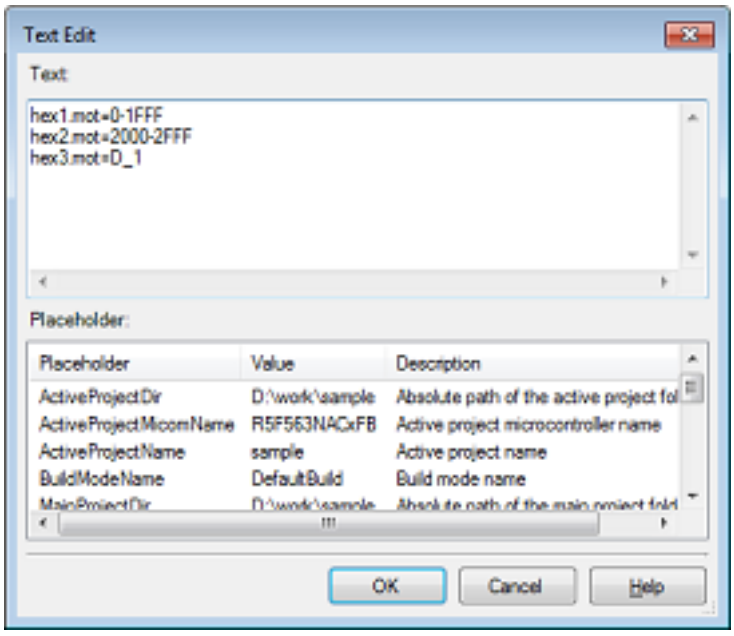
(1) Set the hex file output range
The setting of the hex file output range is made with the [Division output file] property in the [Output File] category.

Figure 2.55 [Division output file] Property



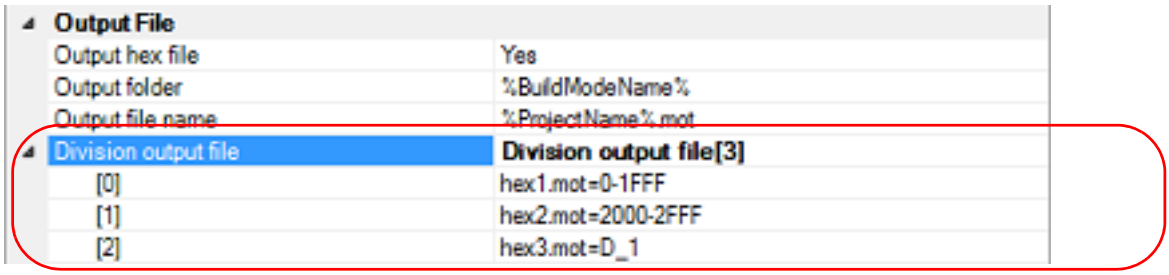
If you click the [...] button, the Text Edit dialog box will open.

Figure 2.56 Text Edit Dialog Box



Specify the division output file name in [Text] in the format of "*file name=start address-end address*" (*start address*, *end address*: The start address and end address of the output range) or "*file name=section name*" (*section name*: The name of the output section), with one file name per line.
If multiple section names are specified, delimit them with a colon as in "*file name=section name*:*section name*".
Specify the start address and end address in hexadecimal.
You can specify up to 259 characters per line, up to 65535 lines.
If you click the [OK] button, the entered division output file names are displayed as subproperties.

Figure 2.57 [Division output file] Property (After Setting Division Output File Names)

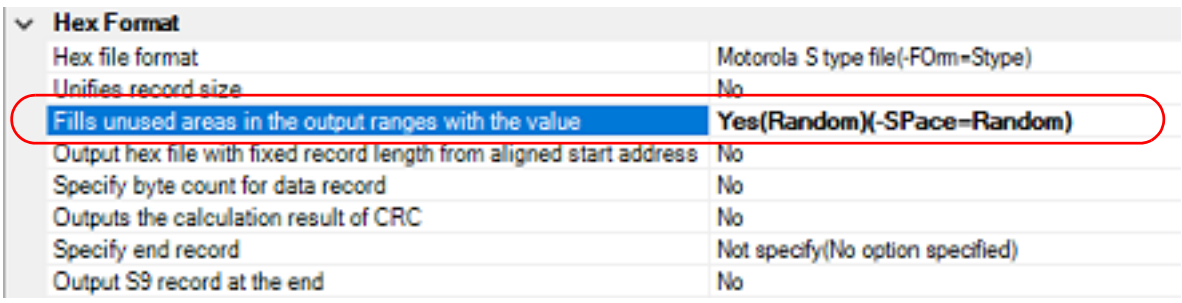


To change the division output file names, you can use the [...] button or enter them directly in the text box of the subproperty.

(2) Set the method for filling the vacant area
Set the method for filling the vacant area in the output range.

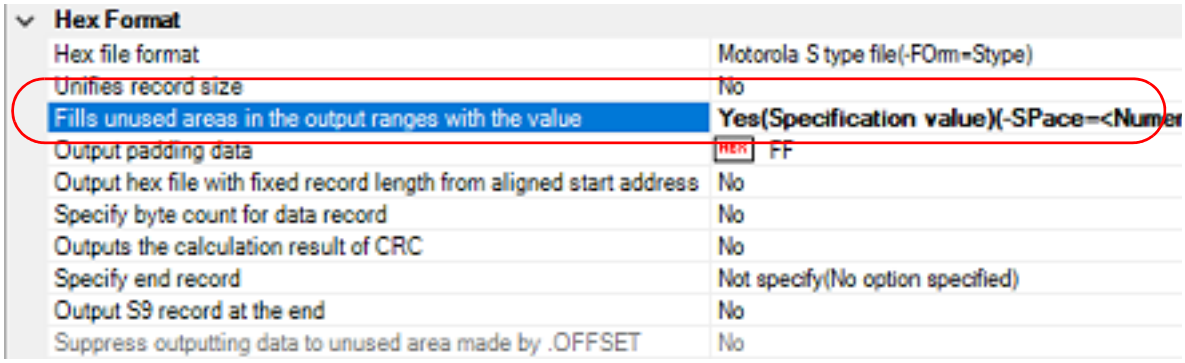
(a) Fill the vacant area with random numbers
Select [Yes(Random)(-SPace=Random)] in the [Fill unused areas in the output ranges with the value] property in the [Hex Format] category.

Figure 2.58 [Fill unused areas in the output ranges with the value] Property



(b) Specify data to fill the vacant area
Select [Yes(Specification value)(-SPace=<Numerical value>)] in the [Fill unused areas in the output ranges with the value] property in the [Hex Format] category. The [Output padding data] property will be displayed.

Figure 2.59 [Fill unused areas in the output ranges with the value] and [Output padding data] Property



Enter the fill value for the vacant area directly in the text box.
The range that can be specified for the value is 0 to FFFFFFFF (hexadecimal number).
"FF" is set by default.

2.8 Set Librarian Options

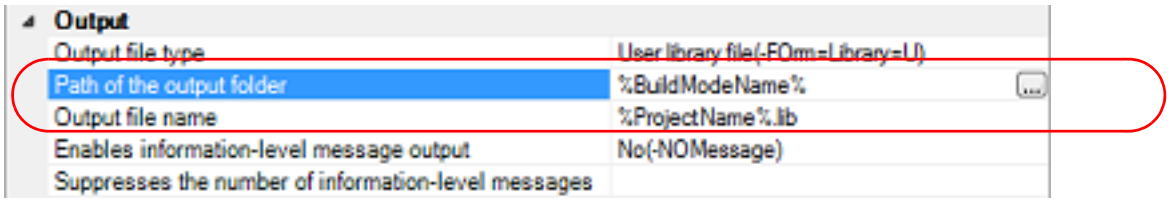
To set options for the link phase, select the Build tool node on the project tree and select the [Librarian Options] tab on the Property panel.
You can set the various librarian options by setting the necessary properties in this tab.

Caution This tab is not displayed for the application project.

2.8.1 Set the output of a library file

Select the build tool node on the project tree and select the [Librarian Options] tab on the Property panel.
The setting to output a library file is made with the [Output] category.

Figure 2.60 [Output] Category



(1) Set the output folder
Setting the output folder is made with the [Path of the output folder] property by directly entering to the text box or by the [...] button.
Up to 247 characters can be specified in the text box.
This property supports the following placeholder.

%ActiveProjectDir%: Replaces with the absolute path of the active project folder.
%ActiveProjectName%: Replaces with the active project name.
%BuildModeName%: Replaces with the build mode name.
%MainProjectDir%: Replaces with the absolute path of the main project folder.
%MainProjectName%: Replaces with the main project name.
%MicomToolPath%: Replaces with the absolute path of the install folder of this product.
%ProjectDir%: Replaces with the absolute path of the project folder.
%ProjectName%: Replaces with the project name.
%TempDir%: Replaces with the absolute path of the temporary folder.
%WinDir%: Replaces with the absolute path of the Windows system folder.

"%BuildModeName%" is set by default.

(2) Set the output file name
Setting the output file is made with the [Output file name] property by directly entering to the text box.
Up to 259 characters can be specified in the text box.
This property supports the following placeholders.

%ActiveProjectName%: Replaces with the active project name.
%MainProjectName%: Replaces with the main project name.
%ProjectName%: Replaces with the project name.

"%ProjectName%.lib" is set by default.

2.9 Set Library Generate Options

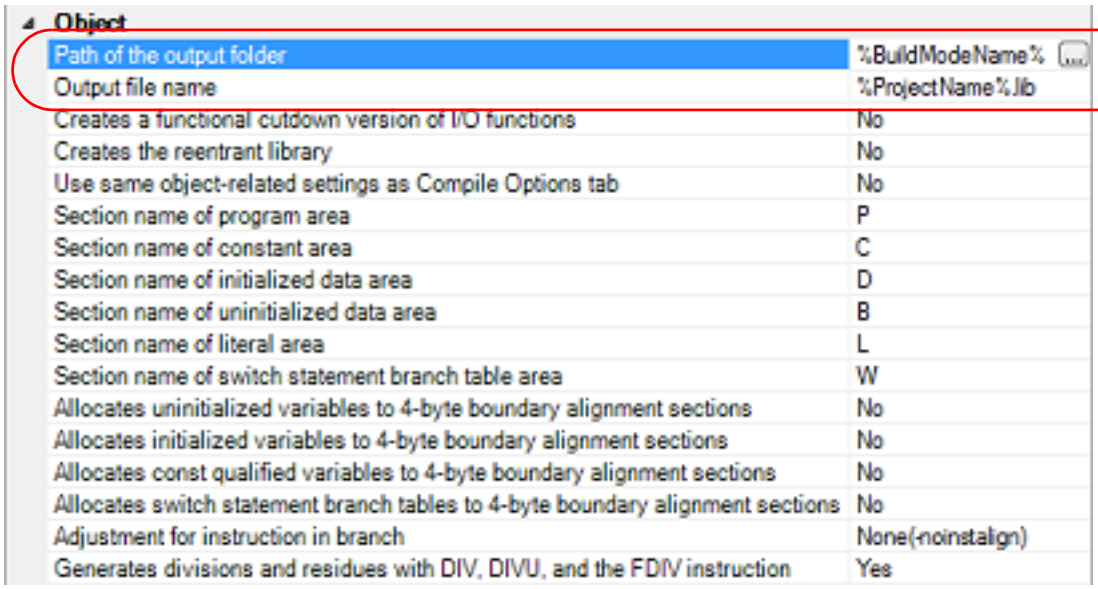
To set options for the library generator, select the Build tool node on the project tree and select the [Library Generate Options] tab on the Property panel.
You can set the various create library options by setting the necessary properties in this tab.

Caution This tab is not displayed for the library project.

2.9.1 Set the output of a standard library file

Select the build tool node on the project tree and select the [Library Generate Options] tab on the Property panel.
The setting to output a standard library file is made with the [Object] category.

Figure 2.61 [Object] Category



(1) Set the output folder
Setting the output folder is made with the [Path of the output folder] property by directly entering to the text box or by the [...] button.
Up to 247 characters can be specified in the text box.
This property supports the following placeholder.

%ActiveProjectDir%: Replaces with the absolute path of the active project folder.
%ActiveProjectName%: Replaces with the active project name.
%BuildModeName%: Replaces with the build mode name.
%MainProjectDir%: Replaces with the absolute path of the main project folder.
%MainProjectName%: Replaces with the main project name.
%MicomToolPath%: Replaces with the absolute path of the install folder of this product.
%ProjectDir%: Replaces with the absolute path of the project folder.
%ProjectName%: Replaces with the project name.
%TempDir%: Replaces with the absolute path of the temporary folder.
%WinDir%: Replaces with the absolute path of the Windows system folder.

"%BuildModeName%" is set by default.

(2) Set the output file name
Setting the output file is made with the [Output file name] property by directly entering to the text box.
Up to 259 characters can be specified in the text box.
This property supports the following placeholders.

%ActiveProjectName%: Replaces with the active project name.
%MainProjectName%: Replaces with the main project name.
%ProjectName%: Replaces with the project name.

"%ProjectName%.hex" is set by default.

2.10 Preparation before Using the PIC/PID Function

In the PIC/PID function, a program whose code or data in the ROM has been converted into PIC or PID is called an application, and the program necessary to execute an application is called the master.

When the application and master are built, the option settings related to the PIC/PID function should be matched between the objects that compose the application and master.

The procedure for setting build options for the application and master is given below.

Remark For details on the PIC/PID function, possible combinations of options, and how to create a startup program for the application or master, see "CC-RX Compiler User's Manual".

(1) Setting build options

Build options related to the PIC/PID function can be set in the Project Tree panel. Select the build tool node for the master or application and set options in the [PIC/PID] category on the [Common Options] tab of the Property panel.

Figure 2.62 [PIC/PID] Category

(a) Setting build options for the master

Select [No] for the [Enables the PIC function] property (default).
Select [No] for the [Enables the PID function] property (default).
Select [Yes] for the [Uses the PID register for code generation] property (default).

(b) Setting build options for the application

Select [Yes(-pic)] for the [Enables the PIC function] property.
Select [The maximum bit width of the offset: 16 bits) (-pid=16)] or [Yes (The maximum bit width of the offset: No limitation) (-pid=32)] for the [Enables the PID function] property.

2.11 Set Build Options Separately

Build options are set at the project or file level.

- Project level: See "2.11.1Set build options at the project level"
- File level: See "2.11.2Set build options at the file level"

2.11.1 Set build options at the project level

To set options for build options for a project (main project or subproject), select the Build tool node on the project tree to display the Property panel.
Select the component tabs, and set build options by setting the necessary properties.
Compile phase: [Compile Options] tab
Assemble phase: [Assemble Options] tab
Link phase (For the application project): [Link Options] tab
Hex output phase: [Hex Output Options] tab
Link phase (For the library project): [Librarian Options] tab
Library Generate phase: [Library Generate Options] tab

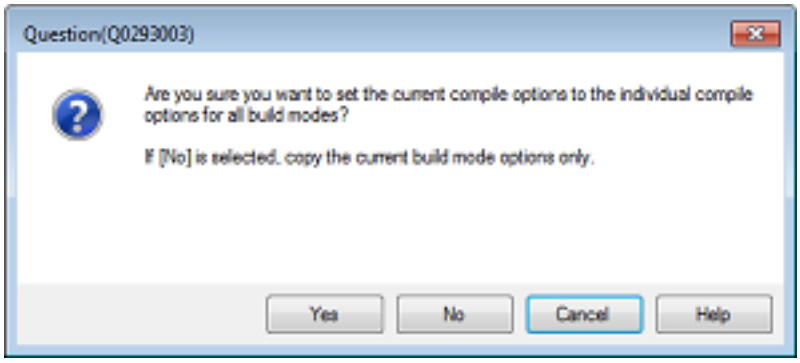
2.11.2 Set build options at the file level

You can individually set compile and assemble options for each source file added to the project.

(1) When setting compile options for a C source file
Select a C source file on the project tree and select the [Build Settings] tab on the Property panel. In the [Build] category, if you select [Yes] on the [Set individual compile option] property, the Message Dialog Box is displayed.

Figure 2.63 [Set individual compile option] Property

Figure 2.64 Message Dialog Box

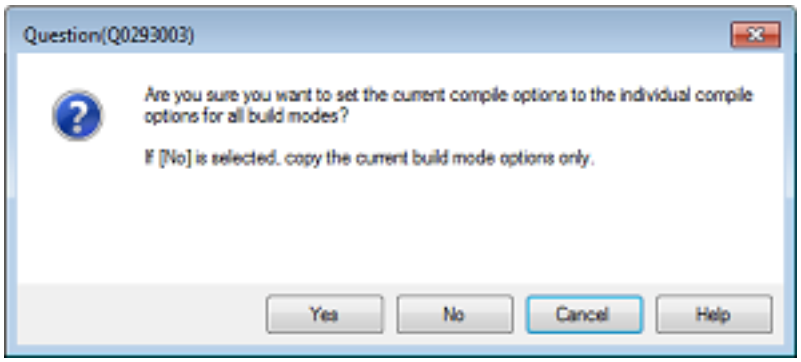


If you click the [Yes] button in the dialog box, the [Individual Compile Options(C)] tab will be displayed.
You can set compile options for the C source file by setting the necessary properties in this tab. Note that this tab takes over the settings of the [Compile Options] tab by default.

(2) When setting compile options for a C++ source file
Select a C++ source file on the project tree and select the [Build Settings] tab on the Property panel. In the [Build] category, if you select [Yes] on the [Set individual compile option] property, the Message Dialog Box is displayed.

Figure 2.65 [Set individual compile option] Property

Figure 2.66 Message Dialog Box



If you click the [Yes] button in the dialog box, the [Individual Compile Options(C++)] tab will be displayed.
You can set compile options for the C++ source file by setting the necessary properties in this tab. Note that this tab takes over the settings of the [Compile Options] tab by default.

(3) When setting assemble options for an assembler source file
Select an assembler source file on the project tree and select the [Build Settings] tab on the Property panel. In the [Build] category, if you select [Yes] on the [Set individual assemble option] property, the Message Dialog Box is displayed.

Figure 2.67 [Set individual assemble option] Property

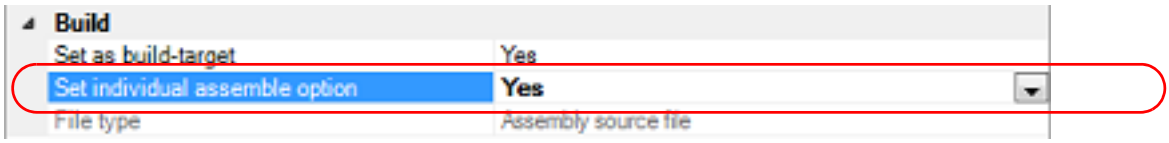
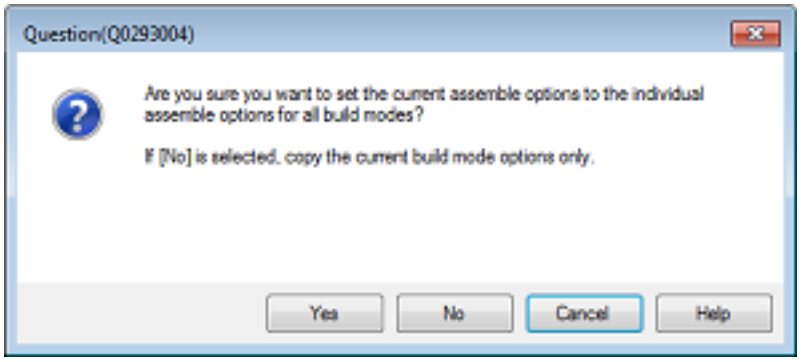


Figure 2.68 Message Dialog Box



If you click the [Yes] button in the dialog box, the [Individual Assemble Options] tab will be displayed.
You can set assemble options for the assembler source file by setting the necessary properties in this tab. Note that this tab takes over the settings of the [Assemble Options] tab by default.

2.12 Estimate the Stack Capacity

To estimate the stack capacity, use Call Walker.

Call Walker performs a static analysis, and displays the symbols and their callers in a tree format, as well as stack information for each symbol (symbol name, attribute, address, size, stack size, and file name) in list format.

To start Call Walker, select [Tool] menu >> [Startup Stack Usage Tracer].

To exit from Call Walker, select Call Walker [File] menu >> [Exit].

See Call Walker [Help] menu >> [Help Topics] for Call Walker operations.

A. WINDOW REFERENCE

This appendix explains panels/dialog boxes used in the build tool.

A.1 Description

The following lists the panels/dialog boxes used in the build tool.

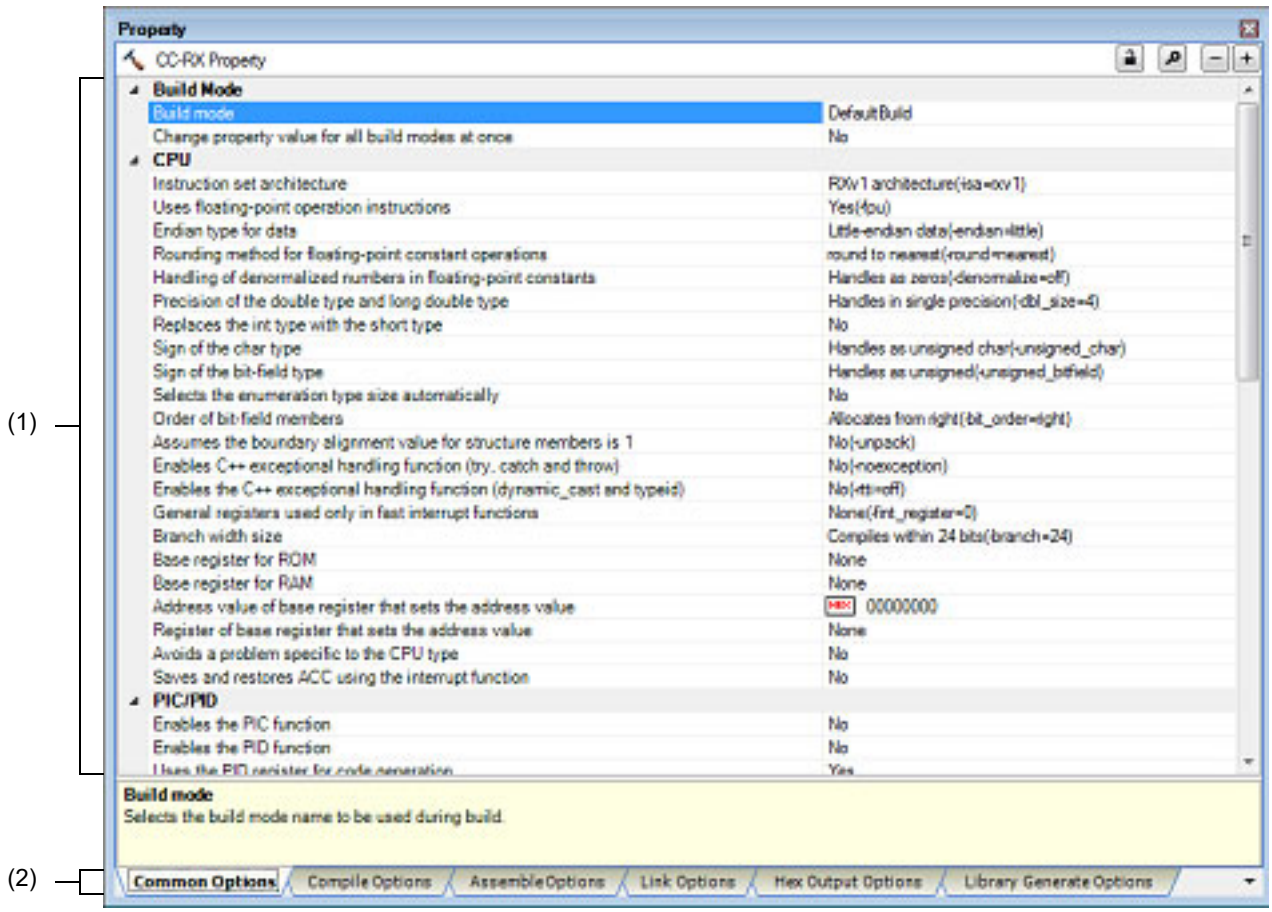
Table A.1 List of Panels/Dialog Boxes

Panel/Dialog Box Name	Function Description
Property panel	This panel is used to display the detailed information on the Build tool node or file that is selected on the Project Tree panel and change the settings of the information.
System Include Path Order dialog box	This dialog box is used to refer the system include paths specified for the compiler and set their specified sequence.
Specify Rule Number dialog box	This dialog box is used to select the number of the MISRA-C rule and set it to the area that this dialog box is called from.
Section Settings dialog box	This dialog box is used to add, modify, or delete sections.
Add Section dialog box Modify Section dialog box Add Overlay dialog box	These dialog boxes are used to set a section name when adding, modifying, or overlaying a section, respectively.
Section Address dialog box	This dialog box is used to set an address when adding or modifying a section.
Unassigned Section dialog box	This dialog box is used to delete sections.
Specify The Predefined Macro dialog box	This dialog box is used to select the predefined macros to disable and set it to the area that this dialog box is called from.
CRC Operations dialog box	This dialog box is used to add, modify, or delete the CRC operation settings.

Property panel

This panel is used to display the detailed information on the Build tool node or file that is selected on the Project Tree panel by every category and change the settings of the information.

Figure A.1 Property Panel



The following items are explained here.

- [How to open]
- [Description of each area]
- [[Edit] menu (only available for the Property panel)]
- [Context menu]

[How to open]

- On the Project Tree panel, select the Build tool node or file and then select [Property] from the [View] menu or [Property] from the context menu.

Remark When either one of the Build tool node or file on the Project Tree panel is selected while the Property panel has been opened, the detailed information of the selected item is displayed.

[Description of each area]

(1) Detailed information display/change area
In this area, the detailed information on the Build tool node or file that is selected on the Project Tree panel is displayed by every category in the list. And the settings of the information can be changed directly.
Mark ◢ indicates that all the items in the category are expanded. Mark ▷ indicates that all the items are collapsed. You can expand/collapse the items by clicking these marks or double clicking the category name.

Mark HEX indicates that only a hexadecimal number is allowed to input in the text box.
See the section on each tab for the details of the display/setting in the category and its contents.

(2) Tab selection area
Categories for the display of the detailed information are changed by selecting a tab.
In this panel, the following tabs are contained (see the section on each tab for the details of the display/setting on the tab).

Remark When multiple components are selected on the Project Tree panel, only the tab that is common to all the components is displayed.
If the value of the property is modified, that is taken effect to the selected components all of which are common to all.

(a) When the Build tool node is selected on the Project Tree panel

- [Common Options] tab
- [Compile Options] tab
- [Assemble Options] tab
- [Link Options] tab
- [Hex Output Options] tab
- [Librarian Options] tab
- [Library Generate Options] tab

(b) When a file is selected on the Project Tree panel

- [Build Settings] tab (for C source file, assembly source file, object file, and library file)
- [Individual Compile Options(C)] tab (for C source file)
- [Individual Compile Options(C++)] tab (for C++ source file)
- [Individual Assemble Options] tab (for assembly source file)
- [File Information] tab[Note]

Note See "CS+ Integrated Development Environment User's Manual: Project Operation" for details about the [File Information] tab.

[[Edit] menu (only available for the Property panel)]

Undo	Cancels the previous edit operation of the value of the property.
Cut	While editing the value of the property, cuts the selected characters and copies them to the clipboard.
Copy	Copies the selected characters of the property to the clipboard.
Paste	While editing the value of the property, inserts the contents of the clipboard.
Delete	While editing the value of the property, deletes the selected characters.
Select All	While editing the value of the property, selects all the characters of the selected property.

[Context menu]

Undo	Cancels the previous edit operation of the value of the property.
Cut	While editing the value of the property, cuts the selected characters and copies them to the clipboard.
Copy	Copies the selected characters of the property to the clipboard.
Paste	While editing the value of the property, inserts the contents of the clipboard.

Delete	While editing the value of the property, deletes the selected characters.
Select All	While editing the value of the property, selects all the characters of the selected property.
Reset to Default	Restores the configuration of the selected item to the default configuration of the project. For the [Individual Compile Options(C)] tab, [Individual Compile Options(C++)] tab, and [Individual Assemble Options] tab, restores to the configuration of the general option.
Reset All to Default	Restores all the configuration of the current tab to the default configuration of the project. For the [Individual Compile Options(C)] tab, [Individual Compile Options(C++)] tab, and [Individual Assemble Options] tab, restores to the configuration of the general option.

[Common Options] tab

This tab shows the detailed information on the build tool categorized by the following and the configuration can be changed.

(1)[Build Mode]
(2)[CPU]
(3)[PIC/PID]
(4)[Output File Type and Path]
(5)[Frequently Used Options(for Compile)]
(6)[Frequently Used Options(for Assemble)]
(7)[Frequently Used Options(for Link)]
(8)[Frequently Used Options(for Hex Output)]
(9)[Frequently Used Options(for Librarian)]
(10)[Build Method]
(11)[Version Select]
(12)[Notes]
(13)[Others]

Remark If the property in the [Frequently Used Options] category is changed, the value of the property having the same name contained in the corresponding tab will be changed accordingly.

Category from [Common Options] Tab	Corresponding Tab
[Frequently Used Options(for Compile)] category	[Compile Options] tab
[Frequently Used Options(for Assemble)] category	[Assemble Options] tab
[Frequently Used Options(for Link)] category	[Link Options] tab
[Frequently Used Options(for Hex Output)] category	[Hex Output Options] tab
[Frequently Used Options(for Librarian)] category	[Librarian Options] tab

[Description of each category]

(1) [Build Mode]
The detailed information on the build mode is displayed and the configuration can be changed.

Build mode	Selects the build mode to be used during build. Note that this property is not applied to [Reset All to Default] from the context menu.		
	Default	DefaultBuild	
	How to change	Select from the drop-down list.	
	Restriction	DefaultBuild	Builds with the default build mode that is set when a new project is created.
		Build mode that is added to the project (other than Default-Build)	Builds with the build mode that is added to the project (other than DefaultBuild).

Change property value for all build modes at once	Selects whether to reflect the value newly set to all build modes when a value is set in this property. Be careful since the value set may not be an appropriate value for other build modes.		
	Default	No	
	How to change	Select from the drop-down list.	
	Restriction	Yes	Reflects the value newly set to all build modes when a value is set in this property.
		No	Does not reflect the value newly set to all build modes when a value is set in this property.

(2) [CPU]
The detailed information on the CPU is displayed and the configuration can be changed.

Instruction-set architecture	Selects the instruction-set architecture. This property corresponds to the -isa option of the compiler and library generator, -isa option of the assembler. This property is displayed when [Always latest version which was installed] or V2.01.00 or a later version is selected for the [Using compiler package version] property under the [Version Select] category in an environment where V2.01.00 or a later version of the CC-RX compiler has been installed.		
	Default	The default value is set by selected device on creating project.	
	How to change	Select from the drop-down list.	
	Restriction	RXv1 architecture (-isa=rxv1)	Generates an instruction code for the RXv1 architecture.
		RXv2 architecture (-isa=rxv2)	Generates an instruction code for the RXv2 architecture.
		RXv3 architecture (-isa=rxv3)	Generates an instruction code for the RXv3 architecture.
		None	Generates a code according to the setting of the [Microcontroller type] property.
Microcontroller type	Selects the microcontroller type. This property corresponds to the -cpu option of the compiler and library generator, -cpu option of the assembler.		
	Default	RX600 series (-cpu=rx600)	
	How to change	Select from the drop-down list.	
	Restriction	RX600 series (-cpu=rx600)	Generates an instruction code for the RX600 Series.
		RX200 or RX100 series (-cpu=rx200)	Generates an instruction code for the RX200 Series.

Uses single-precision floating-point operation instructions	Selects whether to use single-precision floating-point operation instructions. This property corresponds to the -fpu and -nofpu options of the compiler, assembler, and library generator. This property is displayed when [Always latest version which was installed] or V2.01.00 or a later version is selected for the [Using compiler package version] property under the [Version Select] category in an environment where V2.01.00 or a later version of the CC-RX compiler has been installed. When the version is V2.01.00 or lower, this property is displayed in the [Compile Options] tab.		
	Default	- When [None] in the [Instruction-set architecture] property is selected: Depends on the Microcontroller type option - Other than above: The peculiar value for the target device	
	How to change	Select from the drop-down list.	
	Restriction	Depends on the Microcontroller type option	Depends on the [Microcontroller type] property. This item is not available when other than [None] in the [Instruction-set architecture] property is selected.
		Yes(-fpu)	Outputs an object that uses FPU instructions. This item is not available when [RX200 series (-cpu=rx200)] in the [Microcontroller type] property is selected.
		No(-nofpu)	Outputs an object that does not use FPU instructions.
Uses double-precision floating-point operation instructions	Selects whether to use double-precision floating-point operation instructions. This property corresponds to the -dpfpu option of the compiler, assembler, and library generator. This property is displayed when [Always latest version which was installed] or V3.01.00 or a later version is selected for the [Using compiler package version] property under the [Version Select] category in an environment where V3.01.00 or a later version of the CC-RX compiler has been installed. The Restriction values depend on the device in use.		
	Default	The default value depends on the device in use. Note that the default value is [No] for the following project types. - Application(RI600V4,CC-RX) - Application(RI600PX,CC-RX)	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-dpfpu)	Outputs an object that uses double-precision floating-point operation instructions. This item is not available when [No(-nofpu)] in the [Uses single-precision floating-point operation instructions] property is selected.
		No	Does not output an object that uses double-precision floating-point operation instructions.

Endian type for data	Selects endian type for data. This property corresponds to the -endian option of the compiler and library generator, -endian option of assembler.		
	Default	Little-endian data (-endian=little)	
	How to change	Select from the drop-down list.	
	Restriction	Big-endian data (-endian=big)	Arranges data bytes in big endian.
		Little-endian data (-endian=little)	Arranges data bytes in little endian.
Rounding method for floating-point constant operations	Selects rounding method for floating-point constant operations. This option does not affect the method of rounding for floating-point operations during program execution. This property corresponds to the -round option of the compiler and library generator.		
	Default	round to nearest (-round=nearest)	
	How to change	Select from the drop-down list.	
	Restriction	round to zero (-round=zero)	Rounds values to zero.
		round to nearest (-round=nearest)	Rounds values to the nearest value.
Handling of denormalized numbers in floating-point constants	Selects handling of denormalized numbers in floating-point constants. This option does not affect the method of rounding for floating-point operations during program execution. This property corresponds to the -denormalize option of the compiler and library generator.		
	Default	Handles as zeros (-denormalize=off)	
	How to change	Select from the drop-down list.	
	Restriction	Handles as zeros (-denormalize=off)	Handles denormalized numbers as zero.
		Handles as they are (-denormalize=on)	Handles denormalized numbers as they are.
Precision of the double type and long double type	Selects precision of the double type and long double type. This property corresponds to the -dbl_size option of the compiler and library generator.		
	Default	Handles in single precision (-dbl_size=4)	
	How to change	Select from the drop-down list.	
	Restriction	Handles in single precision (-dbl_size=4)	Handles the double type and long double type in single precision.
		Handles in double precision (-dbl_size=8)	Handles the double type and long double type in double precision.

Replaces the int type with the short type	Selects whether to replace the int type with the short type. This property corresponds to the -int_to_short option of the compiler and library generator.		
	Default	No	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-int_to_short)	Replaces the int type with the short type and the unsigned int type with the unsigned short type.
		No	Does not replace the int type with the short type and the unsigned int type with the unsigned short type.
Sign of the char type	Selects sign of the char type with no sign specification. This property corresponds to the -signed_char and -unsigned_char options of the compiler and library generator.		
	Default	Handles as unsigned char (-unsigned_char)	
	How to change	Select from the drop-down list.	
	Restriction	Handles as signed char (-signed_char)	Handles the char type as signed char.
		Handles as unsigned char (-unsigned_char)	Handles the char type as unsigned char.
Sign of the bit-field type	Selects sign of the bit-field type with no sign specification. This property corresponds to the -signed_bitfield and -unsigned_bitfield options of the compiler and library generator.		
	Default	Handles as unsigned (-unsigned_bitfield)	
	How to change	Select from the drop-down list.	
	Restriction	Handles as signed (-signed_bitfield)	Handles the sign of a bit-field as signed.
		Handles as unsigned (-unsigned_bitfield)	Handles the sign of a bit-field as unsigned.
Selects the enumeration type size automatically	Selects whether to automatically selects the enumeration type size. This property corresponds to the -auto_enum option of the compiler and library generator.		
	Default	No	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-auto_enum)	Processes the enumerated data qualified by enum as the minimum data type with which the enumeration value can fit in.
		No	Processes the enumeration type size as the signed long type.

Order of bit-field members	Selects order of bit-field members. This property corresponds to the -bit_order option of the compiler and library generator.		
	Default	Allocates from right (-bit_order=right)	
	How to change	Select from the drop-down list.	
	Restriction	Allocates from left (-bit_order=left)	Allocates members from the upper bit.
		Allocates from right (-bit_order=right)	Allocates members from the lower bit.
Assumes the boundary alignment value for structure members is 1	Selects whether to assume the boundary alignment value for structure members is 1. This property corresponds to the -pack and -unpack options of the compiler and library generator.		
	Default	No (-unpack)	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-pack)	Assumes the boundary alignment value for structure members is 1.
		No (-unpack)	Follows the boundary alignment.
Enables C++ exceptional handling function (try, catch and throw)	Selects whether to enable C++ exceptional handling function (try, catch and throw). This property corresponds to the -exception and -noexception options of the compiler and library generator.		
	Default	No (-noexception)	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-exception)	Enables the exception handling function.
		No (-noexception)	Disables the exception handling function.
Enables the C++ exceptional handling function (dynamic_cast and typeid)	Selects whether to enable the C++ exceptional handling function (dynamic_cast and typeid). This property corresponds to the -rtti option of the compiler and library generator.		
	Default	No (-rtti=off)	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-rtti=on)	Enables dynamic_cast and typeid.
		No (-rtti=off)	Disables dynamic_cast and typeid.

General registers used only in fast interrupt functions	Selects registers used only for fast interrupts. If a register specified by this option has been specified by the -base option, an error will occur. This property corresponds to the -fint_register option of the compiler and library generator, -fint_register option of the assembler.		
	Default	None (-fint_register=0)	
	How to change	Select from the drop-down list.	
	Restriction	None (-fint_register=0)	No registers are used only for fast interrupts.
		R13 (-fint_register=1)	R13 is used only for fast interrupts.
		R12, R13 (-fint_register=2)	R13 and R12 are used only for fast interrupts.
		R11 to R13 (-fint_register=3)	R13 to R11 are used only for fast interrupts.
		R10 to R13 (-fint_register=4)	R13 to R10 are used only for fast interrupts.
Branch width size	Selects branch width size. This property corresponds to the -branch option of the compiler and library generator.		
	Default	Compiles within 24 bits (-branch=24)	
	How to change	Select from the drop-down list.	
	Restriction	Compiles within 16 bits (-branch=16)	Compiles the program with a branch width within 16 bits.
		Compiles within 24 bits (-branch=24)	Compiles the program with a branch width within 24 bits.
		No specified (-branch=32)	Does not specify the branch width.

Base register for ROM	Specifies the general register used as a fixed base address throughout the program. When "base=rom=*register A*" is specified, accesses to const variables are all performed relative to the specified "*register A*". Note that the total size of the constant area section must be within 64 Kbytes to 256 Kbytes. This property corresponds to the -base option of the compiler and library generator, -base option of the assembler. This property is displayed only when [No] in the [Enables the PID function] property in the [PIC/PID] category is selected.		
	Default	None	
	How to change	Select from the drop-down list.	
	Restriction	None	Does not specify the base register for ROM.
		R8 (-base=rom=R8)	Specifies R8 as the base register for ROM.
		R9 (-base=rom=R9)	Specifies R9 as the base register for ROM.
		R10 (-base=rom=R10)	Specifies R10 as the base register for ROM.
		R11 (-base=rom=R11)	Specifies R11 as the base register for ROM.
		R12 (-base=rom=R12)	Specifies R12 as the base register for ROM.
		R13 (-base=rom=R13)	Specifies R13 as the base register for ROM.

Base register for RAM	Specifies the general register used as a fixed base address throughout the program. When "base=ram=*register B*" is specified, accesses to initialized variables and uninitialized variables are all performed relative to the specified "*register B*". Note that the total RAM data size must be within 64 Kbytes to 256 Kbytes. This property corresponds to the -base option of the compiler and library generator, -base option of the assembler.		
	Default	None	
	How to change	Select from the drop-down list.	
	Restriction	None	Does not specify the base register for RAM.
		R8 (-base=ram=R8)	Specifies R8 as the base register for RAM.
		R9 (-base=ram=R9)	Specifies R9 as the base register for RAM.
		R10 (-base=ram=R10)	Specifies R10 as the base register for RAM.
		R11 (-base=ram=R11)	Specifies R11 as the base register for RAM.
		R12 (-base=ram=R12)	Specifies R12 as the base register for RAM.
		R13 (-base=ram=R13)	Specifies R13 as the base register for RAM.
Address value of base register that sets the address value	Specifies the Address value of base register that sets the address value. This property corresponds to the -base option of the compiler and library generator, -base option of the assembler.		
	Default	00000000 (hexadecimal number)	
	How to change	Directly enter in the text box.	
	Restriction	0 to FFFFFFFF (hexadecimal number)	

Register of base register that sets the address value	Specifies the general register used as a fixed base address throughout the program. When "*address value=register C*" is specified, accesses to an area within 64 Kbytes to 256 Kbytes from the address value, among the areas whose addresses are already determined at the time of compilation, are performed relative to the specified "*register C*". This property corresponds to the -base option of the compiler and library generator, -base option of the assembler.		
	Default	None	
	How to change	Select from the drop-down list.	
	Restriction	None	Does not specify the base register that sets the address value.
		R8 (-base=<*address value*>=R8)	Specifies R8 as the base register that sets the address value.
		R9 (-base=<*address value*>=R9)	Specifies R9 as the base register that sets the address value.
		R10 (-base=<*address value*>=R10)	Specifies R10 as the base register that sets the address value.
		R11 (-base=<*address value*>=R11)	Specifies R11 as the base register that sets the address value.
		R12 (-base=<*address value*>=R12)	Specifies R12 as the base register that sets the address value.
		R13 (-base=<*address value*>=R13)	Specifies R13 as the base register that sets the address value.
Avoids a problem specific to the CPU type	Selects avoid a problem specific to the CPU type. This property corresponds to the -patch option of the compiler and library generator, -patch option of the assembler.		
	Default	No	
	How to change	Select from the drop-down list.	
	Restriction	No	The code generated in response to the call by the intrinsic function set_ipl will contain the MVTIPL instruction.
		Yes(for RX610 Group) (-patch=rx610)	Does not use the MVTIPL instruction in the generated code.
Saves and restores ACC using the interrupt function	Selects whether to save and restore Accumulator(ACC) using the interrupt function. The generated saved and restored code is the same code generated when acc is selected in #pragma interrupt. This property corresponds to the -save_acc option of the compiler and library generator.		
	Default	No	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-save_acc)	Saves and restores ACC using the interrupt function.
		No	Does not save and restore ACC using the interrupt function.

(3) [PIC/PID]
The detailed information on the PIC/PID function is displayed and the configuration can be changed.

Enables the PIC function	Selects whether to enable the PIC (position independent code) facility. In PIC, all function calls are performed with BSR or BRA instructions. When acquiring the address of a function, a relative address from the PC should be used. This allows PIC to be located at a desired address after linkage. This option corresponds to the -pic option of the compiler and library generator, -pic option of the assembler.		
	Default	No	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-pic)	Enables the PIC facility.
		No	Disables the PIC facility.
Enables the PID function	Selects whether to enable the PID (position independent data) facility. The constant area sections C, C_2, and C_1, the literal section L, and the switch statement branch table sections W, W_2, and W_1 are handled as PID (position independent data). PID can be accessed through a relative address from the PID register. This property corresponds to the -pid option of the compiler and library generator, the -pid option of the assembler. This property is displayed only when [None] in the [Base register for ROM] property in the [CPU] category, and [Yes] in the [Uses the PID register for code generation] property is selected.		
	Default	No	
	How to change	Select from the drop-down list.	
	Restriction	Yes (The maximum bit width of the offset: 16 bits) (-pid=16)	Enables the PID facility. 16-bit (64 Kbytes to 256 Kbytes) addressing mode is supported.
		Yes (The maximum bit width of the offset: No limitation) (-pid=32)	Enables the PID facility. 32-bit (4 Gbytes) addressing mode is supported.
		No	Disables the PID facility.
Uses the PID register for code generation	Selects whether to use the PID register for code generation. A master program called by an application program in which the PID facility is enabled needs to be compiled/assembled with this option. This property corresponds to the -nouse_pid_register option of the compiler and library generator, the -nouse_pid_register option of the assembler. This property is displayed only when [No] in the [Enables the PID function] property is selected.		
	Default	Yes	
	How to change	Select from the drop-down list.	
	Restriction	Yes	Uses the PID register for code generation.
		No (-nouse_pid_register)	Does not use the PID register for code generation.

(4) [Output File Type and Path]
The detailed information on output file types and paths is displayed and the configuration can be changed.

Output file type	Selects the type of the file to be generated during a build. The file type set here will be the debug target. For other than the library project, only [Execute Module(Load Module File)] and [Execute Module(Hex File)] are displayed. For the library project, only [Library] is displayed.		
	Default	- For other than the library project Execute Module(Load Module File) - For the library project Library	
	How to change	Select from the drop-down list.	
	Restriction	Execute Module(Load Module File)	Generates a load module file and hex file during a build. The load module file will be the debug target.
		Execute Module(Hex File)	Generates a load module file and hex file during a build. The hex file will be the debug target.
		Library	Generates a library file during a build.

<table>
<tr><td>Intermediate file output folder</td><td>Specifies the folder which the intermediate file is output.
If a relative path is specified, the reference point of the path is the main project or subproject folder.
If an absolute path is specified, the reference point of the path is the main project or subproject folder (unless the drives are different).
The following placeholder is supported.
%BuildModeName%: Replaces with the build mode name.
%ProjectName%: Replaces with the project name.
%MicomToolPath%: Replaces with the absolute path of the install folder of this product.
If this is blank, it is assumed that the project folder has been specified.
This property is displayed when [Always latest version which was installed] or V2.00.00 or a later version is selected for the [Using compiler package version] property under the [Version Select] category in an environment where V2.00.00 or a later version of the CC-RX compiler has been installed.
The setting of this property affects the destination of output for the following files.
- Object file (*.obj)
- Preprocessed file (*.p *.pp)
- Assembly source file (when -output=src or -asm_path is specified) (*.src)
- Assemble list file (*.lst)
- Subcommand file for the compiler (*.ccr)
- Subcommand file for the assembler (*.cas)
- Subcommand file for the optimizing linker (For other than the library project) (*.clnk)
- Subcommand file for the optimizing linker (For the library project) (*.ccl)

The subcommand file for the compiler or assembler lists the compiler or assembler options delimited with a space. This is output only when the command line of the compiler or assembler is long.
The subcommand file for the optimizing linker lists the optimizing linker options delimited with CR+LF.
Subcommand files are used internally by CS+, and they will be overwritten when there are already existing files at the time of building.
<table>
<tr><td>Default</td><td>%BuildModeName%</td></tr>
<tr><td>How to change</td><td>Directly enter in the text box or edit by the Browse For Folder dialog box which appears when clicking the [...] button.</td></tr>
<tr><td>Restriction</td><td>Up to 247 characters</td></tr>
</table>
</td></tr>
</table>

(5) [Frequently Used Options(for Compile)]
The detailed information on frequently used options during compilation is displayed and the configuration can be changed.

Additional include paths	Specifies the name of the path to the folder that stores the include file. The following placeholders are supported. %ActiveProjectDir%: Replaces with the absolute path of the active project folder. %ActiveProjectName%: Replaces with the active project name. %BuildModeName%: Replaces with the build mode name. %MainProjectDir%: Replaces with the absolute path of the main project folder. %MainProjectName%: Replaces with the main project name. %MicomToolPath%: Replaces with the absolute path of the install folder of this product. %ProjectDir%: Replaces with the absolute path of the project folder. %ProjectName%: Replaces with the project name. %TempDir%: Replaces with the absolute path of the temporary folder. %WinDir%: Replaces with the absolute path of the Windows system folder. The reference point of the path is the project folder. This property corresponds to the -include option of the compiler. The specified include path is displayed as the subproperty.	
	Default	Additional include paths[*number of defined items*]
	How to change	Edit by the Path Edit dialog box which appears when clicking the [...] button. For the subproperty, you can use the text box directly enter the text.
	Restriction	Up to 247 characters. Up to 65536 items can be specified.
System include paths	Changes the specified order of the include paths which the system set during compiling. This property corresponds to the -include option of the compiler.	
	Default	System include paths[*number of defined items*]
	How to change	Edit by the System Include Path Order dialog box which appears when clicking the [...] button.
	Restriction	Changes not allowed (Only the specified order of the include paths can be changed.)
Macro definition	Specifies the macro name to be defined. Specify in the format of "*macro name=string*", with one macro name per line. The "*=string*" part can be omitted, and in this case, the macro name is assumed to be defined. This property corresponds to the -define option of the compiler. The specified macro is displayed as the subproperty.	
	Default	Macro definition[*number of defined items*]
	How to change	Edit by the Text Edit dialog box which appears when clicking the [...] button. For the subproperty, you can use the text box directly enter the text.
	Restriction	Up to 32767 characters Up to 65536 items can be specified.

Outputs debugging information	Selects whether to output debugging information to object module files. This property corresponds to the -debug and -nodebug options of the compiler.		
	Default	No (-nodebug)	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-debug)	Outputs debugging information to object module files.
		No (-nodebug)	Does not output debugging information to object module files.
Optimization level	Selects optimization level. This property corresponds to the -optimize option of the compiler.		
	Default	2 (-optimize=2)	
	How to change	Select from the drop-down list.	
	Restriction	0 (-optimize=0)	Does not optimize the program.
		1 (-optimize=1)	Partially optimizes the program by automatically allocating variables to registers, integrating the function exit blocks, integrating multiple instructions which can be integrated, etc.
		2 (-optimize=2)	Performs overall optimization.
		Max (-optimize=max)	Performs optimization as much as possible.
Outputs additional information for inter-module optimization	Selects whether to output additional information for inter-module optimization. At linkage, inter-module optimization is applied to files for which this option has been specified. This property corresponds to the -goptimize option of the compiler.		
	Default	No	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-goptimize)	Outputs additional information for inter-module optimization.
		No	Does not outputs additional information for inter-module optimization.
Optimization type	Selects optimization type. This property corresponds to the -speed and -size option of the compiler.		
	Default	Optimizes with emphasis on code size (-size)	
	How to change	Select from the drop-down list.	
	Restriction	Optimizes with emphasis on execution performance (-speed)	Optimizes with emphasis on execution performance.
		Optimizes with emphasis on code size (-size)	Optimizes with emphasis on code size.

Outputs a source list file	Selects whether to output a source list file. This property corresponds to the -listfile and -nolistfile option of the compiler.		
	Default	No (-nolistfile)	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-lisfile)	Outputs a source list file.
		No (-nolistfile)	Disable output of a source list file.
Outputs the C/C++ source file	Specifies the contents of the source list file. Selects whether to output the C/C++ source file. This property corresponds to the -show option of the compiler. This property is displayed when [Yes (-lisfile)] in the [Outputs a source list file] property is selected.		
	Default	No	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-show=source)	Outputs the C/C++ source file.
		No	Does not output the C/C++ source file.
Outputs the statements unsatisfied in conditional assembly	Specifies the contents of the source list file. Selects whether to output the statements unsatisfied in conditional assembly. This property corresponds to the -show option of the compiler. This property is displayed when [Yes (-lisfile)] in the [Outputs a source list file] property is selected.		
	Default	No	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-show=conditionals)	Outputs the statements unsatisfied in conditional assembly.
		No	Does not output the statements unsatisfied in conditional assembly.
Outputs the information before .DEFINE replacement	Specifies the contents of the source list file. Selects whether to output the information before .DEFINE replacement. This property corresponds to the -show option of the compiler. This property is displayed when [Yes (-lisfile)] in the [Outputs a source list file] property is selected.		
	Default	No	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-show=definitions)	Outputs the information before .DEFINE replacement.
		No	Does not output the information before .DEFINE replacement.

Outputs the assembler macro expansion statements	Specifies the contents of the source list file. Selects whether to output the assembler macro expansion statements. This property corresponds to the -show option of the compiler. This property is displayed when [Yes (-lisfile)] in the [Outputs a source list file] property is selected.		
	Default	No	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-show=expansions)	Outputs the assembler macro expansion statements.
		No	Does not output the assembler macro expansion statements.

(6) [Frequently Used Options(for Assemble)]
The detailed information on frequently used options during assembling is displayed and the configuration can be changed.

Additional include paths	Specifies the name of the path to the folder that stores the include file. The following placeholders are supported. %ActiveProjectDir%: Replaces with the absolute path of the active project folder. %ActiveProjectName%: Replaces with the active project name. %BuildModeName%: Replaces with the build mode name. %MainProjectDir%: Replaces with the absolute path of the main project folder. %MainProjectName%: Replaces with the main project name. %MicomToolPath%: Replaces with the absolute path of the install folder of this product. %ProjectDir%: Replaces with the absolute path of the project folder. %ProjectName%: Replaces with the project name. %TempDir%: Replaces with the absolute path of the temporary folder. %WinDir%: Replaces with the absolute path of the Windows system folder. The reference point of the path is the project folder. This property corresponds to the -include option of the assembler. The specified include path is displayed as the subproperty.	
	Default	Additional include paths[*number of defined items*]
	How to change	Edit by the Path Edit dialog box which appears when clicking the [...] button. For the subproperty, you can use the text box directly enter the text.
	Restriction	Up to 247 characters Up to 65536 items can be specified.
System include paths	Changes the specified order of the include paths which the system set during assembling. This property corresponds to the -include option of the assembler.	
	Default	System include paths[*number of defined items*]
	How to change	Edit by the System Include Path Order dialog box which appears when clicking the [...] button.
	Restriction	Changes not allowed (Only the specified order of the include paths can be changed.)

Macro definition	Specifies the macro name to be defined. Specifies in the format of "*macro name=string*", with one macro name per line. This property corresponds to the -define option of the assembler. The specified macro is displayed as the subproperty.		
	Default	Macro definition[*number of defined items*]	
	How to change	Edit by the Text Edit dialog box which appears when clicking the [...] button. For the subproperty, you can use the text box directly enter the text.	
	Restriction	Up to 32767 characters Up to 65536 items can be specified.	
Outputs debugging information	Selects whether to output debugging information to object module files. This property corresponds to the -debug and -nodebug options of the assembler. This property is not displayed when [No] in the [Build simultaneously] property is selected.		
	Default	No (-nodebug)	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-debug)	Outputs debugging information to object module files.
		No (-nodebug)	Does not output debugging information to object module files.
Output additional information for inter-module optimization	Selects whether to output additional information for inter-module optimization. At linkage, inter-module optimization is applied to files for which this option has been specified. This property corresponds to the -goptimize option of the assembler. This property is displayed only when [No] in the [Build simultaneously] property is selected.		
	Default	No	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-goptimize)	Outputs additional information for inter-module optimization.
		No	Does not output additional information for inter-module optimization.
Outputs an assemble list file	Selects whether to output an assemble list file. This property corresponds to the -listfile and -nolistfile option of the assembler. This property is displayed only when [No] in the [Build simultaneously] property is selected.		
	Default	No (-nolistfile)	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-listfile)	Outputs an assemble list file.
		No (-nolistfile)	Does not output an assemble list file.

Outputs the statements unsatisfied in conditional assembly	Specifies the contents of the assemble list file. Selects whether to output the statements unsatisfied in conditional assembly. This property corresponds to the -show option of the assembler. This property is displayed only when [Yes (-listfile)] in the [Output a assemble list file] property is selected.		
	Default	No	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-show=conditionals)	Outputs the statements unsatisfied in conditional assembly.
		No	Does not output the statements unsatisfied in conditional assembly.
Outputs the information before .DEFINE replacement	Specifies the contents of the assemble list file. Selects whether to output the information before .DEFINE replacement. This property corresponds to the -show option of the assembler. This property is displayed only when [Yes (-listfile)] in the [Output a assemble list file] property is selected.		
	Default	No	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-show=definitions)	Outputs the information before replacement specified with .DEFINE.
		No	Does not output the information before replacement specified with .DEFINE.
Outputs the assembler macro expansion statements	Specifies the contents of the assemble list file. Selects whether to output the assembler macro expansion statements. This property corresponds to the -show option of the assembler. This property is displayed only when [Yes (-listfile)] in the [Output a assemble list file] property is selected.		
	Default	No	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-show=expansions)	Outputs the macro expansion statements.
		No	Does not output the macro expansion statements.

(7) [Frequently Used Options(for Link)]
The detailed information on frequently used options during linking is displayed and the configuration can be changed.
This category is not displayed for the library project.

Using libraries	Specifies an input library file. The following placeholders are supported. %BuildModeName%: Replaces with the build mode name. %ProjectName%: Replaces with the project name. %MicomToolPath%: Replaces with the absolute path of the product install folder. This property corresponds to the -library option of the linker. The library file name is displayed as the subproperty.		
	Default	Input object module file[number of defined items]	
	How to change	Edit by the Path Edit dialog box which appears when clicking the [...] button. For the subproperty, you can use the text box directly enter the text.	
	Restriction	Up to 32767 characters Up to 65536 items can be specified.	
Outputs debugging information	Specifies whether debugging information is output. This property corresponds to the -nodebug, -sdebug, and -debug options of the linker.		
	Default	Yes (Outputs to the output file) (-DEBug)	
	How to change	Select from the drop-down list.	
	Restriction	Yes (Outputs to the output file) (-DEBug)	Outputs a debugging information to the output file.
		Yes (Outputs to <output file name>.dbg file) (-SDebug)	Outputs a debugging information to <output file name>.dbg file.
		No (-NODEBug)	Does not output a debugging information.
Optimization type	Specifies optimization type. This property corresponds to the -nooptimize and -optimize options of the linker.		
	Default	No optimize (-NOOPtimize)	
	How to change	Select from the drop-down list.	
	Restriction	No optimize (-NOOPtimize)	Does not execute optimization for a module.
		All(-OPtimize)	Provides all optimizations.
		Speed-oriented optimization (-OPtimize=SPeed)	Provides optimization for speed.
		Safe optimization (-OPtimize=SAFe)	Provides safe optimization.
		Custom	Performs optimization for the specified options.

Deletes variables/ functions that are not referenced	Selects whether to delete variables/functions that are not referenced. This property corresponds to the -optimize option of the linker. This property is displayed only when [Custom] in the [Optimization type] property is selected.		
	Default	No	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-OPtimize=SYmbol_delete)	Deletes variables/functions that are not referenced.
		No	Does not delete variables/functions that are not referenced.
Creates a subroutine for the same instruction sequence	Selects whether to create a subroutine for the same instruction sequence. This property corresponds to the -optimize option of the linker. This property is displayed only when [Custom] in the [Optimization type] property is selected.		
	Default	No	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-OPtimize=SAMe_code)	Creates a subroutine for the same instruction sequence.
		No	Does not create a subroutine for the same instruction sequence.
Minimum code size	Specifies the minimum code size for the optimization. This property corresponds to the -samesize option of the linker. This property is displayed only when [Yes (-OPtimize=SAMe_code)] in the [Creates a subroutine for the same instruction sequence] property is specified.		
	Default	1E (hexadecimal number)	
	How to change	Directly enter in the text box.	
	Restriction	8 to 7FFF (hexadecimal number)	
Replaces an instruction with a smaller-size instruction	Selects whether to replace an instruction with a smaller-size instruction. This property corresponds to the -optimize option of the linker. This property is displayed only when [Custom] in the [Optimization type] property is selected.		
	Default	No	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-OPtimize=SHort_format)	Replaces an instruction with a smaller-size instruction.
		No	Does not replace an instruction with a smaller-size instruction.

Optimizes branch instruction size	Selects whether to optimize branch instruction size. This property corresponds to the -optimize option of the linker. This property is displayed only when [Custom] in the [Optimization type] property is selected.		
	Default	No	
	How to change	Select from the drop-down list.	
	Restriction	Yes(-OPtimize=Branch)	Optimizes branch instruction size according to program allocation information.
		No	Does not optimize branch instruction size.
Section start address	Specifies the section start address. This property corresponds to the -start option of the linker.		
	Default	The peculiar value for the target device	
	How to change	Directly enter in the text box or edit by the Section Settings dialog box which appears when clicking the [...] button.	
	Restriction	Up to 1022 characters	

(8) [Frequently Used Options(for Hex Output)]
The detailed information on frequently used options during hex output is displayed and the configuration can be changed.
This category is not displayed for the library project.

Output hex file	Specifies whether hex file is output.		
	Default	Yes	
	How to change	Select from the drop-down list.	
	Restriction	Yes	Outputs a hex file.
		No	Does not output a hex file.
Load module file convert format	Selects the load module file convert format. This property corresponds to the -form option of the linker.		
	Default	S record file (-FOrm=Stype)	
	How to change	Select from the drop-down list.	
	Restriction	Intel expanded hex file (-FOrm=Hexadecimal)	Outputs a Intel expanded hex file.
		Motorola S type file (-FOrm=Stype)	Outputs a Motorola S-type file.
		Binary file (-FOrm=Binary)	Outputs a binary file.

<table>
<tr><td>Output folder</td><td colspan="2">Specifies path of the output folder.
The following placeholders are supported.
%ActiveProjectDir%: Replaces with the absolute path of the active project folder.
%ActiveProjectName%: Replaces with the active project name.
%BuildModeName%: Replaces with the build mode name.
%MainProjectDir%: Replaces with the absolute path of the main project folder.
%MainProjectName%: Replaces with the main project name.
%MicomToolPath%: Replaces with the absolute path of the install folder of this product.
%OutputDir%: Replaces with the absolute path of the output folder.
%OutputFile%: Replaces with the absolute path of the output file.
%ProjectDir%: Replaces with the absolute path of the project folder.
%ProjectName%: Replaces with the project name.
%TempDir%: Replaces with the absolute path of the temporary folder.
%WinDir%: Replaces with the absolute path of the Windows system folder.
If this is blank, it is assumed that the project folder has been specified.
This property corresponds to the -output option of the linker.
This property is displayed only when [Yes] in the [Output hex file] property is selected.</td></tr>
<tr><td></td><td>Default</td><td>%BuildModeName%</td></tr>
<tr><td></td><td>How to change</td><td>Directly enter in the text box or edit by the Browse For Folder dialog box which appears when clicking the [...] button.</td></tr>
<tr><td></td><td>Restriction</td><td>Up to 247 characters</td></tr>
<tr><td>Output file name</td><td colspan="2">Specifies the output file name.
The default extensions depends on [Load module file convert format] property when extension omitted.
The default extensions are as follows:
"Hex file (-FOrm=Hexadecimal)" : .hex
"S record file (-FOrm=Stype)" : .mot
"Binary data file (-FOrm=Binary)" : .bin.
The following placeholders are supported.
%BuildModeName%: Replaces with the build mode name.
%ProjectName%: Replaces with the project name.
%MicomToolPath%: Replaces with the absolute path of the install folder of this product.
This property corresponds to the -output option of the linker.
This property is displayed only when [Yes] in the [Output hex file] property is selected.</td></tr>
<tr><td></td><td>Default</td><td>- When [Hex file (-FOrm=Hexadecimal)] in the [Load module file convert format] property is selected
%ProjectName%.hex
- When [S record file (-FOrm=Stype)] in the [Load module file convert format] property is selected
%ProjectName%.mot
- When [Binary data file (-FOrm=Binary)] in the [Load module file convert format] property is selected
%ProjectName%.bin</td></tr>
<tr><td></td><td>How to change</td><td>Directly enter in the text box.</td></tr>
<tr><td></td><td>Restriction</td><td>Up to 259 characters</td></tr>
</table>

Division output file	Specifies the division conversion file. Specifies in the format of "file name=start address-end address" or "file name=section name", with one file name per line. Specifies an address in the hexadecimal notation (example: file2.mot=400-ffff). To define multiple sections, use a colon to separate each entry written, as in "file name=section name:section name" (example: file1.mot=stack:istack). The default extensions depends on [Load module file convert format] property when extension omitted. The default extensions are as follows: "Hex file (-FOrm=Hexadecimal)" : .hex "S record file (-FOrm=Stype)" : .mot "Binary data file (-FOrm=Binary)" : .bin. The following placeholders are supported. %ActiveProjectDir%: Replaces with the absolute path of the active project folder. %ActiveProjectName%: Replaces with the active project name. %BuildModeName%: Replaces with the build mode name. %MainProjectDir%: Replaces with the absolute path of the main project folder. %MainProjectName%: Replaces with the main project name. %MicomToolPath%: Replaces with the absolute path of the install folder of this product. %OutputDir%: Replaces with the absolute path of the output folder. %OutputFile%: Replaces with the absolute path of the output file. %ProjectDir%: Replaces with the absolute path of the project folder. %ProjectName%: Replaces with the project name. %TempDir%: Replaces with the absolute path of the temporary folder. %WinDir%: Replaces with the absolute path of the Windows system folder. This property corresponds to the -output option of the linker. This property is displayed only when [Yes] in the [Output hex file] property is selected.	
	Default	Division conversion file[number of defined items]
	How to change	Edit by the Text Edit dialog box which appears when clicking the [...] button. For the subproperty, you can use the text box directly enter the text.
	Restriction	Up to 255 characters Up to 65536 items can be specified.

(9) [Frequently Used Options(for Librarian)]

The detailed information on frequently used options during library generating is displayed and the configuration can be changed.

This category is displayed only for the library project and when [Relocatable module file (-FOrm=Relocate)] in the [Output file type] property in the [Output] category from [Librarian Options] tab is selected.

Outputs debugging information	Specifies whether debugging information is output. This property corresponds to the -nodebug and -debug options of the linker.		
	Default	Yes (Outputs to the output file) (-DEBug)	
	How to change	Select from the drop-down list.	
	Restriction	Yes (Outputs to the output file) (-DEBug)	Outputs a debugging information to the output file.
		No (-NODEBug)	Does not output a debugging information.

(10) [Build Method]

The detailed information on the build method is displayed and the configuration can be changed.

Build simultaneously	Selects whether to generate the load module file by compiling/assembling/linking multiple files simultaneously. The files with the individual build options and files to be executed prior to the build are excluded from running a build simultaneously. See "2.2.1Running simultaneous build" for details about running a build simultaneously. This property is displayed when [Always latest version which was installed] or V2.00.00 or a later version is selected for the [Using compiler package version] property under the [Version Select] category in an environment where V2.00.00 or a later version of the CC-RX compiler has been installed.		
	Default	The default value depends on the version of the compiler package on creating project	
	How to change	Select from the drop-down list.	
	Restriction	Yes	Compiles, assembles, and links multiple files simultaneously.
		No	Compiles, assembles, and links for each file.
Build in parallel	Selects whether to enable the parallel build facility. The parallel build facility enables CS+ to compile/assemble multiple source files in parallel using all processors mounted on the computer. This speeds up compilation/assemble. In addition, parallel build between projects can be set by selecting [Tool] menu >> [Option] and then making a setting in the [General - Build] category of the Option dialog box. See "2.2.2Running parallel build" for details about parallel build.		
	Default	The default value depends on the version of the compiler package on creating project	
	How to change	Select from the drop-down list.	
	Restriction	Yes	Enables the parallel build facility.
		No	Disables the parallel build facility.
Group messages by each source file/target in the parallel build	Selects whether to group messages by each source file/target in the parallel build. When [Yes] is selected, CS+ synchronizes the output timing of messages with the end timing of compile/assemble, etc. for each source file. This property is displayed when [Yes] is selected for the [Build in parallel] property. **Caution** Messages are not grouped if [Enable parallel build among projects] in the [General - Build] category is selected in the Option dialog box.		
	Default	No	
	How to change	Select from the drop-down list.	
	Restriction	Yes	Groups messages by each source file/target in the parallel build.
		No	Does not group messages by each source file/target in the parallel build.

Handling the source file includes non-existing file	Selects whether to recompile/assemble the source file if there are no files that include it.		
	Default	Re-compile/assemble the source file	
	How to change	Select from the drop-down list.	
	Restriction	Re-compile/assemble the source file	Recompiles/assembles the source file if there are no files that include it.
		Ignore re-compiling/ assembling the source file	Does not recompile/assemble the source file if there are no files that include it.
Ensure compatibility of paths and linkage order	Selects compatibility with High-performance embedded workshop about paths and linkage order.		
	Default	No	
	How to change	Select from the drop-down list.	
	Restriction	Yes	Accords to the High-performance Embedded Workshop's linkage order.
		No	Accords to this product's path and linkage order.

(11) [Version Select]
The detailed information on the build tool version is displayed and the configuration can be changed.

Using compiler package install folder	The folder in which the compiler package to be used is installed is displayed.		
	Default	Install folder name	
	How to change	Changes not allowed	
Using compiler package version	Selects the version of the compiler package to be used. This setting is common to all the build modes.		
	Default	Always latest version which was installed	
	How to change	Select from the drop-down list.	
	Restriction	Always latest version which was installed	Uses the latest version in the installed compiler packages.
		Versions of the installed compiler packages	Uses the selected version in the compiler package.
Latest compiler package version which was installed	The version of the compiler package to be used when [Always latest version which was installed] is selected in the [Using compiler package version] property is displayed. This setting is common to all the build modes. This property is displayed only when [Always latest version which was installed] in the [Using compiler package version] property is selected.		
	Default	The latest version of the installed compiler packages	
	How to change	Changes not allowed	

(12) [Notes]
The detailed information on notes is displayed and the configuration can be changed.

Memo	Adds memos to the build tool. Adds one item in one line. This setting is common to all the build modes. The added memos are displayed as the subproperty.	
	Default	Memo[*number-of-items*]
	How to change	Edit by the Text Edit dialog box which appears when clicking the [...] button. For the subproperty, you can use the text box directly enter the text.
	Restriction	Up to 256 characters Up to 256 items can be specified.

(13) [Others]
Other detailed information on the build tool are displayed and the configuration can be changed.

Output message format	Specifies the format of the message being built. This applies to the messages output by the build tool to be used, and commands added by plugins. It does not apply to the output messages of commands specified in the [Commands executed before build processing] or [Commands executed after build processing] property. The following placeholders are supported. %Program%: Replaces with the program name under execution. %Options%: Replaces with the command line option under build execution. %TargetFiles%: Replaces with the file name being built. If this is blank, it is assumed that "%Program% %Options%" will be set automatically.		
	Default	%TargetFiles%	
	How to change	Directly enter to the text box (up to 256 characters) or select from the drop-down list.	
	Restriction	%TargetFiles%	Displays the file name in the output message.
		%TargetFiles%: %Options%	Displays the file name and command line options in the output message.
		%Program% %Options%	Displays the program name and command line options in the output message.
Format of build option list	Specifies the display format of the build option list. This applies to the options of the build tool to be used, and commands added by plugins. It does not apply to the options of commands specified in the [Commands executed before build processing] or [Commands executed after build processing] property. The following placeholders are supported. %Program%: Replaces with the program name under execution. %Options%: Replaces with the command line option under build execution. %TargetFiles%: Replaces with the file name being built. If this is blank, it is assumed that "%TargetFiles% : %Program% %Options%" will be set automatically.		
	Default	%TargetFiles% : %Program% %Options%	
	How to change	Directly enter to the text box or edit by the Character String Input dialog box which appears when clicking the [...] button.	
	Restriction	Up to 256 characters	

<table>
<tr><td>Commands executed before build processing</td><td colspan="2">Specifies the command to be executed before build processing.
Use the call instruction to specify a batch file (example: call a.bat).
The following placeholders are supported.
%ActiveProjectDir%: Replaces with the absolute path of the active project folder.
%ActiveProjectName%: Replaces with the active project name.
%BuildModeName%: Replaces with the build mode name.
%MainProjectDir%: Replaces with the absolute path of the main project folder.
%MainProjectName%: Replaces with the main project name.
%MicomToolPath%: Replaces with the absolute path of the install folder of this product.
%OutputDir%: Replaces with the absolute path of the output folder.
%OutputFile%: Replaces with the absolute path of the output file.
%ProjectDir%: Replaces with the absolute path of the project folder.
%ProjectName%: Replaces with the project name.
%TempDir%: Replaces with the absolute path of the temporary folder.
%WinDir%: Replaces with the absolute path of the Windows system folder.
When "#!python" is described in the first line, the contents from the second line to the last line are regarded as the script of the Python console, and then executed before build processing.
The placeholders can be described in the script.
The specified command is displayed as the subproperty.</td></tr>
<tr><td></td><td>Default</td><td>Commands executed before build processing[number of defined items]</td></tr>
<tr><td></td><td>How to change</td><td>Edit by the Text Edit dialog box which appears when clicking the [...] button.
For the subproperty, you can use the text box directly enter the text.</td></tr>
<tr><td></td><td>Restriction</td><td>Up to 1023 characters
Up to 64 items can be specified.</td></tr>
<tr><td>Commands executed after build processing</td><td colspan="2">Specifies the command to be executed after build processing.
Use the call instruction to specify a batch file (example: call a.bat).
The following placeholders are supported.
%ActiveProjectDir%: Replaces with the absolute path of the active project folder.
%ActiveProjectName%: Replaces with the active project name.
%BuildModeName%: Replaces with the build mode name.
%MainProjectDir%: Replaces with the absolute path of the main project folder.
%MainProjectName%: Replaces with the main project name.
%MicomToolPath%: Replaces with the absolute path of the install folder of this product.
%OutputDir%: Replaces with the absolute path of the output folder.
%OutputFile%: Replaces with the absolute path of the output file.
%ProjectDir%: Replaces with the absolute path of the project folder.
%ProjectName%: Replaces with the project name.
%TempDir%: Replaces with the absolute path of the temporary folder.
%WinDir%: Replaces with the absolute path of the Windows system folder.
When "#!python" is described in the first line, the contents from the second line to the last line are regarded as the script of the Python console, and then executed after build processing.
The placeholders can be described in the script.
The specified command is displayed as the subproperty.</td></tr>
<tr><td></td><td>Default</td><td>Commands executed after build processing[number of defined items]</td></tr>
<tr><td></td><td>How to change</td><td>Edit by the Text Edit dialog box which appears when clicking the [...] button.
For the subproperty, you can use the text box directly enter the text.</td></tr>
<tr><td></td><td>Restriction</td><td>Up to 1023 characters
Up to 64 items can be specified.</td></tr>
</table>

Other additional options	Inputs the option to be added additionally. The options set here are added at the end of the options group of the compiler. **Caution** When [Yes] is selected on the [Build simultaneously] property in the [Build Method] category and the project contains one or more assembly source files, only one option can be specified in this property.	
	Default	Blank
	How to change	Directly enter in the text box or edit by the Character String Input dialog box which appears when clicking the [...] button.
	Restriction	Up to 259 characters

[Compile Options] tab

This tab shows the detailed information on the compile phase categorized by the following and the configuration can be changed.

[Description of each category]

(1) [Source]

The detailed information on the source is displayed and the configuration can be changed.

Language of the C source file	Selects language of the C source file. This property corresponds to the -lang option of the compiler.		
	Default	C(C89) (-lang=c)	
	How to change	Select from the drop-down list.	
	Restriction	C(C89) (-lang=c)	Compiles as a C (C89) source file.
		C99 (-lang=c99)	Compiles as a C (C99) source file.
Language of the C++ source file	Selects language of the C++ source file. This option corresponds to the -lang option of the compiler.		
	Default	C++ (-lang=cpp)	
	How to change	Select from the drop-down list.	
	Restriction	C++ (-lang=cpp)	Compiles as an EC++ source file.
		EC++ (-lang=ecpp)	Compiles as a C++ source file.

Additional include paths	Specifies the name of the path to the folder that stores the include file. The following placeholders are supported. %ActiveProjectDir%: Replaces with the absolute path of the active project folder. %ActiveProjectName%: Replaces with the active project name. %BuildModeName%: Replaces with the build mode name. %MainProjectDir%: Replaces with the absolute path of the main project folder. %MainProjectName%: Replaces with the main project name. %MicomToolPath%: Replaces with the absolute path of the install folder of this product. %ProjectDir%: Replaces with the absolute path of the project folder. %ProjectName%: Replaces with the project name. %TempDir%: Replaces with the absolute path of the temporary folder. %WinDir%: Replaces with the absolute path of the Windows system folder. The reference point of the path is the project folder. This property corresponds to the -include option of the compiler. The specified include path is displayed as the subproperty.	
	Default	Additional include paths[*number of defined items*]
	How to change	Edit by the Path Edit dialog box which appears when clicking the [...] button. For the subproperty, you can use the text box directly enter the text.
	Restriction	Up to 247 characters Up to 65536 items can be specified.
System include paths	Changes the specified order of the include paths which the system set during compiling. This property corresponds to the -include option of the compiler.	
	Default	System include paths[*number of defined items*]
	How to change	Edit by the System Include Path Order dialog box which appears when clicking the [...] button.
	Restriction	Changes not allowed (Only the specified order of the include paths can be changed.)
Include files at the head of compiling units	Specifies include files at the head of compiling units. The following placeholders are supported. %ActiveProjectDir%: Replaces with the absolute path of the active project folder. %ActiveProjectName%: Replaces with the active project name. %BuildModeName%: Replaces with the build mode name. %MainProjectDir%: Replaces with the absolute path of the main project folder. %MainProjectName%: Replaces with the main project name. %MicomToolPath%: Replaces with the absolute path of the install folder of this product. %ProjectDir%: Replaces with the absolute path of the project folder. %ProjectName%: Replaces with the project name. %TempDir%: Replaces with the absolute path of the temporary folder. %WinDir%: Replaces with the absolute path of the Windows system folder. The reference point of the path is the project folder. This property corresponds to the -preinclude option of the compiler.	
	Default	Include files at the head of compiling units[*number of defined items*]
	How to change	Edit by the Text Edit dialog box which appears when clicking the [...] button. For the subproperty, you can enter directly in the text box.
	Restriction	Up to 259 characters Up to 65536 items can be specified.

Macro definition	Specifies the macro name to be defined. Specify in the format of "*macro name*=*string*", with one macro name per line. The "=*string*" part can be omitted, and in this case, the macro name is assumed to be defined. This property corresponds to the -define option of the compiler. The specified macro is displayed as the subproperty.		
	Default	Macro definition[*number of defined items*]	
	How to change	Edit by the Text Edit dialog box which appears when clicking the [...] button. For the subproperty, you can use the text box directly enter the text.	
	Restriction	Up to 32767 characters Up to 65536 items can be specified.	
Invalidates the pre-defined macro	Specifies invalidates the predefined macro. If multiple macro names are specified, delimit them with a comma (example: __DBL4,__SCHAR). This property corresponds to the -undefine option of the compiler.		
	Default	Blank	
	How to change	Edit by the Specify The Predefined Macro dialog box which appears when clicking the [...] button.	
	Restriction	Up to 32767 characters	
Enables information-level message output	Specifies whether information level messages are output. This property corresponds to the -message and -nomessage options of the compiler.		
	Default	No(-nomessage)	
	How to change	Select from the drop-down list.	
	Restriction	Yes(-message)	Enables information message output.
		No(-nomessage)	Disables information message output.
Suppresses the number of information-level messages	Specifies the number of information-level message to be suppressed. If multiple message numbers are specified, delimit them with a comma (example: 23043,23042). Also, the range can be set using hyphen (example: 23044-23045,23046-23048). This property corresponds to the -nomessage option of the compiler. This property is displayed only when [No(-nomessage)] in the [Enables information-level message output] property is specified.		
	Default	Blank	
	How to change	Directly enter in the text box or edit by the Character String Input dialog box which appears when clicking the [...] button.	
	Restriction	Up to 32767 characters	

Undisplayed messages	Specifies the information-level or warning-level message number not to be displayed. If multiple message numbers are specified, delimit them with a comma (example: 23043,23042). Also, the range can be set using hyphen (example: 23044-23045,23046-23048). This property corresponds to the -no_warning option of the compiler. This property is displayed when you have selected [Always latest version which was installed] or V2.08.00 or a later version for the [Using compiler package version] property under the [Version Select] category on the [Common Options] tab in an environment where V2.08.00 or a later version of the CC-RX compiler has been installed.		
	Default	Blank	
	How to change	Directly enter in the text box or edit by the Character String Input dialog box which appears when clicking the [...] button.	
	Restriction	Up to 32767 characters	
Changes the warning-level messages to information-level messages	Selects whether to change the warning-level messages to information-level messages. This property corresponds to the -change_message option of the compiler.		
	Default	No	
	How to change	Select from the drop-down list.	
	Restriction	Yes(All) (-change_message=information)	Changes all warning-level messages to the information-level messages.
		Yes(Specifies error number) (-change_message=information=<ErrorNumber>)	Changes the warning-level messages with the specified error numbers to the information-level messages.
		No	Does not change the warning-level messages to the information-level messages.
Error number of warning-level message	Specifies error number of warning-level message. If multiple message numbers are specified, delimit them with a comma (example: 23043,23042). Also, the range can be set using hyphen (example: 23044-23045,23046-23048). This property corresponds to the -change_message option of the compiler. This property is displayed only when [Yes(Specifies error number) (-change_message=information=<ErrorNumber>)] in the [Changes the warning-level messages to information-level messages] property is specified.		
	Default	Blank	
	How to change	Directly enter in the text box or edit by the Character String Input dialog box which appears when clicking the [...] button.	
	Restriction	Up to 32767 characters	

Changes the information-level messages to warning-level messages	Selects whether to change the information-level messages to warning-level messages. This property corresponds to the -change_message option of the compiler.		
	Default	No	
	How to change	Select from the drop-down list.	
	Restriction	Yes(All) (-change_message=warning)	Changes all information-level messages to warning-level messages.
		Yes(Specifies error number) (-change_message=warning=<Error-Number>)	Changes the information-level messages with the specified error numbers to warning-level messages.
		No	Does not change the information-level messages to warning-level messages.
Error number of information-level message	Specifies error number of information-level message. If multiple message numbers are specified, delimit them with a comma (example: 23043,23042). Also, the range can be set using hyphen (example: 23044-23045,23046-23048). This property corresponds to the -change_message option of the compiler. This property is displayed only when [Yes(Specifies error number) (-change_message=warning=<ErrorNumber>)] in the [Changes the information-level messages to warning-level messages] property is specified.		
	Default	Blank	
	How to change	Directly enter in the text box or edit by the Character String Input dialog box which appears when clicking the [...] button.	
	Restriction	Up to 32767 characters	
Changes the information-level and warning-level messages to error-level messages	Selects whether to change the information-level and warning-level messages to error-level messages. This property corresponds to the -change_message option of the compiler.		
	Default	No	
	How to change	Select from the drop-down list.	
	Restriction	Yes(All) (-change_message=error)	Changes all information-level and warning-level messages to error-level messages.
		Yes(Specifies error number) (-change_message=error=<Error-Number>)	Changes the information-level and warning-level messages with the specified error numbers to error-level messages.
		No	Does not change the warning-level messages to information-level messages.

Error number of information-level and warning-level message	Specifies error number of information-level and warning-level message. If multiple message numbers are specified, delimit them with a comma (example: 23043,23042). Also, the range can be set using hyphen (example: 23044-23045,23046-23048). This property corresponds to the -change_message option of the compiler. This property is displayed only when [Yes(Specifies error number) (-change_message=error=<ErrorNumber>)] in the [Changes the information-level and warning-level messages to error-level messages] property is specified.		
	Default	Blank	
	How to change	Directly enter in the text box or edit by the Character String Input dialog box which appears when clicking the [...] button.	
	Restriction	Up to 32767 characters	
Path to the folder that stores a file for inter-file inline expansion	Specifies path to the folder that stores a file for inter-file inline expansion. The following placeholders are supported. %ActiveProjectDir%: Replaces with the absolute path of the active project folder. %ActiveProjectName%: Replaces with the active project name. %BuildModeName%: Replaces with the build mode name. %MainProjectDir%: Replaces with the absolute path of the main project folder. %MainProjectName%: Replaces with the main project name. %MicomToolPath%: Replaces with the absolute path of the install folder of this product. %ProjectDir%: Replaces with the absolute path of the project folder. %ProjectName%: Replaces with the project name. %TempDir%: Replaces with the absolute path of the temporary folder. %WinDir%: Replaces with the absolute path of the Windows system folder. The reference point of the path is the project folder. This property corresponds to the -file_inline_path option of the compiler. The specified include path is displayed as the subproperty. This property is displayed when [Always latest version which was installed] or a version number earlier than V2.00.00 is selected for the [Using compiler package version] property under the [Version Select] category on the [Common Options] tab in an environment where a version of the CC-RX compiler earlier than V2.00.00 has been installed.		
	Default	Path to the folder that stores a file for inter-file inline expansion[*number of defined items*]	
	How to change	Edit by the Path Edit dialog box which appears when clicking the [...] button. For the subproperty, you can use the text box directly enter the text.	
	Restriction	Up to 247 characters. Up to 65536 items can be specified.	
Permits comment (/* */) nesting	Selects whether to permit comment (/* */) nesting. This property corresponds to the -comment option of the compiler.		
	Default	No (-comment=nonest)	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-comment=nest)	Does not permit comment (/* */) nesting.
		No (-comment=nonest)	Permits comment (/**/) nesting.

Checks the compatibility with an existing program	Selects whether to check the compatibility with an existing program. This property corresponds to the -check option of the compiler.		
	Default	No	
	How to change	Select from the drop-down list.	
	Restriction	Yes(NC compiler) (-check=nc)	Checks the compatibility with the R8C and M16C family C compilers.
		Yes(H8 compiler) (-check=ch38)	Checks the compatibility with the H8, H8S, and H8SX family C/C++ compilers.
		Yes(SH compiler) (-check=sh)	Checks the compatibility with the SuperH family C/C++ compilers.
		No	Does not check the compatibility with an existing program.
Character code of an input program	Selects character code of an input program. [Traditional Chinese character (-big5)] and [Simplified Chinese character (-gb2312)] are synchronized with the value of the [Character code of an output assembly-language file] property in the [Object] category. This property corresponds to the -euc, -sjis, -latin1, -utf8, -big5 and -gb2312 option of the assembler. [Traditional Chinese character (-big5)] and [Simplified Chinese character (-gb2312)] are displayed when you have selected [Always latest version which was installed] or V2.00.00 or a later version for the [Using compiler package version] property under the [Version Select] category on the [Common Options] tab in an environment where V2.00.00 or a later version of the CC-RX compiler has been installed. [UTF-8 code (-utf8)] cannot be selected in the following cases. - When [Always latest version which was installed] or a version number earlier than V2.04.00 is selected for the [Using compiler package version] property under the [Version Select] category on the [Common Options] tab in an environment where a version of the CC-RX compiler earlier than V2.04.00 has been installed - When [C(C89) (-lang=c)] in the [Language of the C source file] property is selected		
	Default	SJIS code (-sjis)	
	How to change	Select from the drop-down list.	
	Restriction	EUC code (-euc)	Handles the characters in strings, character constants, and comments by using EUC.
		SJIS code (-sjis)	Handles the characters in strings, character constants, and comments by using SJIS.
		ISO-Latin1 code (-latin1)	Handles the characters in strings, character constants, and comments by using ISO-Latin1.
		UTF-8 code (-utf8)	Handles the characters in strings, character constants, and comments by using UTF-8.
		Traditional Chinese character (-big5)	Handles the characters in strings, character constants, and comments by using Traditional Chinese character.
		Simplified Chinese character (-gb2312)	Handles the characters in strings, character constants, and comments by using Simplified Chinese character.

(2) [Object]
The detailed information on object is displayed and the configuration can be changed.

Output file type	Selects the type of the output file to be generated during a build. This property corresponds to the -output option of the compiler.		
	Default	Object module file (-output=obj)	
	How to change	Select from the drop-down list.	
	Restriction	Object module file (-output=obj)	Outputs a relocatable file.
		Source file after preprocessed (-output=prep)	Outputs a source file after preprocessed.
		Source file after preprocessed(Disables #line output) (-output=prep -noline)	Disables #line output at preprocessor expansion.
Path of the output folder	Specifies the output destination folder for the output file. The following placeholders are supported. %BuildModeName%: Replaces with the build mode name. %MicomToolPath%: Replaces with the absolute path of the install folder of this product. %ProjectName%: Replaces with the project name. If this is blank, it is assumed that the project folder has been specified. This property corresponds to the -output option of the compiler. This property is displayed when [Always latest version which was installed] or a version number earlier than V2.00.00 is selected for the [Using compiler package version] property under the [Version Select] category on the [Common Options] tab in an environment where a version of the CC-RX compiler earlier than V2.00.00 has been installed.		
	Default	%BuildModeName%	
	How to change	Directly enter in the text box or edit by the Browse For Folder dialog box which appears when clicking the [...] button.	
	Restriction	Up to 247 characters	
Outputs debugging information	Selects whether to output debugging information to object module files. This property corresponds to the -debug and -nodebug options of the compiler.		
	Default	Yes (-debug)	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-debug)	Outputs debugging information to object module files.
		No (-nodebug)	Does not output debugging information to object module files.

Enhances debug information with optimization	Selects whether to enhance debug information at optimization. This property corresponds to the -g_line options of the compiler. This property is displayed only in the following cases. - When [Always latest version which was installed] or a version number earlier than V3.02.00 is selected for the [Using compiler package version] property under the [Version Select] category on the [Common Options] tab in an environment where a version of the CC-RX compiler earlier than V3.02.00 has been installed - When [Yes (-debug)] in the [Outputs debugging information] property is selected		
	Default	Yes (-g_line)	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-g_line)	Enhances debug information at optimization.
		No	Does not enhance debug information at optimization.
Section name of program area	Specifies the section name of program area. This property corresponds to the -section option of the compiler.		
	Default	P	
	How to change	Directly enter in the text box.	
	Restriction	Up to 32767 characters	
Section name of constant area	Specifies the section name of constant area. This property corresponds to the -section option of the compiler.		
	Default	C	
	How to change	Directly enter in the text box.	
	Restriction	Up to 32767 characters	
Section name of initialized data area	Specifies the section name of initialized data area. This property corresponds to the -section option of the compiler.		
	Default	D	
	How to change	Directly enter in the text box.	
	Restriction	Up to 32767 characters	
Section name of uninitialized data area	Specifies the section name of uninitialized data area. This property corresponds to the -section option of the compiler.		
	Default	B	
	How to change	Directly enter in the text box.	
	Restriction	Up to 32767 characters	
Section name of literal area	Specifies the section name of literal area. This property corresponds to the -section option of the compiler.		
	Default	L	
	How to change	Up to 32767 characters	
	Restriction	Up to 32767 characters	

Section name of switch statement branch table area	Specifies the section name of switch statement branch table area. This property corresponds to the -section option of the compiler.		
	Default	W	
	How to change	Directly enter in the text box.	
	Restriction	Up to 32767 characters	
Allocates uninitialized variables to 4-byte boundary alignment sections	Selects whether to allocate uninitialized variables to 4-byte boundary alignment sections. This property corresponds to the -nostuff option of the compiler.		
	Default	No	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-nostuff=B)	Allocates uninitialized variables to 4-byte boundary alignment sections.
		No	Does not allocate uninitialized variables to 4-byte boundary alignment sections.
Allocates initialized variables to 4-byte boundary alignment sections	Selects whether to allocate initialized variables to 4-byte boundary alignment sections. This property corresponds to the -nostuff option of the compiler.		
	Default	No	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-nostuff=D)	Allocates initialized variables to 4-byte boundary alignment sections.
		No	Does not allocates initialized variables to 4-byte boundary alignment sections.
Allocates const qualified variables to 4-byte boundary alignment sections	Selects whether to allocate const qualified variables to 4-byte boundary alignment sections. This property corresponds to the -nostuff option of the compiler.		
	Default	No	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-nostuff=C)	Allocates const qualified variables to 4-byte boundary alignment sections.
		No	Does not allocate const qualified variables to 4-byte boundary alignment sections.

Allocates switch statement branch tables to 4-byte boundary alignment sections	Selects whether to allocate switch statement branch tables to 4-byte boundary alignment sections. This property corresponds to the -nostuff option of the compiler.		
	Default	No	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-nostuff=W)	Allocates switch statement branch tables to 4-byte boundary alignment sections.
		No	Does not allocate switch statement branch tables to 4-byte boundary alignment sections.
Adjustment for instruction in branch	Selects adjustment for instruction in branch. This property corresponds to the -noinstalign, -instalign4, and -instalign8 option of the compiler.		
	Default	None (-noinstalign)	
	How to change	Select from the drop-down list.	
	Restriction	None (-noinstalign)	Does not align instructions at branch destinations.
		Execution in 4 bytes (-instalign4)	Aligns instructions at branch destinations to 4-byte boundaries.
		Execution in 4 bytes(Contains each loop head) (-instalign4=loop)	Aligns instructions at branch destinations to 4-byte boundaries (Contains head of each loop).
		Execution in 4 bytes(Contains each inmost loop head) (-instalign4=inmost-loop)	Aligns instructions at branch destinations to 4-byte boundaries (Contains head of each inmost loop).
		Execution in 8 bytes (-instalign8)	Aligns instructions at branch destinations to 8-byte boundaries.
		Execution in 8 bytes (Contains each loop head) (-instalign8=loop)	Aligns instructions at branch destinations to 8-byte boundaries (Contains head of each loop).
		Execution in 8 bytes (Contains each inmost loop head) (-instalign8=inmost-loop)	Aligns instructions at branch destinations to 8-byte boundaries (Contains head of each inmost loop).

<table>
<tr><td>Align fetch address of string manipulation instructions</td><td colspan="3">Selects whether to align addresses where string manipulation instructions start reading data. Selecting [Yes] prevents the reading of data across 4-byte boundaries in prefetching by string manipulation instructions.
This property corresponds to the -avoid_cross_boundary_prefetch option of the compiler.
This property is displayed when you have selected [Always latest version which was installed] or V2.07.00 or a later version for the [Using compiler package version] property under the [Version Select] category on the [Common Options] tab in an environment where V2.07.00 or a later version of the CC-RX compiler has been installed.</td></tr>
<tr><td></td><td>Default</td><td colspan="2">No</td></tr>
<tr><td></td><td>How to change</td><td colspan="2">Select from the drop-down list.</td></tr>
<tr><td></td><td rowspan="2">Restriction</td><td>Yes(-avoid_cross_boundary_prefetch)</td><td>Aligns addresses where string manipulation instructions start reading data.</td></tr>
<tr><td></td><td>No</td><td>Does not align addresses where string manipulation instructions start reading data.</td></tr>
<tr><td>Generates divisions and residues with DIV, DIVU, and the FDIV instruction</td><td colspan="3">Selects whether to generate divisions and residues with the DIV, DIVU, FDIV, and DDIV instruction.
This property corresponds to the -nouse_div_inst option of the compiler.</td></tr>
<tr><td></td><td>Default</td><td colspan="2">Yes</td></tr>
<tr><td></td><td>How to change</td><td colspan="2">Select from the drop-down list.</td></tr>
<tr><td></td><td rowspan="2">Restriction</td><td>Yes</td><td>Generates code in which DIV, DIVU, FDIV, or DDIV instructions are used.</td></tr>
<tr><td></td><td>No (-nouse_div_inst)</td><td>Generates code in which no DIV, DIVU, FDIV, or DDIV instructions are used.</td></tr>
<tr><td>Use NOP instruction insertion for measuring current consumption</td><td colspan="3">Selects whether to enable the NOP instruction insertion for measuring current consumption.
This property corresponds to the -insert_nop_with_label option of the compiler.
This property is displayed when you have selected [Always latest version which was installed] or V2.08.00 or a later version for the [Using compiler package version] property under the [Version Select] category on the [Common Options] tab in an environment where V2.08.00 or a later version of the CC-RX compiler has been installed.
Caution If you select [Yes(-insert_nop_with_label)] but the current setting for the [Outputs debugging information] property is [No], a warning is output and the -debug option enabled automatically. To suppress the output of the warning, select [Yes(-debug)] in the [Outputs debugging information] property.</td></tr>
<tr><td></td><td>Default</td><td colspan="2">No</td></tr>
<tr><td></td><td>How to change</td><td colspan="2">Select from the drop-down list.</td></tr>
<tr><td></td><td rowspan="2">Restriction</td><td>Yes(-insert_nop_with_label)</td><td>Enables the NOP instruction insertion for measuring current consumption.</td></tr>
<tr><td></td><td>No</td><td>Disables the NOP instruction insertion for measuring current consumption.</td></tr>
</table>

<table>
<tr><td>Parameters of NOP instruction insertion for measuring current consumption</td><td colspan="3">The parameters of NOP instruction insertion for measuring current consumption are displayed.
Set the position where NOP is output in the Editor panel.
Note that this property is not applied to [Reset All to Default] from the context menu.
This property corresponds to the -insert_nop_with_label option of the compiler.
This property is displayed only in the following cases.
- When [Always latest version which was installed] or V2.08.00 or a later version is selected for the [Using compiler package version] property under the [Version Select] category on the [Common Options] tab in an environment where V2.08.00 or a later version of the CC-RX compiler has been installed
- When [Yes(-insert_nop_with_label)] in the [Use NOP instruction insertion for measuring current consumption] property is selected</td></tr>
<tr><td></td><td>Default</td><td colspan="2">Parameters of NOP instruction insertion for measuring current consumption[number of defined items]</td></tr>
<tr><td></td><td>How to change</td><td colspan="2">Changes not allowed</td></tr>
<tr><td>Character code of an output assembly-language file</td><td colspan="3">Selects character code of an output assembly-language file.
[Traditional Chinese character (-big5)] and [Simplified Chinese character (-gb2312)] are synchronized with the value of the [Character code of an input program] property in the [Source] category.
This property corresponds to the -outcode option of the compiler.
[Traditional Chinese character (-big5)] and [Simplified Chinese character (-gb2312)] are displayed when you have selected [Always latest version which was installed] or V2.00.00 or a later version for the [Using compiler package version] property under the [Version Select] category on the [Common Options] tab in an environment where V2.00.00 or a later version of the CC-RX compiler has been installed.
[UTF-8 code (-outcode=utf8)] cannot be selected in the following cases.
- When [Always latest version which was installed] or a version number earlier than V2.04.00 is selected for the [Using compiler package version] property in an environment where a version of the CC-RX compiler earlier than V2.04.00 has been installed
- When [C(C89) (-lang=c)] in the [Language of the C source file] property in the [Source] category is selected</td></tr>
<tr><td></td><td>Default</td><td colspan="2">SJIS code (-outcode=sjis)</td></tr>
<tr><td></td><td>How to change</td><td colspan="2">Select from the drop-down list.</td></tr>
<tr><td></td><td rowspan="5">Restriction</td><td>EUC code (-outcode=euc)</td><td>Outputs characters in strings and character constants using EUC.</td></tr>
<tr><td>SJIS code (-outcode=sjis)</td><td>Outputs characters in strings and character constants using SJIS.</td></tr>
<tr><td>UTF-8 code (-outcode=utf8)</td><td>Outputs characters in strings and character constants using UTF-8.</td></tr>
<tr><td>Traditional Chinese character (-outcode=big5)</td><td>Outputs characters in strings and character constants using Traditional Chinese character.</td></tr>
<tr><td>Simplified Chinese character (-outcode=gb2312)</td><td>Outputs characters in strings and character constants using Simplified Chinese character.</td></tr>
</table>

(3) [Quality Improvement]
The detailed information on the quality improvement is displayed and the configuration can be changed.

<table>
<tr><td>Detect stack smashing</td><td colspan="3">Selects whether to detect the stack smashing.
This property is usable only in the Professional Edition.
Detection of stack smashing is a feature for writing a value outside the valid stack area before entering a function and checking whether that value is rewritten before exiting the function. Upon detection, the user-defined __stack_chk_fail() function is called.
See "CC-RX Compiler User's Manual" about the difference between [Yes(-stack_protector)] and [Yes(All)(-stack_protector_all)].
This property corresponds to the -stack_protector and -stack_protector_all options of the compiler.
This property is displayed when you have selected [Always latest version which was installed] or V2.04.00 or a later version for the [Using compiler package version] property under the [Version Select] category on the [Common Options] tab in an environment where V2.04.00 or a later version of the CC-RX compiler has been installed.</td></tr>
<tr><td></td><td>Default</td><td colspan="2">No(No option specified)</td></tr>
<tr><td></td><td>How to change</td><td colspan="2">Select from the drop-down list.</td></tr>
<tr><td></td><td rowspan="3">Restriction</td><td>Yes(-stack_protector)</td><td>Detects the stack smashing.</td></tr>
<tr><td></td><td>Yes(All)(-stack_protector_all)</td><td>Detects the stack smashing for all functions.</td></tr>
<tr><td></td><td>No(No option specified)</td><td>Does not detect the stack smashing.</td></tr>
<tr><td>Value to be embedded for detecting stack smashing</td><td colspan="3">Specifies the value to be embedded for detecting the stack smashing.
This property is usable only in the Professional Edition.
This property corresponds to the -stack_protector and -stack_protector_all options of the compiler.
This property is displayed in the following cases.
- When you have selected [Always latest version which was installed] or V2.04.00 or a later version for the [Using compiler package version] property under the [Version Select] category on the [Common Options] tab in an environment where V2.04.00 or a later version of the CC-RX compiler has been installed
- When other than [No(No option specified)] in the [Detect stack smashing] property is selected</td></tr>
<tr><td></td><td>Default</td><td colspan="2">Blank</td></tr>
<tr><td></td><td>How to change</td><td colspan="2">Directly enter in the text box.</td></tr>
<tr><td></td><td>Restriction</td><td colspan="2">0 to 4294967295 (decimal number)</td></tr>
</table>

Detect illegal indirect function call	Selects whether to output code for detecting illegal indirect function calls. Enable this facility to check the destination addresses of branches caused by each indirect function call. The output code will call the user-defined __control_flow_chk_fail() function in response to the detection of a problem. This property is usable only in the Professional Edition. This property corresponds to the -control_flow_integrity option of the compiler. This property is displayed when you have selected [Always latest version which was installed] or V2.08.00 or a later version for the [Using compiler package version] property under the [Version Select] category on the [Common Options] tab in an environment where V2.08.00 or a later version of the CC-RX compiler has been installed.		
	Default	No	
	How to change	Select from the drop-down list.	
	Restriction	Yes(-control_flow_integrity)	Outputs code for detecting illegal indirect function calls.
		No	Does not output code for detecting illegal indirect function calls.

(4) [List]
The detailed information on list file is displayed and the configuration can be changed.
This category is displayed only when [Object module file (-output=obj)] in the [Output file type] property in the [Object] category.

Outputs a source list file	Selects whether to output a source list file. This property corresponds to the -listfile and -nolistfile option of the compiler.		
	Default	No	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-lisfile)	Outputs a source list file.
		No (-nolistfile)	Disable output of a source list file.
Outputs the C/C++ source file	Specifies the contents of the source list file. Selects whether to output the C/C++ source file. This property corresponds to the -show option of the compiler. This property is displayed when [Yes (-lisfile)] in the [Outputs a source list file] property is selected.		
	Default	No	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-show=source)	Outputs the C/C++ source file.
		No	Does not output the C/C++ source file.

Outputs the statements unsatisfied in conditional assembly	Specifies the contents of the source list file. Selects whether to output the statements unsatisfied in conditional assembly. This property corresponds to the -show option of the compiler. This property is displayed when [Yes (-lisfile)] in the [Outputs a source list file] property is selected.		
	Default	No	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-show=conditionals)	Outputs the statements unsatisfied in conditional assembly.
		No	Does not output the statements unsatisfied in conditional assembly.
Outputs the information before .DEFINE replacement	Specifies the contents of the source list file. Selects whether to output the information before .DEFINE replacement. This property corresponds to the -show option of the compiler. This property is displayed when [Yes (-lisfile)] in the [Outputs a source list file] property is selected.		
	Default	No	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-show=definitions)	Outputs the information before .DEFINE replacement.
		No	Does not output the information before .DEFINE replacement.
Outputs the assembler macro expansion statements	Specifies the contents of the source list file. Selects whether to output the assembler macro expansion statements. This property corresponds to the -show option of the compiler. This property is displayed when [Yes (-lisfile)] in the [Outputs a source list file] property is selected.		
	Default	No	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-show=expansions)	Outputs the assembler macro expansion statements.
		No	Does not output the assembler macro expansion statements.

(5) [Optimization]
The detailed information on the optimization is displayed and the configuration can be changed.

Optimization level	Selects optimization level. This property corresponds to the -optimize option of the compiler.		
	Default	2 (-optimize=2)	
	How to change	Select from the drop-down list.	
	Restriction	0 (-optimize=0)	Does not optimize the program.
		1 (-optimize=1)	Partially optimizes the program by automatically allocating variables to registers, integrating the function exit blocks, integrating multiple instructions which can be integrated, etc.
		2 (-optimize=2)	Performs overall optimization.
		Max (-optimize=max)	Performs optimization as much as possible.
Outputs additional information for inter-module optimization	Selects whether to output additional information for inter-module optimization. At linkage, inter-module optimization is applied to files for which this option has been specified. This property corresponds to the -goptimize option of the compiler.		
	Default	No	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-goptimize)	Outputs additional information for inter-module optimization.
		No	Does not outputs additional information for inter-module optimization.
Optimization type	Selects optimization type. This property corresponds to the -speed and -size option of the compiler.		
	Default	Optimizes with emphasis on code size (-size)	
	How to change	Select from the drop-down list.	
	Restriction	Optimizes with emphasis on execution performance (-speed)	Optimizes with emphasis on execution performance.
		Optimizes with emphasis on code size (-size)	Optimizes with emphasis on code size.
Loop expansion	Selects whether to optimize the loop expansion (for, while, and do-while). This property corresponds to the -loop option of the compiler.		
	Default	Depends on the optimization level and optimization type options	
	How to change	Select from the drop-down list.	
	Restriction	Depends on the optimization level and optimization type options	Depends on the [Optimization level] and [Optimization type] properties.
		Expansion (-loop=<numeric value>)	Expands loop statements (for, while, and do-while).

Expansion maximum number	Specifies expansion maximum number. This property corresponds to the suboption of -loop option of the compiler. This property is displayed only when [Expansion (-loop=<numeric value>)] in the [Loop expansion] property is selected.		
	Default	2 (decimal number)	
	How to change	Directly enter in the text box.	
	Restriction	1 to 32 (decimal number)	
Performs inline expansion automatically	Selects whether to perform inline expansion automatically. This option corresponds to the -inline and -noinline option of the compiler.		
	Default	Depends on the optimization level and optimization type options	
	How to change	Select from the drop-down list.	
	Restriction	Depends on the optimization level and optimization type options	Depends on the [Optimization level] and [Optimization type] properties.
		Yes (-inline=<numeric value>)	Performs inline expansion automatically.
		No (-noinline)	Does not perform inline expansion automatically.
Maximum increasing rate of function size	Specifies maximum increasing rate of function size. For example, when 100 is specified, inline expansion will be performed until the function size has increased by 100% (size is doubled). This option corresponds to the -inline option of the compiler. This property is displayed only when [Yes (-inline=<numeric value>)] in the [Performs inline expansion automatically] property is selected.		
	Default	100 (decimal number)	
	How to change	Select from the drop-down list.	
	Restriction	1 to 65535 (decimal number)	

<table>
<tr><td>Files for inter-file inline expansion</td><td colspan="3">Specifies files for inter-file inline expansion.
This option is valid only when the inline option or #pragma inline has been specified.
The following placeholders are supported.
%BuildModeName%: Replaces with the build mode name.
%ProjectName%: Replaces with the project name.
%MicomToolPath%: Replaces with the absolute path of the product install folder.
This option corresponds to the -file_inline option of the compiler.
The file name is displayed as the subproperty.
This property is displayed only in the following cases.
- When [Always latest version which was installed] or a version number earlier than V2.00.00 is selected for the [Using compiler package version] property under the [Version Select] category on the [Common Options] tab in an environment where a version of the CC-RX compiler earlier than V2.00.00 has been installed
- When [Object module file (-output=obj)] in the [Output file type] property in the [Object] category is selected</td></tr>
<tr><td></td><td>Default</td><td colspan="2">Files for inter-file inline expansion[number of defined items]</td></tr>
<tr><td></td><td>How to change</td><td colspan="2">Edit by the Path Edit dialog box which appears when clicking the [...] button.
-> Edit by the Add Inline Expansion File dialog box which appears when clicking the [Browse...] button.
For the subproperty, you can use the text box directly enter the text.</td></tr>
<tr><td></td><td>Restriction</td><td colspan="2">Up to 259 characters
Up to 65536 items can be specified.</td></tr>
<tr><td>Expansion method of the switch statement</td><td colspan="3">Selects expansion method of the switch statement.
This property corresponds to the -case option of the compiler.</td></tr>
<tr><td></td><td>Default</td><td colspan="2">Compiler automatically selects (-case=auto)</td></tr>
<tr><td></td><td>How to change</td><td colspan="2">Select from the drop-down list.</td></tr>
<tr><td></td><td rowspan="3">Restriction</td><td>if_then method (-case=ifthen)</td><td>Expands the switch statement using the if_then method.</td></tr>
<tr><td></td><td>Jumping to a table method (-case=table)</td><td>Expands the switch statement by using the table method.</td></tr>
<tr><td></td><td>Compiler automatically selects (-case=auto)</td><td>Automatically selects the if_then method or table method.</td></tr>
<tr><td>Handles external variables as if they are volatile qualified</td><td colspan="3">Selects whether to handle all external variables as if they are volatile qualified.
This property corresponds to the -volatile and -novolatile option of the compiler.</td></tr>
<tr><td></td><td>Default</td><td colspan="2">No (-novolatile)</td></tr>
<tr><td></td><td>How to change</td><td colspan="2">Select from the drop-down list.</td></tr>
<tr><td></td><td rowspan="2">Restriction</td><td>Yes (-volatile)</td><td>Handles all external variables as if they were volatile qualified.</td></tr>
<tr><td></td><td>No (-novolatile)</td><td>Does not handle external variables as if they were volatile qualified.</td></tr>
</table>

Accesses to volatile qualified variables with the sizes of the variable types	Selects whether to access to volatile qualified variables with the sizes of the variable types. This option corresponds to the -type_size_access_to_volatile option of the compiler. This property is displayed when [Always latest version which was installed] or a version number earlier than V3.04.00 is selected for the [Using compiler package version] property under the [Version Select] category on the [Common Options] tab in an environment where a version of the CC-RX compiler earlier than V3.04.00 has been installed.		
	Default	No	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-type_size_access_to_volatile)	Accesses to volatile qualified variables with the sizes of the variable types
		No	Does not access to volatile qualified variables with the sizes of the variable types
Performs the constant propagation of const qualified external variables	Selects whether to perform the constant propagation of const qualified external variables. Const qualified variables in a C++ source file cannot be controlled by this option (constant propagation is always performed). This property corresponds to the -const_copy and -noconst_copy option of the compiler.		
	Default	Depends on the optimization level options	
	How to change	Select from the drop-down list.	
	Restriction	Depends on the optimization level options	Depends on the [Optimization level] property.
		Yes (-const_copy)	Enables constant propagation of const qualified external variables.
		No (-noconst_copy)	Disables constant propagation of const qualified external variables.
Conversion method of the divisions and residues of integer constants	Selects conversion method of the divisions and residues of integer constants. This property corresponds to the -const_div and -noconst_div option of the compiler.		
	Default	Depends on the optimization type option	
	How to change	Select from the drop-down list.	
	Restriction	Depends on the optimization type option	Depends on the [Optimization type] property
		Instruction sequence using multiplication (-const_div)	Performs constant division (residue) by an instruction sequence using multiplication.
		Instruction sequence using division (-noconst_div)	Performs constant division (residue) by an instruction sequence using division.

Execution method of library function that can be expanded to RX instructions	Selects the method of execution for library functions that can be expanded as RX instructions. This property corresponds to the -library option of the compiler.		
	Default	Performs expansion to RX instructions(-library=intrinsic)	
	How to change	Select from the drop-down list.	
	Restriction	Calls library functions (-library=function)	Calls library functions.
		Performs expansion to RX instructions(-library=intrinsic)	Replaces library functions with RX instructions having the corresponding facilities. For example, replaces abs() with an ABS instruction.
Execution method of library function that can use trigonometric function unit	Selects the method of execution of library function that can use trigonometric function unit. This property corresponds to the -tfu option of the compiler. This property is displayed in the following cases. - When [Always latest version which was installed] or a version number earlier than V3.01.00 is selected for the [Using compiler package version] property under the [Version Select] category on the [Common Options] tab in an environment where a version of the CC-RX compiler earlier than V3.01.00 has been installed - When the device has a trigonometric function unit		
	Default	Do not use trigonometric function unit(-tfu=intrinsic)	
	How to change	Select from the drop-down list.	
	Restriction	Do not use trigonometric function unit(-tfu=intrinsic)	Calls of relevant mathematics library functions are not replaced with code that uses the trigonometric function unit.
		Use trigonometric function unit(-tfu=intrinsic,mathlib)	Calls of relevant mathematics library functions are replaced with code that uses the trigonometric function unit.
Divides the optimizing ranges into many sections before compilation	Selects whether to divide the optimizing ranges of the large-size function into many sections before compilation. This property corresponds to the -scope and -noscope option of the compiler.		
	Default	Depends on the optimization level option	
	How to change	Select from the drop-down list.	
	Restriction	Depends on the optimization level option	Depends on the [Optimization level] property.
		Yes (-scope)	Divides the optimizing ranges of the large-size function into many sections before compilation.
		No (-noscope)	Does not divide the optimizing ranges before compilation.

Schedules the instruction taking into consideration pipeline processing	Selects whether to schedule the instruction taking into consideration pipeline processing. This property corresponds to the -schedule and -noschedule option of the compiler.		
	Default	Depends on the optimization level option	
	How to change	Select from the drop-down list.	
	Restriction	Depends on the optimization level option	Depends on the [Optimization level] property.
		Yes (-schedule)	Schedules instructions taking into consideration pipeline processing.
		No (-noschedule)	Does not schedule instructions.
Optimizes accesses to external variables	Selects whether to optimize accesses to external variables. This property corresponds to the -nomap, -smap and -map option of the compiler. "Yes(Optimizes the inter-module)(-map)" is hidden when it is library project.		
	Default	- When [Max (-optimize=max)] in the [Optimization level] property is selected Yes(Optimizes the inter-module) (-map) - Other than above No (-nomap)	
	How to change	Select from the drop-down list.	
	Restriction	Yes(Optimizes the inner-module) (-smap)	Optimizes accesses to external variables which are defined in the file to be compiled.
		Yes(Optimizes the inter-module) (-map)	Optimizes accesses to external variables.
		No (-nomap)	Disables optimization for accesses to external variables.

Perform inter-module optimization	Specifies the level of inter-module optimization (such as function merging). Only [Yes(Level 1)(Perform)(-ip_optimize)] and [No] are displayed when [No] in the [Build simultaneously] property in the [Build Method] category from the [Common Options] tab is selected. This property corresponds to the -whole_program, -merge_files, and -ip_optimize options of the compiler. This property is displayed when you have selected [Always latest version which was installed] or V2.00.00 or a later version for the [Using compiler package version] property under the [Version Select] category on the [Common Options] tab in an environment where V2.00.00 or a later version of the CC-RX compiler has been installed.		
	Default	No	
	How to change	Select from the drop-down list.	
	Restriction	Yes(Level 3)(Perform with assuming it the whole program)(-whole_program)	Performs inter-module optimization assuming that the source files comprise the entire program. However, operation is not guaranteed if the preconditions are not met. See "CC-RX Compiler User's Manual" for details about the preconditions.
		Yes(Level 2)(Perform with merging files)(-merge_files, -ip_optimize)	Merges two or more C source files and performs inter-module optimization. This item is displayed only when two or more source files are added to the project.
		Yes(Level 1)(Perform)(-ip_optimize)	Performs inter-module optimization for each file.
		No	Does not perform inter-module optimization.
Converts floating-point constant division into multiplication	Selects whether to convert floating-point constant division into multiplication of the corresponding reciprocals as constants. This property corresponds to the -approxdiv option of the compiler.		
	Default	No	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-approxdiv)	Converts floating-point constant division into multiplication.
		No	Does not convert floating-point constant division into multiplication.

<table>
<tr><td rowspan="5">Allocates preferentially the variables with register storage class specification to registers</td><td colspan="3">Selects whether to allocate preferentially the variables with register storage class specification to registers.
This property corresponds to the -enable_register option of the compiler.
This property is displayed only in the following cases.
- When [Always latest version which was installed] or a version number earlier than V2.00.00 is selected for the [Using compiler package version] property under the [Version Select] category on the [Common Options] tab in an environment where a version of the CC-RX compiler earlier than V2.00.00 has been installed
- When [Object module file (-output=obj)] in the [Output file type] property in the [Object] category is selected</td></tr>
<tr><td>Default</td><td colspan="2">No</td></tr>
<tr><td>How to change</td><td colspan="2">Select from the drop-down list.</td></tr>
<tr><td rowspan="2">Restriction</td><td>Yes (-enable_register)</td><td>Allocates preferentially the variables with register storage class specification to registers.</td></tr>
<tr><td>No</td><td>Does not allocate preferentially the variables with register storage class specification to registers.</td></tr>
<tr><td rowspan="5">Omits a check of the range for conversion between the floating type and unsigned integer type</td><td colspan="3">Selects whether to omit a check of the range for conversion between the floating type and unsigned integer type.
When "Yes" is specified, code performance of the relevant type conversion processing is improved.
The conversion result may, however, differ from C/C++ language specifications, so take care on this point.
This property corresponds to the -simple_float_conv option of the compiler.</td></tr>
<tr><td>Default</td><td colspan="2">No</td></tr>
<tr><td>How to change</td><td colspan="2">Select from the drop-down list.</td></tr>
<tr><td rowspan="2">Restriction</td><td>Yes (-simple_float_conv)</td><td>Omits part of the type conversion processing for the floating type.</td></tr>
<tr><td>No</td><td>Does not omit part of the type conversion processing for the floating type.</td></tr>
<tr><td rowspan="5">Performs optimization considering the type of the data indicated by the pointer</td><td colspan="3">Selects whether to perform optimization considering the type of the data indicated by the pointer.
Although the performance of object code is generally better than when -alias=noansi is specified, the results of execution may differ according to whether -alias=ansi or alias=noansi is specified.
This property corresponds to the -alias option of the compiler.</td></tr>
<tr><td>Default</td><td colspan="2">Depends on the optimization level option</td></tr>
<tr><td>How to change</td><td colspan="2">Select from the drop-down list.</td></tr>
<tr><td rowspan="3">Restriction</td><td>Depends on the optimization level option</td><td>Depends on the [Optimization level] property.</td></tr>
<tr><td>Yes (-alias=ansi)</td><td>Performs optimization considering the type of the data indicated by the pointer.</td></tr>
<tr><td>No (-alias=noansi)</td><td>Does not perform optimization considering the type of the data indicated by the pointer.</td></tr>
</table>

<table>
<tr><td>Optimizes modification of the operation order of a floating-point expression</td><td colspan="3">Selects whether to optimize modification of the operation order of a floating-point expression.
Specifying the -float_order option generally improves the object performance compared to when not specifying it.
However, the accuracy of operations may differ from that when -float_order is not specified.
This property corresponds to the -float_order option of the compiler.
This property is displayed only in the following cases.
- When [Always latest version which was installed] or a version number earlier than V2.00.00 is selected for the [Using compiler package version] property under the [Version Select] category on the [Common Options] tab in an environment where a version of the CC-RX compiler earlier than V2.00.00 has been installed
- When [2 (-optimize=2)] or [Max (-optimize=max)] in the [Optimization level] property is specified</td></tr>
<tr><td></td><td>Default</td><td colspan="2">No</td></tr>
<tr><td></td><td>How to change</td><td colspan="2">Select from the drop-down list.</td></tr>
<tr><td></td><td rowspan="2">Restriction</td><td>Yes (-float_order)</td><td>Optimizes modification of the operation order in a floating-point expression.</td></tr>
<tr><td></td><td>No</td><td>Does not optimize modification of the operation order in a floating-point expression.</td></tr>
<tr><td>Reduces code size of relative branch instructions</td><td colspan="3">Selects whether to reduce the code size of the relative branch instructions.
This property corresponds to the -branch_chaining, -nobranch_chaining option of the compiler.
This property is displayed only in the following cases.
- When [Always latest version which was installed] or a version number earlier than V3.03.00 is selected for the [Using compiler package version] property under the [Version Select] category on the [Common Options] tab in an environment where a version of the CC-RX compiler earlier than V3.03.00 has been installed
- When [2 (-optimize=2)] or [Max (-optimize=max)] in the [Level of optimization] property is selected
- When [Optimizes with emphasis on code size (-size)] in the [Optimization type] property is selected</td></tr>
<tr><td></td><td>Default</td><td colspan="2">Depends on the optimization level and optimization type option</td></tr>
<tr><td></td><td>How to change</td><td colspan="2">Select from the drop-down list.</td></tr>
<tr><td></td><td rowspan="3">Restriction</td><td>Depends on the optimization level and optimization type option</td><td>Depends on the [Optimization level] and [Optimization type] properties.</td></tr>
<tr><td></td><td>Yes(-branch_chaining)</td><td>Reduces the code size of the relative branch instructions.</td></tr>
<tr><td></td><td>No(-nobranch_chaining)</td><td>Does not reduce the code size of the relative branch instructions.</td></tr>
</table>

(6) [Output File]

The detailed information on the output file check is displayed and the configuration can be changed.

Output assembly source file	Selects whether to output the assembly source file of the compile result for the C source.		
	Default	Configuration of the compile option	
	How to change	Select from the drop-down list.	
	Restriction	Yes	Outputs the assembly source file of the compile result for the C source.
		No	Does not output the assembly source file of the compile result for the C source.
Output preprocessed source file	Selects whether to output the execution result of preprocessing for the source file to a file. This property corresponds to the -output=prep, -noline option of the compiler.		
	Default	Configuration of the compile option	
	How to change	Select from the drop-down list.	
	Restriction	Yes(-output=prep)	Outputs the execution result of preprocessing for the source file to a file.
		Yes(Suppress #line)(-output=prep -noline)	Outputs the execution result of preprocessing (suppress #line) for the source file to a file.
		No	Does not output the execution result of preprocessing for the source file to a file.

(7) [MISRA C rule check]
The detailed information on the MISRA-C rule check are displayed and the configuration can be changed.
20*XX* in the following table corresponds to 2012 or 2004 in particular.

MISRA-C specification	Selects the MISRA-C specification. This property is usable only in the Professional Edition. This property is displayed when you have selected [Always latest version which was installed] or V2.04.00 or a later version for the [Using compiler package version] property under the [Version Select] category on the [Common Options] tab in an environment where V2.04.00 or a later version of the CC-RX compiler has been installed.		
	Default	MISRA-C 2012	
	How to change	Select from the drop-down list.	
	Restriction	MISRA-C 2012	Settings for MISRA-C 2012 are made in the subsequent properties.
		MISRA-C 2004	Settings for MISRA-C 2004 are made in the subsequent properties.

Apply rule	Selects to apply MISRA C rule. This property is usable only in the Professional Edition. In case of misra2012 and in case of CC-RX V2.05.00 or earlier, even if [C99(-lang=c99)] is selected in the [Language of the C source file] property, MISRA C checking is done in the range of C89 specification. This option corresponds to the -misra20*XX* option of the compiler.		
	Default	Not apply rule	
	How to change	Select from the drop-down list.	
	Restriction	Apply all rules (-misra20*XX*=all)	Checks the source code against all of the rules that are supported.
		Apply specified rule number (-misra20*XX*=apply)	Checks the source code against the rules with the selected numbers.
		Ignore specified rule number(-misra20*XX*=ignore)	Checks the source code against the rules other than those with the selected numbers.
		Apply rules that are classified as "required" (-misra20*XX*=required)	Checks the source code against the rules of the "required" type.
		Apply rules that are classified as "required" and specified rule number (-misra20*XX*=required_add)	Checks the source code against the rules of the "required" type and the rules with the selected numbers.
		Ignore specified rule number from rules that are classified as "required" (-misra20*XX*=required_remove)	Checks the source code against the rules other than those with the selected numbers among the rules of the "required" type.
		Apply rules that are described in the specified file (-misra20*XX*=<file name>)	Checks the source code against the rules with the numbers written in the specified file.
		Not apply rule	Does not apply MISRA C rule.
Rule number description file	Specifies Rule number description file(misra20*XX* rule file). This property is usable only in the Professional Edition. When misra2012 is selected, the CC-RX compiler always checks the code against rule numbers 13.6, 17.3, and 17.4 (as well as 9.1 if the compiler is V2.06.00 or later, and 12.5 and 21.13 if the compiler is V2.07.00 or later) regardless of which rule numbers have been specified through the properties setting. The following placeholders are supported. %BuildModeName%: Replaces with the build mode name. %MicomToolPath%: Replaces with the absolute path of the product install folder. %ProjectName%: Replaces with the project name. This option corresponds to the -misra20*XX* option of the compiler. This property is displayed only when [Apply rules that are described in the specified file (-misra20*XX*=<file name>)] in the [Apply rule] property is selected.		
	Default	Blank	
	How to change	Directly enter to the text box or edit by the Specify Misra-C Rule File dialog box which appears when clicking the [...] button.	
	Restriction	Up to 259 characters	

Rule number	Specifies the rule number. This property is usable only in the Professional Edition. When misra2012 is selected, the CC-RX compiler always checks the code against rule numbers 13.6, 17.3, and 17.4 (as well as 9.1 if the compiler is V2.06.00 or later, and 12.5 and 21.13 if the compiler is V2.07.00 or later) regardless of which rule numbers have been specified through the properties setting. One or more rule numbers always in decimal must be specified. This option corresponds to the -misra20*XX* option of the compiler. This property is displayed only when [Apply specified rule number (-misra20*XX*=apply)] in the [Apply rule] property is selected.	
	Default	Blank
	How to change	Directly enter to the text box or edit by the Specify Rule Number dialog box which appears when clicking the [...] button.
	Restriction	Up to 259 characters
Exclusion rule number	Specifies the exclusion rule number. This property is usable only in the Professional Edition. When misra2012 is selected, the CC-RX compiler always checks the code against rule numbers 13.6, 17.3, and 17.4 (as well as 9.1 if the compiler is V2.06.00 or later, and 12.5 and 21.13 if the compiler is V2.07.00 or later) regardless of which rule numbers have been specified through the properties setting. One or more rule numbers always in decimal must be specified. This option corresponds to the -misra20*XX* option of the compiler. This property is displayed only when [Ignore specified rule number(-misra20*XX*=ignore)] in the [Apply rule] property is selected.	
	Default	Blank
	How to change	Directly enter to the text box or edit by the Specify Rule Number dialog box which appears when clicking the [...] button.
	Restriction	Up to 259 characters
Check rule number besides required rule	Specifies the check rule number besides required rule. This property is usable only in the Professional Edition. When misra2012 is selected, the CC-RX compiler always checks the code against rule numbers 13.6, 17.3, and 17.4 (as well as 9.1 if the compiler is V2.06.00 or later, and 12.5 and 21.13 if the compiler is V2.07.00 or later) regardless of which rule numbers have been specified through the properties setting. One or more rule numbers always in decimal must be specified. This option corresponds to the -misra20*XX* option of the compiler. This property is displayed only when [Apply rules that are classified as "required" and specified rule number (-misra20*XX*=required_add)] in the [Apply rule] property is selected.	
	Default	Blank
	How to change	Directly enter to the text box or edit by the Specify Rule Number dialog box which appears when clicking the [...] button.
	Restriction	Up to 259 characters

Exclusion rule number from required rule	Specifies the exclusion rule number from required rule. This property is usable only in the Professional Edition. When misra2012 is selected, the CC-RX compiler always checks the code against rule numbers 13.6, 17.3, and 17.4 (as well as 9.1 if the compiler is V2.06.00 or later, and 12.5 and 21.13 if the compiler is V2.07.00 or later) regardless of which rule numbers have been specified through the properties setting. One or more rule numbers always in decimal must be specified. This option corresponds to the -misra20*XX* option of the compiler. This property is displayed only when [Ignore specified rule number from rules that are classified as "required" (-misra20*XX*=required_remove)] in the [Apply rule] property is selected.		
	Default	Blank	
	How to change	Directly enter to the text box or edit by the Specify Rule Number dialog box which appears when clicking the [...] button.	
	Restriction	Up to 259 characters	
Rule check exclusion file	Specifies rule check exclusion file. This property is usable only in the Professional Edition. The following placeholders are supported. %BuildModeName%: Replaces with the build mode name. %MicomToolPath%: Replaces with the absolute path of the product install folder. %ProjectName%: Replaces with the project name. This option corresponds to the -ignore_files_misra option of the compiler. This option is not display when [Not apply rule] in the [Apply rule] property has been specified.		
	Default	Rule check exclusion file[*number of defined items*]	
	How to change	Edit by the Path Edit dialog box which appears when clicking the [...] button. -> Edit by the Add Excluding File dialog box which appears when clicking the [Browse...] button. For the subproperty, you can enter directly in the text box.	
	Restriction	Up to 259 characters Up to 65536 items can be specified.	
Outputs message of the enhanced key word and extended specifications	Selects whether to output message of the enhanced key word and extended specifications. This property is usable only in the Professional Edition. This property corresponds to the -check_language_extension option of the compiler. This option is not display when [Not apply rule] in the [Apply rule] property has been specified.		
	Default	No	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-check_language_extension)	Enables complete checking against the MISRA-C rules for parts of the code where it would otherwise be suppressed due to individual extensions from the C/C++ language specification.
		No	Disables complete checking against the MISRA-C rules for parts of the code where it would otherwise be suppressed due to individual extensions from the C/C++ language specification.

Enables checking that spans files	Selects whether to enable checking that spans files. This property is usable only in the Professional Edition. This property corresponds to the -misra_intermodule option of the compiler. This property is displayed only in the following cases. - When you have selected [Always latest version which was installed] or V3.01.00 or a later version for the [Using compiler package version] property under the [Version Select] category on the [Common Options] tab in an environment where V3.01.00 or a later version of the CC-RX compiler has been installed - When [MISRA-C 2012] in the [MISRA-C specification] property is selected - When other than [Not apply rule] in the [Apply rule] property is selected **Caution** If the C source files of the project are removed or renamed while [Yes(-misra_intermodule)] is selected, information on checking that spans files will be cleared. Rebuild the project to obtain correct checking of files on this point.		
	Default	No	
	How to change	Select from the drop-down list.	
	Restriction	Yes(-misra_intermodule)	Enables checking that spans files.
		No	Does not enable checking that spans files.

(8) [Others]
Other detailed information on compilation is displayed and the configuration can be changed.

Outputs the copyright	Selects whether to output the copyright. This property corresponds to the -nologo option of the compiler.		
	Default	No (-nologo)	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-logo)	Outputs the copyright.
		No (-nologo)	Disables output of the copyright.
Outputs the cross reference information	Selects whether to output cross reference information. It is necessary to change the setting of the property of "Program Analyzer" to change this option.		
	Default	No	
	How to change	Select from the drop-down list.	
	Restriction	Yes(-Xcref)	Outputs the cross reference information.
		No	Does not output of the cross reference information.

<table>
<tr><td rowspan="4">Commands executed before compile processing</td><td colspan="2">Specifies the command to be executed before compile processing.
Use the call instruction to specify a batch file (example: call a.bat).
The following placeholders are supported.
%ActiveProjectDir%: Replaces with the absolute path of the active project folder.
%ActiveProjectName%: Replaces with the active project name.
%BuildModeName%: Replaces with the build mode name.
%CompiledFile%: Replaces with the absolute path of the output file under compiling.
%InputFile%: Replaces with the absolute path of the file to be compiled (except in case of simultaneous building).
%MainProjectDir%: Replaces with the absolute path of the main project folder.
%MainProjectName%: Replaces with the main project name.
%MicomToolPath%: Replaces with the absolute path of the install folder of this product.
%OutputDir%: Replaces with the absolute path of the output folder.
%OutputFile%: Replaces with the absolute path of the output file.
%Program%: Replaces with the file name of the running program.
%ProjectDir%: Replaces with the absolute path of the project folder.
%ProjectName%: Replaces with the project name.
%TempDir%: Replaces with the absolute path of the temporary folder.
%WinDir%: Replaces with the absolute path of the Windows system folder.
When "#!python" is described in the first line, the contents from the second line to the last line are regarded as the script of the Python console, and then executed before compile processing.
The placeholders can be described in the script.
The specified command is displayed as the subproperty.</td></tr>
<tr><td>Default</td><td>Commands executed before compile processing[number of defined items]</td></tr>
<tr><td>How to change</td><td>Edit by the Text Edit dialog box which appears when clicking the [...] button.
For the subproperty, you can use the text box directly enter the text.</td></tr>
<tr><td>Restriction</td><td>Up to 1023 characters
Up to 64 items can be specified.</td></tr>
</table>

<table>
<tr><td rowspan="4">Commands executed after compile processing</td><td colspan="2">Specifies the command to be executed after compile processing.
Use the call instruction to specify a batch file (example: call a.bat).
The following placeholders are supported.
%ActiveProjectDir%: Replaces with the absolute path of the active project folder.
%ActiveProjectName%: Replaces with the active project name.
%BuildModeName%: Replaces with the build mode name.
%CompiledFile%: Replaces with the absolute path of the output file under compiling.
%InputFile%: Replaces with the absolute path of the file to be compiled (except in case of simultaneous building).
%MainProjectDir%: Replaces with the absolute path of the main project folder.
%MainProjectName%: Replaces with the main project name.
%MicomToolPath%: Replaces with the absolute path of the install folder of this product.
%OutputDir%: Replaces with the absolute path of the output folder.
%OutputFile%: Replaces with the absolute path of the output file.
%Program%: Replaces with the file name of the running program.
%ProjectDir%: Replaces with the absolute path of the project folder.
%ProjectName%: Replaces with the project name.
%TempDir%: Replaces with the absolute path of the temporary folder.
%WinDir%: Replaces with the absolute path of the Windows system folder.
When "#!python" is described in the first line, the contents from the second line to the last line are regarded as the script of the Python console, and then executed after compile processing.
The placeholders can be described in the script.
The specified command is displayed as the subproperty.</td></tr>
<tr><td>Default</td><td>Commands executed after compile processing[number of defined items]</td></tr>
<tr><td>How to change</td><td>Edit by the Text Edit dialog box which appears when clicking the [...] button.
For the subproperty, you can use the text box directly enter the text.</td></tr>
<tr><td>Restriction</td><td>Up to 1023 characters
Up to 64 items can be specified.</td></tr>
<tr><td rowspan="4">Other additional options</td><td colspan="2">Inputs the compile options to be added additionally.
The options set here are added at the end of the compile options group.
The following placeholders are supported.
%ActiveProjectDir%: Replaces with the absolute path of the active project folder.
%ActiveProjectName%: Replaces with the active project name.
%BuildModeName%: Replaces with the build mode name.
%MainProjectDir%: Replaces with the absolute path of the main project folder.
%MainProjectName%: Replaces with the main project name.
%MicomToolPath%: Replaces with the absolute path of the install folder of this product.
%ProjectDir%: Replaces with the absolute path of the project folder.
%ProjectName%: Replaces with the project name.
%TempDir%: Replaces with the absolute path of the temporary folder.
%WinDir%: Replaces with the absolute path of the Windows system folder.</td></tr>
<tr><td>Default</td><td>Blank</td></tr>
<tr><td>How to change</td><td>Directly enter to the text box or edit by the Character String Input dialog box which appears when clicking the [...] button.</td></tr>
<tr><td>Restriction</td><td>Up to 259 characters</td></tr>
<tr><td rowspan="3">Command line</td><td colspan="2">The specified option is displayed.</td></tr>
<tr><td>Default</td><td>Command line[number of defined items]</td></tr>
<tr><td>How to change</td><td>Changes not allowed</td></tr>
</table>

[Assemble Options] tab

This tab shows the detailed information on the assemble phase categorized by the following and the configuration can be changed.

[Description of each category]

(1) [Source]
The detailed information on the source is displayed and the configuration can be changed.

Additional include paths	Specifies the name of the path to the folder that stores the include file. The following placeholders are supported. %ActiveProjectDir%: Replaces with the absolute path of the active project folder. %ActiveProjectName%: Replaces with the active project name. %BuildModeName%: Replaces with the build mode name. %MainProjectDir%: Replaces with the absolute path of the main project folder. %MainProjectName%: Replaces with the main project name. %MicomToolPath%: Replaces with the absolute path of the install folder of this product. %ProjectDir%: Replaces with the absolute path of the project folder. %ProjectName%: Replaces with the project name. %TempDir%: Replaces with the absolute path of the temporary folder. %WinDir%: Replaces with the absolute path of the Windows system folder. The reference point of the path is the project folder. This property corresponds to the -include option of the assembler. The specified include path is displayed as the subproperty.	
	Default	Additional include paths[*number of defined items*]
	How to change	Edit by the Path Edit dialog box which appears when clicking the [...] button. For the subproperty, you can use the text box directly enter the text.
	Restriction	Up to 247 characters Up to 65536 items can be specified.
System include paths	Changes the specified order of the include paths which the system set during assembling. This property corresponds to the -include option of the assembler.	
	Default	System include paths[*number of defined items*]
	How to change	Edit by the System Include Path Order dialog box which appears when clicking the [...] button.
	Restriction	Changes not allowed (Only the specified order of the include paths can be changed.)

Macro definition	Specifies the macro name to be defined. Specifies in the format of "*macro name=string*", with one macro name per line. This property corresponds to the -define option of the assembler. The specified macro is displayed as the subproperty.		
	Default	Macro definition[*number of defined items*]	
	How to change	Edit by the Text Edit dialog box which appears when clicking the [...] button. For the subproperty, you can use the text box directly enter the text.	
	Restriction	Up to 32767 characters Up to 65536 items can be specified.	
Character code of an input program	Selects character code of an input program. This property corresponds to the -euc, -sjis,-latin1, -big5 and -gb2312 option of the assembler. [Traditional Chinese character (-big5)] and [Simplified Chinese character (-gb2312)] are displayed when you have selected [Always latest version which was installed] or V2.00.00 or a later version for the [Using compiler package version] property under the [Version Select] category on the [Common Options] tab in an environment where V2.00.00 or a later version of the CC-RX compiler has been installed. [UTF-8 code (-utf8)] is displayed when you have selected [Always latest version which was installed] or V2.04.00 or a later version for the [Using compiler package version] property in an environment where V2.04.00 or a later version of the CC-RX compiler has been installed.		
	Default	SJIS code (-sjis)	
	How to change	Select from the drop-down list.	
	Restriction	EUC code (-euc)	Handles the characters in strings, character constants, and comments by using EUC.
		SJIS code (-sjis)	Handles the characters in strings, character constants, and comments by using SJIS.
		ISO-Latin1 code (-latin1)	Handles the characters in strings, character constants, and comments by using ISO-Latin1.
		UTF-8 code (-utf8)	Handles the characters in strings, character constants, and comments by using UTF-8.
		Traditional Chinese character (-big5)	Handles the characters in strings, character constants, and comments by using Traditional Chinese character.
		Simplified Chinese character (-gb2312)	Handles the characters in strings, character constants, and comments by using Simplified Chinese character.

(2) [Object]
The detailed information on the object is displayed and the configuration can be changed.

Path of the output folder	Specifies the output destination folder for the output file. The following placeholders are supported. %BuildModeName%: Replaces with the build mode name. %ProjectName%: Replaces with the project name. %MicomToolPath%: Replaces with the absolute path of the product install folder. If this is blank, it is assumed that the project folder has been specified. This property corresponds to the -output option of the assembler. This property is displayed when [Always latest version which was installed] or a version number earlier than V2.00.00 is selected for the [Using compiler package version] property under the [Version Select] category on the [Common Options] tab in an environment where a version of the CC-RX compiler earlier than V2.00.00 has been installed.		
	Default	%BuildModeName%	
	How to change	Directly enter in the text box or edit by the Browse For Folder dialog box which appears when clicking the [...] button.	
	Restriction	Up to 247 characters	
Outputs debugging information	Selects whether to output debugging information to object module files. This property corresponds to the -debug and -nodebug options of the assembler. This property is displayed only when [No] in the [Build simultaneously] property in the [Build Method] category from the [Common Options] tab is selected.		
	Default	Yes (-debug)	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-debug)	Outputs debugging information to object module files.
		No (-nodebug)	Does not output debugging information to object module files.
Suppress outputting data to unused area made by .OFFSET	Selects whether to suppress outputting data to the unused area made by .OFFSET. This property corresponds to the -create_unfilled_area option of the assembler. This property is displayed when you have selected [Always latest version which was installed] or V2.03.00 or a later version for the [Using compiler package version] property under the [Version Select] category on the [Common Options] tab in an environment where V2.03.00 or a later version of the CC-RX compiler has been installed.		
	Default	No	
	How to change	Select from the drop-down list.	
	Restriction	Yes(-create_unfilled_area)	Suppresses outputting data to the unused area made by .OFFSET.
		No	Does not suppress outputting data to the unused area made by .OFFSET.

(3) [List]

The detailed information on the list is displayed and the configuration can be changed.
This category is displayed only when [No] in the [Build simultaneously] property in the [Build Method] category from the [Common Options] tab is selected.

Outputs an assemble list file	Selects whether to output an assemble list file. This property corresponds to the -listfile and -nolistfile option of the assembler.		
	Default	No (-nolistfile)	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-listfile)	Outputs an assemble list file.
		No (-nolistfile)	Does not output an assemble list file.
Outputs the statements unsatisfied in conditional assembly	Specifies the contents of the assemble list file. Selects whether to output the statements unsatisfied in conditional assembly. This property corresponds to the -show option of the assembler. This property is displayed only when [Yes (-listfile)] in the [Output a assemble list file] property is selected.		
	Default	No	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-show=conditionals)	Outputs the statements unsatisfied in conditional assembly.
		No	Does not output the statements unsatisfied in conditional assembly.
Outputs the information before .DEFINE replacement	Specifies the contents of the assemble list file. Selects whether to output the information before .DEFINE replacement. This property corresponds to the -show option of the assembler. This property is displayed only when [Yes (-listfile)] in the [Output a assemble list file] property is selected.		
	Default	No	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-show=definitions)	Outputs the information before replacement specified with .DEFINE.
		No	Does not output the information before replacement specified with .DEFINE.
Outputs the assembler macro expansion statements	Specifies the contents of the assemble list file. Selects whether to output the assembler macro expansion statements. This property corresponds to the -show option of the assembler. This property is displayed only when [Yes (-listfile)] in the [Output a assemble list file] property is selected.		
	Default	No	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-show=expansions)	Outputs the macro expansion statements.
		No	Does not output the macro expansion statements.

(4) [Optimization]
The detailed information on the optimization is displayed and the configuration can be changed.
This category is displayed only when [No] in the [Build simultaneously] property in the [Build Method] category from the [Common Options] tab is selected.

Output additional information for inter-module optimization	Selects whether to output additional information for inter-module optimization. At linkage, inter-module optimization is applied to files for which this option has been specified. This property corresponds to the -goptimize option of the assembler.		
	Default	No	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-goptimize)	Outputs additional information for inter-module optimization.
		No	Does not output additional information for inter-module optimization.

(5) [Others]
Other detailed information on assembly is displayed and the configuration can be changed.

Checks for a privileged instruction	Selects whether to check for a privileged instruction. This property corresponds to the -chkpm option of the assembler.		
	Default	No	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-chkpm)	Checks for a privileged instruction.
		No	Does not check for a privileged instruction.
Checks for a single-precision floating-point operation instruction	Selects whether to check for a single-precision floating-point operation instruction. This property corresponds to the -chkfpu option of the assembler.		
	Default	No	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-chkfpu)	Checks for a single-precision floating-point operation instruction.
		No	Does not check for a single-precision floating-point operation instruction.
Checks for a double-precision floating-point operation instruction	Selects whether to check for a double-precision floating-point operation instruction. This property corresponds to the -chkdpfpu option of the assembler. This property is displayed when you have selected [Always latest version which was installed] or V3.01.00 or a later version for the [Using compiler package version] property under the [Version Select] category on the [Common Options] tab in an environment where V3.01.00 or a later version of the CC-RX compiler has been installed.		
	Default	No	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-chkdpfpu)	Checks for a double-precision floating-point operation instruction.
		No	Does not check for a double-precision floating-point operation instruction.

Checks for a DSP instruction	Selects whether to check for a DSP instruction. This property corresponds to the -chkdsp option of the assembler.		
	Default	No	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-chkdsp)	Checks for a DSP instruction.
		No	Does not check for a DSP instruction.
Outputs the copyright	Selects whether to output the copyright. This property corresponds to the -logo and -nologo option of the assembler.		
	Default	No (-nologo)	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-logo)	Outputs the copyright.
		No (-nologo)	Disables output of the copyright.
Commands executed before assemble processing	Specifies the command to be executed before assemble processing. Use the call instruction to specify a batch file (example: call a.bat). The following placeholders are supported. %ActiveProjectDir%: Replaces with the absolute path of the active project folder. %ActiveProjectName%: Replaces with the active project name. %AssembledFile%: Replaces with the absolute path of the output file under assembling. %BuildModeName%: Replaces with the build mode name. %InputFile%: Replaces with the absolute path of the file to be assembled (except in case of simultaneous building). %MainProjectDir%: Replaces with the absolute path of the main project folder. %MainProjectName%: Replaces with the main project name. %MicomToolPath%: Replaces with the absolute path of the install folder of this product. %OutputDir%: Replaces with the absolute path of the output folder. %OutputFile%: Replaces with the absolute path of the output file. %Program%: Replaces with the file name of the running program. %ProjectDir%: Replaces with the absolute path of the project folder. %ProjectName%: Replaces with the project name. %TempDir%: Replaces with the absolute path of the temporary folder. %WinDir%: Replaces with the absolute path of the Windows system folder. When "#!python" is described in the first line, the contents from the second line to the last line are regarded as the script of the Python console, and then executed before assemble processing. The placeholders can be described in the script. The specified command is displayed as the subproperty.		
	Default	Commands executed before assemble processing[*number of defined items*]	
	How to change	Edit by the Text Edit dialog box which appears when clicking the [...] button. For the subproperty, you can use the text box directly enter the text.	
	Restriction	Up to 1023 characters Up to 64 items can be specified.	

<table>
<tr><td>Commands executed after assemble processing</td><td colspan="2">Specifies the command to be executed after assemble processing.
Use the call instruction to specify a batch file (example: call a.bat).
The following placeholders are supported.
%ActiveProjectDir%: Replaces with the absolute path of the active project folder.
%ActiveProjectName%: Replaces with the active project name.
%AssembledFile%: Replaces with the absolute path of the output file under assembling.
%BuildModeName%: Replaces with the build mode name.
%InputFile%: Replaces with the absolute path of the file to be assembled (except in case of simultaneous building).
%MainProjectDir%: Replaces with the absolute path of the main project folder.
%MainProjectName%: Replaces with the main project name.
%MicomToolPath%: Replaces with the absolute path of the install folder of this product.
%OutputDir%: Replaces with the absolute path of the output folder.
%OutputFile%: Replaces with the absolute path of the output file.
%Program%: Replaces with the file name of the running program.
%ProjectDir%: Replaces with the absolute path of the project folder.
%ProjectName%: Replaces with the project name.
%TempDir%: Replaces with the absolute path of the temporary folder.
%WinDir%: Replaces with the absolute path of the Windows system folder.
When "#!python" is described in the first line, the contents from the second line to the last line are regarded as the script of the Python console, and then executed after assemble processing.
The placeholders can be described in the script.
The specified command is displayed as the subproperty.</td></tr>
<tr><td></td><td>Default</td><td>Commands executed after assemble processing[number of defined items]</td></tr>
<tr><td></td><td>How to change</td><td>Edit by the Text Edit dialog box which appears when clicking the [...] button.
For the subproperty, you can use the text box directly enter the text.</td></tr>
<tr><td></td><td>Restriction</td><td>Up to 1023 characters
Up to 64 items can be specified.</td></tr>
<tr><td>Other additional options</td><td colspan="2">Inputs the assemble options to be added additionally.
The options set here are added at the end of the assemble options group.
The following placeholders are supported.
%ActiveProjectDir%: Replaces with the absolute path of the active project folder.
%ActiveProjectName%: Replaces with the active project name.
%BuildModeName%: Replaces with the build mode name.
%MainProjectDir%: Replaces with the absolute path of the main project folder.
%MainProjectName%: Replaces with the main project name.
%MicomToolPath%: Replaces with the absolute path of the install folder of this product.
%ProjectDir%: Replaces with the absolute path of the project folder.
%ProjectName%: Replaces with the project name.
%TempDir%: Replaces with the absolute path of the temporary folder.
%WinDir%: Replaces with the absolute path of the Windows system folder.
Caution When [Yes] is selected on the [Build simultaneously] property in the [Build Method] category from the [Common Options] tab , only one option can be specified in this property.</td></tr>
<tr><td></td><td>Default</td><td>Blank</td></tr>
<tr><td></td><td>How to change</td><td>Directly enter to the text box or edit by the Character String Input dialog box which appears when clicking the [...] button.</td></tr>
<tr><td></td><td>Restriction</td><td>Up to 259 characters</td></tr>
</table>

Command line	The specified option is displayed.	
	Default	Command line[*number of defined items*]
	How to change	Changes not allowed

[Link Options] tab

This tab shows the detailed information on the link phase categorized by the following and the configuration can be changed.

Caution This tab is not displayed for the library project.

[Description of each category]

(1) [Input]

The detailed information on input files is displayed and the configuration can be changed.

Input object module file	Specifies an input object module file. Add one file in one line. The following placeholders are supported. %BuildModeName%: Replaces with the build mode name. %ProjectName%: Replaces with the project name. %MicomToolPath%: Replaces with the absolute path of the product install folder. This property corresponds to the -Input option of the linker. The specified file name is displayed as the subproperty.	
	Default	Input object module file[*number of defined items*]
	How to change	Edit by the Text Edit dialog box which appears when clicking the [...] button. For the subproperty, you can use the text box directly enter the text.
	Restriction	Up to 32767 characters Up to 65536 items can be specified.
Using libraries	Specifies an input library file. The following placeholders are supported. %BuildModeName%: Replaces with the build mode name. %ProjectName%: Replaces with the project name. %MicomToolPath%: Replaces with the absolute path of the product install folder. This property corresponds to the -library option of the linker. The library file name is displayed as the subproperty.	
	Default	Input library file [*number of defined items*]
	How to change	Edit by the Path Edit dialog box which appears when clicking the [...] button. For the subproperty, you can enter directly in the text box.
	Restriction	Up to 259 characters Up to 65536 items can be specified.
System library file	The specified system library files are displayed. This property corresponds to the -library option of the linker.	
	Default	System library file[*number of defined items*]
	Restriction	Changes not allowed

Input binary data file	Specifies an input binary data file. Specifies in the format of "*file name (section name:boundary alignment/section attribute,symbol name)*", with one file name per line. The ":*boundary alignment*", "*/section attribute*", or "*,symbol name*" part can be omitted. 1, 2, 4, 8, 16, or 32 can be specified for the "*boundary alignment*". When the boundary alignment specification is omitted, 1 is used as the default. CODE or DATA can be specified for the "*section attribute*". When "*section attribute*" specification is omitted, the write, read, and execute attributes are all enabled by default. The following placeholders are supported. %BuildModeName%: Replaces with the build mode name. %ProjectName%: Replaces with the project name. %MicomToolPath%: Replaces with the absolute path of the product install folder. This property corresponds to the -binary option of the linker. The binary data file name is displayed as the subproperty.		
	Default	Specify binary data file[*number of defined items*]	
	How to change	Edit by the Text Edit dialog box which appears when clicking the [...] button. For the subproperty, you can use the text box directly enter the text.	
	Restriction	Up to 32767 characters Up to 65536 items can be specified.	
Symbol definition	Specifies the symbol name to be defined. Specifies in the format of "*symbol name=symbol name*" or "*symbol name=numerical value*", with one symbol name per line. Specifies the numerical value in the hexadecimal notation. This property corresponds to the -define option of the linker.		
	Default	Symbol definition[*number of defined items*]	
	How to change	Edit by the Text Edit dialog box which appears when clicking the [...] button. For the subproperty, you can use the text box directly enter the text.	
	Restriction	Up to 32767 characters Up to 65536 items can be specified.	
Specifies execution start address	Selects whether to specify the execution start address. Specifies in the format of "symbol" or "address". Specifies an address in the hexadecimal notation. This property corresponds to the -entry option of the linker.		
	Default	No	
	How to change	Select from the drop-down list.	
	Restriction	Yes(-ENTry)	Specifies execution start address.
		No	Does not specify execution start address.
Execution start address	Specifies the execution start address. Specifies in the format of "*symbol name*" or "*address*". Specifies an address in the hexadecimal notation. This property corresponds to the -entry option of the linker. This property is displayed only when [Yes(-ENTry)] in the [Specifies execution start address] property is selected.		
	Default	Blank	
	How to change	Directly enter in the text box or edit by the Character String Input dialog box which appears when clicking the [...] button.	
	Restriction	Up to 32767 characters	

Initiates the prelinker	Selects whether to initiate the prelinker (The automatic generation of C++ template instance). This property corresponds to the -noprelink option of the linker.		
	Default	Automatic control	
	How to change	Select from the drop-down list.	
	Restriction	Automatic control	Disables the prelinker initiation if there is no ii file in a file to be input to linker.
		Yes	Enables the prelinker initiation.
		No (-NOPRElink)	Disables the prelinker initiation.

(2) [Output]
The detailed information on output files are displayed and the configuration can be changed.

Output file type	The output file type is displayed. This property corresponds to the -form option of the linker.		
	Default	Load module file (-FOrm=Absolute)	
	How to change	Changes not allowed.	
Outputs debugging information	Specifies whether debugging information is output. This property corresponds to the -nodebug, -sdebug, and -debug options of the linker.		
	Default	Yes (Outputs to the output file) (-DEBug)	
	How to change	Select from the drop-down list.	
	Restriction	Yes (Outputs to the output file) (-DEBug)	Outputs a debugging information to the output file.
		Yes (Outputs to <output file name>.dbg file) (-SDebug)	Outputs a debugging information to <output file name>.dbg file.
		No (-NODEBug)	Does not output a debugging information.
ROM to RAM mapped section	Reserves ROM and RAM areas in the initialized data area and relocates a defined symbol in the ROM section with the specified address in the RAM section. Specifies in the format of "*ROM section name=RAM section name*", with one section name per line. This property corresponds to the -rom option of the linker.		
	Default	ROM to RAM mapped section [*number of defined items*]	
	How to change	Edit by the Text Edit dialog box which appears when clicking the [...] button. For the subproperty, you can use the text box directly enter the text.	
	Restriction	Up to 32767 characters Up to 1024 items can be specified.	

Divides load module file	Selects whether to divide load module file. This property corresponds to the -output option of the linker.		
	Default	No	
	How to change	Select from the drop-down list.	
	Restriction	Yes	Divides load module file.
		No	Does not divide load module file.
Path of the output folder	Specifies path of the output folder. The following placeholders are supported. %BuildModeName%: Replaces with the build mode name. %ProjectName%: Replaces with the project name. %MicomToolPath%: Replaces with the absolute path of the product install folder. If this is blank, it is assumed that the project folder has been specified. This property corresponds to the -output option of the linker.		
	Default	%BuildModeName%	
	How to change	Directly enter in the text box or edit by the Browse For Folder dialog box which appears when clicking the [...] button.	
	Restriction	Up to 247 characters	
Output file name	Specifies an output file name. If the extension is omitted, ".abs" is automatically added. The following placeholders are supported. %ActiveProjectName%: Replaces with the active project name. %BuildModeName%: Replaces with the build mode name. %MainProjectName%: Replaces with the main project name. %ProjectName%: Replaces with the project name. If this is blank, it is assumed that "%ProjectName%.abs" has been specified. This property corresponds to the -output option of the linker.		
	Default	%ProjectName%.abs	
	How to change	Directly enter in the text box.	
	Restriction	Up to 259 characters	

<table>
<tr><td>Division output file</td><td colspan="3">Specifies the divided output file.
Specifies in the format of "file name=start address-end address" or "file name=section name", with one file name per line.
To define multiple sections, use a colon to separate each entry written, as in "file name=section name:section name". (example: file1.abs=sec1:sec2).
Specifies an address in the hexadecimal notation (example: file2.abs=400-ffff).
If the extension is omitted, ".abs" is automatically added.
The following placeholders are supported.
%BuildModeName%: Replaces with the build mode name.
%ProjectName%: Replaces with the project name.
%MicomToolPath%: Replaces with the absolute path of the product install folder.
If this is blank, it is assumed that "%ProjectName%.abs" has been specified.
This property corresponds to the -output option of the linker.
This property is displayed only when [Yes] in the [Divides load module file] property is selected.</td></tr>
<tr><td></td><td>Default</td><td colspan="2">Specifies divide output file[number of defined items]</td></tr>
<tr><td></td><td>How to change</td><td colspan="2">Edit by the Text Edit dialog box which appears when clicking the [...] button.
For the subproperty, you can use the text box directly enter the text.</td></tr>
<tr><td></td><td>Restriction</td><td colspan="2">Up to 32767 characters
Up to 1024 items can be specified.</td></tr>
<tr><td>Outputs the external symbol-allocation information file</td><td colspan="3">Selects whether to output the external symbol-allocation information file.
This property corresponds to the -map option of the linker.</td></tr>
<tr><td></td><td>Default</td><td colspan="2">- When [Yes(Optimizes the inter-module) (-map)] in the [Optimizes accesses to external variables] property in the [Optimization] category from the [Compile Options] tab is selected
Yes (-Map)
- Other than above
No</td></tr>
<tr><td></td><td>How to change</td><td colspan="2">Select from the drop-down list.</td></tr>
<tr><td></td><td rowspan="2">Restriction</td><td>Yes (-Map)</td><td>Divides load module file.</td></tr>
<tr><td></td><td>No</td><td>Does not divide load module file.</td></tr>
<tr><td>Enables information-level message output</td><td colspan="3">Specifies whether to enable information-level message output.
This property corresponds to the -message and -nomessage options of the linker.</td></tr>
<tr><td></td><td>Default</td><td colspan="2">No (-NOMessage)</td></tr>
<tr><td></td><td>How to change</td><td colspan="2">Select from the drop-down list.</td></tr>
<tr><td></td><td rowspan="2">Restriction</td><td>Yes (-Message)</td><td>Outputs information level messages.</td></tr>
<tr><td></td><td>No (-NOMessage)</td><td>Disables the output of information level messages.</td></tr>
</table>

Notification of unreferenced symbol	Selects whether to notify the unreferenced symbol. This property corresponds to the -msg_unused option of the linker. Note that this property is displayed when [Yes (-Message)] is selected in the [Enables information-level message output] property or when [No (-NOMessage)] is selected in the [Enables information-level message output] property while 400 is not included in the numbers of the [Suppresses the number of information-level messages] property.		
	Default	No	
	How to change	Select from the drop-down list.	
	Restriction	Yes(-MSg_unused)	Notifies the unreferenced symbol.
		No	Does not notify the unreferenced symbol.
Suppresses the number of information-level messages	Specifies suppresses the number of information-level messages. If multiple message numbers are specified, delimit them with a comma (example: 23043,23042). Also, the range can be set using hyphen (example: 23044-23045,23046-23048). This property corresponds to the -nomessage option of the linker. This property is displayed only when [No (-NOMessage)] in the [Enables information-level message output] property is specified.		
	Default	Blank	
	How to change	Directly enter in the text box or edit by the Character String Input dialog box which appears when clicking the [...] button.	
	Restriction	Up to 32767 characters	
Fills in padding data at the end of a section	Selects whether to fill in padding data at the end of a section. This property corresponds to the -padding option of the linker.		
	Default	No	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-PADDING)	Fills in padding data at the end of a section.
		No	Does not fill in padding data at the end of a section.
Address setting for specified vector number	Specifies the address setting for specified vector number. Specifies in the format of "*vector number*=*symbol*" or "*vector number*=*address*", with one vector number per line. Specifies a decimal value from 0 to 255 for "*vector number*". Specifies the external name of the target function for "*symbol*". Specifies an address in the hexadecimal notation. This property corresponds to the -vectn option of the linker.		
	Default	Address setting for specified vector number[*number of defined items*]	
	How to change	Edit by the Text Edit dialog box which appears when clicking the [...] button. For the subproperty, you can use the text box directly enter the text.	
	Restriction	Up to 32767 characters Up to 65536 items can be specified.	

Address setting for unused vector area	Specifies the address setting for unused vector area. Specifies in the format of "*symbol*" or "*address*". Specifies the external name of the target function for "*symbol*". Specifies an address in the hexadecimal notation. This property corresponds to the -vect option of the linker.		
	Default	Blank	
	How to change	Directly enter in the text box or edit by the Character String Input dialog box which appears when clicking the [...] button.	
	Restriction	Up to 32767 characters	
Outputs the jump table	Selects whether to output the jump table. This property corresponds to the -jump_entries_for_pic option of the linker.		
	Default	No	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-JUMP_ENTRIES_FOR_PIC)	Outputs a jump table.
		No	Does not output a jump table.
The section that outputs a jump table to branch to external definition symbols	Specifies the section that outputs a jump table to branch to external definition symbols. Specifies in the format of "*section name*", with one section per line. This property corresponds to the -jump_entry_for_pic option of the linker. This property is displayed only when [Yes (-JUMP_ENTRIES_FOR_PIC)] in the [Outputs the jump table] property is specified.		
	Default	The section that outputs a jump table to branch to external definition symbols[*number of defined items*]	
	How to change	Edit by the Text Edit dialog box which appears when clicking the [...] button. For the subproperty, you can use the text box directly enter the text.	
	Restriction	Up to 32767 characters Up to 65536 items can be specified.	
Generate function list used for detecting illegal indirect function call	Selects whether to generate a list of functions that are safe in terms of the detection of illegal indirect function calls. This property is changed to [Yes(-CFI)] when [Yes(-control_flow_integrity)] in the [Detect illegal indirect function call] property in the [Quality Improvement] category from the [Compile Options] tab is selected. This property is usable only in the Professional Edition. This property corresponds to the -CFI option of the linker. This property is displayed when you have selected [Always latest version which was installed] or V2.08.00 or a later version for the [Using compiler package version] property under the [Version Select] category on the [Common Options] tab in an environment where V2.08.00 or a later version of the CC-RX compiler has been installed.		
	Default	No	
	How to change	Select from the drop-down list.	
	Restriction	Yes(-CFI)	Generates a list of functions that are safe in terms of the detection of illegal indirect function calls.
		No	Does not generate a list of functions that are safe in terms of the detection of illegal indirect function calls.

<table>
<tr><td>Additional function symbols or addresses to function list</td><td colspan="2">Specifies the symbols or addresses of functions that you wish to add to the list of functions that are safe in terms of the detection of illegal indirect function calls.
In the process of detecting illegal indirect function calls, the linker generates a list of safe functions and embeds this list in the load module. Then the code output by the compiler with [Detect illegal indirect function calls] enabled will refer to the list while the user-created application is running. Use this property if you wish to add any symbols or addresses of functions to the list, which is otherwise automatically configured based on the information input to the linker.
Specify in the format of "function symbol|address[,...]", with one function name per line.
This property is usable only in the Professional Edition.
This property corresponds to the -CFI_ADD_Func option of the linker.
This property is displayed only in the following cases.
- When you have selected [Always latest version which was installed] or V2.08.00 or a later version for the [Using compiler package version] property under the [Version Select] category on the [Common Options] tab in an environment where V2.08.00 or a later version of the CC-RX compiler has been installed
- When [Yes(-CFI)] in the [Generate function list used for detecting illegal indirect function call] property is selected</td></tr>
<tr><td></td><td>Default</td><td>Additional function symbols or addresses to function list[number of defined items]</td></tr>
<tr><td></td><td>How to change</td><td>Edit by the Path Edit dialog box which appears when clicking the [...] button.
For the subproperty, you can enter directly in the text box.</td></tr>
<tr><td></td><td>Restriction</td><td>Up to 32767 characters
Up to 65536 items can be specified.</td></tr>
<tr><td>Excluded modules from function list</td><td colspan="2">Specifies modules that you wish to exempt from the list of functions that are safe in terms of the detection of illegal indirect function calls.
In the process of detecting illegal indirect function calls, the linker generates a list of safe functions and embeds this list in the load module. Then the code output by the compiler with [Detect illegal indirect function calls] enabled will refer to the list while the user-created application is running. Use this property if you wish to exempt all functions of any modules from the list, which is otherwise automatically configured based on the information input to the linker.
Specify in the format of "<i>object file name</i>[,...]" or "<i>library file name</i>[(<<i>module name in library</i>>[,<<i>module name in library</i>>]...)][,...]", with one file name per line.
The library file name can be specified only when the CC-RX compiler is V3.00.00 or later.
All functions which are included in the specified object file or module in the library are excluded from the function list.
This property is usable only in the Professional Edition.
This property corresponds to the -CFI_IGNORE_Module option of the linker.
This property is displayed only in the following cases.
- When you have selected [Always latest version which was installed] or V2.08.00 or a later version for the [Using compiler package version] property under the [Version Select] category on the [Common Options] tab in an environment where V2.08.00 or a later version of the CC-RX compiler has been installed
- When [Yes(-CFI)] in the [Generate function list used for detecting illegal indirect function call] property is selected</td></tr>
<tr><td></td><td>Default</td><td>Excluded modules from function list[number of defined items]</td></tr>
<tr><td></td><td>How to change</td><td>Edit by the Path Edit dialog box which appears when clicking the [...] button.
For the subproperty, you can enter directly in the text box.</td></tr>
<tr><td></td><td>Restriction</td><td>Up to 32767 characters
Up to 65536 items can be specified.</td></tr>
</table>

Split vector table sections	Selects whether the vector table sections are to be separately generated by vector number. This property corresponds to the -SPLIT_VECT option of the linker. This property is displayed only in the following cases. - When [Always latest version which was installed] or V3.00.00 or a later version is selected for the [Using compiler package version] property under the [Version Select] category on the [Common Options] tab in an environment where V3.00.00 or a later version of the CC-RX compiler has been installed - When the [Address setting for unused vector area] property is blank		
	Default	No	
	How to change	Select from the drop-down list.	
	Restriction	Yes(-SPLIT_VECT)	Splits vector table sections.
		No	Does not split vector table sections.

(3) [Convert Load Module File]
The detailed information on converting the load-module file are displayed and the configuration can be changed.

Load module file convert format	Selects the load module file convert format. This property corresponds to the -form option of the linker. This property is displayed only in the following cases. - When [Always latest version which was installed] or a version number earlier than V2.00.00 is selected for the [Using compiler package version] property under the [Version Select] category on the [Common Options] tab in an environment where a version of the CC-RX compiler earlier than V2.00.00 has been installed - When [No] in the [Divides load module file] property in the [Output] category is selected		
	Default	S record file (-FOrm=Stype)	
	How to change	Select from the drop-down list.	
	Restriction	Not convert	Does not convert the output file.
		Hex file (-FOrm=Hexadecimal)	Outputs a hex file.
		S record file (-FOrm=Stype)	Outputs a Motorola S-type file.
		Binary data file (-FOrm=Binary)	Outputs a binary data file.

<table>
<tr><td>Unifies the record size</td><td colspan="3">Selects whether to output data with the specified data record regardless of the address range.
This property corresponds to the -record option of the linker.
This property is displayed only in the following cases.
- When [Always latest version which was installed] or a version number earlier than V2.00.00 is selected for the [Using compiler package version] property under the [Version Select] category on the [Common Options] tab in an environment where a version of the CC-RX compiler earlier than V2.00.00 has been installed
- When [Hex file (-FOrm=Hexadecimal)] in the [Load module file convert format] property is selected</td></tr>
<tr><td></td><td>Default</td><td colspan="2">No</td></tr>
<tr><td></td><td>How to change</td><td colspan="2">Select from the drop-down list.</td></tr>
<tr><td></td><td rowspan="4">Restriction</td><td>No</td><td>Outputs various data records according to each address.</td></tr>
<tr><td>Yes (HEX record) (-REcord=H16)</td><td>Outputs the HEX record for the data records.</td></tr>
<tr><td>Yes (Expansion HEX record) (-REcord=H20)</td><td>Outputs the Expansion HEX record for the data records.</td></tr>
<tr><td>Yes (32-bit HEX record) (-REcord=H32)</td><td>Outputs the 32-bit HEX record for the data records.</td></tr>
<tr><td>Unifies the record size</td><td colspan="3">Selects whether to output data with the specified data record regardless of the address range.
This property corresponds to the -record option of the linker.
This property is displayed only in the following cases.
- When [Always latest version which was installed] or a version number earlier than V2.00.00 is selected for the [Using compiler package version] property under the [Version Select] category on the [Common Options] tab in an environment where a version of the CC-RX compiler earlier than V2.00.00 has been installed
- When [S record file (-FOrm=Stype)] in the [Load module file convert format] property is selected</td></tr>
<tr><td></td><td>Default</td><td colspan="2">No</td></tr>
<tr><td></td><td>How to change</td><td colspan="2">Select from the drop-down list.</td></tr>
<tr><td></td><td rowspan="4">Restriction</td><td>No</td><td>Outputs various data records according to each address.</td></tr>
<tr><td>Yes (S1 record) (-REcord=S1)</td><td>Outputs the S1 record for the data records.</td></tr>
<tr><td>Yes (S2 record) (-REcord=S2)</td><td>Outputs the S2 record for the data records.</td></tr>
<tr><td>Yes (S3 record) (-REcord=S3)</td><td>Outputs the S3 record for the data records.</td></tr>
</table>

<table>
<tr><td>Divides the conversion file</td><td colspan="3">Selects whether to divide the conversion file.
This property corresponds to the -output option of the linker.
This property is displayed only in the following cases.
- When [Always latest version which was installed] or a version number earlier than V2.00.00 is selected for the [Using compiler package version] property under the [Version Select] category on the [Common Options] tab in an environment where a version of the CC-RX compiler earlier than V2.00.00 has been installed
- When a choice other than [Not convert] was made in the [Load module file convert format] property</td></tr>
<tr><td></td><td>Default</td><td colspan="2">No</td></tr>
<tr><td></td><td>How to change</td><td colspan="2">Select from the drop-down list.</td></tr>
<tr><td></td><td rowspan="2">Restriction</td><td>Yes</td><td>Divides the conversion file.</td></tr>
<tr><td></td><td>No</td><td>Does not divide the conversion file.</td></tr>
<tr><td>Path of the conversion file output folder</td><td colspan="3">Specifies path of the conversion file output folder.
The following placeholders are supported.
%BuildModeName%: Replaces with the build mode name.
%ProjectName%: Replaces with the project name.
%MicomToolPath%: Replaces with the absolute path of the product install folder.
If this is blank, it is assumed that the project folder has been specified.
This property corresponds to the -output option of the linker.
This property is displayed only in the following cases.
- When [Always latest version which was installed] or a version number earlier than V2.00.00 is selected for the [Using compiler package version] property under the [Version Select] category on the [Common Options] tab in an environment where a version of the CC-RX compiler earlier than V2.00.00 has been installed
- When [No] in the [Divides the conversion file] property is selected</td></tr>
<tr><td></td><td>Default</td><td colspan="2">%BuildModeName%</td></tr>
<tr><td></td><td>How to change</td><td colspan="2">Directly enter in the text box or edit by the Browse For Folder dialog box which appears when clicking the [...] button.</td></tr>
<tr><td></td><td>Restriction</td><td colspan="2">Up to 247 characters</td></tr>
</table>

<table>
<tr><td>Divides the conversion file</td><td colspan="2">Selects whether to divide the conversion file.
The default extensions depends on [Load module file convert format] property when extension omitted.
The default extensions are as follows:
"Hex file (-FOrm=Hexadecimal)" : .hex
"S record file (-FOrm=Stype)" : .mot
"Binary data file (-FOrm=Binary)" : .bin.
The following placeholders are supported.
%ProjectName%: Replaces with the project name.
This property corresponds to the -output option of the linker.
This property is displayed only in the following cases.
- When [Always latest version which was installed] or a version number earlier than V2.00.00 is selected for the [Using compiler package version] property under the [Version Select] category on the [Common Options] tab in an environment where a version of the CC-RX compiler earlier than V2.00.00 has been installed
- When [No] in the [Divides the conversion file] property is selected</td></tr>
<tr><td rowspan="3"></td><td>Default</td><td>- When [Hex file (-FOrm=Hexadecimal)] in the [Load module file convert format] property is selected
%ProjectName%.hex
- When [S record file (-FOrm=Stype)] in the [Load module file convert format] property is selected
%ProjectName%.mot
- When [Binary data file (-FOrm=Binary)] in the [Load module file convert format] property is selected
%ProjectName%.bin</td></tr>
<tr><td>How to change</td><td>Directly enter in the text box.</td></tr>
<tr><td>Restriction</td><td>Up to 259 characters</td></tr>
</table>

<table>
<tr><td>Division conversion file</td><td colspan="3">Specifies the division conversion file.
Specifies in the format of "file name=start address-end address" or "file name=section name", with one file name per line.
Specifies an address in the hexadecimal notation (example: file2.mot=400-ffff).
To define multiple sections, use a colon to separate each entry written, as in "file name=section name:section name" (example: file1.mot=stack:istack).
The default extensions depends on [Load module file convert format] property when extension omitted.
The default extensions are as follows:
"Hex file (-FOrm=Hexadecimal)" : .hex
"S record file (-FOrm=Stype)" : .mot
"Binary data file (-FOrm=Binary)" : .bin.
The following placeholders are supported.
%BuildModeName%: Replaces with the build mode name.
%ProjectName%: Replaces with the project name.
%MicomToolPath%: Replaces with the absolute path of the product install folder.
This property corresponds to the -output option of the linker.
This property is displayed only in the following cases.
- When [Always latest version which was installed] or a version number earlier than V2.00.00 is selected for the [Using compiler package version] property under the [Version Select] category on the [Common Options] tab in an environment where a version of the CC-RX compiler earlier than V2.00.00 has been installed
- When [Yes] in the [Divides the conversion file] property is selected</td></tr>
<tr><td></td><td>Default</td><td colspan="2">Division conversion file[number of defined items]</td></tr>
<tr><td></td><td>How to change</td><td colspan="2">Edit by the Text Edit dialog box which appears when clicking the [...] button.
For the subproperty, you can use the text box directly enter the text.</td></tr>
<tr><td></td><td>Restriction</td><td colspan="2">Up to 32767 characters
Up to 65536 items can be specified.</td></tr>
<tr><td>Fills the unused areas in the output ranges with the value</td><td colspan="3">Selects whether to fill the unused areas in the output ranges with the value.
This property corresponds to the -space option of the linker.
This property is displayed only in the following cases.
- When [Always latest version which was installed] or a version number earlier than V2.00.00 is selected for the [Using compiler package version] property under the [Version Select] category on the [Common Options] tab in an environment where a version of the CC-RX compiler earlier than V2.00.00 has been installed
- When a choice other than [Not convert] was made in the [Load module file convert format] property and when a convert file name in the [Division conversion file] property is specified</td></tr>
<tr><td></td><td>Default</td><td colspan="2">No</td></tr>
<tr><td></td><td>How to change</td><td colspan="2">Select from the drop-down list.</td></tr>
<tr><td></td><td rowspan="3">Restriction</td><td>Yes (Random) (-SPace=Random)</td><td>Fills the unused areas in the output ranges with random values.</td></tr>
<tr><td>Yes (Specification value) (-SPace=<numerical value>)</td><td>Fills the unused areas in the output ranges with user-specified hexadecimal value.</td></tr>
<tr><td>No</td><td>Does not fill the unused areas in the output ranges with data.</td></tr>
</table>

<table>
<tr><td>Output padding data</td><td colspan="3">Specifies the output padding data.
This property corresponds to the -space option of the linker.
This property is displayed only in the following cases.
- When [Always latest version which was installed] or a version number earlier than V2.00.00 is selected for the [Using compiler package version] property under the [Version Select] category on the [Common Options] tab in an environment where a version of the CC-RX compiler earlier than V2.00.00 has been installed
- When [Yes (Specification value) (-SPace=<numerical value>)] in the [Fills the unused areas in the output ranges with the value] property is specified</td></tr>
<tr><td></td><td>Default</td><td colspan="2">FF (hexadecimal number)</td></tr>
<tr><td></td><td>How to change</td><td colspan="2">Directly enter in the text box.</td></tr>
<tr><td></td><td>Restriction</td><td colspan="2">0 to FFFFFFFF (hexadecimal number)</td></tr>
<tr><td>Specifies byte count for data record</td><td colspan="3">Selects whether to specify the maximum byte count for a data record.
This property corresponds to the -byte_count option of the linker.
This property is displayed only in the following cases.
- When [Always latest version which was installed] or a version number earlier than V2.00.00 is selected for the [Using compiler package version] property under the [Version Select] category on the [Common Options] tab in an environment where a version of the CC-RX compiler earlier than V2.00.00 has been installed
- When [Hex file (-FOrm=Hexadecimal)] in the [Load module file convert format] property is selected</td></tr>
<tr><td></td><td>Default</td><td colspan="2">No</td></tr>
<tr><td></td><td>How to change</td><td colspan="2">Select from the drop-down list.</td></tr>
<tr><td></td><td rowspan="2">Restriction</td><td>Yes(-BYte_count)</td><td>Specifies the maximum byte count for a data.</td></tr>
<tr><td></td><td>No</td><td>Does not specify the byte count for a data.</td></tr>
<tr><td>Maximum byte count for a data record</td><td colspan="3">Specifies the maximum byte count for a data record.
This property corresponds to the -byte_count option of the linker.
This property is displayed only in the following cases.
- When [Always latest version which was installed] or a version number earlier than V2.00.00 is selected for the [Using compiler package version] property under the [Version Select] category on the [Common Options] tab in an environment where a version of the CC-RX compiler earlier than V2.00.00 has been installed
- When [Yes(-BYte_count)] in the [Specifies byte count for data record] property is specified</td></tr>
<tr><td></td><td>Default</td><td colspan="2">FF (hexadecimal number)</td></tr>
<tr><td></td><td>How to change</td><td colspan="2">Directly enter in the text box.</td></tr>
<tr><td></td><td>Restriction</td><td colspan="2">1 to FF (hexadecimal number)</td></tr>
</table>

<table>
<tr><td>Outputs the calculation result of CRC</td><td colspan="3">Selects whether to generate CRC code.
This property corresponds to the -crc option of the linker.
This property is displayed only in the following cases.
- When [Always latest version which was installed] or a version number earlier than V2.00.00 is selected for the [Using compiler package version] property under the [Version Select] category on the [Common Options] tab in an environment where a version of the CC-RX compiler earlier than V2.00.00 has been installed
- When [Hex file (-FOrm=Hexadecimal)] or [S record file (-FOrm=Stype)] in the [Load module file convert format] property is selected</td></tr>
<tr><td></td><td>Default</td><td colspan="2">No</td></tr>
<tr><td></td><td>How to change</td><td colspan="2">Select from the drop-down list.</td></tr>
<tr><td></td><td rowspan="8">Restriction</td><td>Yes (Polynomial expression: CRC-CCITT, Endian: Automatic) (-CRc)</td><td>Selects CRC-CCITT as a polynomial expression.</td></tr>
<tr><td></td><td>Yes (Polynomial expression: CRC-CCITT, Endian: Big-endian data) (-CRc)</td><td>Selects the CRC-CCITT as a polynomial expression and selects the BIG as an endian.</td></tr>
<tr><td></td><td>Yes (Polynomial expression: CRC-CCITT, Endian: Little-endian data) (-CRc)</td><td>Selects the CRC-CCITT as a polynomial expression and selects the LITTLE as an endian.</td></tr>
<tr><td></td><td>Yes (Polynomial expression: CRC-16, Endian: Automatic) (-CRc)</td><td>Selects CRC-16 as a polynomial expression.</td></tr>
<tr><td></td><td>Yes (Polynomial expression: CRC-16, Endian: Big-endian data)(-CRc)</td><td>Selects the CRC-16 as a polynomial expression and selects the BIG as an endian.</td></tr>
<tr><td></td><td>Yes (Polynomial expression: CRC-16, Endian: Little-endian) data (-CRc)</td><td>Selects the CRC-16 as a polynomial expression and selects the LITTLE as an endian.</td></tr>
<tr><td></td><td>No</td><td>Does not generate the CRC code.</td></tr>
<tr><td>Output address</td><td colspan="3">Specifies the address where the result is output.
Specifies an address in hexadecimal.
This property corresponds to the -crc option of the linker.
This property is displayed only in the following cases.
- When [Always latest version which was installed] or a version number earlier than V2.00.00 is selected for the [Using compiler package version] property under the [Version Select] category on the [Common Options] tab in an environment where a version of the CC-RX compiler earlier than V2.00.00 has been installed
- When a choice other than [No] was made in the [Outputs the calculation result of CRC] property</td></tr>
<tr><td></td><td>Default</td><td colspan="2">0</td></tr>
<tr><td></td><td>How to change</td><td colspan="2">Directly enter in the text box.</td></tr>
<tr><td></td><td>Restriction</td><td colspan="2">0 to FFFFFFFE (hexadecimal number)</td></tr>
</table>

Target range	Specifies the target range. Specifies in the format of "*start address-end address*". Specifies an address in the hexadecimal notation (example: 400-ffff). This property corresponds to the -crc option of the linker. This property is displayed only in the following cases. - When [Always latest version which was installed] or a version number earlier than V2.00.00 is selected for the [Using compiler package version] property under the [Version Select] category on the [Common Options] tab in an environment where a version of the CC-RX compiler earlier than V2.00.00 has been installed - When a choice other than [No] was made in the [Outputs the calculation result of CRC] property		
	Default	Target range[*number of defined items*]	
	How to change	Edit by the Text Edit dialog box which appears when clicking the [...] button. For the subproperty, you can use the text box directly enter the text.	
	Restriction	Up to 32767 characters Up to 65536 items can be specified.	
Outputs the S9 record at the end	Selects whether to output the S9 record at the end. This property corresponds to the -s9 option of the linker. This property is displayed only in the following cases. - When [Always latest version which was installed] or a version number earlier than V2.00.00 is selected for the [Using compiler package version] property under the [Version Select] category on the [Common Options] tab in an environment where a version of the CC-RX compiler earlier than V2.00.00 has been installed - When [S record file (-FOrm=Stype)] in the [Load module file convert format property is specified		
	Default	No	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-S9)	Outputs the S9 record at the end.
		No	Does not output the S9 record at the end.

(4) [List]
The detailed information on the list are displayed and the configuration can be changed.

Outputs the linkage list file	Selects whether to output the linkage list file. This property corresponds to the -list and -show option of the linker.		
	Default	Yes (List contents=specify) (-LISt)	
	How to change	Select from the drop-down list.	
	Restriction	Yes (List contents=not specify) (-LISt -SHow)	Outputs the default information associated with a output file type to a linkage list file.
		Yes (List contents=ALL) (-LISt -SHow=ALL)	Outputs all information associated with a output file type to a linkage list file.
		Yes (List contents=specify) (-LISt)	Outputs the specified information to a linkage list file.
		No	Does not output a linkage list file.

Outputs a symbol name list in a module	Selects whether to output a symbol name list in a module. This property corresponds to the -show option of the linker. This property is displayed when [Yes (List contents=specify) (-LISt)] in the [Outputs the linkage list file] property is selected.		
	Default	Yes (-SHow=SYmbol)	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-SHow=SYmbol)	Outputs a symbol information to the linkage list file.
		No	Does not output a symbol information to the linkage list file.
Outputs the number of symbol references	Selects whether to output the number of symbol references. This property corresponds to the -show option of the linker. This property is displayed when [Yes (List contents=specify) (-LISt)] in the [Outputs the linkage list file] property is selected.		
	Default	No	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-SHow=Reference)	Outputs the number of symbol references to the linkage list file.
		No	Does not output the number of symbol references to the linkage list file.
Outputs the cross-reference information	Selects whether to output the cross-reference information. This property corresponds to the -show option of the linker. This property is displayed when [Yes (List contents=specify) (-LISt)] in the [Outputs the linkage list file] property is selected.		
	Default	No	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-SHow=Xreference)	Outputs the cross reference information to the linkage list file.
		No	Does not output the cross reference information to the linkage list file.
Shows the total sizes of sections	Selects whether to show the total sizes of sections. This property corresponds to the -show option of the linker. This property is displayed when [Yes (List contents=specify) (-LISt)] in the [Outputs the linkage list file] property is selected.		
	Default	Yes (-SHow=Total_size)	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-SHow=Total_size)	Shows the total sizes of sections allocated to the ROM and RAM areas.
		No	Does not show the total sizes of sections.

<table>
<tr><td>Outputs information of members of struct or union</td><td colspan="3">Selects whether to output information of members of struct or union.
This property corresponds to the -show option of the linker.
This property is displayed in the following cases.
- When you have selected [Always latest version which was installed] or V2.03.00 or a later version for the [Using compiler package version] property under the [Version Select] category on the [Common Options] tab in an environment where V2.03.00 or a later version of the CC-RX compiler has been installed
- When [No optimize (-NOOPtimize)] / [Safe optimization (-OPtimize=SAFe)] in the [Optimization type] property in the [Optimization] category is selected, or [Custom] in the [Optimization type] property is selected and [No] in the [Deletes variables/ functions that are not referenced] property is selected
- When [No (-NOCOmpress)] in the [Compresses the debugging information] property in the [Others] category is selected
- When [No] in the [Deletes local symbol name information] property in the [Others] category is selected
- When [Yes (List contents=specify) (-LISt)] in the [Outputs the linkage list file] property is selected</td></tr>
<tr><td></td><td>Default</td><td colspan="2">No</td></tr>
<tr><td></td><td>How to change</td><td colspan="2">Select from the drop-down list.</td></tr>
<tr><td></td><td rowspan="2">Restriction</td><td>Yes (-SHow=STRUCT)</td><td>Outputs information of members of struct or union.</td></tr>
<tr><td></td><td>No</td><td>Does not output information of members of struct or union.</td></tr>
<tr><td>Outputs vector information</td><td colspan="3">Selects whether to output the vector information.
This property corresponds to the -show option of the linker.
This property is displayed when [Yes (List contents=specify) (-LISt)] in the [Outputs the linkage list file] property is selected.</td></tr>
<tr><td></td><td>Default</td><td colspan="2">No</td></tr>
<tr><td></td><td>How to change</td><td colspan="2">Select from the drop-down list.</td></tr>
<tr><td></td><td rowspan="2">Restriction</td><td>Yes (-SHow=VECTOR)</td><td>Outputs vector information to the linkage list file.</td></tr>
<tr><td></td><td>No</td><td>Does not output vector information to the linkage list file.</td></tr>
</table>

<table>
<tr><td rowspan="4">Outputs relocation attributes related to sections</td><td colspan="3">Selects whether to output relocation attributes related to sections.
This property corresponds to the -show option of the linker.
This property is displayed in the following cases.
- When you have selected [Always latest version which was installed] or V2.07.00 or a later version for the [Using compiler package version] property under the [Version Select] category on the [Common Options] tab in an environment where V2.07.00 or a later version of the CC-RX compiler has been installed
- When [Yes(List contents=specify)(-LISt)] in the [Outputs the linkage list file] property is selected</td></tr>
<tr><td>Default</td><td colspan="2">No</td></tr>
<tr><td>How to change</td><td colspan="2">Select from the drop-down list.</td></tr>
<tr><td rowspan="2">Restriction</td><td>Yes(-SHow=RELOCATION_ATTRIBUTE)</td><td>Outputs relocation attributes related to sections.</td></tr>
<tr><td>No</td><td>Does not output relocation attributes related to sections.</td></tr>
<tr><td rowspan="4">Outputs function list for detecting illegal indirect function call</td><td colspan="3">Selects whether to output a list of functions that are safe in terms of the detection of illegal invalid function calls.
This property corresponds to the -SHow=CFI option of the linker.
This property is displayed only in the following cases.
- When you have selected [Always latest version which was installed] or V2.08.00 or a later version for the [Using compiler package version] property under the [Version Select] category on the [Common Options] tab in an environment where V2.08.00 or a later version of the CC-RX compiler has been installed
- When [Yes(-CFI)] in the [Generate function list used for detecting illegal indirect function call] property in the [Output] category is selected
- When [Yes(List contents=specify)(-LISt)] in the [Outputs the linkage list file] property is selected</td></tr>
<tr><td>Default</td><td colspan="2">No</td></tr>
<tr><td>How to change</td><td colspan="2">Select from the drop-down list.</td></tr>
<tr><td rowspan="2">Restriction</td><td>Yes(-SHow=CFI)</td><td>Outputs a list of functions that are safe in terms of the detection of illegal invalid function calls.</td></tr>
<tr><td>No</td><td>Does not output a list of functions that are safe in terms of the detection of illegal invalid function calls.</td></tr>
</table>

(5) [Optimization]
The detailed information on the optimization is displayed and the configuration can be changed.

Optimization type	Specifies optimization type. This property corresponds to the -nooptimize and -optimize options of the linker. Inter-module optimization is performed for modules to which -goptimize was added at compilation or assemble. Remark To apply optimization at the time of linkage, select [Yes (-goptimize)] for the [Outputs additional information for inter-module optimization] property described under category (5)[Optimization] in the section on the [Compile Options] tab and under category(4)[Optimization] in the section on the [Assemble Options] tab before compiling or assembling the files. This can also be done by using the same property on the [Individual Compile Options] and [Individual Assemble Options] tabs.		
	Default	No optimize (-NOOPtimize)	
	How to change	Select from the drop-down list.	
	Restriction	No optimize (-NOOPtimize)	Does not execute optimization for a module.
		All(-OPtimize)	Provides all optimizations.
		Speed-oriented optimization (-OPtimize=SPeed)	Provides optimization for speed.
		Safe optimization (-OPtimize=SAFe)	Provides safe optimization.
		Custom	Performs optimization for the specified options.
Deletes variables/ functions that are not referenced	Selects whether to delete variables/functions that are not referenced. This property corresponds to the -optimize option of the linker. This property is displayed only when [Custom] in the [Optimization type] property is selected.		
	Default	No	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-OPtimize=SYmbol_delete)	Deletes variables/functions that are not referenced.
		No	Does not delete variables/functions that are not referenced.
Creates a subroutine for the same instruction sequence	Selects whether to create a subroutine for the same instruction sequence. This property corresponds to the -optimize option of the linker. This property is displayed only when [Custom] in the [Optimization type] property is selected.		
	Default	No	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-OPtimize=SAMe_code)	Creates a subroutine for the same instruction sequence.
		No	Does not create a subroutine for the same instruction sequence.

Minimum code size	Specifies the minimum code size for the optimization. This property corresponds to the -samesize option of the linker. This property is displayed only when [Yes (-OPtimize=SAMe_code)] in the [Creates a subroutine for the same instruction sequence] property is specified.		
	Default	1E (hexadecimal number)	
	How to change	Directly enter in the text box.	
	Restriction	8 to 7FFF (hexadecimal number)	
Replaces an instruction with a smaller-size instruction	Selects whether to replace an instruction with a smaller-size instruction. This property corresponds to the -optimize option of the linker. This property is displayed only when [Custom] in the [Optimization type] property is selected.		
	Default	No	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-OPtimize=SHort_format)	Replaces an instruction with a smaller-size instruction.
		No	Does not replace an instruction with a smaller-size instruction.
Optimizes branch instruction size	Selects whether to optimize branch instruction size. This property corresponds to the -optimize option of the linker. This property is displayed only when [Custom] in the [Optimization type] property is selected.		
	Default	No	
	How to change	Select from the drop-down list.	
	Restriction	Yes(-OPtimize=Branch)	Optimizes branch instruction size according to program allocation information.
		No	Does not optimize branch instruction size.

<table>
<tr><td rowspan="5">Optimizes area allocated before execution start symbol</td><td colspan="3">Selects whether to optimize the area allocated before the execution start symbol.
The area allocated to lower addresses than the symbol specified with the -ENTRY option is to be optimized. When the address has been specified with the -ENTRY option, this option is disabled.
This property corresponds to the -ALLOW_OPTIMIZE_ENTRY_BLOCK option of the linker.
This property is displayed in the following cases.
- Always latest version which was installed] or V3.06.00 or a later version for the [Using compiler package version] property under the [Version Select] category on the [Common Options] tab in an environment where V3.06.00 or a later version of the CC-RX compiler has been installed
- When other than [No optimize(-NOOPtimize)] in the [Optimization type] property is selected
- When [Yes(-ENTry)] in the [Specifies execution start address] property is selected
- When [Execution start address] property is not blank</td></tr>
<tr><td>Default</td><td colspan="2">No</td></tr>
<tr><td>How to change</td><td colspan="2">Select from the drop-down list.</td></tr>
<tr><td rowspan="2">Restriction</td><td>Yes(-ALLOW_OPTIMIZE_ENTRY_BLOCK)</td><td>Optimizes the area allocated before the execution start symbol.</td></tr>
<tr><td>No</td><td>Does not optimize the area allocated before the execution start symbol.</td></tr>
<tr><td rowspan="4">Symbols excluded from optimization of unreferenced symbol deletion</td><td colspan="3">Specifies the symbols excluded from optimization of unreferenced symbol deletion.
Specifies in the format of "symbol name", with one symbol name per line.
This option corresponds to the -symbol_forbid option of the linker.
This property is not displayed when [No optimize (-NOOPtimize)] in the [Optimization type] property is selected.</td></tr>
<tr><td>Default</td><td colspan="2">Symbols excluded from optimization of unreferenced symbol deletion[number of defined items]</td></tr>
<tr><td>How to change</td><td colspan="2">Edit by the Text Edit dialog box which appears when clicking the [...] button.
For the subproperty, you can use the text box directly enter the text.</td></tr>
<tr><td>Restriction</td><td colspan="2">Up to 32767 characters
Up to 65536 items can be specified.</td></tr>
<tr><td rowspan="4">Same-code that disables unification regarding optimization</td><td colspan="3">Specifies the same-code that disables unification regarding optimization.
Specifies in the format of "function name", with one function name per line.
This option corresponds to the -samecode_forbid option of the linker.
This property is not displayed when [No optimize (-NOOPtimize)] in the [Optimization type] property is selected.</td></tr>
<tr><td>Default</td><td colspan="2">Same-code that disables unification regarding optimization[number of defined items]</td></tr>
<tr><td>How to change</td><td colspan="2">Edit by the Text Edit dialog box which appears when clicking the [...] button.
For the subproperty, you can use the text box directly enter the text.</td></tr>
<tr><td>Restriction</td><td colspan="2">Up to 32767 characters
Up to 65536 items can be specified.</td></tr>
</table>

Section to disable optimization	Specifies the Section to disable optimization. Specifies in the format of "*file name*(*section name*[,...])" or "*module name*(*section name*[,...])", with one per line. The "*file name*" or "*module name*" part can be omitted. The following placeholders are supported. %BuildModeName%: Replaces with the build mode name. %MicomToolPath%: Replaces with the absolute path of the product install folder. %ProjectName%: Replaces with the project name. This option corresponds to the -section_forbid option of the linker. This property is not displayed when [No optimize (-NOOPtimize)] in the [Optimization type] property is selected.	
	Default	Section to disable optimization[*number of defined items*]
	How to change	Edit by the Text Edit dialog box which appears when clicking the [...] button. For the subproperty, you can use the text box directly enter the text.
	Restriction	Up to 32767 characters Up to 65536 items can be specified.
Address range to disable optimization	Specifies an address range where optimization is disabled. Specifies in the format of "*address+size*", with one per line. The "+*size*" part can be omitted. Specifies an address or the size in the hexadecimal notation. This option corresponds to the -absolute_forbid option of the linker. This property is not displayed when [No optimize (-NOOPtimize)] in the [Optimization type] property is selected.	
	Default	Address range to disable optimization[*number of defined items*]
	How to change	Edit by the Text Edit dialog box which appears when clicking the [...] button. For the subproperty, you can use the text box directly enter the text.
	Restriction	Up to 32767 characters Up to 65536 items can be specified.

(6) [Section]
The detailed information on the section is displayed and the configuration can be changed.

Section start address	Specifies the section start address. This property corresponds to the -start option of the linker.	
	Default	The peculiar value for the target device
	How to change	Directly enter in the text box or edit by the Section Settings dialog box which appears when clicking the [...] button.
	Restriction	Up to 1022 characters
The specified section that outputs externally defined symbols to the file	Specifies the section start address. Specifies in the format of "*section name*", with one section name per line. This property corresponds to the -fsymbol option of the linker.	
	Default	The specified section that outputs externally defined symbols to the file[*number of defined items*]
	How to change	Edit by the Text Edit dialog box which appears when clicking the [...] button. For the subproperty, you can use the text box directly enter the text.
	Restriction	Up to 32767 characters Up to 65536 items can be specified.

Section alignment	Specifies the section name to be changed to 0x10 bytes alignment. Specifies in the format of "*section name*", with one section name per line. This property corresponds to the -aligned_section option of the linker.	
	Default	Section alignment[*number of defined items*]
	How to change	Edit by the Text Edit dialog box which appears when clicking the [...] button. For the subproperty, you can use the text box directly enter the text.
	Restriction	Up to 32767 characters Up to 65536 items can be specified.
ROM to RAM mapped section	Reserves ROM and RAM areas in the initialized data area and relocates a defined symbol in the ROM section with the specified address in the RAM section. Specifies in the format of "*ROM section name=RAM section name*", with one section name per line. This property corresponds to the -rom option of the linker.	
	Default	ROM to RAM mapped section [number of defined items]
	How to change	Edit by the Text Edit dialog box which appears when clicking the [...] button. For the subproperty, you can use the text box directly enter the text.
	Restriction	Up to 32767 characters Up to 1024 items can be specified.

(7) [Verify]
The detailed information on the verify is displayed and the configuration can be changed.

Checks the section larger than the specified range of addresses	Selects whether to check the section larger than the specified range of addresses. This property corresponds to the -cpu option of the linker.		
	Default	No	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-CPu)	Checks CPU information.
		No	Does not check CPU information.
Address range of the memory type	Specifies the address range of the memory type. Specifies in the format of "*memory type=start address-end address*", with one memory type per line. Specifies ROm, RAm, or FIX for "*memory type*". Specifies an address in hexadecimal notation. This property corresponds to the -cpu option of the linker. This property is displayed only when [Yes (-CPu)] in the [Checks the section larger than the specified range of addresses] property is selected.		
	Default	Address range to disable optimization[*number of defined items*]	
	How to change	Edit by the Text Edit dialog box which appears when clicking the [...] button. For the subproperty, you can use the text box directly enter the text.	
	Restriction	Up to 32767 characters Up to 65536 items can be specified.	

Allocates to the next area of the same memory type or the section is divided	Selects whether to allocate to the next area of the same memory type or the section is divided. This property corresponds to the -cpu option of the linker. This property is displayed only when the address range of the memory type in the [Address range of the memory type] property is specified.		
	Default	No	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-CPu=stride)	Allocates same sort of memory space.
		No	Does not allocate same sort of memory space.
Not divide the specified section	Allocates the specified section to another available area of the same memory type without dividing the section. Specifies in the format of "*section name*", with one section name per line. This property corresponds to the -contiguous_section option of the linker. This property is displayed only when [Yes (-CPu=stride)] in the [Allocates to the next area of the same memory type or the section is divided] property is selected.		
	Default	Not divide the specified section[*number of defined items*]	
	How to change	Edit by the Text Edit dialog box which appears when clicking the [...] button. For the subproperty, you can use the text box directly enter the text.	
	Restriction	Up to 32767 characters Up to 65536 items can be specified.	

(8) [Others]
Other detailed information on linking are displayed and the configuration can be changed.

Outputs a stack use information file	Selects whether to output a stack information file. This property corresponds to the -stack option of the linker.		
	Default	No	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-STACk)	Outputs a stack information file.
		No	Does not output a stack information file.
Compresses the debugging information	Selects whether to compress the debugging information. This property corresponds to the -compress and -nocompress option of the linker.		
	Default	No (-NOCOmpress)	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-Compress)	Compresses the debugging information.
		No (-NOCOmpress)	Does not compress the debugging information.

Reduces the memory occupancy	Selects whether to reduce the memory occupancy. This property corresponds to the -memory option of the linker. This property is not displayed when any one of the following items is selected. - [Yes (-Map)] in the [Outputs the external symbol-allocation information file] property in the [Output] category - [Yes (-SHow=Reference)] in the [Outputs the number of symbol references] property, or [Yes(-SHow=Xreference)] in the [Outputs the cross-reference information] property in the [Convert Load Module File] category - [Yes (-CPu=stride)] in the [Allocates to the next area of the same memory type or the section is divided] property, [Yes (-STACk)] in the [Outputs a stack use information file] property, or [Yes (-Compress)] in the [Compresses the debugging information] property in the [Verify] category.		
	Default	No (-MEMory=High)	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-MEMory=Low)	Reduces the memory occupancy.
		No (-MEMory=High)	Does not reduce the memory occupancy.
Changes the warning-level and error-level messages to information-level messages	Selects whether to change the warning-level and error-level messages to information-level messages. This property corresponds to the -change_message option of the linker.		
	Default	No	
	How to change	Select from the drop-down list.	
	Restriction	Yes(All) (-change_message=information)	Changes all warning-level and error-level messages to the information-level messages.
		Yes(Specifies error number) (-change_message=information=<Error-Number>)	Changes the warning-level and error-level messages with the specified error numbers to the information-level messages.
		No	Does not change the warning-level and error-level messages to the information-level messages.
Error number of warning-level and error-level message	Specifies error number of warning-level and error-level message. If multiple message numbers are specified, delimit them with a comma (example: 23043,23042). Also, the range can be set using hyphen (example: 23044-23045,23046-23048). This property corresponds to the -change_message option of the linker. This property is displayed only when [Yes(Specifies error number) (-change_message=information=<ErrorNumber>)] in the [Changes the warning-level and error-level messages to information-level messages] property is specified.		
	Default	Blank	
	How to change	Directly enter in the text box or edit by the Character String Input dialog box which appears when clicking the [...] button.	
	Restriction	Up to 32767 characters	

Changes the information-level and error-level messages to warning-level messages	Selects whether to change the information-level and error-level messages to warning-level messages. This property corresponds to the -change_message option of the linker.		
	Default	No	
	How to change	Select from the drop-down list.	
	Restriction	Yes(All) (-change_message=warning)	Changes all information-level and error-level messages to warning-level messages.
		Yes(Specifies error number) (-change_message=warning=<ErrorNumber>)	Changes the information-level and error-level messages with the specified error numbers to warning-level messages.
		No	Does not change the information-level and error-level messages to warning-level messages.
Error number of information-level and error-level message	Specifies error number of information-level and error-level message. If multiple message numbers are specified, delimit them with a comma (example: 23043,23042). Also, the range can be set using hyphen (example: 23044-23045,23046-23048). This property corresponds to the -change_message option of the linker. This property is displayed only when [Yes(Specifies error number) (-change_message=warning=<ErrorNumber>)] in the [Changes the information-level and error-level messages to warning-level messages] property is specified.		
	Default	Blank	
	How to change	Directly enter in the text box or edit by the Character String Input dialog box which appears when clicking the [...] button.	
	Restriction	Up to 32767 characters	
Changes the information-level and warning-level messages to error-level messages	Selects whether to change the information-level and warning-level messages to error-level messages. This property corresponds to the -change_message option of the linker.		
	Default	No	
	How to change	Select from the drop-down list.	
	Restriction	Yes(All) (-change_message=error)	Changes all information-level and warning-level messages to error-level messages.
		Yes(Specifies error number) (-change_message=error=<ErrorNumber>)	Changes the information-level and warning-level messages with the specified error numbers to error-level messages.
		No	Does not change the warning-level messages to information-level messages.

Error number of information-level and warning-level message	Specifies error number of information-level and warning-level message. If multiple message numbers are specified, delimit them with a comma (example: 23043,23042). Also, the range can be set using hyphen (example: 23044-23045,23046-23048). This property corresponds to the -change_message option of the linker. This property is displayed only when [Yes(Specifies error number) (-change_message=error=<ErrorNumber>)] in the [Changes the information-level and warning-level messages to error-level messages] property is specified.		
	Default	Blank	
	How to change	Directly enter in the text box or edit by the Character String Input dialog box which appears when clicking the [...] button.	
	Restriction	Up to 32767 characters	
Deletes local symbol name information	Selects whether to delete local symbol name information. This property corresponds to the -hide option of the linker.		
	Default	No	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-Hide)	Deletes local symbol name information.
		No	Does not delete local symbol name information.
Displays the total sizes of sections	Selects whether to display the total sizes of sections. This property corresponds to the -total_size option of the linker.		
	Default	No	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-Total_size)	Displays the total sizes of sections.
		No	Does not display the total sizes of sections.
Displays the copyright information	Selects whether to display the copyright information. This property corresponds to the -logo and -nologo option of the linker.		
	Default	No (-NOLOgo)	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-LOgo)	Displays the total sizes of sections.
		No (-NOLOgo)	Does not display the total sizes of sections.

<table>
<tr><td rowspan="4">Commands executed before link processing</td><td colspan="2">Specifies the command to be executed before link processing.
Use the call instruction to specify a batch file (example: call a.bat).
The following placeholders are supported.
%ActiveProjectDir%: Replaces with the absolute path of the active project folder.
%ActiveProjectName%: Replaces with the active project name.
%BuildModeName%: Replaces with the build mode name.
%LinkedFile%: Replaces with the absolute path of the output file under link processing.
%MainProjectDir%: Replaces with the absolute path of the main project folder.
%MainProjectName%: Replaces with the main project name.
%MicomToolPath%: Replaces with the absolute path of the install folder of this product.
%OutputDir%: Replaces with the absolute path of the output folder.
%OutputFile%: Replaces with the absolute path of the output file.
%Program%: Replaces with the file name of the running program.
%ProjectDir%: Replaces with the absolute path of the project folder.
%ProjectName%: Replaces with the project name.
%TempDir%: Replaces with the absolute path of the temporary folder.
%WinDir%: Replaces with the absolute path of the Windows system folder.
When "#!python" is described in the first line, the contents from the second line to the last line are regarded as the script of the Python console, and then executed before link processing.
The placeholders can be described in the script.
The specified command is displayed as the subproperty.</td></tr>
<tr><td>Default</td><td>Commands executed before link processing[number of defined items]</td></tr>
<tr><td>How to change</td><td>Edit by the Text Edit dialog box which appears when clicking the [...] button.
For the subproperty, you can use the text box directly enter the text.</td></tr>
<tr><td>Restriction</td><td>Up to 1023 characters
Up to 64 items can be specified.</td></tr>
</table>

<table>
<tr><td>Commands executed after link processing</td><td colspan="2">Specifies the command to be executed after link processing.
Use the call instruction to specify a batch file (example: call a.bat).
The following placeholders are supported.
%ActiveProjectDir%: Replaces with the absolute path of the active project folder.
%ActiveProjectName%: Replaces with the active project name.
%BuildModeName%: Replaces with the build mode name.
%LinkedFile%: Replaces with the absolute path of the output file under link processing.
%MainProjectDir%: Replaces with the absolute path of the main project folder.
%MainProjectName%: Replaces with the main project name.
%MicomToolPath%: Replaces with the absolute path of the install folder of this product.
%OutputDir%: Replaces with the absolute path of the output folder.
%OutputFile%: Replaces with the absolute path of the output file.
%Program%: Replaces with the file name of the running program.
%ProjectDir%: Replaces with the absolute path of the project folder.
%ProjectName%: Replaces with the project name.
%TempDir%: Replaces with the absolute path of the temporary folder.
%WinDir%: Replaces with the absolute path of the Windows system folder.
When "#!python" is described in the first line, the contents from the second line to the last line are regarded as the script of the Python console, and then executed after link processing.
The placeholders can be described in the script.
The specified command is displayed as the subproperty.</td></tr>
<tr><td></td><td>Default</td><td>Commands executed after link processing[number of defined items]</td></tr>
<tr><td></td><td>How to change</td><td>Edit by the Text Edit dialog box which appears when clicking the [...] button.
For the subproperty, you can use the text box directly enter the text.</td></tr>
<tr><td></td><td>Restriction</td><td>Up to 1023 characters
Up to 64 items can be specified.</td></tr>
<tr><td>Other additional options</td><td colspan="2">Inputs the link options to be added additionally.
The options set here are added at the end of the link options group.
The following placeholders are supported.
%ActiveProjectDir%: Replaces with the absolute path of the active project folder.
%ActiveProjectName%: Replaces with the active project name.
%BuildModeName%: Replaces with the build mode name.
%MainProjectDir%: Replaces with the absolute path of the main project folder.
%MainProjectName%: Replaces with the main project name.
%MicomToolPath%: Replaces with the absolute path of the install folder of this product.
%ProjectDir%: Replaces with the absolute path of the project folder.
%ProjectName%: Replaces with the project name.
%TempDir%: Replaces with the absolute path of the temporary folder.
%WinDir%: Replaces with the absolute path of the Windows system folder.</td></tr>
<tr><td></td><td>Default</td><td>Blank</td></tr>
<tr><td></td><td>How to change</td><td>Directly enter to the text box or edit by the Character String Input dialog box which appears when clicking the [...] button.</td></tr>
<tr><td></td><td>Restriction</td><td>Up to 259 characters</td></tr>
</table>

Other additional options(Hex/S record/ Binary data)	Inputs the link options to be added additionally. The options set here are added at the end of the link options group. This property is displayed only in the following cases. - When [Always latest version which was installed] or a version number earlier than V2.00.00 is selected for the [Using compiler package version] property under the [Version Select] category on the [Common Options] tab in an environment where a version of the CC-RX compiler earlier than V2.00.00 has been installed - When a choice other than [Not convert] was made in the [Load module file convert format] property in the [Convert Load Module File] category	
	Default	Blank
	How to change	Directly enter to the text box or edit by the Character String Input dialog box which appears when clicking the [...] button.
	Restriction	Up to 259 characters
Command line	The specified option is displayed.	
	Default	Command line[*number of defined items*]
	How to change	Changes not allowed

[Hex Output Options] tab

This tab shows the detailed information on the Hex output phase categorized by the following and the configuration can be changed.

Caution 1. This tab is not displayed for the library project.

Caution 2. This tab is displayed when you have selected [Always latest version which was installed] or V2.00.00 or a later version for the [Using compiler package version] property under the [Version Select] category on the [Common Options] tab in an environment where V2.00.00 or a later version of the CC-RX compiler has been installed.
When the version of the compiler package is V2.00.00 or lower, the properties from this tab are included in the [Convert Load Module File] category from the [Link Options] tab.

[Description of each category]

(1) [Output File]
The detailed information on output files is displayed and the configuration can be changed.

Output hex file	Specifies whether hex file is output.		
	Default	Yes	
	How to change	Select from the drop-down list.	
	Restriction	Yes	Outputs a hex file.
		No	Does not output a hex file.
Output folder	Specifies path of the output folder. The following placeholders are supported. %BuildModeName%: Replaces with the build mode name. %ProjectName%: Replaces with the project name. %MicomToolPath%: Replaces with the absolute path of the install folder of this product. If this is blank, it is assumed that the project folder has been specified. This property corresponds to the -output option of the linker. This property is displayed only when [Yes] in the [Output hex file] property is selected.		
	Default	%BuildModeName%	
	How to change	Directly enter in the text box or edit by the Browse For Folder dialog box which appears when clicking the [...] button.	
	Restriction	Up to 247 characters	

<table>
<tr><td>Output file name</td><td colspan="2">Specifies the output file name.
The default extensions depends on [Load module file convert format] property when extension omitted.
The default extensions are as follows:
"Hex file (-FOrm=Hexadecimal)" : .hex
"S record file (-FOrm=Stype)" : .mot
"Binary data file (-FOrm=Binary)" : .bin.
The following placeholders are supported.
%ActiveProjectName%: Replaces with the active project name.
%BuildModeName%: Replaces with the build mode name.
%MainProjectName%: Replaces with the main project name.
%ProjectName%: Replaces with the project name.
This property corresponds to the -output option of the linker.
This property is displayed only when [Yes] in the [Output hex file] property is selected.</td></tr>
<tr><td></td><td>Default</td><td>%ProjectName%.mot</td></tr>
<tr><td></td><td>How to change</td><td>Directly enter in the text box.</td></tr>
<tr><td></td><td>Restriction</td><td>Up to 255 characters</td></tr>
<tr><td>Load address</td><td colspan="2">Specifies the load address of the hex file in hexadecimal.
This property corresponds to the -OUtput option of the linker.
This property is displayed only in the following cases.
- When [Always latest version which was installed] or V3.00.00 or a later version is selected for the [Using compiler package version] property under the [Version Select] category on the [Common Options] tab in an environment where V3.00.00 or a later version of the CC-RX compiler has been installed
- When a choice other than [Binary file (-FOrm=Binary)] was made in the [Hex file format] property under the [Hex Format] category</td></tr>
<tr><td></td><td>Default</td><td>Blank</td></tr>
<tr><td></td><td>How to change</td><td>Directly enter in the text box.</td></tr>
<tr><td></td><td>Restriction</td><td>0 to FFFFFFFF (hexadecimal number) or blank</td></tr>
</table>

Division output file	Specifies the division conversion file. Specifies in the format of "*file name=start address-end address*[/*load address*]" or "*file name=section name*[/*load address*]", with one entry per line. If multiple section names are specified, delimit them with a colon as in "*file name=section name*:*section name*" (example: file1.abs=sec1:sec2). [/*load address*] can be specified only when the CC-RX compiler is V3.00.00 or later and when a choice other than [Binary file (-FOrm=Binary)] was made in the [Hex file format] property. To define multiple sections, use a colon to separate each entry written, as in "*file name=section name*:*section name*" (example: file1.mot=stack:istack). The default extensions depends on [Load module file convert format] property when extension omitted. The default extensions are as follows: "Hex file (-FOrm=Hexadecimal)" : .hex "S record file (-FOrm=Stype)" : .mot "Binary data file (-FOrm=Binary)" : .bin. The following placeholders are supported. %BuildModeName%: Replaces with the build mode name. %ProjectName%: Replaces with the project name. %MicomToolPath%: Replaces with the absolute path of the install folder of this product. This property corresponds to the -output option of the linker. This property is displayed only when [Yes] in the [Output hex file] property is selected. **Caution** If you prefer the output of a single file and thus need not enter the start and end addresses or section names, delete the setting of this property and use the [Output folder] and [Output file name] properties instead.	
	Default	Division conversion file[number of defined items]
	How to change	Edit by the Text Edit dialog box which appears when clicking the [...] button. For the subproperty, you can use the text box directly enter the text.
	Restriction	Up to 255 characters Up to 65536 items can be specified.

(2) [Hex Format]

The detailed information on output files are displayed and the configuration can be changed.

Hex file format	Selects the load module file convert format. This property corresponds to the -form option of the linker. This property is displayed only when [Yes] in the [Output hex file] property in the [Output File] category is specified.		
	Default	S record file (-FOrm=Stype)	
	How to change	Select from the drop-down list.	
	Restriction	Intel expanded hex file (-FOrm=Hexadecimal)	Outputs a Intel expanded hex file.
		Motorola S type file (-FOrm=Stype)	Outputs a Motorola S-type file.
		Binary file (-FOrm=Binary)	Outputs a binary file.

Unifies the record size	Selects whether to output data with the specified data record regardless of the address range. This property corresponds to the -record option of the linker. This property is displayed only when [Hex file (-FOrm=Hexadecimal)] in the [Hex file format] property is selected.		
	Default	No	
	How to change	Select from the drop-down list.	
	Restriction	Yes (HEX record) (-REcord=H16)	Outputs the HEX record for the data records.
		Yes (Expansion HEX record) (-REcord=H20)	Outputs the Expansion HEX record for the data records.
		Yes (32-bit HEX record) (-REcord=H32)	Outputs the 32-bit HEX record for the data records.
		No	Outputs various data records according to each address.
Unifies the record size	Selects whether to output data with the specified data record regardless of the address range. This property corresponds to the -record option of the linker. This property is displayed only when [S record file (-FOrm=Stype)] in the [Hex file format] property is selected.		
	Default	No	
	How to change	Select from the drop-down list.	
	Restriction	Yes (S1 record) (-REcord=S1)	Outputs the S1 record for the data records.
		Yes (S2 record) (-REcord=S2)	Outputs the S2 record for the data records.
		Yes (S3 record) (-REcord=S3)	Outputs the S3 record for the data records.
		No	Outputs various data records according to each address.

Fills unused areas in the output ranges with the value	Selects whether to fill the unused areas in the output ranges with the value. This property corresponds to the -space option of the linker. This property is displayed in any one of the following cases. - When an output file name in the [Division conversion file] property in the [Output File] category is specified. - When [Yes(-FIX_RECORD_LENGTH_AND_ALIGN)] in the [Output hex file with fixed record length from aligned start address] property is selected.		
	Default	No	
	How to change	Select from the drop-down list.	
	Restriction	Yes (Random) (-SPace=Random)	Fills the unused areas in the output ranges with random values.
		Yes (Specification value) (-SPace=<numerical value>)	Fills the unused areas in the output ranges with user-specified hexadecimal value.
		No	Does not fill the unused areas in the output ranges with data.
Output padding data	Specifies the output padding data. This property corresponds to the -space option of the linker. This property is displayed only when [Yes (Specification value) (-SPace=<numerical value>)] in the [Fills unused areas in the output ranges with the value] property is specified.		
	Default	FF (hexadecimal number)	
	How to change	Directly enter in the text box.	
	Restriction	0 to FFFFFFFF (hexadecimal number)	
Output hex file with fixed record length from aligned start address	Selects whether to output the hex file with the fixed record length from an aligned start address. This property corresponds to the -FIX_RECORD_LENGTH_AND_ALIGN option of the linker. This property is displayed only in the following cases. - When you have selected [Always latest version which was installed] or V2.08.00 or a later version for the [Using compiler package version] property under the [Version Select] category on the [Common Options] tab in an environment where V2.08.00 or a later version of the CC-RX compiler has been installed - When other than [Binary file(-FOrm=Binary)] in the [Hex file format] property is selected		
	Default	No	
	How to change	Select from the drop-down list.	
	Restriction	Yes(-FIX_RECORD_LENGTH_AND_ALIGN)	Outputs the hex file with the fixed record length from an aligned start address.
		No	Does not output the hex file with the fixed record length from an aligned start address.

Alignment of start address	Specifies the alignment of the start address. You can enter 1 or a greater value for the alignment. This property corresponds to the -FIX_RECORD_LENGTH_AND_ALIGN option of the linker. This property is displayed only when [Yes(-FIX_RECORD_LENGTH_AND_ALIGN)] in the [Output hex file with fixed record length from aligned start address] property is selected.		
	Default	1	
	How to change	Directly enter to the text box.	
	Restriction	1 or a greater Hexadecimal number	

Specify byte count for data record	Selects whether to specify the maximum byte count for a data record.
	This property corresponds to the -byte_count option of the linker.
	This property is displayed only in either of the following cases.
	- When you have selected [Always latest version which was installed] or V2.08.00 or a later version for the [Using compiler package version] property under the [Version Select] category on the [Common Options] tab in an environment where V2.08.00 or a later version of the CC-RX compiler has been installed
	  - When other than [Binary file(-FOrm=Binary)] in the [Hex file format] property is selected
	- Other than above
	  - When [Intel HEX file(-FOrm=Hexadecimal)] in the [Hex file format] property is selected		

	Default	No	
	How to change	Select from the drop-down list.	
	Restriction	Yes(-BYte_count)	Specifies the maximum byte count for a data.
		No	Does not specify the byte count for a data.
Maximum byte count for data record	Specifies the maximum byte count for a data record. This property corresponds to the -byte_count option of the linker. This property is displayed only when [Yes(-BYte_count)] in the [Specify byte count for data record] property is specified.		
	Default	- When [Intel HEX file(-FOrm=Hexadecimal)] in the [Hex file format] property is selected FF - When [Motorola S-record file(-FOrm=Stype)] in the [Hex file format] property is selected 10	
	How to change	Directly enter in the text box.	
	Restriction	1 to FF (hexadecimal number)	

CRC operations	Shows and sets the settings of one or more CRC operations. This property corresponds to the -CRc option of the rlink command. This property is displayed only when [Always latest version which was installed] or V3.05.00 or a later version is selected for the [Using compiler package version] property under the [Version Select] category on the [Common Options] tab in an environment where V3.05.00 or a later version of the CC-RX compiler has been installed. When versions of CC-RX are earlier than V3.05.00, the existing -CRc-related properties are displayed. Note If a project in which two or more -CRc options have been specified is opened and saved in CS+ V8.09.00 or a previous version, the settings of the second and subsequent -CRc options will be deleted.	
	Default	CRC Operations[*numbers of defined items*]
	How to change	Edit by the CRC Operations dialog box which appears when clicking the [...] button.

<table>
<tr><td>Outputs the calculation result of CRC</td><td colspan="3">Selects whether to generate CRC code.
This property corresponds to the -crc option of the linker.
This property is displayed only when [Hex file (-FOrm=Hexadecimal)] or [S record file (-FOrm=Stype)] in the [Load module file convert format] property is selected (This category is displayed when the CC-RX compiler is V3.00.00 or later even if [Binary file(-FOrm=Binary)] is selected). For display conditions of this property, refer to Remark 1.
The following item is displayed when you have selected [Always latest version which was installed] or V2.04.00 or a later version for the [Using compiler package version] property under the [Version Select] category on the [Common Options] tab in an environment where V2.04.00 or a later version of the CC-RX compiler has been installed.
- Yes(-CRc)

This following item is displayed when [Always latest version which was installed] or a version number earlier than V2.04.00 is selected for the [Using compiler package version] property under the [Version Select] category on the [Common Options] tab in an environment where a version of the CC-RX compiler earlier than V2.04.00 has been installed.
- Yes (Polynomial expression: CRC-CCITT, Endian: Automatic) (-CRc)
- Yes (Polynomial expression: CRC-CCITT, Endian: Big-endian data) (-CRc)
- Yes (Polynomial expression: CRC-CCITT, Endian: Little-endian data) (-CRc)
- Yes (Polynomial expression: CRC-16, Endian: Automatic) (-CRc)
- Yes (Polynomial expression: CRC-16, Endian: Big-endian data)(-CRc)
- Yes (Polynomial expression: CRC-16, Endian: Little-endian) data (-CRc)</td></tr>
<tr><td>Default</td><td colspan="2">No</td></tr>
<tr><td>How to change</td><td colspan="2">Select from the drop-down list.</td></tr>
<tr><td>Restriction</td><td>Yes(-CRc)</td><td>Performs the CRC operation on the hex-format objects in the specified range, from low address to high address, and outputs the results of the operation to the specified address.</td></tr>
<tr><td></td><td>Yes (Polynomial expression: CRC-CCITT, Endian: Automatic) (-CRc)</td><td>Selects CRC-CCITT as a polynomial expression.</td></tr>
<tr><td></td><td>Yes (Polynomial expression: CRC-CCITT, Endian: Big-endian data) (-CRc)</td><td>Selects the CRC-CCITT as a polynomial expression and selects the BIG as an endian.</td></tr>
<tr><td></td><td>Yes (Polynomial expression: CRC-CCITT, Endian: Little-endian data) (-CRc)</td><td>Selects the CRC-CCITT as a polynomial expression and selects the LITTLE as an endian.</td></tr>
<tr><td></td><td>Yes (Polynomial expression: CRC-16, Endian: Automatic) (-CRc)</td><td>Selects CRC-16 as a polynomial expression.</td></tr>
<tr><td></td><td>Yes (Polynomial expression: CRC-16, Endian: Big-endian data)(-CRc)</td><td>Selects the CRC-16 as a polynomial expression and selects the BIG as an endian.</td></tr>
<tr><td></td><td>Yes (Polynomial expression: CRC-16, Endian: Little-endian data) (-CRc)</td><td>Selects the CRC-16 as a polynomial expression and selects the LITTLE as an endian.</td></tr>
<tr><td></td><td>No</td><td>Does not generate the CRC code.</td></tr>
</table>

<table>
<tr><td>Output address</td><td colspan="2">Specifies the address where the result is output.
Specifies an address in hexadecimal.
This property corresponds to the -crc option of the linker.
This property is displayed in the following cases.
- When [Always latest version which was installed] or a version number earlier than V3.05.00 is selected for the [Using compiler package version] property under the [Version Select] category on the [Common Options] tab in an environment where a version of the CC-RX compiler earlier than V3.05.00 has been installed
- When other than [No] in the [Outputs the calculation result of CRC] property is specified</td></tr>
<tr><td></td><td>Default</td><td>0</td></tr>
<tr><td></td><td>How to change</td><td>Directly enter in the text box.</td></tr>
<tr><td></td><td>Restriction</td><td>0 to FFFFFFFE (hexadecimal number)</td></tr>
<tr><td>Target range</td><td colspan="2">Specifies the target range.
Specifies in the format of "start address-end address" or "section name".
Specifies an address in the hexadecimal notation (example: 400-ffff).
The range of specifiable address values is 0 to FFFFFFFF.
This property corresponds to the -crc option of the linker.
This property is displayed in the following cases.
- When [Always latest version which was installed] or a version number earlier than V3.05.00 is selected for the [Using compiler package version] property under the [Version Select] category on the [Common Options] tab in an environment where a version of the CC-RX compiler earlier than V3.05.00 has been installed
- When other than [No] in the [Outputs the calculation result of CRC] property is specified</td></tr>
<tr><td></td><td>Default</td><td>Target range[number of defined items]</td></tr>
<tr><td></td><td>How to change</td><td>Directly enter in the text box or edit by the Character String Input dialog box which appears when clicking the [...] button.</td></tr>
<tr><td></td><td>Restriction</td><td>Up to 32767 characters
Up to 65536 items can be specified.</td></tr>
</table>

<table>
<tr><td>Type of CRC</td><td colspan="3">Selects the method of CRC operation.
See the user's manual of the device and "CC-RX Compiler User's Manual" for details about each operation.
This property corresponds to the -CRc option of the linker.
This property is displayed only in the following cases.
- When [Yes(-CRc)] in the [Outputs the calculation result of CRC] property is selected.
- When [Always latest version which was installed] or V2.04.00 or a later version and fewer than V3.05.00 is selected for the [Using compiler package version] property under the [Version Select] category on the [Common Options] tab in an environment where V2.04.00 or a later version and fewer than V3.05.00 of the CC-RX compiler has been installed</td></tr>
<tr><td></td><td>Default</td><td colspan="2">CCITT type</td></tr>
<tr><td></td><td>How to change</td><td colspan="2">Select from the drop-down list.</td></tr>
<tr><td></td><td rowspan="8">Restriction</td><td>CCITT type</td><td>Outputs the calculation result of CRC-16-CCITT-MSB first operation with an initial value of 0xffff and inverse of XOR.</td></tr>
<tr><td></td><td>16</td><td>Outputs the calculation result of CRC-16-LSB first operation.</td></tr>
<tr><td></td><td>CRC-CCITT(MSB) type</td><td>Outputs the calculation result of CRC-16-CCITT-MSB first operation.</td></tr>
<tr><td></td><td>CRC-CCITT(MSB,LITTLE,4 bytes) type</td><td>Outputs the calculation result of CRC-16-CCITT-MSB first operation with the input specified as 4-byte units in little-endian mode.</td></tr>
<tr><td></td><td>CRC-CCITT(MSB,LITTLE,2 bytes) type</td><td>Outputs the calculation result of CRC-16-CCITT-MSB first operation with the input specified as 2-byte units in little-endian mode.</td></tr>
<tr><td></td><td>CRC-CCITT(LSB) type</td><td>Outputs the calculation result of CRC-16-CCITT-LSB first operation.</td></tr>
<tr><td></td><td>SENT(MSB) type</td><td>Outputs the calculation result of operation conforming to SENT.</td></tr>
<tr><td></td><td>32-ETHERNET type</td><td>Outputs the calculation result of CRC-32-ETHERNET operation.</td></tr>
</table>

<table>
<tr><td>Initial value</td><td colspan="3">Specifies the initial value for the CRC operation in the format of "initial value".
This property corresponds to the -CRc option of the linker.
This property is displayed in the following cases.
- When [Always latest version which was installed] or a version number earlier than V3.05.00 is selected for the [Using compiler package version] property under the [Version Select] category on the [Common Options] tab in an environment where a version of the CC-RX compiler earlier than V3.05.00 has been installed
- When other than [No] in the [Outputs the calculation result of CRC] property is specified</td></tr>
<tr><td></td><td>Default</td><td colspan="2">Blank</td></tr>
<tr><td></td><td>How to change</td><td colspan="2">Directly enter to the text box.</td></tr>
<tr><td></td><td>Restriction</td><td colspan="2">- When other than [32-ETHERNET type] is selected in the [Type of CRC] property
0 to FFFF (hexadecimal number)
- When [32-ETHERNET type] is selected in the [Type of CRC] property
0 to FFFFFFFF (hexadecimal number)</td></tr>
<tr><td>Endian</td><td colspan="3">Selects the endian for CRC output.
This property corresponds to the -CRc option of the linker.
This property is displayed in the following cases.
- When [Always latest version which was installed] or a version number earlier than V3.05.00 is selected for the [Using compiler package version] property under the [Version Select] category on the [Common Options] tab in an environment where a version of the CC-RX compiler earlier than V3.05.00 has been installed
- When other than [No] in the [Outputs the calculation result of CRC] property is specified</td></tr>
<tr><td></td><td>Default</td><td colspan="2">Not specify</td></tr>
<tr><td></td><td>How to change</td><td colspan="2">Select from the drop-down list.</td></tr>
<tr><td></td><td rowspan="3">Restriction</td><td>Not specify</td><td>Does not specify the endian. Depends on the endian type of the input object.</td></tr>
<tr><td></td><td>Little endian</td><td>Outputs the value in little-endian mode.</td></tr>
<tr><td></td><td>Big endian</td><td>Outputs the value in big-endian mode.</td></tr>
<tr><td>Output size</td><td colspan="3">Specifies the output size for the CRC code.
This property corresponds to the -CRc option of the linker.
This property is displayed in the following cases.
- When [Always latest version which was installed] or a version number earlier than V3.05.00 is selected for the [Using compiler package version] property under the [Version Select] category on the [Common Options] tab in an environment where a version of the CC-RX compiler earlier than V3.05.00 has been installed
- When other than [No] in the [Outputs the calculation result of CRC] property is specified</td></tr>
<tr><td></td><td>Default</td><td colspan="2">Blank</td></tr>
<tr><td></td><td>How to change</td><td colspan="2">Directly enter to the text box.</td></tr>
<tr><td></td><td>Restriction</td><td colspan="2">2, 4, or blank</td></tr>
</table>

<table>
<tr><td>Displays the result of CRC calculation and output address</td><td colspan="3">Selects whether to display the results of CRC calculation and the output address.
This property corresponds to the -VERBOSE option of the linker.
This property is displayed in the following cases.
- When you have selected [Always latest version which was installed] or V3.05.00 or a later version for the [Using compiler package version] property under the [Version Select] category on the [Common Options] tab in an environment where V3.05.00 or a later version of the CC-RX compiler has been installed
- When you have selected [Always latest version which was installed] or V3.03.00 or a later version for the [Using compiler package version] property under the [Version Select] category on the [Common Options] tab in an environment where V3.03.00 or a later version of the CC-RX compiler has been installed, and when [Yes(-CRc)] in the [Outputs the calculation result of CRC] property is selected</td></tr>
<tr><td></td><td>Default</td><td colspan="2">No</td></tr>
<tr><td></td><td>How to change</td><td colspan="2">Select from the drop-down list.</td></tr>
<tr><td></td><td rowspan="2">Restriction</td><td>Yes(-VERBOSE=CRC)</td><td>Displays the results of CRC calculation and the output address.</td></tr>
<tr><td></td><td>No</td><td>Does not display the results of CRC calculation and the output address.</td></tr>
<tr><td>Specify end record</td><td colspan="3">Selects the end record of the Motorola S-record file.
This property corresponds to the -END_RECORD option of the linker.
This property is displayed in the following cases.
- When [Always latest version which was installed] or V2.07.00 or a later version is selected for the [Using compiler package version] property under the [Version Select] category on the [Common Options] tab in an environment where V2.07.00 or a later version of the CC-RX compiler has been installed
- When [Motorola S-record file(-FOrm=Stype)] in the [Hex file format] property is selected</td></tr>
<tr><td></td><td>Default</td><td colspan="2">Not specify(No option specified)</td></tr>
<tr><td></td><td>How to change</td><td colspan="2">Select from the drop-down list.</td></tr>
<tr><td></td><td rowspan="4">Restriction</td><td>S7(-END_RECORD=S7)</td><td>Outputs the end record as a 32-bit S-record file.</td></tr>
<tr><td></td><td>S8(-END_RECORD=S8)</td><td>Outputs the end record as a 24-bit S-record file.</td></tr>
<tr><td></td><td>S9(-END_RECORD=S9)</td><td>Outputs the end record as a 16-bit S-record file.</td></tr>
<tr><td></td><td>Not specify(No option specified)</td><td>Outputs the end record to suit the address of the entry point.</td></tr>
<tr><td>Output S9 record at the end</td><td colspan="3">Selects whether to output the S9 record at the end.
This property corresponds to the -s9 option of the linker.
This property is displayed only when [Motorola S type file (-FOrm=Stype)] in the [Hex file format] property is specified.</td></tr>
<tr><td></td><td>Default</td><td colspan="2">No</td></tr>
<tr><td></td><td>How to change</td><td colspan="2">Select from the drop-down list.</td></tr>
<tr><td></td><td rowspan="2">Restriction</td><td>Yes (-S9)</td><td>Outputs the S9 record at the end.</td></tr>
<tr><td></td><td>No</td><td>Does not output the S9 record at the end.</td></tr>
</table>

Suppress outputting data to unused area made by .OFFSET	Selects whether to suppress outputting data to the unused area made by .OFFSET. This property is automatically set by the selection of the [Suppress outputting data to unused area made by .OFFSET] property in the [Object] category of the [Assemble Options] tab or [Individual Assemble Options] tab. This property corresponds to the -create_unfilled_area option of the linker. This property is displayed when you have selected [Always latest version which was installed] or V2.03.00 or a later version for the [Using compiler package version] property under the [Version Select] category on the [Common Options] tab in an environment where V2.03.00 or a later version of the CC-RX compiler has been installed.		
	Default	No	
	How to change	Changes not allowed	

Remark 1. [Outputs the calculation result of CRC] property is displayed only when [Always latest version which was installed] or a version number earlier than V3.05.00 is selected for the [Using compiler package version] property under the [Version Select] category on the [Common Options] tab in an environment where a version of the CC-RX compiler earlier than V3.05.00 has been installed.

(3) [Others]

Other detailed information on linking are displayed and the configuration can be changed.

Use same message-related settings as Link Options tab	Selects whether to make the message-related settings the same as those of the [Link Options] tab.			
	Default	Yes		
	How to change	Select from the drop-down list.		
	Restriction	Yes	Makes the message-related settings the same as those of the [Link Options] tab.	
		No	Makes the message-related settings in the property of the [Hex Output Options] tab.	
Enables information-level message output	Specifies whether to enable information-level message output. This property corresponds to the -message and -nomessage options of the linker. This property is displayed only when [No] in the [Use same message-related settings as Link Options tab] property is specified.			
	Default	No (-NOMessage)		
	How to change	Select from the drop-down list.		
	Restriction	Yes (-Message)	Outputs information level messages.	
		No (-NOMessage)	Disables the output of information level messages.	

Suppresses the number of information-level messages	Specifies suppresses the number of information-level messages. If multiple message numbers are specified, delimit them with a comma (example: 23043,23042). Also, the range can be set using hyphen (example: 23044-23045,23046-23048). This property corresponds to the -nomessage option of the linker. This property is displayed only when [No] in the [Use same message-related settings as Link Options tab] property and [No (-NOMessage)] in the [Enables information-level message output] property is selected.		
	Default	Blank	
	How to change	Directly enter in the text box or edit by the Character String Input dialog box which appears when clicking the [...] button.	
	Restriction	Up to 32767 characters	
Changes the warning-level and error-level messages to information-level messages	Selects whether to change the warning-level and error-level messages to information-level messages. This property corresponds to the -change_message option of the linker. This property is displayed only when [No] in the [Use same message-related settings as Link Options tab] property is specified.		
	Default	No	
	How to change	Select from the drop-down list.	
	Restriction	Yes(All) (-change_message=information)	Changes all warning-level and error-level messages to the information-level messages.
		Yes(Specifies error number) (-change_message=information=<ErrorNumber>)	Changes the warning-level and error-level messages with the specified error numbers to the information-level messages.
		No	Does not change the warning-level and error-level messages to the information-level messages.
Error number of warning-level and error-level message	Specifies error number of warning-level and error-level message. If multiple message numbers are specified, delimit them with a comma (example: 23043,23042). Also, the range can be set using hyphen (example: 23044-23045,23046-23048). This property corresponds to the -change_message option of the linker. This property is displayed only when [No] in the [Use same message-related settings as Link Options tab] property and [Yes(Specifies error number) (-change_message=information=<ErrorNumber>)] in the [Changes the warning-level and error-level messages to information-level messages] property is specified.		
	Default	Blank	
	How to change	Directly enter in the text box or edit by the Character String Input dialog box which appears when clicking the [...] button.	
	Restriction	Up to 32767 characters	

Changes the information-level and error-level messages to warning-level messages	Selects whether to change the information-level and error-level messages to warning-level messages. This property corresponds to the -change_message option of the linker. This property is displayed only when [No] in the [Use same message-related settings as Link Options tab] property is specified.		
	Default	No	
	How to change	Select from the drop-down list.	
	Restriction	Yes(All) (-change_message=warning)	Changes all information-level and error-level messages to warning-level messages.
		Yes(Specifies error number) (-change_message=warning=<ErrorNumber>)	Changes the information-level and error-level messages with the specified error numbers to warning-level messages.
		No	Does not change the information-level and error-level messages to warning-level messages.
Error number of information-level and error-level message	Specifies error number of information-level and error-level message. If multiple message numbers are specified, delimit them with a comma (example: 23043,23042). Also, the range can be set using hyphen (example: 23044-23045,23046-23048). This property corresponds to the -change_message option of the linker. This property is displayed only when [No] in the [Use same message-related settings as Link Options tab] property and [Yes(Specifies error number) (-change_message=warning=<ErrorNumber>)] in the [Changes the information-level and error-level messages to warning-level messages] property is specified.		
	Default	Blank	
	How to change	Directly enter in the text box or edit by the Character String Input dialog box which appears when clicking the [...] button.	
	Restriction	Up to 32767 characters	
Changes the information-level and warning-level messages to error-level messages	Selects whether to change the information-level and warning-level messages to error-level messages. This property corresponds to the -change_message option of the linker. This property is displayed only when [No] in the [Use same message-related settings as Link Options tab] property is specified.		
	Default	No	
	How to change	Select from the drop-down list.	
	Restriction	Yes(All) (-change_message=error)	Changes all information-level and warning-level messages to error-level messages.
		Yes(Specifies error number) (-change_message=error=<ErrorNumber>)	Changes the information-level and warning-level messages with the specified error numbers to error-level messages.
		No	Does not change the warning-level messages to information-level messages.

Error number of information-level and warning-level message	Specifies error number of information-level and warning-level message. If multiple message numbers are specified, delimit them with a comma (example: 23043,23042). Also, the range can be set using hyphen (example: 23044-23045,23046-23048). This property corresponds to the -change_message option of the linker. This property is displayed only when [No] in the [Use same message-related settings as Link Options tab] property and [Yes(Specifies error number) (-change_message=error=<ErrorNumber>)] in the [Changes the information-level and warning-level messages to error-level messages] property is specified.	
	Default	Blank
	How to change	Directly enter in the text box or edit by the Character String Input dialog box which appears when clicking the [...] button.
	Restriction	Up to 32767 characters
Other additional options	Inputs the link options to be added additionally. The options set here are added at the end of the link options group. The following placeholders are supported. %ActiveProjectDir%: Replaces with the absolute path of the active project folder. %ActiveProjectName%: Replaces with the active project name. %BuildModeName%: Replaces with the build mode name. %MainProjectDir%: Replaces with the absolute path of the main project folder. %MainProjectName%: Replaces with the main project name. %MicomToolPath%: Replaces with the absolute path of the install folder of this product. %ProjectDir%: Replaces with the absolute path of the project folder. %ProjectName%: Replaces with the project name. %TempDir%: Replaces with the absolute path of the temporary folder. %WinDir%: Replaces with the absolute path of the Windows system folder.	
	Default	Blank
	How to change	Directly enter to the text box or edit by the Character String Input dialog box which appears when clicking the [...] button.
	Restriction	Up to 259 characters
Command line	The specified option is displayed.	
	Default	Command line[*number of defined items*]
	How to change	Changes not allowed

[Librarian Options] tab

This tab shows the detailed information on the link phase categorized by the following and the configuration can be changed.

Caution This tab is not displayed for the application project.

[Description of each category]

(1) [Input]
The detailed information on input files is displayed and the configuration can be changed.

Input object module file	Specifies an input object module file. Add one file in one line. The following placeholders are supported. %ActiveProjectDir%: Replaces with the absolute path of the active project folder. %ActiveProjectName%: Replaces with the active project name. %BuildModeName%: Replaces with the build mode name. %MainProjectDir%: Replaces with the absolute path of the main project folder. %MainProjectName%: Replaces with the main project name. %MicomToolPath%: Replaces with the absolute path of the install folder of this product. %ProjectDir%: Replaces with the absolute path of the project folder. %ProjectName%: Replaces with the project name. %TempDir%: Replaces with the absolute path of the temporary folder. %WinDir%: Replaces with the absolute path of the Windows system folder. This property corresponds to the -Input option of the linker. The specified file name is displayed as the subproperty.	
	Default	Input object module file[*number of defined items*]
	How to change	Edit by the Text Edit dialog box which appears when clicking the [...] button. For the subproperty, you can use the text box directly enter the text.
	Restriction	Up to 32767 characters Up to 65536 items can be specified.

Using libraries	Specifies an input library file. The following placeholders are supported. %ActiveProjectDir%: Replaces with the absolute path of the active project folder. %ActiveProjectName%: Replaces with the active project name. %BuildModeName%: Replaces with the build mode name. %MainProjectDir%: Replaces with the absolute path of the main project folder. %MainProjectName%: Replaces with the main project name. %MicomToolPath%: Replaces with the absolute path of the install folder of this product. %ProjectDir%: Replaces with the absolute path of the project folder. %ProjectName%: Replaces with the project name. %TempDir%: Replaces with the absolute path of the temporary folder. %WinDir%: Replaces with the absolute path of the Windows system folder. This property corresponds to the -library option of the linker. The library file name is displayed as the subproperty.	
	Default	Input library file [*number of defined items*]
	How to change	Edit by the Path Edit dialog box which appears when clicking the [...] button. For the subproperty, you can enter directly in the text box.
	Restriction	Up to 259 characters Up to 65536 items can be specified.
System library file	Changes the specified order of the library files which the system set during linking. The specified system library files are displayed. This property corresponds to the -library option of the linker.	
	Default	System library file[*number of defined items*]
	How to change	Edit by the System Include Path Order dialog box which appears when clicking the [...] button.
	Restriction	Changes not allowed (Only the specified order of the system library files can be changed.)

<table>
<tr><td rowspan="4">Input binary data file</td><td colspan="3">Specifies an input binary data file.
Specifies in the format of "file name (section name:boundary alignment/section attribute,symbol name)", with one file name per line.
The ":boundary alignment", "/section attribute", or ",symbol name" part can be omitted.
1, 2, 4, 8, 16, or 32 can be specified for the "boundary alignment".
When the "boundary alignment" specification is omitted, 1 is used as the default.
CODE or DATA can be specified for the "section attribute".
When "section attribute" specification is omitted, the write, read, and execute attributes are all enabled by default.
The following placeholders are supported.
%ActiveProjectDir%: Replaces with the absolute path of the active project folder.
%ActiveProjectName%: Replaces with the active project name.
%BuildModeName%: Replaces with the build mode name.
%MainProjectDir%: Replaces with the absolute path of the main project folder.
%MainProjectName%: Replaces with the main project name.
%MicomToolPath%: Replaces with the absolute path of the install folder of this product.
%ProjectDir%: Replaces with the absolute path of the project folder.
%ProjectName%: Replaces with the project name.
%TempDir%: Replaces with the absolute path of the temporary folder.
%WinDir%: Replaces with the absolute path of the Windows system folder.
This property corresponds to the -binary option of the linker.
This property is displayed only when [Relocatable module file (-FOrm=Relocate)] in the [Output file type] property in the [Output] category is selected.</td></tr>
<tr><td>Default</td><td colspan="2">Specify binary data file[number of defined items]</td></tr>
<tr><td>How to change</td><td colspan="2">Edit by the Text Edit dialog box which appears when clicking the [...] button.
For the subproperty, you can use the text box directly enter the text.</td></tr>
<tr><td>Restriction</td><td colspan="2">Up to 32767 characters
Up to 65536 items can be specified.</td></tr>
<tr><td rowspan="5">Initiates the prelinker</td><td colspan="3">Selects whether to initiate the prelinker (The automatic generation of C++ template instance).
This property corresponds to the -noprelink option of the linker.</td></tr>
<tr><td>Default</td><td colspan="2">Automatic control</td></tr>
<tr><td>How to change</td><td colspan="2">Select from the drop-down list.</td></tr>
<tr><td rowspan="3">Restriction</td><td>Automatic control</td><td>Disables the prelinker initiation if there is no ii file in a file to be input to linker.</td></tr>
<tr><td>Yes</td><td>Enables the prelinker initiation.</td></tr>
<tr><td>No (-NOPRElink)</td><td>Disables the prelinker initiation.</td></tr>
</table>

Allows duplicate module names	Selects whether to allow the specification of input files having the same module names during the generation of a library. This property corresponds to the -ALLOW_DUPLICATE_MODULE_NAME option of the linker. This property is displayed when you have selected [Always latest version which was installed] or V3.02.00 or a later version for the [Using compiler package version] property under the [Version Select] category on the [Common Options] tab in an environment where V3.02.00 or a later version of the CC-RX compiler has been installed.		
	Default	No	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-ALLOW_DUPLICATE_MODULE_NAME)	Allows duplicate module names.
		No	Does not allow duplicate module names.

(2) [Output]
The detailed information on output files are displayed and the configuration can be changed.

Output file type	Displays the output file type. This property corresponds to the -form option of the linker.		
	Default	User library file (-FOrm=Library=U)	
	How to change	Changes not allowed.	
	Restriction	User library file (-FOrm=Library=U)	Outputs a user library file.
		System library file (-FOrm=Library=S)	Outputs a system library file.
		Relocatable module file (-FOrm=Relocate)	Outputs a relocatable module file.
Outputs debugging information	Specifies whether debugging information is output. This property corresponds to the -nodebug and -debug options of the linker. This property is displayed only when [Relocatable module file (-FOrm=Relocate)] in the [Output file type] property is selected.		
	Default	Yes (Outputs to the output file) (-DEBug)	
	How to change	Select from the drop-down list.	
	Restriction	Yes (Outputs to the output file) (-DEBug)	Outputs a debugging information to the output file.
		No (-NODEBug)	Does not output a debugging information.

Path of the output folder	Specifies path of the output folder. The following placeholders are supported. %ActiveProjectDir%: Replaces with the absolute path of the active project folder. %ActiveProjectName%: Replaces with the active project name. %BuildModeName%: Replaces with the build mode name. %MainProjectDir%: Replaces with the absolute path of the main project folder. %MainProjectName%: Replaces with the main project name. %MicomToolPath%: Replaces with the absolute path of the install folder of this product. %ProjectDir%: Replaces with the absolute path of the project folder. %ProjectName%: Replaces with the project name. %TempDir%: Replaces with the absolute path of the temporary folder. %WinDir%: Replaces with the absolute path of the Windows system folder. If this is blank, it is assumed that the project folder has been specified. This property corresponds to the -output option of the linker.	
	Default	%BuildModeName%
	How to change	Directly enter in the text box or edit by the Browse For Folder dialog box which appears when clicking the [...] button.
	Restriction	Up to 247 characters
Output file name	Specifies an output file name. The default extensions depends on [Output file type] property when extension omitted. The default extensions are as follows: "User library file (-FOrm=Library=U)" : .lib "System library file (-FOrm=Library=S)" : .lib "Relocatable module file (-FOrm=Relocate)" : .rel. The following placeholders are supported. %ActiveProjectName%: Replaces with the active project name. %BuildModeName%: Replaces with the build mode name. %MainProjectName%: Replaces with the main project name. %ProjectName%: Replaces with the project name. This property corresponds to the -output option of the linker.	
	Default	- When [User library file (-FOrm=Library=U)] in the [Output file type] property is selected %ProjectName%.lib - When [System library file (-FOrm=Library=S)] in the [Output file type] property is selected %ProjectName%.lib - When [Relocatable module file (-FOrm=Relocate)] in the [Output file type] property is selected %ProjectName%.rel
	How to change	Directly enter in the text box.
	Restriction	Up to 259 characters

Enables information-level message output	Specifies whether to enable information-level message output. This property corresponds to the -message and -nomessage options of the linker.		
	Default	No (-NOMessage)	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-Message)	Outputs information level messages.
		No (-NOMessage)	Disables the output of information level messages.
Suppresses the number of information-level messages	Specifies suppresses the number of information-level messages. If multiple message numbers are specified, delimit them with a comma (example: 23043,23042). Also, the range can be set using hyphen (example: 23044-23045,23046-23048). This property corresponds to the -nomessage option of the linker. This property is displayed only when [No (-NOMessage)] in the [Enables information-level message output] property is specified.		
	Default	Blank	
	How to change	Directly enter in the text box or edit by the Character String Input dialog box which appears when clicking the [...] button.	
	Restriction	Up to 32767 characters	

(3) [List]

The detailed information on the list are displayed and the configuration can be changed.

Outputs the linkage list file	Selects whether to output the linkage list file. This property corresponds to the -list and -show option of the linker.		
	Default	Yes (List contents=specify) (-LISt)	
	How to change	Select from the drop-down list.	
	Restriction	Yes (List contents=not specify) (-LISt -SHow)	Outputs the default information associated with a output file type to a linkage list file.
		Yes (List contents=ALL) (-LISt -SHow=ALL)	Outputs all information associated with a output file type to a linkage list file.
		Yes (List contents=specify) (-LISt)	Outputs the specified information to a linkage list file.
		No	Does not output a linkage list file.
Outputs a symbol name list in a module	Selects whether to output a symbol name list in a module. This property corresponds to the -show option of the linker. This property is displayed only when [Yes (List contents=specify) (-LISt)] in the [Outputs the linkage list file] property is selected.		
	Default	No	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-SHow=SYmbo)	Outputs a symbol name list in a module.
		No	Does not output a symbol name list in a module.

Outputs a section list in a module	Selects whether to output a section list in a module. This property corresponds to the -show option of the linker. This property is displayed only when [Yes (List contents=specify) (-LISt)] in the [Outputs the linkage list file] property and [User library file (-FOrm=Library=U)] or [System library file (-FOrm=Library=S)] in the [Output file type] property in the [Output] category is selected.		
	Default	No	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-SHow=SEction)	Outputs a section list in a module.
		No	Does not output a section list in a module.
Outputs the cross-reference information	Selects whether to output the cross-reference information. This property corresponds to the -show option of the linker. This property is displayed only when [Yes (List contents=specify) (-LISt)] in the [Outputs the linkage list file] property and [Relocatable module file (-FOrm=Relocate)] in the [Output file type] property in the [Output] category is selected.		
	Default	No	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-SHow=Xreference)	Outputs the cross reference information to the linkage list file.
		No	Does not output the cross reference information to the linkage list file.
Shows the total sizes of sections	Selects whether to show the total sizes of sections. This property corresponds to the -show option of the linker. This property is displayed only when [Yes (List contents=specify) (-LISt)] in the [Outputs the linkage list file] property and [Relocatable module file (-FOrm=Relocate)] in the [Output file type] property in the [Output] category is selected.		
	Default	No	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-SHow=Total_size)	Shows the total sizes of sections allocated to the ROM and RAM areas.
		No	Does not show the total sizes of sections.
Outputs vector information	Selects whether to output vector information. This property corresponds to the -show option of the linker. This property is displayed only when [Yes (List contents=specify) (-LISt)] in the [Outputs the linkage list file] property and [Relocatable module file (-FOrm=Relocate)] in the [Output file type] property in the [Output] category is selected.		
	Default	No	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-SHow=VECTOR)	Outputs vector information to the linkage list file.
		No	Does not output vector information to the linkage list file.

(4) [Others]
Other detailed information on library generators are displayed and the configuration can be changed.

Reduces the memory occupancy	Selects whether to reduce the memory occupancy. This property corresponds to the -memory option of the linker. This property is not displayed when any one of the following items is selected. - [User library file (-FOrm=Library=U)] or [System library file (-FOrm=Library=S)] in the [Output file type] property in the [Output] category and [Yes (-Hide)] in the [Deletes local symbol name information] property - [System library file (-FOrm=Relocate)] in the [Output file type] property in the [Output] category		
	Default	No (-MEMory=High)	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-MEMory=Low)	Reduces the memory occupancy.
		No (-MEMory=High)	Does not reduce the memory occupancy.
Changes the warning-level and error-level messages to information-level messages	Selects whether to change the warning-level and error-level messages to information-level messages. This property corresponds to the -change_message option of the linker.		
	Default	No	
	How to change	Select from the drop-down list.	
	Restriction	Yes(All) (-change_message=information)	Changes all warning-level and error-level messages to the information-level messages.
		Yes(Specifies error number) (-change_message=information=<ErrorNumber>)	Changes the warning-level and error-level messages with the specified error numbers to the information-level messages.
		No	Does not change the warning-level and error-level messages to the information-level messages.
Error number of warning-level and error-level message	Specifies error number of warning-level and error-level message. If multiple message numbers are specified, delimit them with a comma (example: 23043,23042). Also, the range can be set using hyphen (example: 23044-23045,23046-23048). This property corresponds to the -change_message option of the linker. This property is displayed only when [Yes(Specifies error number) (-change_message=information=<ErrorNumber>)] in the [Changes the warning-level and error-level messages to information-level messages] property is specified.		
	Default	Blank	
	How to change	Directly enter in the text box or edit by the Character String Input dialog box which appears when clicking the [...] button.	
	Restriction	Up to 32767 characters	

Changes the information-level and error-level messages to warning-level messages	Selects whether to change the information-level and error-level messages to warning-level messages. This property corresponds to the -change_message option of the linker.		
	Default	No	
	How to change	Select from the drop-down list.	
	Restriction	Yes(All) (-change_message=warning)	Changes all information-level and error-level messages to warning-level messages.
		Yes(Specifies error number) (-change_message=warning=<ErrorNumber>)	Changes the information-level and error-level messages with the specified error numbers to warning-level messages.
		No	Does not change the information-level and error-level messages to warning-level messages.
Error number of information-level and error-level message	Specifies error number of information-level and error-level message. If multiple message numbers are specified, delimit them with a comma (example: 23043,23042). Also, the range can be set using hyphen (example: 23044-23045,23046-23048). This property corresponds to the -change_message option of the linker. This property is displayed only when [Yes(Specifies error number) (-change_message=warning=<ErrorNumber>)] in the [Changes the information-level and error-level messages to warning-level messages] property is specified.		
	Default	Blank	
	How to change	Directly enter in the text box or edit by the Character String Input dialog box which appears when clicking the [...] button.	
	Restriction	Up to 32767 characters	
Changes the information-level and warning-level messages to error-level messages	Selects whether to change the information-level and warning-level messages to error-level messages. This property corresponds to the -change_message option of the linker.		
	Default	No	
	How to change	Select from the drop-down list.	
	Restriction	Yes(All) (-change_message=error)	Changes all information-level and warning-level messages to error-level messages.
		Yes(Specifies error number) (-change_message=error=<ErrorNumber>)	Changes the information-level and warning-level messages with the specified error numbers to error-level messages.
		No	Does not change the warning-level messages to information-level messages.

Error number of information-level and warning-level message	Specifies error number of information-level and warning-level message. If multiple message numbers are specified, delimit them with a comma (example: 23043,23042). Also, the range can be set using hyphen (example: 23044-23045,23046-23048). This property corresponds to the -change_message option of the linker. This property is displayed only when [Yes(Specifies error number) (-change_message=error=<ErrorNumber>)] in the [Changes the information-level and warning-level messages to error-level messages] property is specified.		
	Default	Blank	
	How to change	Directly enter in the text box or edit by the Character String Input dialog box which appears when clicking the [...] button.	
	Restriction	Up to 32767 characters	
Deletes local symbol name information	Selects whether to delete local symbol name information. This property corresponds to the -hide option of the linker.		
	Default	No	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-Hide)	Deletes local symbol name information.
		No	Does not delete local symbol name information.
Displays the total sizes of sections	Selects whether to display the total sizes of sections. This property corresponds to the -total_size option of the linker. This property is displayed only when [Relocatable module file (-FOrm=Relocate)] in the [Output file type] property in the [Output] category is selected.		
	Default	No	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-Total_size)	Displays the total sizes of sections.
		No	Does not display the total sizes of sections.
Displays the copyright information	Selects whether to display the copyright information. This property corresponds to the -logo and -nologo option of the linker.		
	Default	No (-NOLOgo)	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-LOgo)	Displays the total sizes of sections.
		No (-NOLOgo)	Does not display the total sizes of sections.

<table>
<tr><td>Commands executed before librarian processing</td><td colspan="2">Specifies the command to be executed before librarian processing.
Use the call instruction to specify a batch file (example: call a.bat).
The following placeholders are supported.
%ActiveProjectDir%: Replaces with the absolute path of the active project folder.
%ActiveProjectName%: Replaces with the active project name.
%BuildModeName%: Replaces with the build mode name.
%LibrarianFile%: Replaces with the absolute path of the output file under librarian processing.
%MainProjectDir%: Replaces with the absolute path of the main project folder.
%MainProjectName%: Replaces with the main project name.
%MicomToolPath%: Replaces with the absolute path of the install folder of this product.
%OutputDir%: Replaces with the absolute path of the output folder.
%OutputFile%: Replaces with the absolute path of the output file.
%Program%: Replaces with the file name of the running program.
%ProjectDir%: Replaces with the absolute path of the project folder.
%ProjectName%: Replaces with the project name.
%TempDir%: Replaces with the absolute path of the temporary folder.
%WinDir%: Replaces with the absolute path of the Windows system folder.
When "#!python" is described in the first line, the contents from the second line to the last line are regarded as the script of the Python console, and then executed before librarian processing.
The placeholders can be described in the script.
The specified command is displayed as the subproperty.</td></tr>
<tr><td></td><td>Default</td><td>Commands executed before librarian processing[number of defined items]</td></tr>
<tr><td></td><td>How to change</td><td>Edit by the Text Edit dialog box which appears when clicking the [...] button.
For the subproperty, you can use the text box directly enter the text.</td></tr>
<tr><td></td><td>Restriction</td><td>Up to 1023 characters
Up to 64 items can be specified.</td></tr>
</table>

<table>
<tr><td rowspan="4">Commands executed after librarian processing</td><td colspan="2">Specifies the command to be executed after librarian processing.
Use the call instruction to specify a batch file (example: call a.bat).
The following placeholders are supported.
%ActiveProjectDir%: Replaces with the absolute path of the active project folder.
%ActiveProjectName%: Replaces with the active project name.
%BuildModeName%: Replaces with the build mode name.
%LibrarianFile%: Replaces with the absolute path of the output file under librarian processing.
%MainProjectDir%: Replaces with the absolute path of the main project folder.
%MainProjectName%: Replaces with the main project name.
%MicomToolPath%: Replaces with the absolute path of the install folder of this product.
%OutputDir%: Replaces with the absolute path of the output folder.
%OutputFile%: Replaces with the absolute path of the output file.
%Program%: Replaces with the file name of the running program.
%ProjectDir%: Replaces with the absolute path of the project folder.
%ProjectName%: Replaces with the project name.
%TempDir%: Replaces with the absolute path of the temporary folder.
%WinDir%: Replaces with the absolute path of the Windows system folder.
When "#!python" is described in the first line, the contents from the second line to the last line are regarded as the script of the Python console, and then executed after librarian processing.
The placeholders can be described in the script.
The specified command is displayed as the subproperty.</td></tr>
<tr><td>Default</td><td>Commands executed after librarian processing[number of defined items]</td></tr>
<tr><td>How to change</td><td>Edit by the Text Edit dialog box which appears when clicking the [...] button.
For the subproperty, you can use the text box directly enter the text.</td></tr>
<tr><td>Restriction</td><td>Up to 1023 characters
Up to 64 items can be specified.</td></tr>
<tr><td rowspan="4">Other additional options</td><td colspan="2">Inputs the link options to be added additionally.
The options set here are added at the end of the link options group.
The following placeholders are supported.
%ActiveProjectDir%: Replaces with the absolute path of the active project folder.
%ActiveProjectName%: Replaces with the active project name.
%BuildModeName%: Replaces with the build mode name.
%MainProjectDir%: Replaces with the absolute path of the main project folder.
%MainProjectName%: Replaces with the main project name.
%MicomToolPath%: Replaces with the absolute path of the install folder of this product.
%ProjectDir%: Replaces with the absolute path of the project folder.
%ProjectName%: Replaces with the project name.
%TempDir%: Replaces with the absolute path of the temporary folder.
%WinDir%: Replaces with the absolute path of the Windows system folder.</td></tr>
<tr><td>Default</td><td>Blank</td></tr>
<tr><td>How to change</td><td>Directly enter to the text box or edit by the Character String Input dialog box which appears when clicking the [...] button.</td></tr>
<tr><td>Restriction</td><td>Up to 259 characters</td></tr>
<tr><td rowspan="3">Command line</td><td colspan="2">The specified option is displayed.</td></tr>
<tr><td>Default</td><td>Command line[number of defined items]</td></tr>
<tr><td>How to change</td><td>Changes not allowed</td></tr>
</table>

[Library Generate Options] tab

This tab shows the detailed information on the library generate phase categorized by the following and the configuration can be changed.

Caution This tab is not displayed for the library project.

[Description of each category]

(1) [Mode]
The detailed information on modes are displayed and the configuration can be changed.

Generation mode of the standard library	Selects the generation mode of the standard library.		
	Default	Build a library file (option changed)	
	How to change	Select from the drop-down list.	
	Restriction	Build a library file (anytime)	Creates a latest standard library file.
		Build a library file (option changed)	Creates a latest standard library file only when an option is changed regardless of whether Build or Rebuild.
		Do not add a library file	Does not add a library file.

(2) [Standard Library]
The detailed information on standard library are displayed and the configuration can be changed.
This category is not displayed when [Do not add a library file] in the [Generation mode of the standard library] property in the [Mode] category.

Library configuration	Selects which functions are to be usable in the C standard library. This property corresponds to the -lang option of the library generator.		
	Default	C(C89) (-lang=c)	
	How to change	Select from the drop-down list.	
	Restriction	C(C89) (-lang=c)	Includes only the functions conforming to the C89 standard in the C standard library.
		C99 (-lang=c99)	Includes the functions conforming to the C89 standard and the functions conforming to the C99 standard in the C standard library.

Configuration library	Selects the configuration library. This property corresponds to the -head option of the library generator.		
	Default	Custom (-head=<SubOption>)	
	How to change	Select from the drop-down list.	
	Restriction	Custom (-head=<SubOption>)	Specifies a configuration library.
		All enable (-head=all)	Specifies all library functions and runtime library.
		All disable (-head=runtime)	Does not specify a configuration library.
Enables runtime library	Selects whether to enable runtime library. This property corresponds to the -head option of the library generator. This property is displayed only when [Custom (-head=<SubOption>)] in the [Configuration library] property is selected.		
	Default	Yes (-head=runtime)	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-head=runtime)	Enables the runtime library.
		No	Disables the runtime library.
Enables ctype.h(C89/C99)	Selects whether to enable ctype.h(C89/C99). This property corresponds to the -head option of the library generator. This property is displayed only when [Custom (-head=<SubOption>)] in the [Configuration library] property is selected.		
	Default	No	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-head=ctype)	Enables the ctype.h (C89/C99) and runtime library.
		No	Disables the ctype.h (C89/C99).
Enables math.h(C89/C99)	Selects whether to enable math.h(C89/C99). This property corresponds to the -head option of the library generator. This property is displayed only when [Custom (-head=<SubOption>)] in the [Configuration library] property is selected.		
	Default	No	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-head=math)	Enables the math.h (C89/C99) and runtime library.
		No	Disables the math.h (C89/C99).

Enables mathf.h(C89/C99)	Selects whether to enable mathf.h(C89/C99). This property corresponds to the -head option of the library generator. This property is displayed only when [Custom (-head=<SubOption>)] in the [Configuration library] property is selected.		
	Default	No	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-head=mathf)	Enables the mathf.h (C89/C99) and runtime library.
		No	Disables the mathf.h (C89/C99).
Enables stdarg.h(C89/C99)	Selects whether to enable stdarg.h(C89/C99). This property corresponds to the -head option of the library generator. This property is displayed only when [Custom (-head=<SubOption>)] in the [Configuration library] property is selected.		
	Default	No	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-head=stdarg)	Enables the stdarg.h (C89/C99) and runtime library.
		No	Disables the stdarg.h (C89/C99).
Enables stdio.h(C89/C99)	Selects whether to enable stdio.h(C89/C99). This property corresponds to the -head option of the library generator. This property is displayed only when [Custom (-head=<SubOption>)] in the [Configuration library] property is selected.		
	Default	Yes (-head=stdio)	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-head=stdio)	Enables the stdio.h (C89/C99) and runtime library.
		No	Disables the stdio.h (C89/C99).
Enables stdlib.h(C89/C99)	Selects whether to enable stdlib.h(C89/C99). This property corresponds to the -head option of the library generator. This property is displayed only when [Custom (-head=<SubOption>)] in the [Configuration library] property is selected.		
	Default	Yes (-head=stdlib)	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-head=stdlib)	Enables the stdlib.h (C89/C99) and runtime library.
		No	Disables the stdlib.h (C89/C99).

Enables string.h(C89/C99)	Selects whether to enable string.h(C89/C99). This property corresponds to the -head option of the library generator. This property is displayed only when [Custom (-head=<SubOption>)] in the [Configuration library] property is selected.		
	Default	Yes (-head=string)	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-head=string)	Enables the string.h (C89/C99) and runtime library.
		No	Disables the string.h (C89/C99).
Enables ios(EC++)	Selects whether to enable ios(EC++). This property corresponds to the -head option of the library generator. This property is displayed only when [Custom (-head=<SubOption>)] in the [Configuration library] property is selected.		
	Default	No	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-head=ios)	Enables the ios(EC++) and runtime library.
		No	Disables the ios(EC++).
Enables new(EC++)	Selects whether to enable new(EC++). This property corresponds to the -head option of the library generator. This property is displayed only when [Custom (-head=<SubOption>)] in the [Configuration library] property is selected.		
	Default	Yes (-head=new)	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-head=new)	Enables the new(EC++) and runtime library.
		No	Disables the new(EC++).
Enables complex(EC++)	Selects whether to enable complex(EC++). This property corresponds to the -head option of the library generator. This property is displayed only when [Custom (-head=<SubOption>)] in the [Configuration library] property is selected.		
	Default	No	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-head=complex)	Enables the complex(EC++) and runtime library.
		No	Disables the complex(EC++).

Enables string(EC++)	Selects whether to enable string(EC++). This property corresponds to the -head option of the library generator. This property is displayed only when [Custom (-head=<SubOption>)] in the [Configuration library] property is selected.		
	Default	No	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-head=cpp-string)	Enables the string(EC++) and runtime library.
		No	Disables the string(EC++).
Enables complex.h(C99)	Selects whether to enable complex.h(C99). This property corresponds to the -head option of the library generator. This property is displayed only when [C99 (-lang=c99)] in the [Library configuration] property and [Custom (-head=<SubOption>)] in the [Configuration library] property is selected.		
	Default	No	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-head=C99_complex)	Enables the complex.h(C99) and runtime library.
		No	Disables the complex.h(C99).
Enables fenv.h(C99)	Selects whether to enable fenv.h(C99). This property corresponds to the -head option of the library generator. This property is displayed only when [C99 (-lang=c99)] in the [Library configuration] property and [Custom (-head=<SubOption>)] in the [Configuration library] property is selected.		
	Default	No	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-head=fenv)	Enables the fenv.h(C99) and runtime library.
		No	Disables the fenv.h(C99).
Enables inttypes.h(C99)	Selects whether to enable inttypes.h(C99). This property corresponds to the -head option of the library generator. This property is displayed only when [C99 (-lang=c99)] in the [Library configuration] property and [Custom (-head=<SubOption>)] in the [Configuration library] property is selected.		
	Default	No	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-head=inttypes)	Enables the inttypes.h(C99) and runtime library.
		No	Disables the inttypes.h(C99).

Enables wchar.h(C99)	Selects whether to enable wchar.h(C99). This property corresponds to the -head option of the library generator. This property is displayed only when [C99 (-lang=c99)] in the [Library configuration] property and [Custom (-head=<SubOption>)] in the [Configuration library] property is selected.		
	Default	No	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-head=wchar)	Enables the wchar.h(C99) and runtime library.
		No	Disables the wchar.h(C99).
Enables wctype.h(C99)	Selects whether to enable wctype.h(C99). This property corresponds to the -head option of the library generator. This property is displayed only when [C99 (-lang=c99)] in the [Library configuration] property and [Custom (-head=<SubOption>)] in the [Configuration library] property is selected.		
	Default	No	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-head=wctype)	Enables the wctype.h(C99) and runtime library.
		No	Disables the wctype.h(C99).

(3) [Object]
The detailed information on output files are displayed and the configuration can be changed.
This category is not displayed when [Do not add a library file] in the [Generation mode of the standard library] property in the [Mode] category.

Path of the output folder	Specifies path of the output folder. The following placeholders are supported. %ActiveProjectDir%: Replaces with the absolute path of the active project folder. %ActiveProjectName%: Replaces with the active project name. %BuildModeName%: Replaces with the build mode name. %MainProjectDir%: Replaces with the absolute path of the main project folder. %MainProjectName%: Replaces with the main project name. %MicomToolPath%: Replaces with the absolute path of the install folder of this product. %ProjectDir%: Replaces with the absolute path of the project folder. %ProjectName%: Replaces with the project name. %TempDir%: Replaces with the absolute path of the temporary folder. %WinDir%: Replaces with the absolute path of the Windows system folder. If this is blank, it is assumed that the project folder has been specified. This property corresponds to the -output option of the library generator.	
	Default	%BuildModeName%
	How to change	Directly enter in the text box or edit by the Browse For Folder dialog box which appears when clicking the [...] button.
	Restriction	Up to 247 characters

Output file name	Specifies the output file name. The following placeholders are supported. %ActiveProjectName%: Replaces with the active project name. %BuildModeName%: Replaces with the build mode name. %MainProjectName%: Replaces with the main project name. %ProjectName%: Replaces with the project name. The reference point of the path is the project folder. This property corresponds to the -output option of the library generator.		
	Default	%ProjectName%.lib	
	How to change	Directly enter to the text box.	
	Restriction	Up to 32767 characters	
Generation mode of the standard library	Selects whether to create a functional cutdown version of I/O functions. This property corresponds to the -nofloat and -simple_stdio option of the library generator.		
	Default	No	
	How to change	Select from the drop-down list.	
	Restriction	Yes (Functional cutdown version 1) (-nofloat)	Creates simple I/O functions that do not support the conversion of floating-point numbers (%f, %e, %E, %g, %G).
		Yes (Functional cutdown version 2) (-simple_stdio)	Does not include the conversion of the floating point numbers, the conversion of long long type, and the conversion of 2-byte code.
		No	Does not create a functional cutdown version of I/O functions.
Creates the reentrant library	Selects whether to create the reentrant library. This property corresponds to the -reent option of the library generator. This property is displayed when you have selected [Always latest version which was installed] or V2.03.00 or a later version for the [Using compiler package version] property under the [Version Select] category on the [Common Options] tab in an environment where V2.03.00 or a later version of the CC-RX compiler has been installed.		
	Default	No	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-reent)	Creates the reentrant library.
		No	Does not create the reentrant library.

Check memory smashing on releasing memory	Selects whether to check memory smashing on releasing the memory. This property is usable only in the Professional Edition. The user-defined __heap_chk_fail() function is called if an illegal address has been specified or an address outside the allocated memory area has been written to when the memory that was dynamically allocated by malloc or another function is released or re-allocated by this function. See "CC-RX Compiler User's Manual" for details. This property corresponds to the -secure_malloc option of the library generator. This property is displayed when you have selected [Always latest version which was installed] or V2.05.00 or a later version for the [Using compiler package version] property under the [Version Select] category on the [Common Options] tab in an environment where V2.05.00 or a later version of the CC-RX compiler has been installed.		
	Default	No	
	How to change	Select from the drop-down list.	
	Restriction	Yes(-secure_malloc)	Checks memory smashing on releasing the memory.
		No	Does not check memory smashing on releasing the memory.
Use same object-related settings as Compile Options tab	Selects whether to make the object-related settings match those of the [Compile Options] tab.		
	Default	No	
	How to change	Select from the drop-down list.	
	Restriction	Yes	Makes the object-related settings match those of the [Compile Options] tab.
		No	Does not make the object-related settings match those of the [Compile Options] tab.
Section name of program area	Specifies the section name of program area. This property corresponds to the -section option of the compiler. This property is displayed only when [No] in the [Use same object-related settings as Compile Options tab] property is selected.		
	Default	P	
	How to change	Directly enter in the text box.	
	Restriction	Up to 32767 characters	
Section name of constant area	Specifies the section name of constant area. This property corresponds to the -section option of the compiler. This property is displayed only when [No] in the [Use same object-related settings as Compile Options tab] property is selected.		
	Default	C	
	How to change	Directly enter in the text box.	
	Restriction	Up to 32767 characters	

Section name of initialized data area	Specifies the section name of initialized data area. This property corresponds to the -section option of the compiler. This property is displayed only when [No] in the [Use same object-related settings as Compile Options tab] property is selected.		
	Default	D	
	How to change	Directly enter in the text box.	
	Restriction	Up to 32767 characters	
Section name of uninitialized data area	Specifies the section name of uninitialized data area. This property corresponds to the -section option of the compiler. This property is displayed only when [No] in the [Use same object-related settings as Compile Options tab] property is selected.		
	Default	B	
	How to change	Directly enter in the text box.	
	Restriction	Up to 32767 characters	
Section name of literal area	Specifies the section name of literal area. This property corresponds to the -section option of the compiler. This property is displayed only when [No] in the [Use same object-related settings as Compile Options tab] property is selected.		
	Default	L	
	How to change	Directly enter in the text box.	
	Restriction	Up to 32767 characters	
Section name of switch statement branch table area	Specifies the section name of switch statement branch table area. This property corresponds to the -section option of the compiler. This property is displayed only when [No] in the [Use same object-related settings as Compile Options tab] property is selected.		
	Default	W	
	How to change	Directly enter in the text box.	
	Restriction	Up to 32767 characters	
Allocates uninitialized variables to 4-byte boundary alignment sections	Selects whether to allocate uninitialized variables to 4-byte boundary alignment sections. This property corresponds to the -nostuff option of the compiler. This property is displayed only when [No] in the [Use same object-related settings as Compile Options tab] property is selected.		
	Default	No	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-nostuff=B)	Allocates uninitialized variables to 4-byte boundary alignment sections.
		No	Does not allocate uninitialized variables to 4-byte boundary alignment sections.

Allocates initialized variables to 4-byte boundary alignment sections	Selects whether to allocate initialized variables to 4-byte boundary alignment sections. This property corresponds to the -nostuff option of the compiler. This property is displayed only when [No] in the [Use same object-related settings as Compile Options tab] property is selected.		
	Default	No	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-nostuff=D)	Allocates initialized variables to 4-byte boundary alignment sections.
		No	Does not allocates initialized variables to 4-byte boundary alignment sections.
Allocates const qualified variables to 4-byte boundary alignment sections	Selects whether to allocate const qualified variables to 4-byte boundary alignment sections. This property corresponds to the -nostuff option of the compiler. This property is displayed only when [No] in the [Use same object-related settings as Compile Options tab] property is selected.		
	Default	No	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-nostuff=C)	Allocates const qualified variables to 4-byte boundary alignment sections.
		No	Does not allocate const qualified variables to 4-byte boundary alignment sections.
Allocates switch statement branch tables to 4-byte boundary alignment sections	Selects whether to allocate switch statement branch tables to 4-byte boundary alignment sections. This property corresponds to the -nostuff option of the compiler. This property is displayed only when [No] in the [Use same object-related settings as Compile Options tab] property is selected.		
	Default	No	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-nostuff=W)	Allocates switch statement branch tables to 4-byte boundary alignment sections.
		No	Does not allocate switch statement branch tables to 4-byte boundary alignment sections.

Adjustment for instruction in branch	Selects adjustment for instruction in branch. This property corresponds to the -noinstalign, -instalign4, and -instalign8 option of the compiler. This property is displayed only when [No] in the [Use same object-related settings as Compile Options tab] property is selected.		
	Default	None (-noinstalign)	
	How to change	Select from the drop-down list.	
	Restriction	None (-noinstalign)	Does not align instructions at branch destinations.
		Execution in 4 bytes (-instalign4)	Aligns instructions at branch destinations to 4-byte boundaries.
		Execution in 4 bytes(Contains each loop head) (-instalign4=loop)	Aligns instructions at branch destinations to 4-byte boundaries (Contains head of each loop).
		Execution in 4 bytes(Contains each inmost loop head) (-instalign4=inmost-loop)	Aligns instructions at branch destinations to 4-byte boundaries (Contains head of each inmost loop).
		Execution in 8 bytes (-instalign8)	Aligns instructions at branch destinations to 8-byte boundaries.
		Execution in 8 bytes (Contains each loop head) (-instalign8=loop)	Aligns instructions at branch destinations to 8-byte boundaries (Contains head of each loop).
		Execution in 8 bytes (Contains each inmost loop head) (-instalign8=inmost-loop)	Aligns instructions at branch destinations to 8-byte boundaries (Contains head of each inmost loop).
Align fetch address of string manipulation instructions	Selects whether to align addresses where string manipulation instructions start reading data. Selecting [Yes] prevents the reading of data across 4-byte boundaries in prefetching by string manipulation instructions. This property corresponds to the -avoid_cross_boundary_prefetch option of the compiler. This property is displayed when you have selected [Always latest version which was installed] or V2.07.00 or a later version for the [Using compiler package version] property under the [Version Select] category on the [Common Options] tab in an environment where V2.07.00 or a later version of the CC-RX compiler has been installed.		
	Default	No	
	How to change	Select from the drop-down list.	
	Restriction	Yes(-avoid_cross_boundary_prefetch)	Aligns addresses where string manipulation instructions start reading data.
		No	Does not align addresses where string manipulation instructions start reading data.

Generates divisions and residues with DIV, DIVU, and the FDIV instruction	Selects whether to generate divisions and residues with DIV, DIVU, and the FDIV instruction. This property corresponds to the -nouse_div_inst option of the compiler. This property is displayed only when [No] in the [Use same object-related settings as Compile Options tab] property is selected.		
	Default	Yes	
	How to change	Select from the drop-down list.	
	Restriction	Yes	Generates code in which DIV, DIVU, or FDIV instructions are used.
		No (-nouse_div_inst)	Generates code in which no DIV, DIVU, or FDIV instructions are used.

(4) [Optimization]
The detailed information on optimizations are displayed and the configuration can be changed.
This category is not displayed when [Do not add a library file] in the [Generation mode of the standard library] property in the [Mode] category.

Use same optimization-related settings as Compile Options tab	Selects whether to make the optimization-related settings match those of the [Compile Options] tab.		
	Default	No	
	How to change	Select from the drop-down list.	
	Restriction	Yes	Makes the optimization-related settings match those of the [Compile Options] tab.
		No	Does not make the optimization-related settings match those of the [Compile Options] tab.
Optimization level	Selects optimization level. This property corresponds to the -optimize option of the library generator. This property is displayed only when [No] in the [Use same optimization-related settings as Compile Options tab] property is selected.		
	Default	2 (-optimize=2)	
	How to change	Select from the drop-down list.	
	Restriction	0 (-optimize=0)	Does not optimize the program.
		1 (-optimize=1)	Partially optimizes the program by automatically allocating variables to registers, integrating the function exit blocks, integrating multiple instructions which can be integrated, etc.
		2 (-optimize=2)	Performs overall optimization.
		Max (-optimize=max)	Performs optimization as much as possible.

Outputs additional information for inter-module optimization	Selects whether to output additional information for inter-module optimization. This property corresponds to the -goptimize option of the library generator. This property is displayed only when [No] in the [Use same optimization-related settings as Compile Options tab] property is selected.		
	Default	No	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-goptimize)	Outputs additional information for inter-module optimization.
		No	Does not outputs additional information for inter-module optimization.
Optimization type	Selects optimization type. This property corresponds to the -speed and -size option of the library generator. This property is displayed only when [No] in the [Use same optimization-related settings as Compile Options tab] property is selected.		
	Default	Optimizes with emphasis on code size (-size)	
	How to change	Select from the drop-down list.	
	Restriction	Optimizes with emphasis on execution performance (-speed)	Optimizes with emphasis on execution performance.
		Optimizes with emphasis on code size (-size)	Optimizes with emphasis on code size.
Loop expansion	Selects whether to optimize the loop expansion (for, while, and do-while). This property corresponds to the -loop option of the library generator. This property is displayed only when [No] in the [Use same optimization-related settings as Compile Options tab] property is selected.		
	Default	Depends on the optimization level and optimization type options	
	How to change	Select from the drop-down list.	
	Restriction	Depends on the optimization level and optimization type options	Depends on the [Optimization level] and [Optimization type] properties.
		Expansion (-loop=<numeric value>)	Expands loop statements (for, while, and do-while).
Expansion maximum number	Specifies expansion maximum number. This property corresponds to the suboption of -loop option of the library generator. This property is displayed only in the following cases. - When [Expansion (-loop=<numeric value>)] in the [Loop expansion] property is selected - When [No] in the [Use same optimization-related settings as Compile Options tab] property is selected		
	Default	2 (decimal number)	
	How to change	Directly enter in the text box.	
	Restriction	1 to 32 (decimal number)	

<table>
<tr><td rowspan="5">Performs inline expansion automatically</td><td colspan="3">Selects whether to perform inline expansion automatically.
This option corresponds to the -inline and -noinline option of the library generator.
This property is displayed only when [No] in the [Use same optimization-related settings as Compile Options tab] property is selected.</td></tr>
<tr><td>Default</td><td colspan="2">Depends on the optimization level and optimization type options</td></tr>
<tr><td>How to change</td><td colspan="2">Select from the drop-down list.</td></tr>
<tr><td rowspan="3">Restriction</td><td>Depends on the optimization level and optimization type options</td><td>Depends on the [Optimization level] and [Optimization type] properties.</td></tr>
<tr><td>Yes (-inline=<numeric value>)</td><td>Performs inline expansion automatically.</td></tr>
<tr><td>No (-noinline)</td><td>Does not perform inline expansion automatically.</td></tr>
<tr><td rowspan="4">Maximum increasing rate of function size</td><td colspan="3">Specifies maximum increasing rate of function size.
This option corresponds to the -inline option of the library generator.
This property is displayed only in the following cases.
- When [Yes (-inline=<numeric value>)] in the [Performs inline expansion automatically] property is selected
- When [No] in the [Use same optimization-related settings as Compile Options tab] property is selected</td></tr>
<tr><td>Default</td><td colspan="2">100 (decimal number)</td></tr>
<tr><td>How to change</td><td colspan="2">Select from the drop-down list.</td></tr>
<tr><td>Restriction</td><td colspan="2">1 to 65535 (decimal number)</td></tr>
<tr><td rowspan="4">Files for inter-file inline expansion</td><td colspan="3">Specifies files for inter-file inline expansion.
This option is valid only when the inline option or #pragma inline has been specified.
The following placeholders are supported.
%BuildModeName%: Replaces with the build mode name.
%ProjectName%: Replaces with the project name.
%MicomToolPath%: Replaces with the absolute path of the product install folder.
This option corresponds to the -file_inline option of the compiler.
The file name is displayed as the subproperty.
This property is displayed only in the following cases.
- When [Always latest version which was installed] or a version number earlier than V2.00.00 is selected for the [Using compiler package version] property under the [Version Select] category on the [Common Options] tab in an environment where a version of the CC-RX compiler earlier than V2.00.00 has been installed
- When [No] in the [Use same optimization-related settings as Compile Options tab] property is selected</td></tr>
<tr><td>Default</td><td colspan="2">Files for inter-file inline expansion[number of defined items]</td></tr>
<tr><td>How to change</td><td colspan="2">Edit by the Path Edit dialog box which appears when clicking the [...] button.
-> Edit by the Add Inline Expansion File dialog box which appears when clicking the [Browse...] button.
For the subproperty, you can use the text box directly enter the text.</td></tr>
<tr><td>Restriction</td><td colspan="2">Up to 259 characters
Up to 65536 items can be specified.</td></tr>
</table>

<table>
<tr><td rowspan="5">Expansion method of the switch statement</td><td colspan="3">Selects expansion method of the switch statement.
This property corresponds to the -case option of the library generator.
This property is displayed only when [No] in the [Use same optimization-related settings as Compile Options tab] property is selected.</td></tr>
<tr><td>Default</td><td colspan="2">Compiler automatically selects (-case=auto)</td></tr>
<tr><td>How to change</td><td colspan="2">Select from the drop-down list.</td></tr>
<tr><td rowspan="3">Restriction</td><td>if_then method (-case=ifthen)</td><td>Expands the switch statement using the if_then method.</td></tr>
<tr><td>Jumping to a table method (-case=table)</td><td>Expands the switch statement by using the table method.</td></tr>
<tr><td>Compiler automatically selects (-case=auto)</td><td>Automatically selects the if_then method or table method.</td></tr>
<tr><td rowspan="5">Handles external variables as if they are volatile qualified</td><td colspan="3">Selects whether to handle all external variables as if they are volatile qualified.
This property corresponds to the -volatile and -novolatile option of the library generator.
This property is displayed only when [No] in the [Use same optimization-related settings as Compile Options tab] property is selected.</td></tr>
<tr><td>Default</td><td colspan="2">No (-novolatile)</td></tr>
<tr><td>How to change</td><td colspan="2">Select from the drop-down list.</td></tr>
<tr><td rowspan="2">Restriction</td><td>Yes (-volatile)</td><td>Handles all external variables as if they were volatile qualified.</td></tr>
<tr><td>No (-novolatile)</td><td>Does not handle external variables as if they were volatile qualified.</td></tr>
<tr><td rowspan="5">Accesses to volatile qualified variables with the sizes of the variable types</td><td colspan="3">Selects whether to access to volatile qualified variables with the sizes of the variable types.
This option corresponds to the -type_size_access_to_volatile option of the compiler.
This property is displayed only in the following cases.
- When [Always latest version which was installed] or a version number earlier than V3.04.00 is selected for the [Using compiler package version] property under the [Version Select] category on the [Common Options] tab in an environment where a version of the CC-RX compiler earlier than V3.04.00 has been installed.
- When [No] in the [Use same optimization-related settings as Compile Options tab] property is selected.</td></tr>
<tr><td>Default</td><td colspan="2">No</td></tr>
<tr><td>How to change</td><td colspan="2">Select from the drop-down list.</td></tr>
<tr><td rowspan="2">Restriction</td><td>Yes (-type_size_access_to_volatile)</td><td>Accesses to volatile qualified variables with the sizes of the variable types</td></tr>
<tr><td>No</td><td>Does not access to volatile qualified variables with the sizes of the variable types</td></tr>
</table>

Performs the constant propagation of const qualified external variables	Selects whether to perform the constant propagation of const qualified external variables. This property corresponds to the -const_copy and -noconst_copy option of the library generator. This property is displayed only when [No] in the [Use same optimization-related settings as Compile Options tab] property is selected.		
	Default	Depends on the optimization level options	
	How to change	Select from the drop-down list.	
	Restriction	Depends on the optimization level options	Depends on the [Optimization level] property.
		Yes (-const_copy)	Enables constant propagation of const qualified external variables.
		No (-noconst_copy)	Disables constant propagation of const qualified external variables.
Conversion method of the divisions and residues of integer constants	Selects conversion method of the divisions and residues of integer constants. This property corresponds to the -const_div and -noconst_div option of the library generator. This property is displayed only when [No] in the [Use same optimization-related settings as Compile Options tab] property is selected.		
	Default	Depends on the optimization type option	
	How to change	Select from the drop-down list.	
	Restriction	Depends on the optimization type option	Depends on the [Optimization type] property
		Instruction sequence using multiplication (-const_div)	Performs constant division (residue) by an instruction sequence using multiplication.
		Instruction sequence using division (-noconst_div)	Performs constant division (residue) by an instruction sequence using division.
Execution method of library function that can be expanded to RX instructions	Selects the method of execution for library functions that can be expanded as RX instructions. This property corresponds to the -library option of the library generator. This property is displayed only when [No] in the [Use same optimization-related settings as Compile Options tab] property is selected.		
	Default	Performs expansion to RX instructions(-library=intrinsic)	
	How to change	Select from the drop-down list.	
	Restriction	Calls library functions (-library=function)	Calls library functions.
		Performs expansion to RX instructions(-library=intrinsic)	Replaces library functions with RX instructions having the corresponding facilities. For example, replaces abs() with an ABS instruction.

Divides the optimizing ranges into many sections before compilation	Selects whether to divide the optimizing ranges of the large-size function into many sections before compilation. This property corresponds to the -scope and -noscope option of the library generator. This property is displayed only when [No] in the [Use same optimization-related settings as Compile Options tab] property is selected.		
	Default	Depends on the optimization level option	
	How to change	Select from the drop-down list.	
	Restriction	Depends on the optimization level option	Depends on the [Optimization level] property.
		Yes (-scope)	Divides the optimizing ranges of the large-size function into many sections before compilation.
		No (-noscope)	Does not divide the optimizing ranges before compilation.
Schedules the instruction taking into consideration pipeline processing	Selects whether to schedule the instruction taking into consideration pipeline processing. This property corresponds to the -schedule and -noschedule option of the library generator. This property is displayed only when [No] in the [Use same optimization-related settings as Compile Options tab] property is selected.		
	Default	Depends on the optimization level option	
	How to change	Select from the drop-down list.	
	Restriction	Depends on the optimization level option	Depends on the [Optimization level] property.
		Yes (-schedule)	Schedules instructions taking into consideration pipeline processing.
		No (-noschedule)	Does not schedule instructions.
Converts floating-point constant division into multiplication	Selects whether to convert floating-point constant division into multiplication of the corresponding reciprocals as constants. This property corresponds to the -approxdiv option of the library generator. This property is displayed only when [No] in the [Use same optimization-related settings as Compile Options tab] property is selected.		
	Default	No	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-approxdiv)	Converts floating-point constant division into multiplication.
		No	Does not convert floating-point constant division into multiplication.

<table>
<tr><td rowspan="5">Allocates preferentially the variables with register storage class specification to registers</td><td colspan="3">Selects whether to allocate preferentially the variables with register storage class specification to registers.
This property corresponds to the -enable_register option of the compiler.
This property is displayed only in the following cases.
- When [Always latest version which was installed] or a version number earlier than V2.00.00 is selected for the [Using compiler package version] property under the [Version Select] category on the [Common Options] tab in an environment where a version of the CC-RX compiler earlier than V2.00.00 has been installed
- When [No] in the [Use same optimization-related settings as Compile Options tab] property is selected</td></tr>
<tr><td>Default</td><td colspan="2">No</td></tr>
<tr><td>How to change</td><td colspan="2">Select from the drop-down list.</td></tr>
<tr><td rowspan="2">Restriction</td><td>Yes (-enable_register)</td><td>Allocates preferentially the variables with register storage class specification to registers.</td></tr>
<tr><td>No</td><td>Does not allocate preferentially the variables with register storage class specification to registers.</td></tr>
<tr><td rowspan="5">Omits a check of the range for conversion between the floating type and unsigned integer type</td><td colspan="3">Selects whether to omit a check of the range for conversion between the floating type and unsigned integer type.
This property corresponds to the -simple_float_conv option of the library generator.
This property is displayed only when [No] in the [Use same optimization-related settings as Compile Options tab] property is selected.</td></tr>
<tr><td>Default</td><td colspan="2">No</td></tr>
<tr><td>How to change</td><td colspan="2">Select from the drop-down list.</td></tr>
<tr><td rowspan="2">Restriction</td><td>Yes (-simple_float_conv)</td><td>Omits part of the type conversion processing for the floating type.</td></tr>
<tr><td>No</td><td>Does not omit part of the type conversion processing for the floating type.</td></tr>
</table>

<table>
<tr><td rowspan="5">Optimizes modification of the operation order of a floating-point expression</td><td colspan="3">Selects whether to optimize modification of the operation order of a floating-point expression.
This property corresponds to the -float_order option of the library generator.
This property is displayed only in the following cases.
- When [Always latest version which was installed] or a version number earlier than V2.00.00 is selected for the [Using compiler package version] property under the [Version Select] category on the [Common Options] tab in an environment where a version of the CC-RX compiler earlier than V2.00.00 has been installed
- When [2 (-optimize=2)] or [Max (-optimize=max)] in the [Optimization level] property is selected
- When [No] in the [Use same optimization-related settings as Compile Options tab] property is selected</td></tr>
<tr><td>Default</td><td colspan="2">No</td></tr>
<tr><td>How to change</td><td colspan="2">Select from the drop-down list.</td></tr>
<tr><td rowspan="2">Restriction</td><td>Yes (-float_order)</td><td>Optimizes modification of the operation order in a floating-point expression.</td></tr>
<tr><td>No</td><td>Does not optimize modification of the operation order in a floating-point expression.</td></tr>
<tr><td rowspan="5">Reduces code size of relative branch instructions</td><td colspan="3">Selects whether to reduce the code size of the relative branch instructions.
This property corresponds to the -branch_chaining, -nobranch_chaining option of the compiler.
This property is displayed only in the following cases.
- When [Always latest version which was installed] or a version number earlier than V3.03.00 is selected for the [Using compiler package version] property under the [Version Select] category on the [Common Options] tab in an environment where a version of the CC-RX compiler earlier than V3.03.00 has been installed
- When [2 (-optimize=2)] or [Max (-optimize=max)] in the [Level of optimization] property is selected
- When [Optimizes with emphasis on code size (-size)] in the [Optimization type] property is selected</td></tr>
<tr><td>Default</td><td colspan="2">Depends on the optimization level and optimization type option</td></tr>
<tr><td>How to change</td><td colspan="2">Select from the drop-down list.</td></tr>
<tr><td rowspan="3">Restriction</td><td>Depends on the optimization level and optimization type option</td><td>Depends on the [Optimization level] and [Optimization type] properties.</td></tr>
<tr><td>Yes(-branch_chaining)</td><td>Reduces the code size of the relative branch instructions.</td></tr>
<tr><td>No(-nobranch_chaining)</td><td>Does not reduce the code size of the relative branch instructions.</td></tr>
</table>

(5) [Others]
Other detailed information on library generators are displayed and the configuration can be changed.

<table>
<tr><td>Outputs the copyright</td><td colspan="3">Selects whether to output the copyright.
This property corresponds to the -nologo option of the library generator.
This property is not displayed when [Do not add a library file] in the [Generation mode of the standard library] property in the [Mode] category.</td></tr>
<tr><td></td><td>Default</td><td colspan="2">No (-nologo)</td></tr>
<tr><td></td><td>How to change</td><td colspan="2">Select from the drop-down list.</td></tr>
<tr><td></td><td rowspan="2">Restriction</td><td>Yes(-logo)</td><td>Outputs the copyright.</td></tr>
<tr><td></td><td>No (-nologo)</td><td>Disables output of the copyright.</td></tr>
<tr><td>Commands executed before library generate processing</td><td colspan="3">Specifies the command to be executed before library generator processing.
Use the call instruction to specify a batch file (example: call a.bat).
The following placeholders are supported.
%ActiveProjectDir%: Replaces with the absolute path of the active project folder.
%ActiveProjectName%: Replaces with the active project name.
%BuildModeName%: Replaces with the build mode name.
%LibraryFile%: Replaces with the absolute path of the output file under the library generator processing.
%MainProjectDir%: Replaces with the absolute path of the main project folder.
%MainProjectName%: Replaces with the main project name.
%MicomToolPath%: Replaces with the absolute path of the install folder of this product.
%OutputDir%: Replaces with the absolute path of the output folder.
%OutputFile%: Replaces with the absolute path of the output file.
%Program%: Replaces with the file name of the running program.
%ProjectDir%: Replaces with the absolute path of the project folder.
%ProjectName%: Replaces with the project name.
%TempDir%: Replaces with the absolute path of the temporary folder.
%WinDir%: Replaces with the absolute path of the Windows system folder.
When "#!python" is described in the first line, the contents from the second line to the last line are regarded as the script of the Python console, and then executed before library generator processing.
The placeholders can be described in the script.
The specified command is displayed as the subproperty.</td></tr>
<tr><td></td><td>Default</td><td colspan="2">Commands executed before library generate processing[number of defined items]</td></tr>
<tr><td></td><td>How to change</td><td colspan="2">Edit by the Text Edit dialog box which appears when clicking the [...] button.
For the subproperty, you can use the text box directly enter the text.</td></tr>
<tr><td></td><td>Restriction</td><td colspan="2">Up to 1023 characters
Up to 64 items can be specified.</td></tr>
</table>

<table>
<tr><td>Commands executed after library generate processing</td><td colspan="2">Specifies the command to be executed after library generator processing.
Use the call instruction to specify a batch file (example: call a.bat).
The following placeholders are supported.
%ActiveProjectDir%: Replaces with the absolute path of the active project folder.
%ActiveProjectName%: Replaces with the active project name.
%BuildModeName%: Replaces with the build mode name.
%LibraryFile%: Replaces with the absolute path of the output file under the library generator processing.
%MainProjectDir%: Replaces with the absolute path of the main project folder.
%MainProjectName%: Replaces with the main project name.
%MicomToolPath%: Replaces with the absolute path of the install folder of this product.
%OutputDir%: Replaces with the absolute path of the output folder.
%OutputFile%: Replaces with the absolute path of the output file.
%Program%: Replaces with the file name of the running program.
%ProjectDir%: Replaces with the absolute path of the project folder.
%ProjectName%: Replaces with the project name.
%TempDir%: Replaces with the absolute path of the temporary folder.
%WinDir%: Replaces with the absolute path of the Windows system folder.
When "#!python" is described in the first line, the contents from the second line to the last line are regarded as the script of the Python console, and then executed after library generator processing.
The placeholders can be described in the script.
The specified command is displayed as the subproperty.</td></tr>
<tr><td></td><td>Default</td><td>Commands executed after library generate processing[number of defined items]</td></tr>
<tr><td></td><td>How to change</td><td>Edit by the Text Edit dialog box which appears when clicking the [...] button.
For the subproperty, you can use the text box directly enter the text.</td></tr>
<tr><td></td><td>Restriction</td><td>Up to 1023 characters
Up to 64 items can be specified.</td></tr>
<tr><td>Other additional options</td><td colspan="2">Inputs the library generator options to be added additionally.
The options set here are added at the end of the librarian options group.
The following placeholders are supported.
%ActiveProjectDir%: Replaces with the absolute path of the active project folder.
%ActiveProjectName%: Replaces with the active project name.
%BuildModeName%: Replaces with the build mode name.
%MainProjectDir%: Replaces with the absolute path of the main project folder.
%MainProjectName%: Replaces with the main project name.
%MicomToolPath%: Replaces with the absolute path of the install folder of this product.
%ProjectDir%: Replaces with the absolute path of the project folder.
%ProjectName%: Replaces with the project name.
%TempDir%: Replaces with the absolute path of the temporary folder.
%WinDir%: Replaces with the absolute path of the Windows system folder.
This property is not displayed when [Do not add a library file] in the [Generation mode of the standard library] property in the [Mode] category.</td></tr>
<tr><td></td><td>Default</td><td>Blank</td></tr>
<tr><td></td><td>How to change</td><td>Directly enter to the text box or edit by the Character String Input dialog box which appears when clicking the [...] button.</td></tr>
<tr><td></td><td>Restriction</td><td>Up to 259 characters</td></tr>
</table>

Command line	The specified option is displayed. This property is not displayed when [Do not add a library file] in the [Generation mode of the standard library] property in the [Mode] category.	
	Default	Command line[*number of defined items*]
	How to change	Changes not allowed

[Build Settings] tab

This tab shows the detailed information on each C source file, C++ source file, assembler source file, object module file, and library file categorized by the following and the configuration can be changed.

(1)[Build]

[Description of each category]

(1) [Build]
The detailed information on the build are displayed and the configuration can be changed.

Set as build-target	Selects whether to build the selected file.		
	Default	Yes	
	How to change	Select from the drop-down list.	
	Restriction	Yes	Builds the selected file.
		No	Does not build the selected file.
Set individual compile option	Selects whether to set a compile option that differs from the project settings to the selected C or C++ source file. This property is displayed only when a C or C++ source file is selected on the Project Tree panel and [Yes] is selected in the [Set as build-target] property.		
	Default	No	
	How to change	Select from the drop-down list.	
	Restriction	Yes	Sets a compile option that differs from the project settings to the selected C or C++ source file.
		No	Does not set a compile option that differs from the project settings to the selected C or C++ source file.
Set individual assemble option	Selects whether to set an assemble option that differs from the project settings to the selected assembler source file. This property is displayed only when an assembler source file is selected on the Project Tree panel and [Yes] is selected in the [Set as build-target] property.		
	Default	No	
	How to change	Select from the drop-down list.	
	Restriction	Yes	Sets a compile option that differs from the project settings to the selected assembler source file.
		No	Does not set a compile option that differs from the project settings to the selected assembler source file.
File type	Displays the type of the selected file.		
	Default	C source (when C source file is selected) C++ source (when C++ source file is selected) Assembly source file (when assembler source file is selected) Object (when object module file is selected) Library (when library file is selected)	
	How to change	Changes not allowed.	

[Individual Compile Options(C)] tab

This tab shows the detailed information on a C source file categorized by the following and the configuration can be changed.

Note that this tab takes over the settings of the [Compile Options] tab.

If the settings are changed from the [Compile Options] tab, the properties are displayed in boldface.

Remark This tab is displayed only when [Yes] in the [Set individual compile option] property in the [Build] category from the [Build Settings] tab is selected.

[Description of each category]

(1) [Source]

The detailed information on the source is displayed and the configuration can be changed.

Language of the C source file	Selects language of the C source file. This property corresponds to the -lang option of the compiler.		
	Default	Configuration of the compile option	
	How to change	Select from the drop-down list.	
	Restriction	C(C89) (-lang=c)	Compiles as a C (C89) source file.
		C99 (-lang=c99)	Compiles as a C (C99) source file.
Additional include paths	Specifies the name of the path to the folder that stores the include file. The following placeholders are supported. %ActiveProjectDir%: Replaces with the absolute path of the active project folder. %ActiveProjectName%: Replaces with the active project name. %BuildModeName%: Replaces with the build mode name. %MainProjectDir%: Replaces with the absolute path of the main project folder. %MainProjectName%: Replaces with the main project name. %MicomToolPath%: Replaces with the absolute path of the install folder of this product. %ProjectDir%: Replaces with the absolute path of the project folder. %ProjectName%: Replaces with the project name. %TempDir%: Replaces with the absolute path of the temporary folder. %WinDir%: Replaces with the absolute path of the Windows system folder. The reference point of the path is the project folder. This property corresponds to the -include option of the compiler. The specified include path is displayed as the subproperty.		
	Default	Additional include paths[*number of defined items*]	
	How to change	Edit by the Path Edit dialog box which appears when clicking the [...] button. For the subproperty, you can use the text box directly enter the text.	
	Restriction	Up to 247 characters Up to 65536 items can be specified.	

<table>
<tr><td rowspan="4">Use whole include paths specified for build tool</td><td colspan="3">Selects whether to compile using the include path specified in the [Additional include paths] property in the [Source] category from the [Compile Options] tab of the build tool to be used.
The include paths are added by the following procedure.
- Paths specified in the [Additional include paths] property from this tab
- Paths specified in the [Additional include paths] in the [Source] category from the [Compile Options] tab
This property corresponds to the -include option of the compiler.</td></tr>
<tr><td>Default</td><td colspan="2">Yes</td></tr>
<tr><td>How to change</td><td colspan="2">Select from the drop-down list.</td></tr>
<tr><td rowspan="2">Restriction</td><td>Yes</td><td>Compiles using the include path specified in the property of the build tool to be used.</td></tr>
<tr><td>No</td><td>Does not use the include path specified in the property of the build tool to be used.</td></tr>
<tr><td rowspan="4">Include files at the head of compiling units</td><td colspan="3">Specifies include files at the head of compiling units.
The following placeholders are supported.
%ActiveProjectDir%: Replaces with the absolute path of the active project folder.
%ActiveProjectName%: Replaces with the active project name.
%BuildModeName%: Replaces with the build mode name.
%MainProjectDir%: Replaces with the absolute path of the main project folder.
%MainProjectName%: Replaces with the main project name.
%MicomToolPath%: Replaces with the absolute path of the install folder of this product.
%ProjectDir%: Replaces with the absolute path of the project folder.
%ProjectName%: Replaces with the project name.
%TempDir%: Replaces with the absolute path of the temporary folder.
%WinDir%: Replaces with the absolute path of the Windows system folder.
The reference point of the path is the project folder.
This property corresponds to the -preinclude option of the compiler.</td></tr>
<tr><td>Default</td><td colspan="2">Configuration of the compile option</td></tr>
<tr><td>How to change</td><td colspan="2">Edit by the Text Edit dialog box which appears when clicking the [...] button.
For the subproperty, you can enter directly in the text box.</td></tr>
<tr><td>Restriction</td><td colspan="2">Up to 259 characters
Up to 65536 items can be specified.</td></tr>
<tr><td rowspan="4">Macro definition</td><td colspan="3">Specifies the macro name to be defined.
Specify in the format of "macro name=string", with one macro name per line.
The "=string" part can be omitted, and in this case, the macro name is assumed to be defined.
This property corresponds to the -define option of the compiler.
The specified macro is displayed as the subproperty.</td></tr>
<tr><td>Default</td><td colspan="2">Configuration of the compile option</td></tr>
<tr><td>How to change</td><td colspan="2">Edit by the Text Edit dialog box which appears when clicking the [...] button.
For the subproperty, you can use the text box directly enter the text.</td></tr>
<tr><td>Restriction</td><td colspan="2">Up to 32767 characters
Up to 65536 items can be specified.</td></tr>
</table>

Invalidates the pre-defined macro	Specifies invalidates the predefined macro. If multiple macro names are specified, delimit them with a comma (example: __DBL4,__SCHAR). This property corresponds to the -undefine option of the compiler.		
	Default	Configuration of the compile option	
	How to change	Edit by the Specify The Predefined Macro dialog box which appears when clicking the [...] button.	
	Restriction	Up to 32767 characters	
Enables information-level message output	Specifies whether information level messages are output. This property corresponds to the -message and -nomessage options of the compiler.		
	Default	Configuration of the compile option	
	How to change	Select from the drop-down list.	
	Restriction	Yes(-message)	Enables information message output.
		No(-nomessage)	Disables information message output.
Suppresses the number of information-level messages	Specifies the number of information-level message to be suppressed. If multiple message numbers are specified, delimit them with a comma (example: 23043,23042). Also, the range can be set using hyphen (example: 23044-23045,23046-23048). This property corresponds to the -nomessage option of the compiler. This property is displayed only when [No(-nomessage)] in the [Enables information-level message output] property is specified.		
	Default	Configuration of the compile option	
	How to change	Directly enter in the text box or edit by the Character String Input dialog box which appears when clicking the [...] button.	
	Restriction	Up to 32767 characters	
Undisplayed messages	Specifies the information-level or warning-level message number not to be displayed. If multiple message numbers are specified, delimit them with a comma (example: 23043,23042). Also, the range can be set using hyphen (example: 23044-23045,23046-23048). This property corresponds to the -no_warning option of the compiler. This property is displayed when you have selected [Always latest version which was installed] or V2.08.00 or a later version for the [Using compiler package version] property under the [Version Select] category on the [Common Options] tab in an environment where V2.08.00 or a later version of the CC-RX compiler has been installed.		
	Default	Configuration of the compile option	
	How to change	Directly enter in the text box or edit by the Character String Input dialog box which appears when clicking the [...] button.	
	Restriction	Up to 32767 characters	

Changes the warning-level messages to information-level messages	Selects whether to change the warning-level messages to information-level messages. This property corresponds to the -change_message option of the compiler.		
	Default	Configuration of the compile option	
	How to change	Select from the drop-down list.	
	Restriction	Yes(All) (-change_message=information)	Changes all warning-level messages to the information-level messages.
		Yes(Specifies error number) (-change_message=information=<ErrorNumber>)	Changes the warning-level messages with the specified error numbers to the information-level messages.
		No	Does not change the warning-level messages to the information-level messages.
Error number of warning-level message	Specifies error number of warning-level message. If multiple message numbers are specified, delimit them with a comma (example: 23043,23042). Also, the range can be set using hyphen (example: 23044-23045,23046-23048). This property corresponds to the -change_message option of the compiler. This property is displayed only when [Yes(Specifies error number) (-change_message=information=<ErrorNumber>)] in the [Changes the warning-level messages to information-level messages] property is specified.		
	Default	Configuration of the compile option	
	How to change	Directly enter in the text box or edit by the Character String Input dialog box which appears when clicking the [...] button.	
	Restriction	Up to 32767 characters	
Changes the information-level messages to warning-level messages	Selects whether to change the information-level messages to warning-level messages. This property corresponds to the -change_message option of the compiler.		
	Default	Configuration of the compile option	
	How to change	Select from the drop-down list.	
	Restriction	Yes(All) (-change_message=warning)	Changes all information-level messages to warning-level messages.
		Yes(Specifies error number) (-change_message=warning=<ErrorNumber>)	Changes the information-level messages with the specified error numbers to warning-level messages.
		No	Does not change the information-level messages to warning-level messages.

Error number of information-level message	Specifies error number of information-level message. If multiple message numbers are specified, delimit them with a comma (example: 23043,23042). Also, the range can be set using hyphen (example: 23044-23045,23046-23048). This property corresponds to the -change_message option of the compiler. This property is displayed only when [Yes(Specifies error number) (-change_message=warning=<ErrorNumber>)] in the [Changes the information-level messages to warning-level messages] property is specified.		
	Default	Configuration of the compile option	
	How to change	Directly enter in the text box or edit by the Character String Input dialog box which appears when clicking the [...] button.	
	Restriction	Up to 32767 characters	
Changes the information-level and warning-level messages to error-level messages	Selects whether to change the information-level and warning-level messages to error-level messages. This property corresponds to the -change_message option of the compiler.		
	Default	Configuration of the compile option	
	How to change	Select from the drop-down list.	
	Restriction	Yes(All) (-change_message=error)	Changes all information-level and warning-level messages to error-level messages.
		Yes(Specifies error number) (-change_message=error=<ErrorNumber>)	Changes the information-level and warning-level messages with the specified error numbers to error-level messages.
		No	Does not change the warning-level messages to information-level messages.
Error number of information-level and warning-level message	Specifies error number of information-level and warning-level message. If multiple message numbers are specified, delimit them with a comma (example: 23043,23042). Also, the range can be set using hyphen (example: 23044-23045,23046-23048). This property corresponds to the -change_message option of the compiler. This property is displayed only when [Yes(Specifies error number) (-change_message=error=<ErrorNumber>)] in the [Changes the information-level and warning-level messages to error-level messages] property is specified.		
	Default	Configuration of the compile option	
	How to change	Directly enter in the text box or edit by the Character String Input dialog box which appears when clicking the [...] button.	
	Restriction	Up to 32767 characters	

Path to the folder that stores a file for inter-file inline expansion	Specifies path to the folder that stores a file for inter-file inline expansion. The following placeholders are supported. %ActiveProjectDir%: Replaces with the absolute path of the active project folder. %ActiveProjectName%: Replaces with the active project name. %BuildModeName%: Replaces with the build mode name. %MainProjectDir%: Replaces with the absolute path of the main project folder. %MainProjectName%: Replaces with the main project name. %MicomToolPath%: Replaces with the absolute path of the install folder of this product. %ProjectDir%: Replaces with the absolute path of the project folder. %ProjectName%: Replaces with the project name. %TempDir%: Replaces with the absolute path of the temporary folder. %WinDir%: Replaces with the absolute path of the Windows system folder. The reference point of the path is the project folder. This property corresponds to the -file_inline_path option of the compiler. The specified include path is displayed as the subproperty. This property is displayed when [Always latest version which was installed] or a version number earlier than V2.00.00 is selected for the [Using compiler package version] property under the [Version Select] category on the [Common Options] tab in an environment where a version of the CC-RX compiler earlier than V2.00.00 has been installed.		
	Default	Configuration of the compile option	
	How to change	Edit by the Path Edit dialog box which appears when clicking the [...] button. For the subproperty, you can use the text box directly enter the text.	
	Restriction	Up to 247 characters. Up to 65536 items can be specified.	
Permits comment (/* */) nesting	Selects whether to permit comment (/* */) nesting. This property corresponds to the -comment option of the compiler.		
	Default	Configuration of the compile option	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-comment=nest)	Does not permit comment (/* */) nesting.
		No (-comment=nonest)	Permits comment (/**/) nesting.
Checks the compatibility with an existing program	Selects whether to check the compatibility with an existing program. This property corresponds to the -check option of the compiler.		
	Default	Configuration of the compile option	
	How to change	Select from the drop-down list.	
	Restriction	Yes(NC compiler) (-check=nc)	Checks the compatibility with the R8C and M16C family C compilers.
		Yes(H8 compiler) (-check=ch38)	Checks the compatibility with the H8, H8S, and H8SX family C/C++ compilers.
		Yes(SH compiler) (-check=sh)	Checks the compatibility with the SuperH family C/C++ compilers.
		No	Does not check the compatibility with an existing program.

Character code of an input program	Selects character code of an input program. [Traditional Chinese character (-big5)] and [Simplified Chinese character (-gb2312)] are synchronized with the value of the [Character code of an output assembly-language file] property in the [Object] category. This property corresponds to the -euc, -sjis, -latin1, -utf8, -big5 and -gb2312 option of the compiler. option of the compiler. [Traditional Chinese character (-big5)] and [Simplified Chinese character (-gb2312)] are displayed when you have selected [Always latest version which was installed] or V2.00.00 or a later version for the [Using compiler package version] property under the [Version Select] category on the [Common Options] tab in an environment where V2.00.00 or a later version of the CC-RX compiler has been installed. [UTF-8 code (-utf8)] cannot be selected in the following cases. - When [Always latest version which was installed] or a version number earlier than V2.04.00 is selected for the [Using compiler package version] property under the [Version Select] category on the [Common Options] tab in an environment where a version of the CC-RX compiler earlier than V2.04.00 has been installed - When [C(C89) (-lang=c)] in the [Language of the C source file] property is selected		
	Default	Configuration of the compile option	
	How to change	Select from the drop-down list.	
	Restriction	EUC code (-euc)	Handles the characters in strings, character constants, and comments by using EUC.
		SJIS code (-sjis)	Handles the characters in strings, character constants, and comments by using SJIS.
		ISO-Latin1 code (-latin1)	Handles the characters in strings, character constants, and comments by using ISO-Latin1.
		UTF-8 code (-utf8)	Handles the characters in strings, character constants, and comments by using UTF-8.
		Traditional Chinese character (-big5)	Handles the characters in strings, character constants, and comments by using Traditional Chinese character.
		Simplified Chinese character (-gb2312)	Handles the characters in strings, character constants, and comments by using Simplified Chinese character.

(2) [Object]
The detailed information on object is displayed and the configuration can be changed.

Output file type	Selects the type of the output file to be generated during a build. This property corresponds to the -output option of the compiler.		
	Default	Configuration of the compile option	
	How to change	Select from the drop-down list.	
	Restriction	Object module file (-output=obj)	Outputs a relocatable file.
		Source file after preprocessed (-output=prep)	Outputs a source file after preprocessed.
		Source file after preprocessed(Disables #line output) (-output=prep -noline)	Disables #line output at preprocessor expansion.

Path of the output folder	Specifies the output destination folder for the output file. The following placeholders are supported. %BuildModeName%: Replaces with the build mode name. %MicomToolPath%: Replaces with the absolute path of the install folder of this product. %ProjectName%: Replaces with the project name. If this is blank, it is assumed that the project folder has been specified. This property corresponds to the -output option of the compiler. This property is displayed when [Always latest version which was installed] or a version number earlier than V2.00.00 is selected for the [Using compiler package version] property under the [Version Select] category on the [Common Options] tab in an environment where a version of the CC-RX compiler earlier than V2.00.00 has been installed.		
	Default	Configuration of the compile option	
	How to change	Directly enter in the text box or edit by the Browse For Folder dialog box which appears when clicking the [...] button.	
	Restriction	Up to 247 characters	
Object module file name	Specifies the name of the object module file generated after compilation. The extension other than ".obj" cannot be specified. If the extension is omitted, ".obj" is automatically added. If this is blank, the file name will be the source file name with the extension replaced by ".obj". This property corresponds to the -output option of the compiler. This property is displayed when you have selected [Always latest version which was installed] or V2.00.00 or a later version for the [Using compiler package version] property under the [Version Select] category on the [Common Options] tab in an environment where V2.00.00 or a later version of the CC-RX compiler has been installed.		
	Default	Blank	
	How to change	Directly enter in the text box.	
	Restriction	Up to 259 characters	
Outputs debugging information	Selects whether to output debugging information to object module files. This property corresponds to the -debug and -nodebug options of the compiler.		
	Default	Configuration of the compile option	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-debug)	Outputs debugging information to object module files.
		No (-nodebug)	Does not output debugging information to object module files.

Enhances debug information with optimization	Selects whether to enhance debug information at optimization. This property corresponds to the -g_line options of the compiler. This property is displayed only in the following cases. - When [Always latest version which was installed] or a version number earlier than V3.02.00 is selected for the [Using compiler package version] property under the [Version Select] category on the [Common Options] tab in an environment where a version of the CC-RX compiler earlier than V3.02.00 has been installed - When [Yes (-debug)] in the [Outputs debugging information] property is selected		
	Default	Configuration of the compile option	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-g_line)	Enhances debug information at optimization.
		No	Does not enhance debug information at optimization.
Section name of program area	Specifies the section name of program area. This property corresponds to the -section option of the compiler.		
	Default	Configuration of the compile option	
	How to change	Directly enter in the text box.	
	Restriction	Up to 32767 characters	
Section name of constant area	Specifies the section name of constant area. This property corresponds to the -section option of the compiler.		
	Default	Configuration of the compile option	
	How to change	Directly enter in the text box.	
	Restriction	Up to 32767 characters	
Section name of initialized data area	Specifies the section name of initialized data area. This property corresponds to the -section option of the compiler.		
	Default	Configuration of the compile option	
	How to change	Directly enter in the text box.	
	Restriction	Up to 32767 characters	
Section name of uninitialized data area	Specifies the section name of uninitialized data area. This property corresponds to the -section option of the compiler.		
	Default	Configuration of the compile option	
	How to change	Directly enter in the text box.	
	Restriction	Up to 32767 characters	
Section name of literal area	Specifies the section name of literal area. This property corresponds to the -section option of the compiler.		
	Default	Configuration of the compile option	
	How to change	Directly enter in the text box.	
	Restriction	Up to 32767 characters	

Section name of switch statement branch table area	Specifies the section name of switch statement branch table area. This property corresponds to the -section option of the compiler.		
	Default	Configuration of the compile option	
	How to change	Directly enter in the text box.	
	Restriction	Up to 32767 characters	
Allocates uninitialized variables to 4-byte boundary alignment sections	Selects whether to allocate uninitialized variables to 4-byte boundary alignment sections. This property corresponds to the -nostuff option of the compiler.		
	Default	Configuration of the compile option	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-nostuff=B)	Allocates uninitialized variables to 4-byte boundary alignment sections.
		No	Does not allocate uninitialized variables to 4-byte boundary alignment sections.
Allocates initialized variables to 4-byte boundary alignment sections	Selects whether to allocate initialized variables to 4-byte boundary alignment sections. This property corresponds to the -nostuff option of the compiler.		
	Default	Configuration of the compile option	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-nostuff=D)	Allocates initialized variables to 4-byte boundary alignment sections.
		No	Does not allocates initialized variables to 4-byte boundary alignment sections.
Allocates const qualified variables to 4-byte boundary alignment sections	Selects whether to allocate const qualified variables to 4-byte boundary alignment sections. This property corresponds to the -nostuff option of the compiler.		
	Default	Configuration of the compile option	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-nostuff=C)	Allocates const qualified variables to 4-byte boundary alignment sections.
		No	Does not allocate const qualified variables to 4-byte boundary alignment sections.

Allocates switch statement branch tables to 4-byte boundary alignment sections	Selects whether to allocate switch statement branch tables to 4-byte boundary alignment sections. This property corresponds to the -nostuff option of the compiler.		
	Default	Configuration of the compile option	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-nostuff=W)	Allocates switch statement branch tables to 4-byte boundary alignment sections.
		No	Does not allocate switch statement branch tables to 4-byte boundary alignment sections.
Adjustment for instruction in branch	Selects adjustment for instruction in branch. This property corresponds to the -noinstalign, -instalign4, and -instalign8 option of the compiler.		
	Default	Configuration of the compile option	
	How to change	Select from the drop-down list.	
	Restriction	None (-noinstalign)	Does not align instructions at branch destinations.
		Execution in 4 bytes (-instalign4)	Aligns instructions at branch destinations to 4-byte boundaries.
		Execution in 4 bytes(Contains each loop head) (-instalign4=loop)	Aligns instructions at branch destinations to 4-byte boundaries (Contains head of each loop).
		Execution in 4 bytes(Contains each inmost loop head) (-instalign4=inmost-loop)	Aligns instructions at branch destinations to 4-byte boundaries (Contains head of each inmost loop).
		Execution in 8 bytes (-instalign8)	Aligns instructions at branch destinations to 8-byte boundaries.
		Execution in 8 bytes (Contains each loop head) (-instalign8=loop)	Aligns instructions at branch destinations to 8-byte boundaries (Contains head of each loop).
		Execution in 8 bytes (Contains each inmost loop head) (-instalign8=inmost-loop)	Aligns instructions at branch destinations to 8-byte boundaries (Contains head of each inmost loop).

Align fetch address of string manipulation instructions	Selects whether to align addresses where string manipulation instructions start reading data. Selecting [Yes] prevents the reading of data across 4-byte boundaries in prefetching by string manipulation instructions. This property corresponds to the -avoid_cross_boundary_prefetch option of the compiler. This property is displayed when you have selected [Always latest version which was installed] or V2.07.00 or a later version for the [Using compiler package version] property under the [Version Select] category on the [Common Options] tab in an environment where V2.07.00 or a later version of the CC-RX compiler has been installed.		
	Default	Configuration of the compile option	
	How to change	Select from the drop-down list.	
	Restriction	Yes(-avoid_cross_boundary_prefetch)	Aligns addresses where string manipulation instructions start reading data.
		No	Does not align addresses where string manipulation instructions start reading data.
Generates divisions and residues with DIV, DIVU, and the FDIV instruction	Selects whether to generate divisions and residues with the DIV, DIVU, FDIV, and DDIV instruction. This property corresponds to the -nouse_div_inst option of the compiler.		
	Default	Configuration of the compile option	
	How to change	Select from the drop-down list.	
	Restriction	Yes	Generates code in which DIV, DIVU, FDIV, or DDIV instructions are used.
		No (-nouse_div_inst)	Generates code in which no DIV, DIVU, FDIV, or DDIV instructions are used.

<table>
<tr><td>Character code of an output assembly-language file</td><td colspan="3">Selects character code of an output assembly-language file.
[Traditional Chinese character (-big5)] and [Simplified Chinese character (-gb2312)] are synchronized with the value of the [Character code of an input program] property in the [Source] category.
This property corresponds to the -outcode option of the compiler.
[Traditional Chinese character (-big5)] and [Simplified Chinese character (-gb2312)] are displayed when you have selected [Always latest version which was installed] or V2.00.00 or a later version for the [Using compiler package version] property under the [Version Select] category on the [Common Options] tab in an environment where V2.00.00 or a later version of the CC-RX compiler has been installed.
[UTF-8 code (-outcode=utf8)] cannot be selected in the following cases.
- When [Always latest version which was installed] or a version number earlier than V2.04.00 is selected for the [Using compiler package version] property in an environment where a version of the CC-RX compiler earlier than V2.04.00 has been installed
- When [C(C89) (-lang=c)] in the [Language of the C source file] property in the [Source] category is selected</td></tr>
<tr><td></td><td>Default</td><td colspan="2">Configuration of the compile option</td></tr>
<tr><td></td><td>How to change</td><td colspan="2">Select from the drop-down list.</td></tr>
<tr><td></td><td rowspan="5">Restriction</td><td>EUC code (-outcode=euc)</td><td>Outputs characters in strings q and character constants using EUC.</td></tr>
<tr><td></td><td>SJIS code (-outcode=sjis)</td><td>Outputs characters in strings and character constants using SJIS.</td></tr>
<tr><td></td><td>UTF-8 code (-outcode=utf8)</td><td>Outputs characters in strings and character constants using UTF-8.</td></tr>
<tr><td></td><td>Traditional Chinese character (-outcode=big5)</td><td>Outputs characters in strings and character constants using Traditional Chinese character.</td></tr>
<tr><td></td><td>Simplified Chinese character (-outcode=gb2312)</td><td>Outputs characters in strings and character constants using Simplified Chinese character.</td></tr>
</table>

(3) [Quality Improvement]
The detailed information on the quality improvement is displayed and the configuration can be changed.

<table>
<tr><td>Detect stack smashing</td><td colspan="3">Selects whether to detect the stack smashing.
This property is usable only in the Professional Edition.
Detection of stack smashing is a feature for writing a value outside the valid stack area before entering a function and checking whether that value is rewritten before exiting the function. Upon detection, the user-defined __stack_chk_fail() function is called.
See "CC-RX Compiler User's Manual" about the difference between [Yes(-stack_protector)] and [Yes(All)(-stack_protector_all)].
This property corresponds to the -stack_protector and -stack_protector_all options of the compiler.
This property is displayed when you have selected [Always latest version which was installed] or V2.04.00 or a later version for the [Using compiler package version] property under the [Version Select] category on the [Common Options] tab in an environment where V2.04.00 or a later version of the CC-RX compiler has been installed.</td></tr>
<tr><td></td><td>Default</td><td colspan="2">Configuration of the compile option</td></tr>
<tr><td></td><td>How to change</td><td colspan="2">Select from the drop-down list.</td></tr>
<tr><td></td><td rowspan="3">Restriction</td><td>Yes(-stack_protector)</td><td>Detects the stack smashing.</td></tr>
<tr><td></td><td>Yes(All)(-stack_protector_all)</td><td>Detects the stack smashing for all functions.</td></tr>
<tr><td></td><td>No(No option specified)</td><td>Does not detect the stack smashing.</td></tr>
<tr><td>Value to be embedded for detecting stack smashing</td><td colspan="3">Specifies the value to be embedded for detecting the stack smashing.
This property is usable only in the Professional Edition.
This property corresponds to the -stack_protector and -stack_protector_all options of the compiler.
This property is displayed in the following cases.
- When you have selected [Always latest version which was installed] or V2.04.00 or a later version for the [Using compiler package version] property under the [Version Select] category on the [Common Options] tab in an environment where V2.04.00 or a later version of the CC-RX compiler has been installed
- When other than [No(No option specified)] in the [Detect stack smashing] property is selected</td></tr>
<tr><td></td><td>Default</td><td colspan="2">Configuration of the compile option</td></tr>
<tr><td></td><td>How to change</td><td colspan="2">Directly enter in the text box.</td></tr>
<tr><td></td><td>Restriction</td><td colspan="2">0 to 4294967295 (decimal number)</td></tr>
</table>

Detect illegal indirect function call	Selects whether to output code for detecting illegal indirect function calls. Enable this facility to check the destination addresses of branches caused by each indirect function call. The output code will call the user-defined __control_flow_chk_fail() function in response to the detection of a problem. This property is usable only in the Professional Edition. This property corresponds to the -control_flow_integrity option of the compiler. This property is displayed when you have selected [Always latest version which was installed] or V2.08.00 or a later version for the [Using compiler package version] property under the [Version Select] category on the [Common Options] tab in an environment where V2.08.00 or a later version of the CC-RX compiler has been installed.		
	Default	Configuration of the compile option	
	How to change	Select from the drop-down list.	
	Restriction	Yes(-control_flow_integrity)	Outputs code for detecting illegal indirect function calls.
		No	Does not output code for detecting illegal indirect function calls.

(4) [List]
The detailed information on list file is displayed and the configuration can be changed.

Outputs a source list file	Selects whether to output a source list file. This property corresponds to the -listfile and -nolistfile option of the compiler.		
	Default	Configuration of the compile option	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-lisfile)	Outputs a source list file.
		No (-nolistfile)	Disable output of a source list file.
Outputs the C/C++ source file	Specifies the contents of the source list file. Selects whether to output the C/C++ source file. This property corresponds to the -show option of the compiler. This property is displayed when [Yes (-lisfile)] in the [Outputs a source list file] property is selected.		
	Default	Configuration of the compile option	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-show=source)	Outputs the C/C++ source file.
		No	Does not output the C/C++ source file.

Outputs the statements unsatisfied in conditional assembly	Specifies the contents of the source list file. Selects whether to output the statements unsatisfied in conditional assembly. This property corresponds to the -show option of the compiler. This property is displayed when [Yes (-lisfile)] in the [Outputs a source list file] property is selected.		
	Default	Configuration of the compile option	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-show=conditionals)	Outputs the statements unsatisfied in conditional assembly.
		No	Does not output the statements unsatisfied in conditional assembly.
Outputs the information before .DEFINE replacement	Specifies the contents of the source list file. Selects whether to output the information before .DEFINE replacement. This property corresponds to the -show option of the compiler. This property is displayed when [Yes (-lisfile)] in the [Outputs a source list file] property is selected.		
	Default	Configuration of the compile option	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-show=definitions)	Outputs the information before .DEFINE replacement.
		No	Does not output the information before .DEFINE replacement.
Outputs the assembler macro expansion statements	Specifies the contents of the source list file. Selects whether to output the assembler macro expansion statements. This property corresponds to the -show option of the compiler. This property is displayed when [Yes (-lisfile)] in the [Outputs a source list file] property is selected.		
	Default	Configuration of the compile option	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-show=expansions)	Outputs the assembler macro expansion statements.
		No	Does not output the assembler macro expansion statements.

(5) [Optimization]
The detailed information on the optimization is displayed and the configuration can be changed.

Optimization level	Selects optimization level. This property corresponds to the -optimize option of the compiler.		
	Default	Configuration of the compile option	
	How to change	Select from the drop-down list.	
	Restriction	0 (-optimize=0)	Does not optimize the program.
		1 (-optimize=1)	Partially optimizes the program by automatically allocating variables to registers, integrating the function exit blocks, integrating multiple instructions which can be integrated, etc.
		2 (-optimize=2)	Performs overall optimization.
		Max (-optimize=max)	Performs optimization as much as possible.
Outputs additional information for inter-module optimization	Selects whether to output additional information for inter-module optimization. At linkage, inter-module optimization is applied to files for which this option has been specified. This property corresponds to the -goptimize option of the compiler.		
	Default	Configuration of the compile option	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-goptimize)	Outputs additional information for inter-module optimization.
		No	Does not outputs additional information for inter-module optimization.
Optimization type	Selects optimization type. This property corresponds to the -speed and -size option of the compiler.		
	Default	Configuration of the compile option	
	How to change	Select from the drop-down list.	
	Restriction	Optimizes with emphasis on execution performance (-speed)	Optimizes with emphasis on execution performance.
		Optimizes with emphasis on code size (-size)	Optimizes with emphasis on code size.
Loop expansion	Selects whether to optimize the loop expansion (for, while, and do-while). This property corresponds to the -loop option of the compiler.		
	Default	Configuration of the compile option	
	How to change	Select from the drop-down list.	
	Restriction	Depends on the optimization level and optimization type options	Depends on the [Optimization level] and [Optimization type] properties.
		Expansion (-loop=<numeric value>)	Expands loop statements (for, while, and do-while).

Expansion maximum number	Specifies expansion maximum number. This property corresponds to the suboption of -loop option of the compiler. This property is displayed only when [Expansion (-loop=<numeric value>)] in the [Loop expansion] property is selected.		
	Default	Configuration of the compile option	
	How to change	Directly enter in the text box.	
	Restriction	1 to 32 (decimal number)	
Performs inline expansion automatically	Selects whether to perform inline expansion automatically. This option corresponds to the -inline and -noinline option of the compiler.		
	Default	Configuration of the compile option	
	How to change	Select from the drop-down list.	
	Restriction	Depends on the optimization level and optimization type options	Depends on the [Optimization level] and [Optimization type] properties.
		Yes (-inline=<numeric value>)	Performs inline expansion automatically.
		No (-noinline)	Does not perform inline expansion automatically.
Maximum increasing rate of function size	Specifies maximum increasing rate of function size. For example, when 100 is specified, inline expansion will be performed until the function size has increased by 100% (size is doubled). This option corresponds to the -inline option of the compiler. This property is displayed only when [Yes (-inline=<numeric value>)] in the [Performs inline expansion automatically] property is selected.		
	Default	Configuration of the compile option	
	How to change	Select from the drop-down list.	
	Restriction	1 to 65535 (decimal number)	

<table>
<tr><td>Files for inter-file inline expansion</td><td colspan="3">Specifies files for inter-file inline expansion.
This option is valid only when the inline option or #pragma inline has been specified.
The following placeholders are supported.
%BuildModeName%: Replaces with the build mode name.
%ProjectName%: Replaces with the project name.
%MicomToolPath%: Replaces with the absolute path of the product install folder.
This option corresponds to the -file_inline option of the compiler.
The file name is displayed as the subproperty.
This property is displayed only in the following cases.
- When [Always latest version which was installed] or a version number earlier than V2.00.00 is selected for the [Using compiler package version] property under the [Version Select] category on the [Common Options] tab in an environment where a version of the CC-RX compiler earlier than V2.00.00 has been installed
- When [Object module file (-output=obj)] in the [Output file type] property in the [Object] category is selected</td></tr>
<tr><td></td><td>Default</td><td colspan="2">Configuration of the compile option</td></tr>
<tr><td></td><td>How to change</td><td colspan="2">Edit by the Path Edit dialog box which appears when clicking the [...] button.
-> Edit by the Add Inline Expansion File dialog box which appears when clicking the [Browse...] button.
For the subproperty, you can use the text box directly enter the text.</td></tr>
<tr><td></td><td>Restriction</td><td colspan="2">Up to 259 characters
Up to 65536 items can be specified.</td></tr>
<tr><td>Expansion method of the switch statement</td><td colspan="3">Selects expansion method of the switch statement.
This property corresponds to the -case option of the compiler.</td></tr>
<tr><td></td><td>Default</td><td colspan="2">Configuration of the compile option</td></tr>
<tr><td></td><td>How to change</td><td colspan="2">Select from the drop-down list.</td></tr>
<tr><td></td><td rowspan="3">Restriction</td><td>if_then method (-case=ifthen)</td><td>Expands the switch statement using the if_then method.</td></tr>
<tr><td></td><td>Jumping to a table method (-case=table)</td><td>Expands the switch statement by using the table method.</td></tr>
<tr><td></td><td>Compiler automatically selects (-case=auto)</td><td>Automatically selects the if_then method or table method.</td></tr>
<tr><td>Handles external variables as if they are volatile qualified</td><td colspan="3">Selects whether to handle all external variables as if they are volatile qualified.
This property corresponds to the -volatile and -novolatile option of the compiler.</td></tr>
<tr><td></td><td>Default</td><td colspan="2">Configuration of the compile option</td></tr>
<tr><td></td><td>How to change</td><td colspan="2">Select from the drop-down list.</td></tr>
<tr><td></td><td rowspan="2">Restriction</td><td>Yes (-volatile)</td><td>Handles all external variables as if they were volatile qualified.</td></tr>
<tr><td></td><td>No (-novolatile)</td><td>Does not handle external variables as if they were volatile qualified.</td></tr>
</table>

Accesses to volatile qualified variables with the sizes of the variable types	Selects whether to access to volatile qualified variables with the sizes of the variable types. This option corresponds to the -type_size_access_to_volatile option of the compiler. This property is displayed when [Always latest version which was installed] or a version number earlier than V3.04.00 is selected for the [Using compiler package version] property under the [Version Select] category on the [Common Options] tab in an environment where a version of the CC-RX compiler earlier than V3.04.00 has been installed.		
	Default	Configuration of the compile option	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-type_size_access_to_volatile)	Accesses to volatile qualified variables with the sizes of the variable types
		No	Does not access to volatile qualified variables with the sizes of the variable types
Performs the constant propagation of const qualified external variables	Selects whether to perform the constant propagation of const qualified external variables. Const qualified variables in a C++ source file cannot be controlled by this option (constant propagation is always performed). This property corresponds to the -const_copy and -noconst_copy option of the compiler.		
	Default	Configuration of the compile option	
	How to change	Select from the drop-down list.	
	Restriction	Depends on the optimization level options	Depends on the [Optimization level] property.
		Yes (-const_copy)	Enables constant propagation of const qualified external variables.
		No (-noconst_copy)	Disables constant propagation of const qualified external variables.
Conversion method of the divisions and residues of integer constants	Selects conversion method of the divisions and residues of integer constants. This property corresponds to the -const_div and -noconst_div option of the compiler.		
	Default	Configuration of the compile option	
	How to change	Select from the drop-down list.	
	Restriction	Depends on the optimization type option	Depends on the [Optimization type] property
		Instruction sequence using multiplication (-const_div)	Performs constant division (residue) by an instruction sequence using multiplication.
		Instruction sequence using division (-noconst_div)	Performs constant division (residue) by an instruction sequence using division.

Execution method of library function that can be expanded to RX instructions	Select the method of execution for library functions that can be expanded as RX instructions. This property corresponds to the -library option of the compiler.		
	Default	Configuration of the compile option	
	How to change	Select from the drop-down list.	
	Restriction	Calls library functions (-library=function)	Calls library functions.
		Performs expansion to RX instructions(-library=intrinsic)	Replaces library functions with RX instructions having the corresponding facilities. For example, replaces abs() with an ABS instruction.
Execution method of library function that can use trigonometric function unit	Selects the method of execution of library function that can use trigonometric function unit. This property corresponds to the -tfu option of the compiler. This property is displayed in the following cases. - When [Always latest version which was installed] or a version number earlier than V3.01.00 is selected for the [Using compiler package version] property under the [Version Select] category on the [Common Options] tab in an environment where a version of the CC-RX compiler earlier than V3.01.00 has been installed - When the device has a trigonometric function unit		
	Default	Configuration of the compile option	
	How to change	Select from the drop-down list.	
	Restriction	Do not use trigonometric function unit(-tfu=intrinsic)	Calls of relevant mathematics library functions are not replaced with code that uses the trigonometric function unit.
		Use trigonometric function unit(-tfu=intrinsic,mathlib)	Calls of relevant mathematics library functions are replaced with code that uses the trigonometric function unit.
Divides the optimizing ranges into many sections before compilation	Selects whether to divide the optimizing ranges of the large-size function into many sections before compilation. This property corresponds to the -scope and -noscope option of the compiler.		
	Default	Configuration of the compile option	
	How to change	Select from the drop-down list.	
	Restriction	Depends on the optimization level option	Depends on the [Optimization level] property.
		Yes (-scope)	Divides the optimizing ranges of the large-size function into many sections before compilation.
		No (-noscope)	Does not divide the optimizing ranges before compilation.

Schedules the instruction taking into consideration pipeline processing	Selects whether to schedule the instruction taking into consideration pipeline processing. This property corresponds to the -schedule and -noschedule option of the compiler.		
	Default	Configuration of the compile option	
	How to change	Select from the drop-down list.	
	Restriction	Depends on the optimization level option	Depends on the [Optimization level] property.
		Yes (-schedule)	Schedules instructions taking into consideration pipeline processing.
		No (-noschedule)	Does not schedule instructions.
Optimizes accesses to external variables	Selects whether to optimize accesses to external variables. This property corresponds to the -nomap, -smap and -map option of the compiler.		
	Default	Configuration of the compile option	
	How to change	Select from the drop-down list.	
	Restriction	Yes(Optimizes the inner-module) (-smap)	Optimizes accesses to external variables which are defined in the file to be compiled.
		Yes(Optimizes the inter-module) (-map)	Optimizes accesses to external variables.
		No (-nomap)	Disables optimization for accesses to external variables.
Perform inter-module optimization	Specifies the level of inter-module optimization (such as function merging). This property corresponds to the -whole_program, -merge_files, and -ip_optimize option of the compiler. This property is displayed when you have selected [Always latest version which was installed] or V2.00.00 or a later version for the [Using compiler package version] property under the [Version Select] category on the [Common Options] tab in an environment where V2.00.00 or a later version of the CC-RX compiler has been installed.		
	Default	Configuration of the compile option	
	How to change	Select from the drop-down list.	
	Restriction	Yes(Level 1)(Perform)(-ip_optimize)	Performs inter-module optimization for each file.
		No	Does not perform inter-module optimization.
Converts floating-point constant division into multiplication	Selects whether to convert floating-point constant division into multiplication of the corresponding reciprocals as constants. This property corresponds to the -approxdiv option of the compiler.		
	Default	Configuration of the compile option	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-approxdiv)	Converts floating-point constant division into multiplication.
		No	Does not convert floating-point constant division into multiplication.

<table>
<tr><td rowspan="5">Allocates preferentially the variables with register storage class specification to registers</td><td colspan="3">Selects whether to allocate preferentially the variables with register storage class specification to registers.
This property corresponds to the -enable_register option of the compiler.
This property is displayed only in the following cases.
- When [Always latest version which was installed] or a version number earlier than V2.00.00 is selected for the [Using compiler package version] property under the [Version Select] category on the [Common Options] tab in an environment where a version of the CC-RX compiler earlier than V2.00.00 has been installed
- When [Object module file (-output=obj)] in the [Output file type] property in the [Object] category is selected</td></tr>
<tr><td>Default</td><td colspan="2">Configuration of the compile option</td></tr>
<tr><td>How to change</td><td colspan="2">Select from the drop-down list.</td></tr>
<tr><td rowspan="2">Restriction</td><td>Yes (-enable_register)</td><td>Allocates preferentially the variables with register storage class specification to registers.</td></tr>
<tr><td>No</td><td>Does not allocate preferentially the variables with register storage class specification to registers.</td></tr>
<tr><td rowspan="5">Omits a check of the range for conversion between the floating type and unsigned integer type</td><td colspan="3">Selects whether to omit a check of the range for conversion between the floating type and unsigned integer type.
When "Yes" is specified, code performance of the relevant type conversion processing is improved.
The conversion result may, however, differ from C/C++ language specifications, so take care on this point.
This property corresponds to the -simple_float_conv option of the compiler.</td></tr>
<tr><td>Default</td><td colspan="2">Configuration of the compile option</td></tr>
<tr><td>How to change</td><td colspan="2">Select from the drop-down list.</td></tr>
<tr><td rowspan="2">Restriction</td><td>Yes (-simple_float_conv)</td><td>Omits part of the type conversion processing for the floating type.</td></tr>
<tr><td>No</td><td>Does not omit part of the type conversion processing for the floating type.</td></tr>
<tr><td rowspan="5">Performs optimization considering the type of the data indicated by the pointer</td><td colspan="3">Selects whether to perform optimization considering the type of the data indicated by the pointer.
Although the performance of object code is generally better than when -alias=noansi is specified, the results of execution may differ according to whether -alias=ansi or alias=noansi is specified.
This property corresponds to the -alias option of the compiler.</td></tr>
<tr><td>Default</td><td colspan="2">Configuration of the compile option</td></tr>
<tr><td>How to change</td><td colspan="2">Select from the drop-down list.</td></tr>
<tr><td rowspan="3">Restriction</td><td>Depends on the optimization level option</td><td>Depends on the [Optimization level] property.</td></tr>
<tr><td>Yes (-alias=ansi)</td><td>Performs optimization considering the type of the data indicated by the pointer.</td></tr>
<tr><td>No (-alias=noansi)</td><td>Does not perform optimization considering the type of the data indicated by the pointer.</td></tr>
</table>

<table>
<tr><td>Optimizes modification of the operation order of a floating-point expression</td><td colspan="3">Selects whether to optimize modification of the operation order of a floating-point expression.
Specifying the -float_order option generally improves the object performance compared to when not specifying it.
However, the accuracy of operations may differ from that when -float_order is not specified.
This property corresponds to the -float_order option of the compiler.
This property is displayed only in the following cases.
- When [Always latest version which was installed] or a version number earlier than V2.00.00 is selected for the [Using compiler package version] property under the [Version Select] category on the [Common Options] tab in an environment where a version of the CC-RX compiler earlier than V2.00.00 has been installed
- When [2 (-optimize=2)] or [Max (-optimize=max)] in the [Optimization level] property is specified</td></tr>
<tr><td></td><td>Default</td><td colspan="2">Configuration of the compile option</td></tr>
<tr><td></td><td>How to change</td><td colspan="2">Select from the drop-down list.</td></tr>
<tr><td></td><td rowspan="2">Restriction</td><td>Yes (-float_order)</td><td>Optimizes modification of the operation order in a floating-point expression.</td></tr>
<tr><td></td><td>No</td><td>Does not optimize modification of the operation order in a floating-point expression.</td></tr>
<tr><td>Reduces code size of relative branch instructions</td><td colspan="3">Selects whether to reduce the code size of the relative branch instructions.
This property corresponds to the -branch_chaining, -nobranch_chaining option of the compiler.
This property is displayed only in the following cases.
- When [Always latest version which was installed] or a version number earlier than V3.03.00 is selected for the [Using compiler package version] property under the [Version Select] category on the [Common Options] tab in an environment where a version of the CC-RX compiler earlier than V3.03.00 has been installed
- When [2 (-optimize=2)] or [Max (-optimize=max)] in the [Level of optimization] property is selected
- When [Optimizes with emphasis on code size (-size)] in the [Optimization type] property is selected</td></tr>
<tr><td></td><td>Default</td><td colspan="2">Configuration of the compile option</td></tr>
<tr><td></td><td>How to change</td><td colspan="2">Select from the drop-down list.</td></tr>
<tr><td></td><td rowspan="3">Restriction</td><td>Depends on the optimization level and optimization type option</td><td>Depends on the [Optimization level] and [Optimization type] properties.</td></tr>
<tr><td></td><td>Yes(-branch_chaining)</td><td>Reduces the code size of the relative branch instructions.</td></tr>
<tr><td></td><td>No(-nobranch_chaining)</td><td>Does not reduce the code size of the relative branch instructions.</td></tr>
</table>

(6) [Output File]

The detailed information on the output file check is displayed and the configuration can be changed.

Output assembly source file

Select whether to output the assembly source file of the compile result for the C source.

This property corresponds to the -output=src option of the compiler.

Output assembly source file	Selects whether to output the assembly source file of the compile result for the C source. This property corresponds to the -output=src option of the compiler.		
	Default	Configuration of the compile option	
	How to change	Select from the drop-down list.	
	Restriction	Yes(-output=src)	Outputs the assembly source file of the compile result for the C source.
		No	Does not output the assembly source file of the compile result for the C source.
Output preprocessed source file	Selects whether to output the execution result of preprocessing for the source file to a file. This property corresponds to the -output=prep, -noline option of the compiler.		
	Default	Configuration of the compile option	
	How to change	Select from the drop-down list.	
	Restriction	Yes(-output=prep)	Outputs the execution result of preprocessing for the source file to a file.
		Yes(Suppress #line)(-output=prep -noline)	Outputs the execution result of preprocessing (suppress #line) for the source file to a file.
		No	Does not output the execution result of preprocessing for the source file to a file.

(7) [MISRA C rule check]

The detailed information on the MISRA-C rules check is displayed and the configuration can be changed.
20*XX* in the following table corresponds to 2012 or 2004 in particular.

MISRA-C specification	Selects the MISRA-C specification. This property is usable only in the Professional Edition. This property is displayed when you have selected [Always latest version which was installed] or V2.04.00 or a later version for the [Using compiler package version] property under the [Version Select] category on the [Common Options] tab in an environment where V2.04.00 or a later version of the CC-RX compiler has been installed.		
	Default	Configuration of the compile option	
	How to change	Select from the drop-down list.	
	Restriction	MISRA-C 2012	Settings for MISRA-C 2012 are made in the subsequent properties.
		MISRA-C 2004	Settings for MISRA-C 2004 are made in the subsequent properties.

Apply rule	Selects to apply MISRA C rule. This property is usable only in the Professional Edition. In case of misra2012 and in case of CC-RX V2.05.00 or earlier, even if [C99(-lang=c99)] is selected in the [Language of the C source file] property, MISRA C checking is done in the range of C89 specification. This option corresponds to the -misra20*XX* option of the compiler.		
	Default	Configuration of the compile option	
	How to change	Select from the drop-down list.	
	Restriction	Apply all rules (-misra20*XX*=all)	Checks the source code against all of the rules that are supported.
		Apply specified rule number (-misra20*XX*=apply)	Checks the source code against the rules with the selected numbers.
		Ignore specified rule number(-misra20*XX*=ignore)	Checks the source code against the rules other than those with the selected numbers.
		Apply rules that are classified as "required" (-misra20*XX*=required)	Checks the source code against the rules of the "required" type.
		Apply rules that are classified as "required" and specified rule number (-misra20*XX*=required_add)	Checks the source code against the rules of the "required" type and the rules with the selected numbers.
		Ignore specified rule number from rules that are classified as "required" (-misra20*XX*=required_remove)	Checks the source code against the rules other than those with the selected numbers among the rules of the "required" type.
		Apply rules that are described in the specified file (-misra20*XX*=<file name>)	Checks the source code against the rules with the numbers written in the specified file.
		Not apply rule	Does not apply MISRA C rule.

Rule number description file	Specifies Rule number description file(misra20*XX* rule file). This property is usable only in the Professional Edition. When misra2012 is selected, the CC-RX compiler always checks the code against rule numbers 13.6, 17.3, and 17.4 (as well as 9.1 if the compiler is V2.06.00 or later, and 12.5 and 21.13 if the compiler is V2.07.00 or later) regardless of which rule numbers have been specified through the properties setting. The following placeholders are supported. %BuildModeName%: Replaces with the build mode name. %ProjectName%: Replaces with the project name. %MicomToolPath%: Replaces with the absolute path of the product install folder. This option corresponds to the -misra20*XX* option of the compiler. This property is displayed only when [Apply rules that are described in the specified file (-misra20*XX*=<file name>)] in the [Apply rule] property is selected.	
	Default	Configuration of the compile option
	How to change	Directly enter to the text box or edit by the Specify Misra20*XX* Rule File dialog box which appears when clicking the [...] button.
	Restriction	Up to 259 characters
Rule number	Specifies the rule number. This property is usable only in the Professional Edition. When misra2012 is selected, the CC-RX compiler always checks the code against rule numbers 13.6, 17.3, and 17.4 (as well as 9.1 if the compiler is V2.06.00 or later, and 12.5 and 21.13 if the compiler is V2.07.00 or later) regardless of which rule numbers have been specified through the properties setting. One or more rule numbers always in decimal must be specified. This option corresponds to the -misra20*XX* option of the compiler. This property is displayed only when [Apply specified rule number (-misra20*XX*=apply)] in the [Apply rule] property is selected.	
	Default	Configuration of the compile option
	How to change	Directly enter to the text box or edit by the Specify Rule Number dialog box which appears when clicking the [...] button.
	Restriction	Up to 259 characters
Exclusion rule number	Specifies the exclusion rule number. This property is usable only in the Professional Edition. When misra2012 is selected, the CC-RX compiler always checks the code against rule numbers 13.6, 17.3, and 17.4 (as well as 9.1 if the compiler is V2.06.00 or later, and 12.5 and 21.13 if the compiler is V2.07.00 or later) regardless of which rule numbers have been specified through the properties setting. One or more rule numbers always in decimal must be specified. This option corresponds to the -misra20*XX* option of the compiler. This property is displayed only when [Ignore specified rule number(-misra20*XX*=ignore)] in the [Apply rule] property is selected.	
	Default	Configuration of the compile option
	How to change	Directly enter to the text box or edit by the Specify Rule Number dialog box which appears when clicking the [...] button.
	Restriction	Up to 259 characters

Check rule number besides required rule	Specifies the check rule number besides required rule. This property is usable only in the Professional Edition. When misra2012 is selected, the CC-RX compiler always checks the code against rule numbers 13.6, 17.3, and 17.4 (as well as 9.1 if the compiler is V2.06.00 or later, and 12.5 and 21.13 if the compiler is V2.07.00 or later) regardless of which rule numbers have been specified through the properties setting. One or more rule numbers always in decimal must be specified. This option corresponds to the -misra20*XX* option of the compiler. This property is displayed only when [Apply rules that are classified as "required" and specified rule number (-misra20*XX*=required_add)] in the [Apply rule] property is selected.	
	Default	Configuration of the compile option
	How to change	Directly enter to the text box or edit by the Specify Rule Number dialog box which appears when clicking the [...] button.
	Restriction	Up to 259 characters
Exclusion rule number from required rule	Specifies the exclusion rule number from required rule. This property is usable only in the Professional Edition. When misra2012 is selected, the CC-RX compiler always checks the code against rule numbers 13.6, 17.3, and 17.4 (as well as 9.1 if the compiler is V2.06.00 or later, and 12.5 and 21.13 if the compiler is V2.07.00 or later) regardless of which rule numbers have been specified through the properties setting. One or more rule numbers always in decimal must be specified. This option corresponds to the -misra20*XX* option of the compiler. This property is displayed only when [Ignore specified rule number from rules that are classified as "required" (-misra20*XX*=required_remove)] in the [Apply rule] property is selected.	
	Default	Configuration of the compile option
	How to change	Directly enter to the text box or edit by the Specify Rule Number dialog box which appears when clicking the [...] button.
	Restriction	Up to 259 characters
Rule check exclusion file	Specifies rule check exclusion file. This property is usable only in the Professional Edition. The following placeholders are supported. %BuildModeName%: Replaces with the build mode name. %ProjectName%: Replaces with the project name. %MicomToolPath%: Replaces with the absolute path of the product install folder. This option corresponds to the -ignore_files_misra option of the compiler. This option is not display when [Not apply rule] in the [Apply rule] property has been specified.	
	Default	Configuration of the compile option
	How to change	Edit by the Path Edit dialog box which appears when clicking the [...] button. -> Edit by the Add Excluding File dialog box which appears when clicking the [Browse...] button. For the subproperty, you can enter directly in the text box.
	Restriction	Up to 247 characters Up to 65536 items can be specified.

Outputs message of The the enhanced key word and extended specifications	Selects whether to output message of The the enhanced key word and extended specifications. This property is usable only in the Professional Edition. This option corresponds to the -check_language_extension option. This option is not display when [Not apply rule] in the [Apply rule] property has been specified.		
	Default	Configuration of the compile option	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-check_language_extension)	Enables complete checking against the MISRA-C rules for parts of the code where it would otherwise be suppressed due to individual extensions from the C/C++ language specification.
		No	Disables complete checking against the MISRA-C rules for parts of the code where it would otherwise be suppressed due to individual extensions from the C/C++ language specification.
Enables checking that spans files	Selects whether to enable checking that spans files. This property is usable only in the Professional Edition. This property corresponds to the -misra_intermodule option of the compiler. This property is displayed only in the following cases. - When you have selected [Always latest version which was installed] or V3.01.00 or a later version for the [Using compiler package version] property under the [Version Select] category on the [Common Options] tab in an environment where V3.01.00 or a later version of the CC-RX compiler has been installed - When [MISRA-C 2012] in the [MISRA-C specification] property is selected - When other than [Not apply rule] in the [Apply rule] property is selected **Caution** If the C source files of the project are removed or renamed while [Yes(-misra_intermodule)] is selected, information on checking that spans files will be cleared. Rebuild the project to obtain correct checking of files on this point.		
	Default	Configuration of the compile option	
	How to change	Select from the drop-down list.	
	Restriction	Yes(-misra_intermodule)	Enables checking that spans files.
		No	Does not enable checking that spans files.

(8) [Others]
Other detailed information on compilation is displayed and the configuration can be changed.

Outputs the copyright	Selects whether to output the copyright. This property corresponds to the -nologo option of the compiler.		
	Default	Configuration of the compile option	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-logo)	Outputs the copyright.
		No (-nologo)	Disables output of the copyright.

<table>
<tr><td rowspan="4">Outputs the cross reference information</td><td colspan="3">Selects whether to output cross reference information.
It is necessary to change the setting of the property of "Program Analyzer" to change this option.</td></tr>
<tr><td>Default</td><td colspan="2">Configuration of the compile option</td></tr>
<tr><td>How to change</td><td colspan="2">Select from the drop-down list.</td></tr>
<tr><td>Restriction</td><td>Yes(-Xcref)</td><td>Outputs the cross reference information.</td></tr>
<tr><td></td><td>No</td><td>Does not output of the cross reference information.</td></tr>
<tr><td rowspan="4">Commands executed before compile processing</td><td colspan="3">Specifies the command to be executed before compile processing.
Use the call instruction to specify a batch file (example: call a.bat).
The following placeholders are supported.
%ActiveProjectDir%: Replaces with the absolute path of the active project folder.
%ActiveProjectName%: Replaces with the active project name.
%BuildModeName%: Replaces with the build mode name.
%CompiledFile%: Replaces with the absolute path of the output file under compiling.
%InputFile%: Replaces with the absolute path of the file to be compiled (except in case of simultaneous building).
%MainProjectDir%: Replaces with the absolute path of the main project folder.
%MainProjectName%: Replaces with the main project name.
%MicomToolPath%: Replaces with the absolute path of the install folder of this product.
%OutputDir%: Replaces with the absolute path of the output folder.
%OutputFile%: Replaces with the absolute path of the output file.
%Program%: Replaces with the file name of the running program.
%ProjectDir%: Replaces with the absolute path of the project folder.
%ProjectName%: Replaces with the project name.
%TempDir%: Replaces with the absolute path of the temporary folder.
%WinDir%: Replaces with the absolute path of the Windows system folder.
When "#!python" is described in the first line, the contents from the second line to the last line are regarded as the script of the Python console, and then executed before compile processing.
The placeholders can be described in the script.
The specified command is displayed as the subproperty.</td></tr>
<tr><td>Default</td><td colspan="2">Configuration of the compile option</td></tr>
<tr><td>How to change</td><td colspan="2">Edit by the Text Edit dialog box which appears when clicking the [...] button.
For the subproperty, you can use the text box directly enter the text.</td></tr>
<tr><td>Restriction</td><td colspan="2">Up to 1023 characters
Up to 64 items can be specified.</td></tr>
</table>

Commands executed after compile processing	Specifies the command to be executed after compile processing. Use the call instruction to specify a batch file (example: call a.bat). The following placeholders are supported. %ActiveProjectDir%: Replaces with the absolute path of the active project folder. %ActiveProjectName%: Replaces with the active project name. %BuildModeName%: Replaces with the build mode name. %CompiledFile%: Replaces with the absolute path of the output file under compiling. %InputFile%: Replaces with the absolute path of the file to be compiled (except in case of simultaneous building). %MainProjectDir%: Replaces with the absolute path of the main project folder. %MainProjectName%: Replaces with the main project name. %MicomToolPath%: Replaces with the absolute path of the install folder of this product. %OutputDir%: Replaces with the absolute path of the output folder. %OutputFile%: Replaces with the absolute path of the output file. %Program%: Replaces with the file name of the running program. %Program%: Replaces with the file name of the running program. %ProjectDir%: Replaces with the absolute path of the project folder. %ProjectName%: Replaces with the project name. %TempDir%: Replaces with the absolute path of the temporary folder. %WinDir%: Replaces with the absolute path of the Windows system folder. When "#!python" is described in the first line, the contents from the second line to the last line are regarded as the script of the Python console, and then executed after compile processing. The placeholders can be described in the script. The specified command is displayed as the subproperty.	
	Default	Configuration of the compile option
	How to change	Edit by the Text Edit dialog box which appears when clicking the [...] button. For the subproperty, you can use the text box directly enter the text.
	Restriction	Up to 1023 characters Up to 64 items can be specified.
Other additional options	Inputs the compile options to be added additionally. The options set here are added at the end of the compile options group. The following placeholders are supported. %ActiveProjectDir%: Replaces with the absolute path of the active project folder. %ActiveProjectName%: Replaces with the active project name. %BuildModeName%: Replaces with the build mode name. %MainProjectDir%: Replaces with the absolute path of the main project folder. %MainProjectName%: Replaces with the main project name. %MicomToolPath%: Replaces with the absolute path of the install folder of this product. %ProjectDir%: Replaces with the absolute path of the project folder. %ProjectName%: Replaces with the project name. %TempDir%: Replaces with the absolute path of the temporary folder. %WinDir%: Replaces with the absolute path of the Windows system folder.	
	Default	Configuration of the compile option
	How to change	Directly enter to the text box or edit by the Character String Input dialog box which appears when clicking the [...] button.
	Restriction	Up to 259 characters
Command line	The specified option is displayed.	
	Default	Configuration of the compile option
	How to change	Changes not allowed

[Individual Compile Options(C++)] tab

This tab shows the detailed information on a C++ source file categorized by the following and the configuration can be changed.

Note that this tab takes over the settings of the [Compile Options] tab.

If the settings are changed from the [Compile Options] tab, the properties are displayed in boldface.

Remark This tab is displayed only when [Yes] in the [Set individual compile option] property in the [Build] category from the [Build Settings] tab is selected.

[Description of each category]

(1) [Source]

The detailed information on the source is displayed and the configuration can be changed.

Language of the C++ source file	Selects language of the C++ source file. This option corresponds to the -lang option of the compiler.		
	Default	Configuration of the compile option	
	How to change	Select from the drop-down list.	
	Restriction	C++ (-lang=cpp)	Compiles as an EC++ source file.
		EC++ (-lang=ecpp)	Compiles as a C++ source file.
Additional include paths	Specifies the name of the path to the folder that stores the include file. The following placeholders are supported. %ActiveProjectDir%: Replaces with the absolute path of the active project folder. %ActiveProjectName%: Replaces with the active project name. %BuildModeName%: Replaces with the build mode name. %MainProjectDir%: Replaces with the absolute path of the main project folder. %MainProjectName%: Replaces with the main project name. %MicomToolPath%: Replaces with the absolute path of the install folder of this product. %ProjectDir%: Replaces with the absolute path of the project folder. %ProjectName%: Replaces with the project name. %TempDir%: Replaces with the absolute path of the temporary folder. %WinDir%: Replaces with the absolute path of the Windows system folder. The reference point of the path is the project folder. This property corresponds to the -include option of the compiler. The specified include path is displayed as the subproperty.		
	Default	Additional include paths[*number of defined items*]	
	How to change	Edit by the Path Edit dialog box which appears when clicking the [...] button. For the subproperty, you can use the text box directly enter the text.	
	Restriction	Up to 247 characters Up to 65536 items can be specified.	

<table>
<tr><td rowspan="5">Use whole include paths specified for build tool</td><td colspan="3">Selects whether to compile using the include path specified in the [Additional include paths] property in the [Source] category from the [Compile Options] tab of the build tool to be used.
The include paths are added by the following procedure.
- Paths specified in the [Additional include paths] property from this tab
- Paths specified in the [Additional include paths] in the [Source] category from the [Compile Options] tab
This property corresponds to the -include option of the compiler.</td></tr>
<tr><td>Default</td><td colspan="2">Yes</td></tr>
<tr><td>How to change</td><td colspan="2">Select from the drop-down list.</td></tr>
<tr><td rowspan="2">Restriction</td><td>Yes</td><td>Compiles using the include path specified in the property of the build tool to be used.</td></tr>
<tr><td>No</td><td>Does not use the include path specified in the property of the build tool to be used.</td></tr>
<tr><td rowspan="4">Include files at the head of compiling units</td><td colspan="3">Specifies include files at the head of compiling units.
The following placeholders are supported.
%ActiveProjectDir%: Replaces with the absolute path of the active project folder.
%ActiveProjectName%: Replaces with the active project name.
%BuildModeName%: Replaces with the build mode name.
%MainProjectDir%: Replaces with the absolute path of the main project folder.
%MainProjectName%: Replaces with the main project name.
%MicomToolPath%: Replaces with the absolute path of the install folder of this product.
%ProjectDir%: Replaces with the absolute path of the project folder.
%ProjectName%: Replaces with the project name.
%TempDir%: Replaces with the absolute path of the temporary folder.
%WinDir%: Replaces with the absolute path of the Windows system folder.
The reference point of the path is the project folder.
This property corresponds to the -preinclude option of the compiler.</td></tr>
<tr><td>Default</td><td colspan="2">Configuration of the compile option</td></tr>
<tr><td>How to change</td><td colspan="2">Edit by the Text Edit dialog box which appears when clicking the [...] button.
For the subproperty, you can enter directly in the text box.</td></tr>
<tr><td>Restriction</td><td colspan="2">Up to 259 characters
Up to 65536 items can be specified.</td></tr>
<tr><td rowspan="4">Macro definition</td><td colspan="3">Specifies the macro name to be defined.
Specify in the format of "macro name=string", with one macro name per line.
The "=string" part can be omitted, and in this case, the macro name is assumed to be defined.
This property corresponds to the -define option of the compiler.
The specified macro is displayed as the subproperty.</td></tr>
<tr><td>Default</td><td colspan="2">Configuration of the compile option</td></tr>
<tr><td>How to change</td><td colspan="2">Edit by the Text Edit dialog box which appears when clicking the [...] button.
For the subproperty, you can use the text box directly enfter the text.</td></tr>
<tr><td>Restriction</td><td colspan="2">Up to 32767 characters
Up to 65536 items can be specified.</td></tr>
</table>

Invalidates the pre-defined macro	Specifies invalidates the predefined macro. If multiple macro names are specified, delimit them with a comma (example: __DBL4,__SCHAR). This property corresponds to the -undefine option of the compiler.		
	Default	Configuration of the compile option	
	How to change	Edit by the Specify The Predefined Macro dialog box which appears when clicking the [...] button.	
	Restriction	Up to 32767 characters	
Enables information-level message output	Specifies whether information level messages are output. This property corresponds to the -message and -nomessage options of the compiler.		
	Default	Configuration of the compile option	
	How to change	Select from the drop-down list.	
	Restriction	Yes(-message)	Enables information message output.
		No(-nomessage)	Disables information message output.
Suppresses the number of information-level messages	Specifies the number of information-level message to be suppressed. If multiple message numbers are specified, delimit them with a comma (example: 23043,23042). Also, the range can be set using hyphen (example: 23044-23045,23046-23048). This property corresponds to the -nomessage option of the compiler. This property is displayed only when [No(-nomessage)] in the [Enables information-level message output] property is specified.		
	Default	Configuration of the compile option	
	How to change	Directly enter in the text box or edit by the Character String Input dialog box which appears when clicking the [...] button.	
	Restriction	Up to 32767 characters	
Undisplayed messages	Specifies the information-level or warning-level message number not to be displayed. If multiple message numbers are specified, delimit them with a comma (example: 23043,23042). Also, the range can be set using hyphen (example: 23044-23045,23046-23048). This property corresponds to the -no_warning option of the compiler. This property is displayed when you have selected [Always latest version which was installed] or V2.08.00 or a later version for the [Using compiler package version] property under the [Version Select] category on the [Common Options] tab in an environment where V2.08.00 or a later version of the CC-RX compiler has been installed.		
	Default	Configuration of the compile option	
	How to change	Directly enter in the text box or edit by the Character String Input dialog box which appears when clicking the [...] button.	
	Restriction	Up to 32767 characters	

Changes the warning-level messages to information-level messages	Selects whether to change the warning-level messages to information-level messages. This property corresponds to the -change_message option of the compiler.		
	Default	Configuration of the compile option	
	How to change	Select from the drop-down list.	
	Restriction	Yes(All) (-change_message=information)	Changes all warning-level messages to the information-level messages.
		Yes(Specifies error number) (-change_message=information=<ErrorNumber>)	Changes the warning-level messages with the specified error numbers to the information-level messages.
		No	Does not change the warning-level messages to the information-level messages.
Error number of warning-level message	Specifies error number of warning-level message. If multiple message numbers are specified, delimit them with a comma (example: 23043,23042). Also, the range can be set using hyphen (example: 23044-23045,23046-23048). This property corresponds to the -change_message option of the compiler. This property is displayed only when [Yes(Specifies error number) (-change_message=information=<ErrorNumber>)] in the [Changes the warning-level messages to information-level messages] property is specified.		
	Default	Configuration of the compile option	
	How to change	Directly enter in the text box or edit by the Character String Input dialog box which appears when clicking the [...] button.	
	Restriction	Up to 32767 characters	
Changes the information-level messages to warning-level messages	Selects whether to change the information-level messages to warning-level messages. This property corresponds to the -change_message option of the compiler.		
	Default	Configuration of the compile option	
	How to change	Select from the drop-down list.	
	Restriction	Yes(All) (-change_message=warning)	Changes all information-level messages to warning-level messages.
		Yes(Specifies error number) (-change_message=warning=<ErrorNumber>)	Changes the information-level messages with the specified error numbers to warning-level messages.
		No	Does not change the information-level messages to warning-level messages.

Error number of information-level message	Specifies error number of information-level message. If multiple message numbers are specified, delimit them with a comma (example: 23043,23042). Also, the range can be set using hyphen (example: 23044-23045,23046-23048). This property corresponds to the -change_message option of the compiler. This property is displayed only when [Yes(Specifies error number) (-change_message=warning=<ErrorNumber>)] in the [Changes the information-level messages to warning-level messages] property is specified.		
	Default	Configuration of the compile option	
	How to change	Directly enter in the text box or edit by the Character String Input dialog box which appears when clicking the [...] button.	
	Restriction	Up to 32767 characters	
Changes the information-level and warning-level messages to error-level messages	Selects whether to change the information-level and warning-level messages to error-level messages. This property corresponds to the -change_message option of the compiler.		
	Default	Configuration of the compile option	
	How to change	Select from the drop-down list.	
	Restriction	Yes(All) (-change_message=error)	Changes all information-level and warning-level messages to error-level messages.
		Yes(Specifies error number) (-change_message=error=<ErrorNumber>)	Changes the information-level and warning-level messages with the specified error numbers to error-level messages.
		No	Does not change the warning-level messages to information-level messages.
Error number of information-level and warning-level message	Specifies error number of information-level and warning-level message. If multiple message numbers are specified, delimit them with a comma (example: 23043,23042). Also, the range can be set using hyphen (example: 23044-23045,23046-23048). This property corresponds to the -change_message option of the compiler. This property is displayed only when [Yes(Specifies error number) (-change_message=error=<ErrorNumber>)] in the [Changes the information-level and warning-level messages to error-level messages] property is specified.		
	Default	Configuration of the compile option	
	How to change	Directly enter in the text box or edit by the Character String Input dialog box which appears when clicking the [...] button.	
	Restriction	Up to 32767 characters	

<table>
<tr><td>Path to the folder that stores a file for inter-file inline expansion</td><td colspan="3">Specifies path to the folder that stores a file for inter-file inline expansion.
The following placeholders are supported.
%ActiveProjectDir%: Replaces with the absolute path of the active project folder.
%ActiveProjectName%: Replaces with the active project name.
%BuildModeName%: Replaces with the build mode name.
%MainProjectDir%: Replaces with the absolute path of the main project folder.
%MainProjectName%: Replaces with the main project name.
%MicomToolPath%: Replaces with the absolute path of the install folder of this product.
%ProjectDir%: Replaces with the absolute path of the project folder.
%ProjectName%: Replaces with the project name.
%TempDir%: Replaces with the absolute path of the temporary folder.
%WinDir%: Replaces with the absolute path of the Windows system folder.
The reference point of the path is the project folder.
This property corresponds to the -include option of the compiler.
The specified include path is displayed as the subproperty.
This property is displayed when [Always latest version which was installed] or a version number earlier than V2.00.00 is selected for the [Using compiler package version] property under the [Version Select] category on the [Common Options] tab in an environment where a version of the CC-RX compiler earlier than V2.00.00 has been installed.</td></tr>
<tr><td></td><td>Default</td><td colspan="2">Configuration of the compile option</td></tr>
<tr><td></td><td>How to change</td><td colspan="2">Edit by the Path Edit dialog box which appears when clicking the [...] button.
For the subproperty, you can use the text box directly enter the text.</td></tr>
<tr><td></td><td>Restriction</td><td colspan="2">Up to 247 characters.
Up to 65536 items can be specified.</td></tr>
<tr><td>Permits comment (/* */) nesting</td><td colspan="3">Selects whether to permit comment (/* */) nesting.
This property corresponds to the -comment option of the compiler.</td></tr>
<tr><td></td><td>Default</td><td colspan="2">Configuration of the compile option</td></tr>
<tr><td></td><td>How to change</td><td colspan="2">Select from the drop-down list.</td></tr>
<tr><td></td><td rowspan="2">Restriction</td><td>Yes (-comment=nest)</td><td>Does not permit comment (/* */) nesting.</td></tr>
<tr><td></td><td>No (-comment=nonest)</td><td>Permits comment (/**/) nesting.</td></tr>
<tr><td>Checks the compatibility with an existing program</td><td colspan="3">Selects whether to check the compatibility with an existing program.
This property corresponds to the -check option of the compiler.</td></tr>
<tr><td></td><td>Default</td><td colspan="2">Configuration of the compile option</td></tr>
<tr><td></td><td>How to change</td><td colspan="2">Select from the drop-down list.</td></tr>
<tr><td></td><td rowspan="4">Restriction</td><td>Yes(NC compiler) (-check=nc)</td><td>Checks the compatibility with the R8C and M16C family C compilers.</td></tr>
<tr><td></td><td>Yes(H8 compiler) (-check=ch38)</td><td>Checks the compatibility with the H8, H8S, and H8SX family C/C++ compilers.</td></tr>
<tr><td></td><td>Yes(SH compiler) (-check=sh)</td><td>Checks the compatibility with the SuperH family C/C++ compilers.</td></tr>
<tr><td></td><td>No</td><td>Does not check the compatibility with an existing program.</td></tr>
</table>

Character code of an input program	Selects character code of an input program. [Traditional Chinese character (-big5)] and [Simplified Chinese character (-gb2312)] are synchronized with the value of the [Character code of an output assembly-language file] property in the [Object] category. This property corresponds to the -euc, -sjis, -latin1, -utf8, -big5 and -gb2312 option of the compiler. [Traditional Chinese character (-big5)] and [Simplified Chinese character (-gb2312)] are displayed when you have selected [Always latest version which was installed] or V2.00.00 or a later version for the [Using compiler package version] property under the [Version Select] category on the [Common Options] tab in an environment where V2.00.00 or a later version of the CC-RX compiler has been installed. [UTF-8 code (-utf8)] cannot be selected in the following cases. - When [Always latest version which was installed] or a version number earlier than V2.04.00 is selected for the [Using compiler package version] property in an environment where a version of the CC-RX compiler earlier than V2.04.00 has been installed		
	Default	Configuration of the compile option	
	How to change	Select from the drop-down list.	
	Restriction	EUC code (-euc)	Handles the characters in strings, character constants, and comments by using EUC.
		SJIS code (-sjis)	Handles the characters in strings, character constants, and comments by using SJIS.
		ISO-Latin1 code (-latin1)	Handles the characters in strings, character constants, and comments by using ISO-Latin1.
		UTF-8 code (-utf8)	Handles the characters in strings, character constants, and comments by using UTF-8.
		Traditional Chinese character (-big5)	Handles the characters in strings, character constants, and comments by using Traditional Chinese character.
		Simplified Chinese character (-gb2312)	Handles the characters in strings, character constants, and comments by using Simplified Chinese character.

(2) [Object]
The detailed information on object is displayed and the configuration can be changed.

Output file type	Selects the type of the output file to be generated during a build. This property corresponds to the -output option of the compiler.		
	Default	Configuration of the compile option	
	How to change	Select from the drop-down list.	
	Restriction	Object module file (-output=obj)	Outputs a relocatable file.
		Source file after preprocessed (-output=prep)	Outputs a source file after preprocessed.
		Source file after preprocessed(Disables #line output) (-output=prep -noline)	Disables #line output at preprocessor expansion.

Path of the output folder	Specifies the output destination folder for the output file. The following placeholders are supported. %BuildModeName%: Replaces with the build mode name. %MicomToolPath%: Replaces with the absolute path of the install folder of this product. %ProjectName%: Replaces with the project name. If this is blank, it is assumed that the project folder has been specified. This property corresponds to the -output option of the compiler. This property is displayed when [Always latest version which was installed] or a version number earlier than V2.00.00 is selected for the [Using compiler package version] property under the [Version Select] category on the [Common Options] tab in an environment where a version of the CC-RX compiler earlier than V2.00.00 has been installed.		
	Default	Configuration of the compile option	
	How to change	Directly enter in the text box or edit by the Browse For Folder dialog box which appears when clicking the [...] button.	
	Restriction	Up to 247 characters	
Object module file name	Specifies the name of the object module file generated after compilation. The extension other than ".obj" cannot be specified. If the extension is omitted, ".obj" is automatically added. If this is blank, the file name will be the source file name with the extension replaced by ".obj". This property corresponds to the -output option of the compiler. This property is displayed when you have selected [Always latest version which was installed] or V2.00.00 or a later version for the [Using compiler package version] property under the [Version Select] category on the [Common Options] tab in an environment where V2.00.00 or a later version of the CC-RX compiler has been installed.		
	Default	Blank	
	How to change	Directly enter in the text box.	
	Restriction	Up to 259 characters	
Outputs debugging information	Selects whether to output debugging information to object module files. This property corresponds to the -debug and -nodebug options of the compiler.		
	Default	Configuration of the compile option	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-debug)	Outputs debugging information to object module files.
		No (-nodebug)	Does not output debugging information to object module files.

Enhances debug information with optimization	Selects whether to enhance debug information at optimization. This property corresponds to the -g_line options of the compiler. This property is displayed only in the following cases. - When [Always latest version which was installed] or a version number earlier than V3.02.00 is selected for the [Using compiler package version] property under the [Version Select] category on the [Common Options] tab in an environment where a version of the CC-RX compiler earlier than V3.02.00 has been installed - When [Yes (-debug)] in the [Outputs debugging information] property is selected		
	Default	Configuration of the compile option	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-g_line)	Enhances debug information at optimization.
		No	Does not enhance debug information at optimization.
Section name of program area	Specifies the section name of program area. This property corresponds to the -section option of the compiler.		
	Default	Configuration of the compile option	
	How to change	Directly enter in the text box.	
	Restriction	Up to 32767 characters	
Section name of constant area	Specifies the section name of constant area. This property corresponds to the -section option of the compiler.		
	Default	Configuration of the compile option	
	How to change	Directly enter in the text box.	
	Restriction	Up to 32767 characters	
Section name of initialized data area	Specifies the section name of initialized data area. This property corresponds to the -section option of the compiler.		
	Default	Configuration of the compile option	
	How to change	Directly enter in the text box.	
	Restriction	Up to 32767 characters	
Section name of uninitialized data area	Specifies the section name of uninitialized data area. This property corresponds to the -section option of the compiler.		
	Default	Configuration of the compile option	
	How to change	Directly enter in the text box.	
	Restriction	Up to 32767 characters	
Section name of literal area	Specifies the section name of literal area. This property corresponds to the -section option of the compiler.		
	Default	Configuration of the compile option	
	How to change	Directly enter in the text box.	
	Restriction	Up to 32767 characters	

Section name of switch statement branch table area	Specifies the section name of switch statement branch table area. This property corresponds to the -section option of the compiler.		
	Default	Configuration of the compile option	
	How to change	Directly enter in the text box.	
	Restriction	Up to 32767 characters	
Allocates uninitialized variables to 4-byte boundary alignment sections	Selects whether to allocate uninitialized variables to 4-byte boundary alignment sections. This property corresponds to the -nostuff option of the compiler.		
	Default	Configuration of the compile option	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-nostuff=B)	Allocates uninitialized variables to 4-byte boundary alignment sections.
		No	Does not allocate uninitialized variables to 4-byte boundary alignment sections.
Allocates initialized variables to 4-byte boundary alignment sections	Selects whether to allocate initialized variables to 4-byte boundary alignment sections. This property corresponds to the -nostuff option of the compiler.		
	Default	Configuration of the compile option	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-nostuff=D)	Allocates initialized variables to 4-byte boundary alignment sections.
		No	Does not allocates initialized variables to 4-byte boundary alignment sections.
Allocates const qualified variables to 4-byte boundary alignment sections	Selects whether to allocate const qualified variables to 4-byte boundary alignment sections. This property corresponds to the -nostuff option of the compiler.		
	Default	Configuration of the compile option	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-nostuff=C)	Allocates const qualified variables to 4-byte boundary alignment sections.
		No	Does not allocate const qualified variables to 4-byte boundary alignment sections.

Allocates switch statement branch tables to 4-byte boundary alignment sections	Selects whether to allocate switch statement branch tables to 4-byte boundary alignment sections. This property corresponds to the -nostuff option of the compiler.		
	Default	Configuration of the compile option	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-nostuff=W)	Allocates switch statement branch tables to 4-byte boundary alignment sections.
		No	Does not allocate switch statement branch tables to 4-byte boundary alignment sections.
Adjustment for instruction in branch	Selects adjustment for instruction in branch. This property corresponds to the -noinstalign, -instalign4, and -instalign8 option of the compiler.		
	Default	Configuration of the compile option	
	How to change	Select from the drop-down list.	
	Restriction	None (-noinstalign)	Does not align instructions at branch destinations.
		Execution in 4 bytes (-instalign4)	Aligns instructions at branch destinations to 4-byte boundaries.
		Execution in 4 bytes(Contains each loop head) (-instalign4=loop)	Aligns instructions at branch destinations to 4-byte boundaries (Contains head of each loop).
		Execution in 4 bytes(Contains each inmost loop head) (-instalign4=inmost-loop)	Aligns instructions at branch destinations to 4-byte boundaries (Contains head of each inmost loop).
		Execution in 8 bytes (-instalign8)	Aligns instructions at branch destinations to 8-byte boundaries.
		Execution in 8 bytes (Contains each loop head) (-instalign8=loop)	Aligns instructions at branch destinations to 8-byte boundaries (Contains head of each loop).
		Execution in 8 bytes (Contains each inmost loop head) (-instalign8=inmost-loop)	Aligns instructions at branch destinations to 8-byte boundaries (Contains head of each inmost loop).

Align fetch address of string manipulation instructions	Selects whether to align addresses where string manipulation instructions start reading data. Selecting [Yes] prevents the reading of data across 4-byte boundaries in prefetching by string manipulation instructions. This property corresponds to the -avoid_cross_boundary_prefetch option of the compiler. This property is displayed when you have selected [Always latest version which was installed] or V2.07.00 or a later version for the [Using compiler package version] property under the [Version Select] category on the [Common Options] tab in an environment where V2.07.00 or a later version of the CC-RX compiler has been installed.		
	Default	Configuration of the compile option	
	How to change	Select from the drop-down list.	
	Restriction	Yes(-avoid_cross_boundary_prefetch)	Aligns addresses where string manipulation instructions start reading data.
		No	Does not align addresses where string manipulation instructions start reading data.
Generates divisions and residues with DIV, DIVU, and the FDIV instruction	Selects whether to generate divisions and residues with DIV, DIVU, and the FDIV instruction. This property corresponds to the -nouse_div_inst option of the compiler.		
	Default	Configuration of the compile option	
	How to change	Select from the drop-down list.	
	Restriction	Yes	Generates code in which DIV, DIVU, or FDIV instructions are used.
		No (-nouse_div_inst)	Generates code in which no DIV, DIVU, or FDIV instructions are used.

<table>
<tr><td rowspan="8">Character code of an output assembly-language file</td><td colspan="3">Selects character code of an output assembly-language file.
[Traditional Chinese character (-big5)] and [Simplified Chinese character (-gb2312)] are synchronized with the value of the [Character code of an input program] property in the [Source] category.
This property corresponds to the -outcode option of the compiler.
[Traditional Chinese character (-big5)] and [Simplified Chinese character (-gb2312)] are displayed when you have selected [Always latest version which was installed] or V2.00.00 or a later version for the [Using compiler package version] property under the [Version Select] category on the [Common Options] tab in an environment where V2.00.00 or a later version of the CC-RX compiler has been installed.
[UTF-8 code (-outcode=utf8)] cannot be selected in the following cases.
- When [Always latest version which was installed] or a version number earlier than V2.04.00 is selected for the [Using compiler package version] property under the [Version Select] category on the [Common Options] tab in an environment where a version of the CC-RX compiler earlier than V2.04.00 has been installed</td></tr>
<tr><td>Default</td><td colspan="2">Configuration of the compile option</td></tr>
<tr><td>How to change</td><td colspan="2">Select from the drop-down list.</td></tr>
<tr><td rowspan="5">Restriction</td><td>EUC code (-outcode=euc)</td><td>Outputs characters in strings and character constants using EUC.</td></tr>
<tr><td>SJIS code (-outcode=sjis)</td><td>Outputs characters in strings and character constants using SJIS.</td></tr>
<tr><td>UTF-8 code (-outcode=utf8)</td><td>Outputs characters in strings and character constants using UTF-8.</td></tr>
<tr><td>Traditional Chinese character (-outcode=big5)</td><td>Outputs characters in strings and character constants using Traditional Chinese character.</td></tr>
<tr><td>Simplified Chinese character (-outcode=gb2312)</td><td>Outputs characters in strings and character constants using Simplified Chinese character.</td></tr>
</table>

(3) [Quality Improvement]
The detailed information on the quality improvement is displayed and the configuration can be changed.

<table>
<tr><td rowspan="5">Detect stack smashing</td><td colspan="3">Selects whether to detect the stack smashing.
This property is usable only in the Professional Edition.
Detection of stack smashing is a feature for writing a value outside the valid stack area before entering a function and checking whether that value is rewritten before exiting the function. Upon detection, the user-defined __stack_chk_fail() function is called.
See "CC-RX Compiler User's Manual" about the difference between [Yes(-stack_protector)] and [Yes(All)(-stack_protector_all)].
This property corresponds to the -stack_protector and -stack_protector_all options of the compiler.
This property is displayed when you have selected [Always latest version which was installed] or V2.04.00 or a later version for the [Using compiler package version] property under the [Version Select] category on the [Common Options] tab in an environment where V2.04.00 or a later version of the CC-RX compiler has been installed.</td></tr>
<tr><td>Default</td><td colspan="2">Configuration of the compile option</td></tr>
<tr><td>How to change</td><td colspan="2">Select from the drop-down list.</td></tr>
<tr><td rowspan="3">Restriction</td><td>Yes(-stack_protector)</td><td>Detects the stack smashing.</td></tr>
<tr><td>Yes(All)(-stack_protector_all)</td><td>Detects the stack smashing for all functions.</td></tr>
<tr><td>No(No option specified)</td><td>Does not detect the stack smashing.</td></tr>
<tr><td rowspan="4">Value to be embedded for detecting stack smashing</td><td colspan="3">Specifies the value to be embedded for detecting the stack smashing.
This property is usable only in the Professional Edition.
This property corresponds to the -stack_protector and -stack_protector_all options of the compiler.
This property is displayed in the following cases.
- When you have selected [Always latest version which was installed] or V2.04.00 or a later version for the [Using compiler package version] property under the [Version Select] category on the [Common Options] tab in an environment where V2.04.00 or a later version of the CC-RX compiler has been installed
- When other than [No(No option specified)] in the [Detect stack smashing] property is selected</td></tr>
<tr><td>Default</td><td colspan="2">Configuration of the compile option</td></tr>
<tr><td>How to change</td><td colspan="2">Directly enter in the text box.</td></tr>
<tr><td>Restriction</td><td colspan="2">0 to 4294967295 (decimal number)</td></tr>
</table>

Detect illegal indirect function call	Selects whether to output code for detecting illegal indirect function calls. Enable this facility to check the destination addresses of branches caused by each indirect function call. The output code will call the user-defined __control_flow_chk_fail() function in response to the detection of a problem. This property is usable only in the Professional Edition. This property corresponds to the -control_flow_integrity option of the compiler. This property is displayed when you have selected [Always latest version which was installed] or V2.08.00 or a later version for the [Using compiler package version] property under the [Version Select] category on the [Common Options] tab in an environment where V2.08.00 or a later version of the CC-RX compiler has been installed.		
	Default	Configuration of the compile option	
	How to change	Select from the drop-down list.	
	Restriction	Yes(-control_flow_integrity)	Outputs code for detecting illegal indirect function calls.
		No	Does not output code for detecting illegal indirect function calls.

(4) [List]
The detailed information on list file is displayed and the configuration can be changed.

Outputs a source list file	Selects whether to output a source list file. This property corresponds to the -listfile and -nolistfile option of the compiler.		
	Default	Configuration of the compile option	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-lisfile)	Outputs a source list file.
		No (-nolistfile)	Disable output of a source list file.
Outputs the C/C++ source file	Specifies the contents of the source list file. Selects whether to output the C/C++ source file. This property corresponds to the -show option of the compiler. This property is displayed when [Yes (-lisfile)] in the [Outputs a source list file] property is selected.		
	Default	Configuration of the compile option	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-show=source)	Outputs the C/C++ source file.
		No	Does not output the C/C++ source file.

Outputs the statements unsatisfied in conditional assembly	Specifies the contents of the source list file. Selects whether to output the statements unsatisfied in conditional assembly. This property corresponds to the -show option of the compiler. This property is displayed when [Yes (-lisfile)] in the [Outputs a source list file] property is selected.		
	Default	Configuration of the compile option	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-show=conditionals)	Outputs the statements unsatisfied in conditional assembly.
		No	Does not output the statements unsatisfied in conditional assembly.
Outputs the information before .DEFINE replacement	Specifies the contents of the source list file. Selects whether to output the information before .DEFINE replacement. This property corresponds to the -show option of the compiler. This property is displayed when [Yes (-lisfile)] in the [Outputs a source list file] property is selected.		
	Default	Configuration of the compile option	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-show=definitions)	Outputs the information before .DEFINE replacement.
		No	Does not output the information before .DEFINE replacement.
Outputs the assembler macro expansion statements	Specifies the contents of the source list file. Selects whether to output the assembler macro expansion statements. This property corresponds to the -show option of the compiler. This property is displayed when [Yes (-lisfile)] in the [Outputs a source list file] property is selected.		
	Default	Configuration of the compile option	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-show=expansions)	Outputs the assembler macro expansion statements.
		No	Does not output the assembler macro expansion statements.

(5) [Optimization]
The detailed information on the optimization is displayed and the configuration can be changed.

Optimization level	Selects optimization level. This property corresponds to the -optimize option of the compiler.		
	Default	Configuration of the compile option	
	How to change	Select from the drop-down list.	
	Restriction	0 (-optimize=0)	Does not optimize the program.
		1 (-optimize=1)	Partially optimizes the program by automatically allocating variables to registers, integrating the function exit blocks, integrating multiple instructions which can be integrated, etc.
		2 (-optimize=2)	Performs overall optimization.
		Max (-optimize=max)	Performs optimization as much as possible.
Outputs additional information for inter-module optimization	Selects whether to output additional information for inter-module optimization. At linkage, inter-module optimization is applied to files for which this option has been specified. This property corresponds to the -goptimize option of the compiler.		
	Default	Configuration of the compile option	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-goptimize)	Outputs additional information for inter-module optimization.
		No	Does not outputs additional information for inter-module optimization.
Optimization type	Selects optimization type. This property corresponds to the -speed and -size option of the compiler.		
	Default	Configuration of the compile option	
	How to change	Select from the drop-down list.	
	Restriction	Optimizes with emphasis on execution performance (-speed)	Optimizes with emphasis on execution performance.
		Optimizes with emphasis on code size (-size)	Optimizes with emphasis on code size.
Loop expansion	Selects whether to optimize the loop expansion (for, while, and do-while). This property corresponds to the -loop option of the compiler.		
	Default	Configuration of the compile option	
	How to change	Select from the drop-down list.	
	Restriction	Depends on the optimization level and optimization type options	Depends on the [Optimization level] and [Optimization type] properties.
		Expansion (-loop=<numeric value>)	Expands loop statements (for, while, and do-while).

Expansion maximum number	Specifies expansion maximum number. This property corresponds to the suboption of -loop option of the compiler. This property is displayed only when [Expansion (-loop=<numeric value>)] in the [Loop expansion] property is selected.		
	Default	Configuration of the compile option	
	How to change	Directly enter in the text box.	
	Restriction	1 to 32 (decimal number)	
Performs inline expansion automatically	Selects whether to perform inline expansion automatically. This option corresponds to the -inline and -noinline option of the compiler.		
	Default	Configuration of the compile option	
	How to change	Select from the drop-down list.	
	Restriction	Depends on the optimization level and optimization type options	Depends on the [Optimization level] and [Optimization type] properties.
		Yes (-inline=<numeric value>)	Performs inline expansion automatically.
		No (-noinline)	Does not perform inline expansion automatically.
Maximum increasing rate of function size	Specifies maximum increasing rate of function size. For example, when 100 is specified, inline expansion will be performed until the function size has increased by 100% (size is doubled). This option corresponds to the -inline option of the compiler. This property is displayed only when [Yes (-inline=<numeric value>)] in the [Performs inline expansion automatically] property is selected.		
	Default	Configuration of the compile option	
	How to change	Select from the drop-down list.	
	Restriction	1 to 65535 (decimal number)	

Files for inter-file inline expansion	Specifies files for inter-file inline expansion. This option is valid only when the inline option or #pragma inline has been specified. The following placeholders are supported. %BuildModeName%: Replaces with the build mode name. %ProjectName%: Replaces with the project name. %MicomToolPath%: Replaces with the absolute path of the product install folder. This option corresponds to the -file_inline option of the compiler. The file name is displayed as the subproperty. This property is displayed only in the following cases. - When [Always latest version which was installed] or a version number earlier than V2.00.00 is selected for the [Using compiler package version] property under the [Version Select] category on the [Common Options] tab in an environment where a version of the CC-RX compiler earlier than V2.00.00 has been installed - When [Object module file (-output=obj)] in the [Output file type] property in the [Object] category is selected		
	Default	Configuration of the compile option	
	How to change	Edit by the Path Edit dialog box which appears when clicking the [...] button. -> Edit by the Add Inline Expansion File dialog box which appears when clicking the [Browse...] button. For the subproperty, you can use the text box directly enter the text.	
	Restriction	Up to 259 characters Up to 65536 items can be specified.	
Expansion method of the switch statement	Selects expansion method of the switch statement. This property corresponds to the -case option of the compiler.		
	Default	Configuration of the compile option	
	How to change	Select from the drop-down list.	
	Restriction	if_then method (-case=ifthen)	Expands the switch statement using the if_then method.
		Jumping to a table method (-case=table)	Expands the switch statement by using the table method.
		Compiler automatically selects (-case=auto)	Automatically selects the if_then method or table method.
Handles external variables as if they are volatile qualified	Selects whether to handle all external variables as if they are volatile qualified. This property corresponds to the -volatile and -novolatile option of the compiler.		
	Default	Configuration of the compile option	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-volatile)	Handles all external variables as if they were volatile qualified.
		No (-novolatile)	Does not handle external variables as if they were volatile qualified.

Accesses to volatile qualified variables with the sizes of the variable types	Selects whether to access to volatile qualified variables with the sizes of the variable types. This option corresponds to the -type_size_access_to_volatile option of the compiler. This property is displayed when [Always latest version which was installed] or a version number earlier than V3.04.00 is selected for the [Using compiler package version] property under the [Version Select] category on the [Common Options] tab in an environment where a version of the CC-RX compiler earlier than V3.04.00 has been installed.		
	Default	Configuration of the compile option	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-type_size_access_to_volatile)	Accesses to volatile qualified variables with the sizes of the variable types
		No	Does not access to volatile qualified variables with the sizes of the variable types
Performs the constant propagation of const qualified external variables	Selects whether to perform the constant propagation of const qualified external variables. Const qualified variables in a C++ source file cannot be controlled by this option (constant propagation is always performed). This property corresponds to the -const_copy and -noconst_copy option of the compiler.		
	Default	Configuration of the compile option	
	How to change	Select from the drop-down list.	
	Restriction	Depends on the optimization level options	Depends on the [Optimization level] property.
		Yes (-const_copy)	Enables constant propagation of const qualified external variables.
		No (-noconst_copy)	Disables constant propagation of const qualified external variables.
Conversion method of the divisions and residues of integer constants	Selects conversion method of the divisions and residues of integer constants. This property corresponds to the -const_div and -noconst_div option of the compiler.		
	Default	Configuration of the compile option	
	How to change	Select from the drop-down list.	
	Restriction	Depends on the optimization type option	Depends on the [Optimization type] property
		Instruction sequence using multiplication (-const_div)	Performs constant division (residue) by an instruction sequence using multiplication.
		Instruction sequence using division (-noconst_div)	Performs constant division (residue) by an instruction sequence using division.

Execution method of library function that can be expanded to RX instructions	Select the method of execution for library functions that can be expanded as RX instructions. This property corresponds to the -library option of the compiler.		
	Default	Configuration of the compile option	
	How to change	Select from the drop-down list.	
	Restriction	Calls library functions (-library=function)	Calls library functions.
		Performs expansion to RX instructions(-library=intrinsic)	Replaces library functions with RX instructions having the corresponding facilities. For example, replaces abs() with an ABS instruction.
Execution method of library function that can use trigonometric function unit	Selects the method of execution of library function that can use trigonometric function unit. This property corresponds to the -tfu option of the compiler. This property is displayed in the following cases. - When [Always latest version which was installed] or a version number earlier than V3.01.00 is selected for the [Using compiler package version] property under the [Version Select] category on the [Common Options] tab in an environment where a version of the CC-RX compiler earlier than V3.01.00 has been installed - When the device has a trigonometric function unit		
	Default	Configuration of the compile option	
	How to change	Select from the drop-down list.	
	Restriction	Do not use trigonometric function unit(-tfu=intrinsic)	Calls of relevant mathematics library functions are not replaced with code that uses the trigonometric function unit.
		Use trigonometric function unit(-tfu=intrinsic,mathlib)	Calls of relevant mathematics library functions are replaced with code that uses the trigonometric function unit.
Divides the optimizing ranges into many sections before compilation	Selects whether to divide the optimizing ranges of the large-size function into many sections before compilation. This property corresponds to the -scope and -noscope option of the compiler.		
	Default	Configuration of the compile option	
	How to change	Select from the drop-down list.	
	Restriction	Depends on the optimization level option	Depends on the [Optimization level] property.
		Yes (-scope)	Divides the optimizing ranges of the large-size function into many sections before compilation.
		No (-noscope)	Does not divide the optimizing ranges before compilation.

Schedules the instruction taking into consideration pipeline processing	Selects whether to schedule the instruction taking into consideration pipeline processing. This property corresponds to the -schedule and -noschedule option of the compiler.		
	Default	Configuration of the compile option	
	How to change	Select from the drop-down list.	
	Restriction	Depends on the optimization level option	Depends on the [Optimization level] property.
		Yes (-schedule)	Schedules instructions taking into consideration pipeline processing.
		No (-noschedule)	Does not schedule instructions.
Optimizes accesses to external variables	Selects whether to optimize accesses to external variables. This property corresponds to the -nomap, -smap and -map option of the compiler.		
	Default	Configuration of the compile option	
	How to change	Select from the drop-down list.	
	Restriction	Yes(Optimizes the inner-module) (-smap)	Optimizes accesses to external variables which are defined in the file to be compiled.
		Yes(Optimizes the inter-module) (-map)	Optimizes accesses to external variables.
		No (-nomap)	Disables optimization for accesses to external variables.
Perform inter-module optimization	Specifies the level of inter-module optimization (such as function merging). This property corresponds to the -whole_program, -merge_files, and -ip_optimize option of the compiler. This property is displayed when you have selected [Always latest version which was installed] or V2.00.00 or a later version for the [Using compiler package version] property under the [Version Select] category on the [Common Options] tab in an environment where V2.00.00 or a later version of the CC-RX compiler has been installed.		
	Default	Configuration of the compile option	
	How to change	Select from the drop-down list.	
	Restriction	Yes(Level 1)(Perform)(-ip_optimize)	Performs inter-module optimization for each file.
		No	Does not perform inter-module optimization.
Converts floating-point constant division into multiplication	Selects whether to convert floating-point constant division into multiplication of the corresponding reciprocals as constants. This property corresponds to the -approxdiv option of the compiler.		
	Default	Configuration of the compile option	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-approxdiv)	Converts floating-point constant division into multiplication.
		No	Does not convert floating-point constant division into multiplication.

<table>
<tr><td rowspan="5">Allocates preferentially the variables with register storage class specification to registers</td><td colspan="3">Selects whether to allocate preferentially the variables with register storage class specification to registers.
This property corresponds to the -enable_register option of the compiler.
This property is displayed only in the following cases.
- When [Always latest version which was installed] or a version number earlier than V2.00.00 is selected for the [Using compiler package version] property under the [Version Select] category on the [Common Options] tab in an environment where a version of the CC-RX compiler earlier than V2.00.00 has been installed
- When [Object module file (-output=obj)] in the [Output file type] property in the [Object] category is selected</td></tr>
<tr><td>Default</td><td colspan="2">Configuration of the compile option</td></tr>
<tr><td>How to change</td><td colspan="2">Select from the drop-down list.</td></tr>
<tr><td rowspan="2">Restriction</td><td>Yes (-enable_register)</td><td>Allocates preferentially the variables with register storage class specification to registers.</td></tr>
<tr><td>No</td><td>Does not allocate preferentially the variables with register storage class specification to registers.</td></tr>
<tr><td rowspan="5">Omits a check of the range for conversion between the floating type and unsigned integer type</td><td colspan="3">Selects whether to omit a check of the range for conversion between the floating type and unsigned integer type.
When "Yes" is specified, code performance of the relevant type conversion processing is improved.
The conversion result may, however, differ from C/C++ language specifications, so take care on this point.
This property corresponds to the -simple_float_conv option of the compiler.</td></tr>
<tr><td>Default</td><td colspan="2">Configuration of the compile option</td></tr>
<tr><td>How to change</td><td colspan="2">Select from the drop-down list.</td></tr>
<tr><td rowspan="2">Restriction</td><td>Yes (-simple_float_conv)</td><td>Omits part of the type conversion processing for the floating type.</td></tr>
<tr><td>No</td><td>Does not omit part of the type conversion processing for the floating type.</td></tr>
<tr><td rowspan="5">Performs optimization considering the type of the data indicated by the pointer</td><td colspan="3">Selects whether to perform optimization considering the type of the data indicated by the pointer.
Although the performance of object code is generally better than when -alias=noansi is specified, the results of execution may differ according to whether -alias=ansi or alias=noansi is specified.
This property corresponds to the -alias option of the compiler.</td></tr>
<tr><td>Default</td><td colspan="2">Configuration of the compile option</td></tr>
<tr><td>How to change</td><td colspan="2">Select from the drop-down list.</td></tr>
<tr><td rowspan="3">Restriction</td><td>Depends on the optimization level option</td><td>Depends on the [Optimization level] property.</td></tr>
<tr><td>Yes (-alias=ansi)</td><td>Performs optimization considering the type of the data indicated by the pointer.</td></tr>
<tr><td>No (-alias=noansi)</td><td>Does not perform optimization considering the type of the data indicated by the pointer.</td></tr>
</table>

<table>
<tr><td>Optimizes modification of the operation order of a floating-point expression</td><td colspan="3">Selects whether to optimize modification of the operation order of a floating-point expression.
Specifying the -float_order option generally improves the object performance compared to when not specifying it.
However, the accuracy of operations may differ from that when -float_order is not specified.
This property corresponds to the -float_order option of the compiler.
This property is displayed only in the following cases.
- When [Always latest version which was installed] or a version number earlier than V2.00.00 is selected for the [Using compiler package version] property under the [Version Select] category on the [Common Options] tab in an environment where a version of the CC-RX compiler earlier than V2.00.00 has been installed
- When [2 (-optimize=2)] or [Max (-optimize=max)] in the [Optimization level] property is specified.</td></tr>
<tr><td></td><td>Default</td><td colspan="2">Configuration of the compile option</td></tr>
<tr><td></td><td>How to change</td><td colspan="2">Select from the drop-down list.</td></tr>
<tr><td></td><td rowspan="2">Restriction</td><td>Yes (-float_order)</td><td>Optimizes modification of the operation order in a floating-point expression.</td></tr>
<tr><td></td><td>No</td><td>Does not optimize modification of the operation order in a floating-point expression.</td></tr>
<tr><td>Reduces code size of relative branch instructions</td><td colspan="3">Selects whether to reduce the code size of the relative branch instructions.
This property corresponds to the -branch_chaining, -nobranch_chaining option of the compiler.
This property is displayed only in the following cases.
- When [Always latest version which was installed] or a version number earlier than V3.03.00 is selected for the [Using compiler package version] property under the [Version Select] category on the [Common Options] tab in an environment where a version of the CC-RX compiler earlier than V3.03.00 has been installed
- When [2 (-optimize=2)] or [Max (-optimize=max)] in the [Level of optimization] property is selected
- When [Optimizes with emphasis on code size (-size)] in the [Optimization type] property is selected</td></tr>
<tr><td></td><td>Default</td><td colspan="2">Configuration of the compile option</td></tr>
<tr><td></td><td>How to change</td><td colspan="2">Select from the drop-down list.</td></tr>
<tr><td></td><td rowspan="3">Restriction</td><td>Depends on the optimization level and optimization type option</td><td>Depends on the [Optimization level] and [Optimization type] properties.</td></tr>
<tr><td></td><td>Yes(-branch_chaining)</td><td>Reduces the code size of the relative branch instructions.</td></tr>
<tr><td></td><td>No(-nobranch_chaining)</td><td>Does not reduce the code size of the relative branch instructions.</td></tr>
</table>

(6) [Output File]

The detailed information on the output file check is displayed and the configuration can be changed.

Output assembly source file

Select whether to output the assembly source file of the compile result for the C source.

This property corresponds to the -output=src option of the compiler.

Output assembly source file	Selects whether to output the assembly source file of the compile result for the C source. This property corresponds to the -output=src option of the compiler.		
	Default	Configuration of the compile option	
	How to change	Select from the drop-down list.	
	Restriction	Yes(-output=src)	Outputs the assembly source file of the compile result for the C source.
		No	Does not output the assembly source file of the compile result for the C source.
Output preprocessed source file	Selects whether to output the execution result of preprocessing for the source file to a file. This property corresponds to the -output=prep, -noline option of the compiler.		
	Default	Configuration of the compile option	
	How to change	Select from the drop-down list.	
	Restriction	Yes(-output=prep)	Outputs the execution result of preprocessing for the source file to a file.
		Yes(Suppress #line)(-output=prep -noline)	Outputs the execution result of preprocessing (suppress #line) for the source file to a file.
		No	Does not output the execution result of preprocessing for the source file to a file.

(7) [Others]
Other detailed information on compilation is displayed and the configuration can be changed.

Outputs the copyright	Selects whether to output the copyright. This property corresponds to the -nologo option of the compiler.		
	Default	Configuration of the compile option	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-logo)	Outputs the copyright.
		No (-nologo)	Disables output of the copyright.
Outputs the cross reference information	Selects whether to output cross reference information. It is necessary to change the setting of the property of "Program Analyzer" to change this option.		
	Default	Configuration of the compile option	
	How to change	Select from the drop-down list.	
	Restriction	Yes(-Xcref)	Outputs the cross reference information.
		No	Does not output of the cross reference information.

<table>
<tr><td>Commands executed before compile processing</td><td colspan="2">Specifies the command to be executed before compile processing.
Use the call instruction to specify a batch file (example: call a.bat).
The following placeholders are supported.
%ActiveProjectDir%: Replaces with the absolute path of the active project folder.
%ActiveProjectName%: Replaces with the active project name.
%BuildModeName%: Replaces with the build mode name.
%CompiledFile%: Replaces with the absolute path of the output file under compiling.
%InputFile%: Replaces with the absolute path of the file to be compiled (except in case of simultaneous building).
%MainProjectDir%: Replaces with the absolute path of the main project folder.
%MainProjectName%: Replaces with the main project name.
%MicomToolPath%: Replaces with the absolute path of the install folder of this product.
%OutputDir%: Replaces with the absolute path of the output folder.
%OutputFile%: Replaces with the absolute path of the output file.
%Program%: Replaces with the file name of the running program.
%ProjectDir%: Replaces with the absolute path of the project folder.
%ProjectName%: Replaces with the project name.
%TempDir%: Replaces with the absolute path of the temporary folder.
%WinDir%: Replaces with the absolute path of the Windows system folder.
When "#!python" is described in the first line, the contents from the second line to the last line are regarded as the script of the Python console, and then executed before compile processing.
The placeholders can be described in the script.
The specified command is displayed as the subproperty.</td></tr>
<tr><td></td><td>Default</td><td>Configuration of the compile option</td></tr>
<tr><td></td><td>How to change</td><td>Edit by the Text Edit dialog box which appears when clicking the [...] button.
For the subproperty, you can use the text box directly enter the text.</td></tr>
<tr><td></td><td>Restriction</td><td>Up to 1023 characters
Up to 64 items can be specified.</td></tr>
</table>

Commands executed after compile processing	Specifies the command to be executed after compile processing. Use the call instruction to specify a batch file (example: call a.bat). The following placeholders are supported. %ActiveProjectDir%: Replaces with the absolute path of the active project folder. %ActiveProjectName%: Replaces with the active project name. %BuildModeName%: Replaces with the build mode name. %CompiledFile%: Replaces with the absolute path of the output file under compiling. %InputFile%: Replaces with the absolute path of the file to be compiled (except in case of simultaneous building). %MainProjectDir%: Replaces with the absolute path of the main project folder. %MainProjectName%: Replaces with the main project name. %MicomToolPath%: Replaces with the absolute path of the install folder of this product. %OutputDir%: Replaces with the absolute path of the output folder. %OutputFile%: Replaces with the absolute path of the output file. %Program%: Replaces with the file name of the running program. %ProjectDir%: Replaces with the absolute path of the project folder. %ProjectName%: Replaces with the project name. %TempDir%: Replaces with the absolute path of the temporary folder. %WinDir%: Replaces with the absolute path of the Windows system folder. When "#!python" is described in the first line, the contents from the second line to the last line are regarded as the script of the Python console, and then executed after compile processing. The placeholders can be described in the script. The specified command is displayed as the subproperty.	
	Default	Configuration of the compile option
	How to change	Edit by the Text Edit dialog box which appears when clicking the [...] button. For the subproperty, you can use the text box directly enter the text.
	Restriction	Up to 1023 characters Up to 64 items can be specified.
Other additional options	Inputs the compile options to be added additionally. The options set here are added at the end of the compile options group. The following placeholders are supported. %ActiveProjectDir%: Replaces with the absolute path of the active project folder. %ActiveProjectName%: Replaces with the active project name. %BuildModeName%: Replaces with the build mode name. %MainProjectDir%: Replaces with the absolute path of the main project folder. %MainProjectName%: Replaces with the main project name. %MicomToolPath%: Replaces with the absolute path of the install folder of this product. %ProjectDir%: Replaces with the absolute path of the project folder. %ProjectName%: Replaces with the project name. %TempDir%: Replaces with the absolute path of the temporary folder. %WinDir%: Replaces with the absolute path of the Windows system folder.	
	Default	Configuration of the compile option
	How to change	Directly enter to the text box or edit by the Character String Input dialog box which appears when clicking the [...] button.
	Restriction	Up to 259 characters
Command line	The specified option is displayed.	
	Default	Configuration of the compile option
	How to change	Changes not allowed

[Individual Assemble Options] tab

This tab shows the detailed information on an assemble source file categorized by the following and the configuration can be changed.

Note that this tab takes over the settings of the [Common Options] tab and [Assemble Options] tab.

When the settings are changed from these tabs, the properties are displayed in boldface.

Remark This tab is displayed when [Yes] in the [Set individual assemble option] property in the [Build] category from the [Build Settings] tab is selected.

[Description of each category]

(1) [Source]

The detailed information on the source is displayed and the configuration can be changed.

Additional include paths	Specifies the name of the path to the folder that stores the include file. The following placeholders are supported. %ActiveProjectDir%: Replaces with the absolute path of the active project folder. %ActiveProjectName%: Replaces with the active project name. %BuildModeName%: Replaces with the build mode name. %MainProjectDir%: Replaces with the absolute path of the main project folder. %MainProjectName%: Replaces with the main project name. %MicomToolPath%: Replaces with the absolute path of the install folder of this product. %ProjectDir%: Replaces with the absolute path of the project folder. %ProjectName%: Replaces with the project name. %TempDir%: Replaces with the absolute path of the temporary folder. %WinDir%: Replaces with the absolute path of the Windows system folder. The reference point of the path is the project folder. This property corresponds to the -include option of the assembler. The specified include path is displayed as the subproperty.	
	Default	Additional include paths[*number of defined items*]
	How to change	Edit by the Path Edit dialog box which appears when clicking the [...] button. For the subproperty, you can use the text box directly enter the text.
	Restriction	Up to 247 characters Up to 65536 items can be specified.

<table>
<tr><td rowspan="4">Use whole include paths specified for build tool</td><td colspan="3">Selects whether to assemble using the include path specified in the [Additional include paths] property in the [Source] category from the [Assemble Options] tab of the build tool to be used.
The include paths are added by the following procedure.
- Paths specified in the [Additional include paths] property from this tab
- Paths specified in the [Additional include paths] in the [Source] category from the [Assemble Options] tab
This property corresponds to the -include option of the assembler.</td></tr>
<tr><td>Default</td><td colspan="2">Yes</td></tr>
<tr><td>How to change</td><td colspan="2">Select from the drop-down list.</td></tr>
<tr><td rowspan="2">Restriction</td><td>Yes</td><td>Assembles using the include path specified in the property of the build tool to be used.</td></tr>
<tr><td>No</td><td>Does not use the include path specified in the property of the build tool to be used.</td></tr>
<tr><td rowspan="4">Macro definition</td><td colspan="3">Specifies the macro name to be defined.
Specifies in the format of "macro name=string", with one macro name per line.
This property corresponds to the -define option of the assembler.
The specified macro is displayed as the subproperty.</td></tr>
<tr><td>Default</td><td colspan="2">Configuration of the assemble option</td></tr>
<tr><td>How to change</td><td colspan="2">Edit by the Text Edit dialog box which appears when clicking the [...] button.
For the subproperty, you can use the text box directly enter the text.</td></tr>
<tr><td>Restriction</td><td colspan="2">Up to 32767 characters
Up to 65536 items can be specified.</td></tr>
</table>

Character code of an input program	Selects character code of an input program. This property corresponds to the -euc, -sjis, -latin1, -big5, and -gb2312 option of the assembler. [Traditional Chinese character (-big5)] and [Simplified Chinese character (-gb2312)] are displayed when you have selected [Always latest version which was installed] or V2.00.00 or a later version for the [Using compiler package version] property under the [Version Select] category on the [Common Options] tab in an environment where V2.00.00 or a later version of the CC-RX compiler has been installed. [UTF-8 code (-utf8)] is displayed when you have selected [Always latest version which was installed] or V2.04.00 or a later version for the [Using compiler package version] property in an environment where V2.04.00 or a later version of the CC-RX compiler has been installed.		
	Default	Configuration of the assemble option	
	How to change	Select from the drop-down list.	
	Restriction	EUC code (-euc)	Handles the characters in strings, character constants, and comments by using EUC.
		SJIS code (-sjis)	Handles the characters in strings, character constants, and comments by using SJIS.
		ISO-Latin1 code (-latin1)	Handles the characters in strings, character constants, and comments by using ISO-Latin1.
		UTF-8 code (-utf8)	Handles the characters in strings, character constants, and comments by using UTF-8.
		Traditional Chinese character (-big5)	Handles the characters in strings, character constants, and comments by using Traditional Chinese character.
		Simplified Chinese character (-gb2312)	Handles the characters in strings, character constants, and comments by using Simplified Chinese character.

(2) [Object]
The detailed information on the object is displayed and the configuration can be changed.

Path of the output folder	Specifies the output destination folder for the output file. The following placeholders are supported. %BuildModeName%: Replaces with the build mode name. %ProjectName%: Replaces with the project name. %MicomToolPath%: Replaces with the absolute path of the product install folder. If this is blank, it is assumed that the project folder has been specified. This property corresponds to the -output option of the assembler. This property is displayed when [Always latest version which was installed] or a version number earlier than V2.00.00 is selected for the [Using compiler package version] property under the [Version Select] category on the [Common Options] tab in an environment where a version of the CC-RX compiler earlier than V2.00.00 has been installed.	
	Default	Configuration of the assemble option
	How to change	Directly enter in the text box or edit by the Browse For Folder dialog box which appears when clicking the [...] button.
	Restriction	Up to 247 characters

Object module file name	Specifies the name of the object module file generated after assembling. The extension other than ".obj" cannot be specified. If the extension is omitted, ".obj" is automatically added. If this is blank, the file name will be the source file name with the extension replaced by ".obj". This property corresponds to the -output option of the assembler. This property is displayed when you have selected [Always latest version which was installed] or V2.00.00 or a later version for the [Using compiler package version] property under the [Version Select] category on the [Common Options] tab in an environment where V2.00.00 or a later version of the CC-RX compiler has been installed.		
	Default	Configuration of the assemble option	
	How to change	Directly enter in the text box or edit by the Browse For Folder dialog box which appears when clicking the [...] button.	
	Restriction	Up to 259 characters	
Outputs debugging information	Selects whether to output debugging information to object module files. This property corresponds to the -debug and -nodebug options of the assembler.		
	Default	Configuration of the assemble option	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-debug)	Outputs debugging information to object module files.
		No (-nodebug)	Does not output debugging information to object module files.
Suppress outputting data to unused area made by .OFFSET	Selects whether to suppress outputting data to the unused area made by .OFFSET. This property corresponds to the -create_unfilled_area option of the assembler. This property is displayed when you have selected [Always latest version which was installed] or V2.03.00 or a later version for the [Using compiler package version] property under the [Version Select] category on the [Common Options] tab in an environment where V2.03.00 or a later version of the CC-RX compiler has been installed.		
	Default	Configuration of the assemble option	
	How to change	Select from the drop-down list.	
	Restriction	Yes(-create_unfilled_area)	Suppresses outputting data to the unused area made by .OFFSET.
		No	Does not suppress outputting data to the unused area made by .OFFSET.

(3) [List]
The detailed information on the list is displayed and the configuration can be changed.

Outputs an assemble list file	Selects whether to output an assemble list file. This property corresponds to the -listfile and -nolistfile option of the assembler.		
	Default	Configuration of the assemble option	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-listfile)	Outputs an assemble list file.
		No (-nolistfile)	Does not output an assemble list file.

Outputs the statements unsatisfied in conditional assembly	Specifies the contents of the assemble list file. Selects whether to output the statements unsatisfied in conditional assembly. This property corresponds to the -show option of the assembler. This property is displayed only when [Yes (-listfile)] in the [Output a assemble list file] property is selected.		
	Default	Configuration of the assemble option	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-show=conditionals)	Outputs the statements unsatisfied in conditional assembly.
		No	Does not output the statements unsatisfied in conditional assembly.
Outputs the information before .DEFINE replacement	Specifies the contents of the assemble list file. Selects whether to output the information before .DEFINE replacement. This property corresponds to the -show option of the assembler. This property is displayed only when [Yes (-listfile)] in the [Output a assemble list file] property is selected.		
	Default	Configuration of the assemble option	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-show=definitions)	Outputs the information before replacement specified with .DEFINE.
		No	Does not output the information before replacement specified with .DEFINE.
Outputs the assembler macro expansion statements	Specifies the contents of the assemble list file. Selects whether to output the assembler macro expansion statements. This property corresponds to the -show option of the assembler. This property is displayed only when [Yes (-listfile)] in the [Output a assemble list file] property is selected.		
	Default	Configuration of the assemble option	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-show=expansions)	Outputs the macro expansion statements.
		No	Does not output the macro expansion statements.

(4) [Optimization]
The detailed information on the optimization is displayed and the configuration can be changed.

Output additional information for inter-module optimization	Selects whether to output additional information for inter-module optimization. At linkage, inter-module optimization is applied to files for which this option has been specified. This property corresponds to the -goptimize option of the assembler.		
	Default	No	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-goptimize)	Outputs additional information for inter-module optimization.
		No	Does not output additional information for inter-module optimization.

(5) [Others]
Other detailed information on assembly is displayed and the configuration can be changed.

Checks for a privileged instruction	Selects whether to check for a privileged instruction. This property corresponds to the -chkpm option of the assembler.		
	Default	Configuration of the assemble option	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-chkpm)	Checks for a privileged instruction.
		No	Does not check for a privileged instruction.
Checks for a single-precision floating-point operation instruction	Selects whether to check for a single-precision floating-point operation instruction. This property corresponds to the -chkfpu option of the assembler.		
	Default	Configuration of the assemble option	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-chkfpu)	Checks for a single-precision floating-point operation instruction.
		No	Does not check for a single-precision floating-point operation instruction.
Checks for a double-precision floating-point operation instruction	Selects whether to check for a double-precision floating-point operation instruction. This property corresponds to the -chkdpfpu option of the assembler. This property is displayed when you have selected [Always latest version which was installed] or V3.01.00 or a later version for the [Using compiler package version] property under the [Version Select] category on the [Common Options] tab in an environment where V3.01.00 or a later version of the CC-RX compiler has been installed.		
	Default	Configuration of the assemble option	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-chkdpfpu)	Checks for a double-precision floating-point operation instruction.
		No	Does not check for a double-precision floating-point operation instruction.

Checks for a DSP instruction	Selects whether to check for a DSP instruction. This property corresponds to the -chkdsp option of the assembler.		
	Default	Configuration of the assemble option	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-chkdsp)	Checks for a DSP instruction.
		No	Does not check for a DSP instruction.
Outputs the copyright	Selects whether to output the copyright. This property corresponds to the -logo and -nologo option of the assembler.		
	Default	Configuration of the assemble option	
	How to change	Select from the drop-down list.	
	Restriction	Yes (-logo)	Outputs the copyright.
		No (-nologo)	Disables output of the copyright.
Commands executed before assemble processing	Specifies the command to be executed before assemble processing. Use the call instruction to specify a batch file (example: call a.bat). The following placeholders are supported. %ActiveProjectDir%: Replaces with the absolute path of the active project folder. %ActiveProjectName%: Replaces with the active project name. %AssembledFile%: Replaces with the absolute path of the output file under assembling. %BuildModeName%: Replaces with the build mode name. %InputFile%: Replaces with the absolute path of the file to be assembled (except in case of simultaneous building). %MainProjectDir%: Replaces with the absolute path of the main project folder. %MainProjectName%: Replaces with the main project name. %MicomToolPath%: Replaces with the absolute path of the install folder of this product. %OutputDir%: Replaces with the absolute path of the output folder. %OutputFile%: Replaces with the absolute path of the output file. %Program%: Replaces with the file name of the running program. %ProjectDir%: Replaces with the absolute path of the project folder. %ProjectName%: Replaces with the project name. %TempDir%: Replaces with the absolute path of the temporary folder. %WinDir%: Replaces with the absolute path of the Windows system folder. When "#!python" is described in the first line, the contents from the second line to the last line are regarded as the script of the Python console, and then executed before assemble processing. The placeholders can be described in the script. The specified command is displayed as the subproperty.		
	Default	Configuration of the assemble option	
	How to change	Edit by the Text Edit dialog box which appears when clicking the [...] button. For the subproperty, you can use the text box directly enter the text.	
	Restriction	Up to 1023 characters Up to 64 items can be specified.	

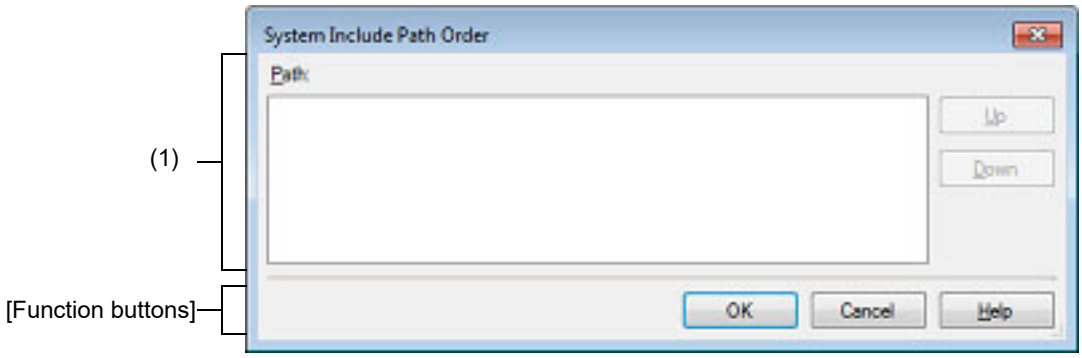
<table>
<tr><td>Commands executed after assemble processing</td><td colspan="2">Specifies the command to be executed after assemble processing.
Use the call instruction to specify a batch file (example: call a.bat).
The following placeholders are supported.
%ActiveProjectDir%: Replaces with the absolute path of the active project folder.
%ActiveProjectName%: Replaces with the active project name.
%AssembledFile%: Replaces with the absolute path of the output file under assembling.
%BuildModeName%: Replaces with the build mode name.
%InputFile%: Replaces with the absolute path of the file to be assembled (except in case of simultaneous building).
%MainProjectDir%: Replaces with the absolute path of the main project folder.
%MainProjectName%: Replaces with the main project name.
%MicomToolPath%: Replaces with the absolute path of the install folder of this product.
%OutputDir%: Replaces with the absolute path of the output folder.
%OutputFile%: Replaces with the absolute path of the output file.
%Program%: Replaces with the file name of the running program.
%ProjectDir%: Replaces with the absolute path of the project folder.
%ProjectName%: Replaces with the project name.
%TempDir%: Replaces with the absolute path of the temporary folder.
%WinDir%: Replaces with the absolute path of the Windows system folder.
When "#!python" is described in the first line, the contents from the second line to the last line are regarded as the script of the Python console, and then executed after assemble processing.
The placeholders can be described in the script.
The specified command is displayed as the subproperty.</td></tr>
<tr><td></td><td>Default</td><td>Configuration of the assemble option</td></tr>
<tr><td></td><td>How to change</td><td>Edit by the Text Edit dialog box which appears when clicking the [...] button.
For the subproperty, you can use the text box directly enter the text.</td></tr>
<tr><td></td><td>Restriction</td><td>Up to 1023 characters
Up to 64 items can be specified.</td></tr>
<tr><td>Other additional options</td><td colspan="2">Inputs the assemble options to be added additionally.
The options set here are added at the end of the assemble options group.
The following placeholders are supported.
%ActiveProjectDir%: Replaces with the absolute path of the active project folder.
%ActiveProjectName%: Replaces with the active project name.
%BuildModeName%: Replaces with the build mode name.
%MainProjectDir%: Replaces with the absolute path of the main project folder.
%MainProjectName%: Replaces with the main project name.
%MicomToolPath%: Replaces with the absolute path of the install folder of this product.
%ProjectDir%: Replaces with the absolute path of the project folder.
%ProjectName%: Replaces with the project name.
%TempDir%: Replaces with the absolute path of the temporary folder.
%WinDir%: Replaces with the absolute path of the Windows system folder.
Caution When [Yes] is selected on the [Build simultaneously] property in the [Build Method] category from the [Common Options] tab , only one option can be specified in this property.</td></tr>
<tr><td></td><td>Default</td><td>Configuration of the assemble option</td></tr>
<tr><td></td><td>How to change</td><td>Directly enter to the text box or edit by the Character String Input dialog box which appears when clicking the [...] button.</td></tr>
<tr><td></td><td>Restriction</td><td>Up to 259 characters</td></tr>
</table>

Command line	The specified option is displayed.	
	Default	Configuration of the assemble option
	How to change	Changes not allowed

System Include Path Order dialog box

This dialog box is used to refer the system include paths specified for the compiler and set their specified sequence.

Figure A.2 System Include Path Order Dialog Box



The following items are explained here.

- [How to open]
- [Description of each area]
- [Function buttons]

[How to open]

- On the Property panel, select the following properties, and then click the [...] button.
  - From the [Common Options] tab, [System include paths] in the [Frequently Used Options(for Compile)] category, and [System include paths] in the [Frequently Used Options(for Assemble)] category
  - From the [Compile Options] tab, [System include paths] in the [Preprocess] category
  - From the [Assemble Options] tab, [System include paths] in the [Preprocess] category

[Description of each area]

(1) Path list display area
This area displays the list of the system include paths specified for the compiler.

(a) [Path]
This area displays the list of the system include paths in the specified sequence for the compiler.
The default order is the order that the files are registered to the project.
By changing the display order of the paths, you can set the specified order of the paths to the compiler.
To change the display order, use the [Up] and [Down] buttons, or drag and drop the path names.

Remark 1. Move the mouse cursor over a file name to display a tooltip with the absolute path of that file.

Remark 2. Newly added system include paths are added next to the last path of the list.

Remark 3. When the path names are dragged and dropped, the multiple path names which are next to each other can be selected together.

(b) Button

Up	Moves the selected path to up.
Down	Moves the selected path to down.

Remark Note that above buttons are disabled when any path is not selected.

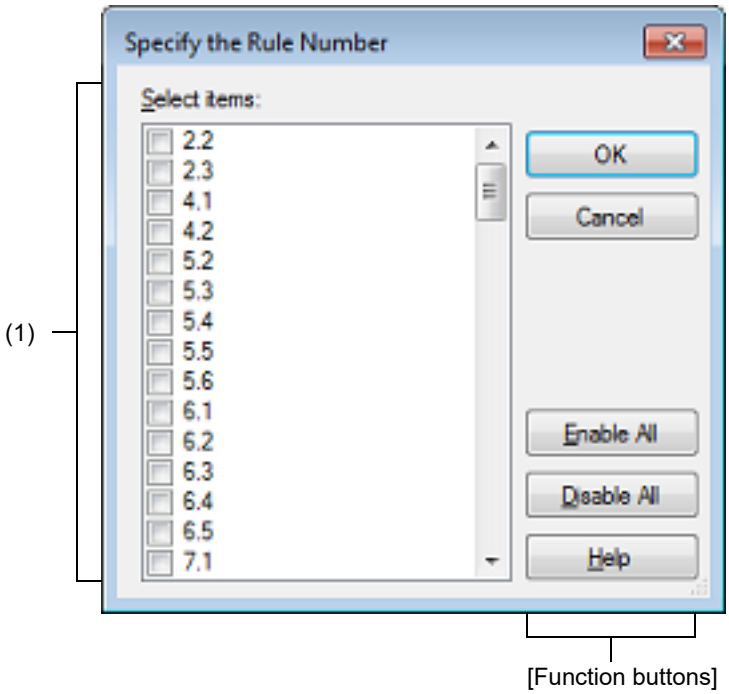
[Function buttons]

Button	Function
OK	Sets the specified order of the paths to the compiler as the display order in the Path list display area and closes this dialog box.
Cancel	Cancels the specified order of the paths and closes the dialog box.
Help	Displays the help of this dialog box.

Specify Rule Number dialog box

This dialog box is used to select the number of the MISRA-C rule and set it to the area that this dialog box is called from.

Figure A.3 Specify Rule Number Dialog Box



The following items are explained here.

- [How to open]
- [Description of each area]
- [Function buttons]

[How to open]

- On the Property panel, select the following properties, and then click the [...] button.
  - From the [Compile Options] tab, [Rule number], [Exclusion rule number], [Check rule number besides required rule], [Exclusion rule number from required rule] in the [MISRA-C Rule Check] category
  - From the [Individual Compile Options(C)] tab, [Rule number], [Exclusion rule number], [Check rule number besides required rule] [Exclusion rule number from required rule] in the [MISRA-C Rule Check] category

[Description of each area]

(1) [Select items]
The list of the MISRA-C rule numbers which can be specified for the area that this dialog box is called from is displayed (ascending order).
Select the check boxes to set the rule number.

Remark In the area that this dialog box is called from, if a rule number is already set, the check box for that rule number will be selected by default.

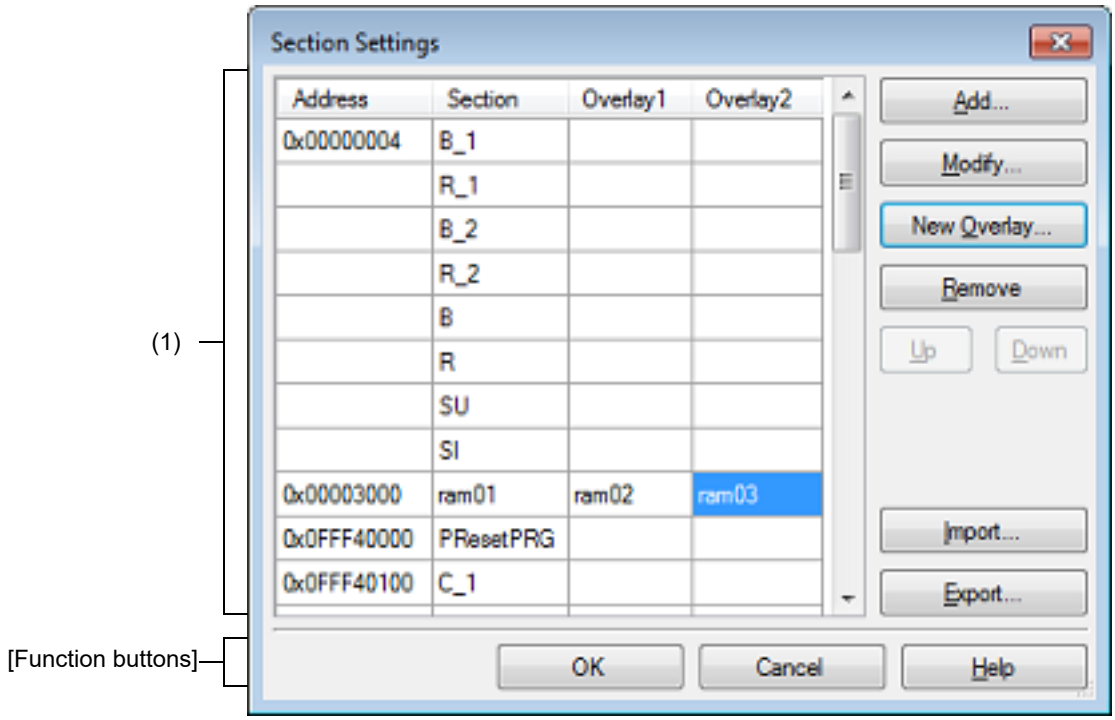
[Function buttons]

Button	Function
OK	Closes this dialog box and sets the selected rule number to the area that this dialog box is called from.
Cancel	Cancels the rule number selecting and closes the dialog box.
Enable All	Selects all the check boxes in [Select items].
Disable All	Clears all the check boxes in [Select items].
Help	Displays the help of this dialog box.

Section Settings dialog box

This dialog box is used to add, modify, or delete sections.

Figure A.4 Section Settings Dialog Box



The following items are explained here.

- [How to open]
- [Description of each area]
- [Function buttons]

[How to open]

- On the Property panel, select the following property, and then click the [...] button.
  - From the [Common Options] tab, [Section start address] in the [Frequently Used Options(for Link)] category
  - From the [Link Options] tab, [Section start address] in the [Section] category

[Description of each area]

(1) Address-section area
This area displays the list of currently configured section allocations.

(a) [Address]
This area displays the start addresses of the sections.

(b) [Section]
This area displays the names of the sections.

(c) [Overlay*n*]
This area displays the names of the sections to be overlaid (*n*: number starting with "1").

(d) Button

Add...	- When selecting an address in this area Opens the Section Address dialog box. Adds the address specified in the dialog box to this area so that the addresses are listed in the ascending order (the section column remains empty). - When selecting a section in this area Opens the Add Section dialog box. Adds the section specified in the dialog box to this area. When there is no empty column in the section group (an address and the sections allocated to the address) where the specified section is to be included, a new section row is added to the bottom of the section group. When there is an empty column, the section is added there.
Modify...	- When selecting an address in this area Opens the Section Address dialog box. Moves the section group according to the address specified in the dialog box so that the addresses are listed in the ascending order in this area. - When selecting a section in this area Opens the Modify Section dialog box. Replaces the section name selected in this area with the one specified in the dialog box. Note that this button is disabled when the selected sell is blank.
New Overlay...	Opens the Add Overlay dialog box. Adds the [Overlay*n*] column in this area and sets the section specified in the dialog box in the column that corresponds to the selected section group.
Remove	- When selecting an address in this area Opens the Unassigned Section dialog box. Deletes the section selected in the dialog box from this area. If no sections are left in the section group, the section group itself is deleted. - When selecting a section in this area Deletes the selected section from this area. If no sections are left in the section group, the section group itself is deleted. If no section names are left in the [Overlay*n*] column, the column itself is deleted. Note that this button is disabled when the selected sell is blank.
Up	Moves up the selected section. However, if the column above the selected section is blank, no move can be made. Input in advance a section name to the above column. Note that this button is disabled when an address is selected or a blank section column is selected.
Down	Moves down the selected section. However, if the column below the selected section is blank, no move can be made. Input in advance a section name to the column below. Note that this button is disabled when an address is selected or a blank section column is selected.
Import...	Opens the Select Import File dialog box. Acquires the section settings from the file specified in the dialog box and updates this area to reflect the acquired settings.
Export...	Opens the Select Export File dialog box. Outputs the contents of this area to the file specified in the dialog box.

[Function buttons]

Button	Function
OK	Reflects the specified section to the text box that opened this dialog box and closes this dialog box.
Cancel	Cancels the settings and closes this dialog box.
Help	Displays the help of this dialog box.

Add Section dialog box
Modify Section dialog box
Add Overlay dialog box

These dialog boxes are used to set a section name when adding, modifying, or overlaying a section, respectively.

Figure A.5 Add Section Dialog Box

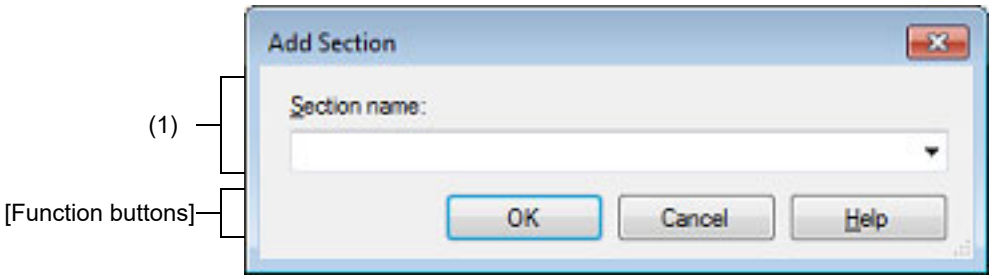


Figure A.6 Modify Section Dialog Box

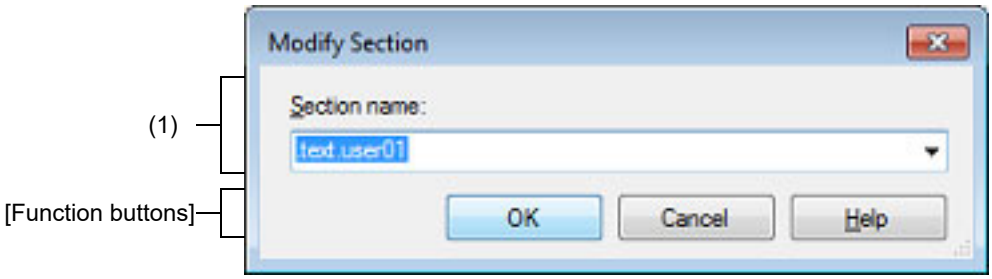
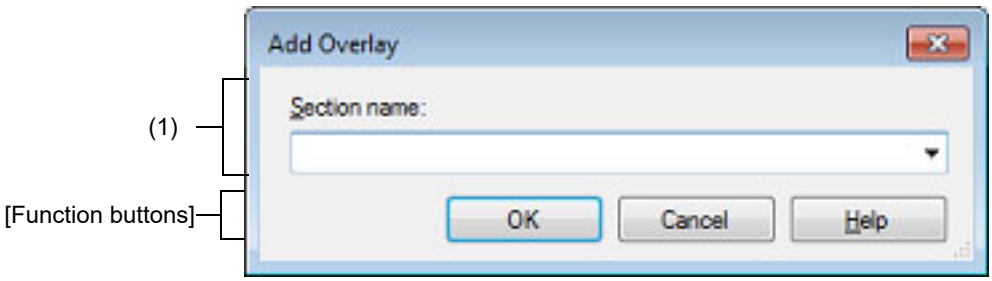


Figure A.7 Add Overlay Dialog Box



The following items are explained here.

- [How to open]
- [Description of each area]
- [Function buttons]

[How to open]

- Add Section dialog box
  - On the Section Settings dialog box, select a section in the address-section area, and then click the [Add...] button.
- Modify Section dialog box
  - On the Section Settings dialog box, select a section in the address-section area, and then click the [Modify...] button.
- Add Overlay dialog box
  - On the Section Settings dialog box, click the [New Overlay...] button.

[Description of each area]

(1) [Section name]
Specify the section name.
Directly enter the section name in the text box or select from the drop-down list.
The following characters can be used only: A-Z, a-z, 0-9, @, _, *, dot(.).
Wildcard characters (*) can also be used.
Note that numeric characters (0 to 9) and dot(.) cannot be used at the beginning of a section name.
The following reserved sections are set in the drop-down list.
.bss, .const, .data, .text

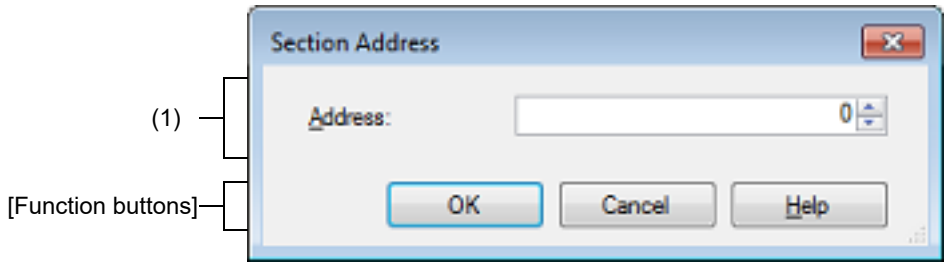
[Function buttons]

Button	Function
OK	- Add Section dialog box Closes this dialog box and adds the specified section to the address-section area in the Section Settings dialog box. When there is no empty column in the section group (an address and the sections allocated to the address) where the specified section is to be included, a new section row is added to the bottom of the section group. When there is an empty column, the section is added there. - Modify Section dialog box Closes this dialog box and replaces the section name selected in the address-section area in the Section Settings dialog box with the one specified. - Add Overlay dialog box Closes this dialog box and adds the [Overlay*n*] column (*n*: number starting with "1") to the address-section area in the Section Settings dialog box. Sets the specified section in the column that corresponds to the selected section group.
Cancel	Cancels the settings and closes this dialog box.
Help	Displays the help of this dialog box.

Section Address dialog box

This dialog box is used to set an address when adding or modifying a section.

Figure A.8 Section Address Dialog Box



The following items are explained here.

- [How to open]
- [Description of each area]
- [Function buttons]

[How to open]

- On the Section Settings dialog box, select an address in the address-section area, and then click the [Add...] or [Modify...] button.

[Description of each area]

(1) [Address]
Specify the start address of the section.
Directly enter the address in the text box or select from the button.
The range that can be specified for the value is 0 to FFFFFFFF (hexadecimal number) (default: 0).

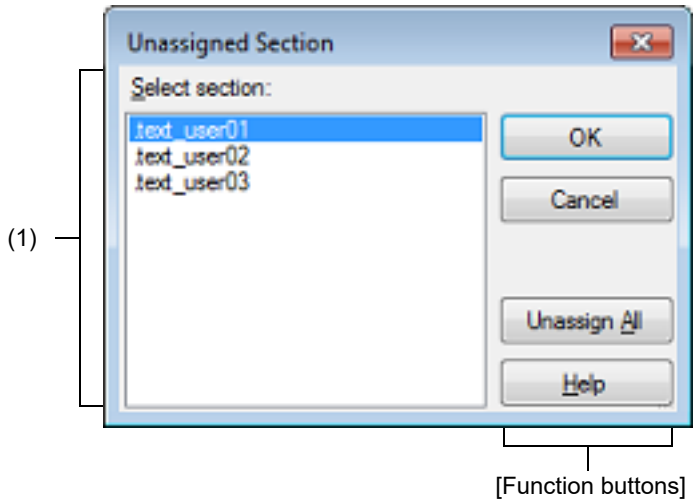
[Function buttons]

Button	Function
OK	- When opening from the [Add...] button in the Section Settings dialog box Closes this dialog box and adds the specified address to an appropriate location in the address-section area in the Section Settings dialog box (the section column remains empty). - When opening from the [Modify...] button in the Section Settings dialog box Closes this dialog box and moves the section group (an address and the sections allocated to the address) to an appropriate location in the address-section area in the Section Settings dialog box.
Cancel	Cancels the settings and closes this dialog box.
Help	Displays the help of this dialog box.

Unassigned Section dialog box

This dialog box is used to delete sections.

Figure A.9 Unassigned Section Dialog Box



The following items are explained here.

- [How to open]
- [Description of each area]
- [Function buttons]

[How to open]

- On the Section Settings dialog box, select an address in the address-section area, and then click the [Remove] button.

[Description of each area]

(1) [Select sections]
This area displays the name of all sections allocated to the address selected in the Section Settings dialog box.
Select sections to be deleted by clicking their names.
You can select multiple sections by left clicking while holding down the [Ctrl] or [Shift] key.

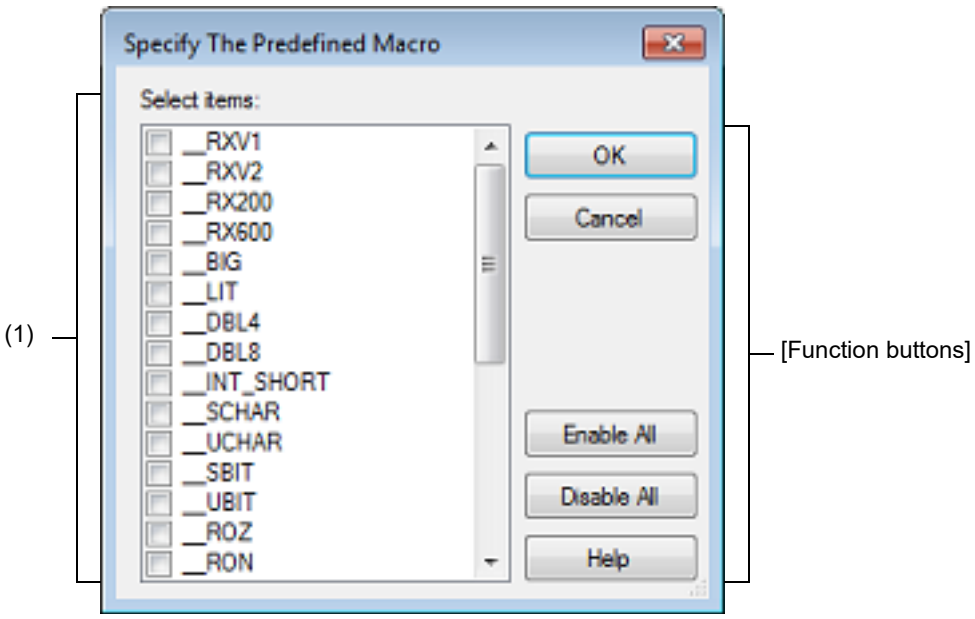
[Function buttons]

Button	Function
OK	Closes this dialog box and deletes the selected section from the address-section area in the Section Settings dialog box. Deletes the section group when the section group (an address and the sections allocated to the address) includes no section. If no sections are left in the [Overlay*n*] column in the address-section area, the column itself is deleted.
Cancel	Cancels the settings and closes this dialog box.
Unassign All	Closes this dialog box and deletes all the sections (the section group selected in the address-section area in the Section Settings dialog box).
Help	Displays the help of this dialog box.

Specify The Predefined Macro dialog box

This dialog box is used to select the predefined macros to disable and set it to the area that this dialog box is called from.

Figure A.10 Specify The Predefined Macro Dialog Box



The following items are explained here.

- [How to open]
- [Description of each area]
- [Function buttons]

[How to open]

- On the Property panel, select the following properties, and then click the [...] button.
  - From the [Compile Options] tab, [Invalidates the predefined macro] in the [Source] category.
  - From the [Individual Compile Options(C)] tab, [Invalidates the predefined macro] in the [Source] category.
  - From the [Individual Compile Options(C++)] tab, [Invalidates the predefined macro] in the [Source] category.

[Description of each area]

(1) [Select items]
The list of the predefined macros which can be disabled for the area that this dialog box is called from is displayed.
Select the predefined macros to disable to set to the area that opened this dialog box, via check boxes.

Remark In the area that opened this dialog box, if a predefined macros to disable is already set, the check box for that macro will be selected by default.

[Function buttons]

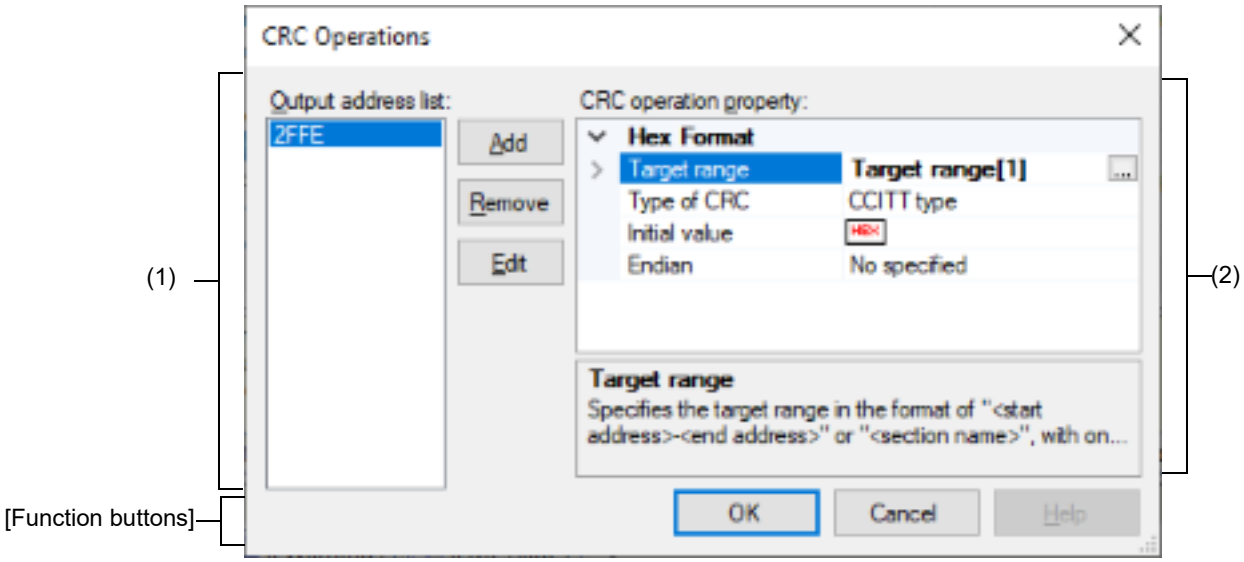
Button	Function
OK	Closes this dialog box and specifies the selected macros to the area that opened this dialog box.
Cancel	Cancels the macros selecting and closes the dialog box.

Button	Function
Enable All	Select all the macros in [Select items].
Disable All	Deselect all the macros in [Select items].
Help	Displays the help of this dialog box.

CRC Operations dialog box

This dialog box is used to set the CRC operation.

Figure A.11 CRC Operations Dialog Box



The following items are explained here.

- [How to open]
- [Description of each area]
- [Function Buttons]

[How to open]

- On the Property panel, select the following property, and then click the [...] button.
  - From the [Hex Output Options] tab, [CRC Operations] in the [CRC Operation] category

[Description of each area]

(1) Output address list area

(a) Output address list
A list of output addresses is displayed.
The output address is a key for recognizing multiple CRC operation settings.

(b) Button

Add	Opens the Character String Input dialog box. The address specified in the dialog box is appended to the end of a list of output addresses. The address is entered as a hexadecimal value from 0 to FFFFFFFE.
Remove	Deletes the selected output address from the list.
Edit	Opens the Character String Input dialog box to change the output address selected in the list. The address is entered as a hexadecimal value from 0 to FFFFFFFE.

(2) [CRC operation property] area

Displays and sets the properties of the CRC operation for the output address selected in the Output address list area.

(a) [CRC Operations]

The detailed information on CRC operation is displayed and the configuration can be changed.

Target range	Specifies the target range. Specifies in the format of "*start address-end address*" or "*section name*". Specifies an address in the hexadecimal notation (example: 400-ffff). The range of specifiable address values is 0 to FFFFFFFF This property corresponds to the -crc option of the linker.	
	Default	Target range[*number of defined items*]
	How to change	Directly enter in the text box or edit by the Character String Input dialog box which appears when clicking the [...] button.
	Restriction	Up to 32767 characters Up to 65536 items can be specified.

Type of CRC	Selects the method of CRC operation. See the user's manual of the device and "CC-RX Compiler User's Manual" for details about each operation. This property corresponds to the -CRc option of the linker.		
	Default	CCITT type	
	How to change	Select from the drop-down list.	
	Restriction	CCITT type	Outputs the calculation result of CRC-16-CCITT-MSB first operation with an initial value of 0xffff and inverse of XOR.
		16	Outputs the calculation result of CRC-16-LSB first operation.
		CRC-CCITT(MSB) type	Outputs the calculation result of CRC-16-CCITT-MSB first operation.
		CRC-CCITT(MSB,LITTLE,4 bytes) type	Outputs the calculation result of CRC-16-CCITT-MSB first operation with the input specified as 4-byte units in little-endian mode.
		CRC-CCITT(MSB,LITTLE,2 bytes) type	Outputs the calculation result of CRC-16-CCITT-MSB first operation with the input specified as 2-byte units in little-endian mode.
		CRC-CCITT(LSB) type	Outputs the calculation result of CRC-16-CCITT-LSB first operation.
		SENT(MSB) type	Outputs the calculation result of operation conforming to SENT.
		32-ETHERNET type	Outputs the calculation result of CRC-32-ETHERNET operation.
Initial value	Specifies the initial value for the CRC operation in the format of "*initial value*". This property corresponds to the -CRc option of the linker.		
	Default	Blank	
	How to change	Directly enter to the text box.	
	Restriction	- When other than [32-ETHERNET type] is selected in the [Type of CRC] property 0 to FFFF (hexadecimal number) - When [32-ETHERNET type] is selected in the [Type of CRC] property 0 to FFFFFFFF (hexadecimal number)	

Endian	Selects the endian for CRC output. This property corresponds to the -CRc option of the linker.		
	Default	Not specify	
	How to change	Select from the drop-down list.	
	Restriction	Not specify	Does not specify the endian. Depends on the endian type of the input object.
		Little endian	Outputs the value in little-endian mode.
		Big endian	Outputs the value in big-endian mode.
Output size	Specifies the output size for the CRC code. This property corresponds to the -CRc option of the linker.		
	Default	Blank	
	How to change	Directly enter to the text box.	
	Restriction	2, 4, or blank	

[Function Buttons]

Button	Function
OK	Reflects the settings to the property that opened this dialog box and closes this dialog box.
Cancel	Cancels the settings and closes this dialog box.
Help	Displays the help of this dialog box.

Revision Record

Rev.	Date	Description	
		Page	Summary
1.00	Aug 01, 2015	-	First Edition issued
1.01	Mar 01, 2016	41	"Figure 2.66 Property Panel: [Library Generate Options] Tab" is replaced.
		87	The description of the [Character code of an input program] property in "(1) [Source]" is amended.
		92	The description of the [Character code of an output assembly-language file] property in "(2) [Object]" is amended.
		93	The following expressions are changed in "(3) [Quality Improvement]". stack overflow -> stack smashing -Xstack_protector -> -stack_protector -Xstack_protector_all -> -stack_protector_all
		121	The description of the [Enables information-level message output] property in "(2) [Output]" is amended. The followings are deleted from Restriction. Yes (Notify unused symbol) (-Message -MSg_unused)
		122	The following property is added under the [Enables information-level message output] property in "(2) [Output]". Notification of unreferenced symbol
		134	The name of the [Unreferenced symbol that disables deletion by optimization] property in "(5) [Optimization]" is amended. Unreferenced symbol that disables deletion by optimization -> Symbols excluded from optimization of unreferenced symbol deletion
		159	The description of the following Restriction values of the [Output file type] property in "(2) [Output]" is amended. User library file (-FOrm=Library=U) System library file (-FOrm=Library=S)
		160	The description of the [Enables information-level message output] property in "(2) [Output]" is amended. The followings are deleted from Restriction. Yes (Notify unused symbol) (-Message -MSg_unused)
		167	"Figure A.8 Property Panel: [Library Generate Options] Tab" is replaced.
		174	The following property is added under the [Creates the reentrant library] property in "(3) [Object]". Check memory smashing on releasing memory
		196	The description of the [Character code of an input program] property in "(1) [Source]" is amended.
		201	The description of the [Character code of an output assembly-language file] property in "(2) [Object]" is amended.
		202	The following expressions are changed in "(3) [Quality Improvement]". stack overflow -> stack smashing -Xstack_protector -> -stack_protector -Xstack_protector_all -> -stack_protector_all
		223	The description of the [Character code of an input program] property in "(1) [Source]" is amended.
		228	The description of the [Character code of an output assembly-language file] property in "(2) [Object]" is amended.

Rev.	Date	Description	
		Page	Summary
		229	The following expressions are changed in "(3) [Quality Improvement]". stack overflow -> stack smashing -Xstack_protector -> -stack_protector -Xstack_protector_all -> -stack_protector_all
1.02	Dec 01, 2016	103	The description of the [Apply rule] property in "(7) [MISRA-C Rule Check]" is amended.
		104-105	The descriptions of the following properties in "(7) [MISRA-C Rule Check]" are amended. Rule number description file Rule number Exclusion rule number Check rule number besides required rule Exclusion rule number from required rule
		151	The description of the [Type of CRC] property in "(2) [Hex Format]" is amended.
		151	The order of Restriction values of the [Type of CRC] property in "(2) [Hex Format]" is changed.
		213	The description of the [Apply rule] property in "(7) [MISRA-C Rule Check]" is amended.
		214-215	The descriptions of the following properties in "(7) [MISRA-C Rule Check]" are amended. Rule number description file Rule number Exclusion rule number Check rule number besides required rule Exclusion rule number from required rule
1.03	Jun 01, 2017	11	"Figure 2.4 [Hex file format] Property" is replaced.
		15	"Figure 2.16 [Outputs the linkage list file] Property" is replaced.
		17	"Figure 2.19 Property Panel: [Compile Options] Tab" is replaced.
		24	"Figure 2.35 Property Panel: [Link Options] Tab" is replaced.
		35	"Figure 2.56 Property Panel: [Hex Output Options] Tab" is replaced.
		36	"Figure 2.58 [Hex file format] Property" is replaced.
		37, 38	The following figures are replaced. Figure 2.62 [Fill unused areas in the output ranges with the value] Property Figure 2.63 [Fill unused areas in the output ranges with the value] and [Output padding data] Property
		81	"Figure A.3 Property Panel: [Compile Options] Tab" is replaced.
		91	The following property is added to "(2) [Object]". Align fetch address of string manipulation instructions
		104-105	The descriptions of the following properties in "(7) [MISRA-C Rule Check]" are amended. Rule number description file Rule number Exclusion rule number Check rule number besides required rule Exclusion rule number from required rule
		117	"Figure A.5 Property Panel: [Link Options] Tab" is replaced.

Rev.	Date	Description	
		Page	Summary
		133	The following property is added to "(4) [List]". Outputs relocation attributes related to sections
		145	"Figure A.6 Property Panel: [Hex Output Options] Tab" is replaced.
		154	The following property is added to "(2) [Hex Format]". Specify end record
		204	The following property is added to "(2) [Object]". Align fetch address of string manipulation instructions
		217-218	The descriptions of the following properties in "(7) [MISRA-C Rule Check]" are amended. Rule number description file Rule number Exclusion rule number Check rule number besides required rule Exclusion rule number from required rule
		233	The following property is added to "(2) [Object]". Align fetch address of string manipulation instructions
1.04	Nov 01, 2017	15	"Figure 2.16 [Outputs the linkage list file] Property" is replaced.
		16	The following items in "(1) For the load module file" are added. (f) When outputting relocation attributes related to sections (g) When outputting the function list of CFI check
		17	"Figure 2.19 Property Panel: [Compile Options] Tab" is replaced.
		24	"Figure 2.35 Property Panel: [Link Options] Tab" is replaced.
		35	"Figure 2.56 Property Panel: [Hex Output Options] Tab" is replaced.
		36	In "2.7.2 Fill the vacant area", a sentence at the beginning is amended.
		45, 46	The following figures are replaced. Figure 2.71 Property Panel: [Individual Compile Options(C)] Tab Figure 2.74 Property Panel: [Individual Compile Options(C++)] Tab
		81	"Figure A.3 Property Panel: [Compile Options] Tab" is replaced. Remark is amended.
		84	The following property is added to "(1) [Source]". Undisplayed warning message
		93	The following properties are added to "(2) [Object]". Use NOP instruction insertion for measuring current consumption Parameters of NOP instruction insertion for measuring current consumption
		96	The following property is added to "(3) [Quality Improvement]". Detect invalid indirect function call
		120	"Figure A.5 Property Panel: [Link Options] Tab" is replaced. Remark is amended.
		127-128	The following properties are added to "(2) [Output]". Generate function list used for detecting invalid indirect function call Additional function symbols or addresses to function list Excluded modules from function list
		137	The following property is added to "(4) [List]". Output function list for detecting invalid indirect function call

Rev.	Date	Description	
		Page	Summary
		143-144	The names and descriptions of the following properties in "(8) [Others]" are amended. Changes the warning-level messages to information-level messages -> Changes the warning-level and error-level messages to information-level messages Error number of warning-level message -> Error number of warning-level and error-level message Changes the information-level messages to warning-level messages -> Changes the information-level and error-level messages to warning-level messages Error number of information-level message -> Error number of information-level and error-level message
		149	"Figure A.6 Property Panel: [Hex Output Options] Tab" is replaced. Remark is amended.
		151	A caution is added to the description of the [Division output file] property in "(1) [Output File]".
		153	The following properties are added to "(2) [Hex Format]". Output hex file with fixed record length from aligned start address Alignment of start address
		154	The display condition is amended in the description of the [Specify byte count for data record] property in "(2) [Hex Format]".
		154	The default of the following property in "(2) [Hex Format]" is amended. Maximum byte count for data record
		161-162	The names and descriptions of the following properties in "(3) [Others]" are amended. Changes the warning-level messages to information-level messages -> Changes the warning-level and error-level messages to information-level messages Error number of warning-level message -> Error number of warning-level and error-level message Changes the information-level messages to warning-level messages -> Changes the information-level and error-level messages to warning-level messages Error number of information-level message -> Error number of information-level and error-level message

Rev.	Date	Description	
		Page	Summary
		171-172	The names and descriptions of the following properties in "(4) [Others]" are amended. Changes the warning-level messages to information-level messages -> Changes the warning-level and error-level messages to information-level messages Error number of warning-level message -> Error number of warning-level and error-level message Changes the information-level messages to warning-level messages -> Changes the information-level and error-level messages to warning-level messages Error number of information-level message -> Error number of information-level and error-level message
		198	"Figure A.14 Property Panel: [Individual Compile Options(C)] Tab" is replaced. Remark is added.
		201	The following property is added to "(1) [Source]". Undisplayed warning message
		212	The following property is added to "(3) [Quality Improvement]". Detect invalid indirect function call
		228	"Figure A.15 Property Panel: [Individual Compile Options(C++)] Tab" is replaced. Remark is added.
		231	The following property is added to "(1) [Source]". Undisplayed warning message
		242	The following property is added to "(3) [Quality Improvement]". Detect invalid indirect function call
1.05	Jun 01, 2018	11	"Figure 2.4 [Hex file format] Property" is replaced.
		13	"Figure 2.8 [Output file name] Property (For Hex File)" is replaced.
		13	"Figure 2.9 [Output file name] Property (For S Record File)" is replaced.
		15	"Figure 2.16 [Outputs the linkage list file] Property" is replaced.
		16	The name of the following property in "(g) When outputting a list of functions that are safe in terms of the detection of illegal invalid function calls" is amended. - [Output function list for detecting invalid indirect function call] property -> - [Outputs function list for detecting illegal indirect function call] property
		18	"Figure 2.19 Property Panel: [Compile Options] Tab" is replaced.
		25	"Figure 2.35 Property Panel: [Link Options] Tab" is replaced.
		36	"Figure 2.56 Property Panel: [Hex Output Options] Tab" is replaced.
		36, 37	The following figures are replaced. Figure 2.57 [Output hex file] Property Figure 2.58 [Hex file format] Property
		46, 47	The following figures are replaced. Figure 2.71 Property Panel: [Individual Compile Options(C)] Tab Figure 2.74 Property Panel: [Individual Compile Options(C++)] Tab

Rev.	Date	Description	
		Page	Summary
		56	The following is added to Restriction of the [Instruction-set architecture] property in "(2) [CPU]". RXv3 architecture(-isa=rxv3)
		82	"Figure A.3 Property Panel: [Compile Options] Tab" is replaced. Remark is amended.
		85	The names and descriptions of the following property in "(1) [Source]" are amended. Undisplayed warning message -> Undisplayed messages
		97	The name of the following property in "(3) Quality Improvement" is amended. Detect invalid indirect function call -> Detect illegal indirect function call
		111-112	The description of the "%InputFile%" placeholder is amended in the description of the following properties in "(8) [Others]". Commands executed before compile processing Commands executed after compile processing
		112	The placeholders are added in the description of the [Other additional options] property in "(8) [Others]".
		119-120	The description of the "%InputFile%" placeholder is amended in the description of the following properties in "(5) [Others]". Commands executed before assemble processing Commands executed after assemble processing
		120	The placeholders are added in the description of the [Other additional options] property in "(5) [Others]".
		120	"Figure A.5 Property Panel: [Link Options] Tab" is replaced. Remark is amended.
		128	The name of the following property in "(2) [Output]" is amended. Generate function list used for detecting invalid indirect function call -> Generate function list used for detecting illegal indirect function call
		129	The description of the specification format is amended in the description of the [Excluded modules from function list] property in "(2) [Output]".
		130	The following property is added to "(2) [Output]". Split vector table sections
		139	The name of the following property in "(4) [List]" is amended. Output function list for detecting invalid indirect function call -> Outputs function list for detecting illegal indirect function call
		149	The placeholders are added in the description of the [Other additional options] property in "(8) [Others]".
		151	"Figure A.6 Property Panel: [Hex Output Options] Tab" is replaced. Remark is amended.
		152	The following property is added to "(1) [Output File]". Load address
		153	The description of the specification format is amended in the description of the [Division output file] property in "(1) [Output File]".
		157	The display condition is amended in the description of the [Outputs the calculation result of CRC] property in "(2) [Hex Format]".
		165	The placeholders are added in the description of the [Other additional options] property in "(3) [Others]".

Rev.	Date	Description	
		Page	Summary
		176	The placeholders are added in the description of the [Other additional options] property in "(4) [Others]".
		196	The placeholders are added in the description of the [Other additional options] property in "(5) [Others]".
		201	"Figure A.14 Property Panel: [Individual Compile Options(C)] Tab" is replaced. Remark is added.
		204	The names and descriptions of the following property in "(1) [Source]" are amended. Undisplayed warning message -> Undisplayed messages
		215	The name of the following property in "(3) Quality Improvement" is amended. Detect invalid indirect function call -> Detect illegal indirect function call
		229-230	The description of the "%InputFile%" placeholder is amended in the description of the following properties in "(8) [Others]". Commands executed before compile processing Commands executed after compile processing
		230	The placeholders are added in the description of the [Other additional options] property in "(8) [Others]".
		231	"Figure A.15 Property Panel: [Individual Compile Options(C++)] Tab" is replaced. Remark is added.
		234	The names and descriptions of the following property in "(1) [Source]" are amended. Undisplayed warning message -> Undisplayed messages
		245	The name of the following property in "(3) Quality Improvement" is amended. Detect invalid indirect function call -> Detect illegal indirect function call
		255-256	The description of the "%InputFile%" placeholder is amended in the description of the following properties in "(7) [Others]". Commands executed before compile processing Commands executed after compile processing
		256	The placeholders are added in the description of the [Other additional options] property in "(7) [Others]".
		263-264	The description of the "%InputFile%" placeholder is amended in the description of the following properties in "(5) [Others]". Commands executed before assemble processing Commands executed after assemble processing
		264	The placeholders are added in the description of the [Other additional options] property in "(5) [Others]".
1.06	Nov 01, 2018	7	A caution is added to "(7) Run a build" in "2.1.1 Create a load module".
		8	A caution is added to "(6) Run a build" in "2.1.2 Create a user library".
		11	"Figure 2.4 [Hex file format] Property" is replaced.
		13	"Figure 2.9 [Output file name] Property (For S Record File)" is replaced.
		18	"Figure 2.19 Property Panel: [Compile Options] Tab" is deleted.
		21	"Figure 2.28 Property Panel: [Assemble Options] Tab" is deleted.
		24	"Figure 2.35 Property Panel: [Link Options] Tab" is deleted.

Rev.	Date	Description	
		Page	Summary
		34	"Figure 2.56 Property Panel: [Hex Output Options] Tab" is deleted.
		35	"Figure 2.54 [Hex file format] Property" is replaced.
		36, 37	The following figures are replaced. Figure 2.58 [Fill unused areas in the output ranges with the value] Property Figure 2.59 [Fill unused areas in the output ranges with the value] and [Output padding data] Property
		38	"Figure 2.64 Property Panel: [Librarian Options] Tab" is deleted.
		39	"Figure 2.66 Property Panel: [Library Generate Options] Tab" is deleted.
		42-43	The following figures are deleted. Figure 2.71 Property Panel: [Individual Compile Options(C)] Tab Figure 2.74 Property Panel: [Individual Compile Options(C++)] Tab Figure 2.77 Property Panel: [Individual Assemble Options] Tab
		49	"Figure A.2 Property Panel: [Common options] Tab" is deleted.
		51	The names and descriptions of the following property in "(2) [CPU]" are amended. Uses floating-point operation instructions -> Uses single-precision floating-point operation instructions
		51	The following property is added to "(2) [Output]". Uses double-precision floating-point operation instructions
		77	"Figure A.3 Property Panel: [Compile Options] Tab" is deleted.
		88	The description of the [Generates divisions and residues with DIV, DIVU, and the FDIV instruction] property in "(2) [Object]", and the description of Restriction are amended.
		90	The default and Restriction of the [Detect stack smashing] property in "(3) [Quality Improvement]" are amended. No(None) -> No(No option specified)
		96	The name of the following property in "(5) [Optimization]" is amended. Expansion method of the library function -> Execution method of library function that can be expanded to RX instructions In accordance with the above changes, the description of the property and the description of Restriction are amended.
		100	The following sentence is deleted from the description of the [Output assembly source file] property in "(6) [Output File]".
		104	The following property is added to "(7) [MISRA-C Rule Check]". Enables checking that spans files
		107	"Figure A.4 Property Panel: [Assemble Options] Tab" is deleted.
		111	The name of the following property in "(5) [Others]" is amended. Checks for a floatingpoint operation instruction -> Checks for a single-precision floating-point operation instruction
		111	The following property is added to "(5) [Others]". Checks for a double-precision floating-point operation instruction
		114	"Figure A.5 Property Panel: [Link Options] Tab" is deleted.
		128	The Restriction of the [Output address] property in "(3) [Convert Load Module File]" is amended. 0 to FFFFFFFF (hexadecimal number) -> 0 to FFFFFFFE (hexadecimal number)

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		Page	Summary
		143	"Figure A.6 Property Panel: [Hex Output Options] Tab" is deleted.
		150	The Restriction of the [Output address] property in "(2) [Hex Format]" is amended. 0 to FFFFFFFF (hexadecimal number) -> 0 to FFFFFFFE (hexadecimal number)
		152	The default of the [Endian] property in "(2) [Hex Format]" is amended. Little endian -> Not specify
		152	The Restriction of the [Endian] property in "(2) [Hex Format]" is amended. Not specify(None) -> Not specify
		153	The default and Restriction of the [Specify end record] property in "(2) [Hex Format]" are amended. Not specify(None) -> Not specify(No option specified)
		158	"Figure A.7 Property Panel: [Librarian Options] Tab" is deleted.
		169	"Figure A.8 Property Panel: [Library Generate Options] Tab" is deleted.
		184	The name of the following property in "(5) [Optimization]" is amended. Expansion method of the library function -> Execution method of library function that can be expanded to RX instructions In accordance with the above changes, the description of the property and the description of Restriction are amended.
		190	The following figures are deleted. Figure A.9 Property Panel: [Build Settings] Tab (When Selecting C Source File) Figure A.10 Property Panel: [Build Settings] Tab (When Selecting C++ Source File) Figure A.11 Property Panel: [Build Settings] Tab (When Selecting Assembler Source File) Figure A.12 Property Panel: [Build Settings] Tab (When Selecting Object Module File) Figure A.13 Property Panel: [Build Settings] Tab (When Selecting Library File)
		191	"Figure A.14 Property Panel: [Individual Compile Options(C)] Tab" is deleted.
		202	The description of the [Generates divisions and residues with DIV, DIVU, and the FDIV instruction] property in "(2) [Object]", and the description of Restriction are amended.
		203	The Restriction of the [Detect stack smashing] property in "(3) [Quality Improvement]" is amended. No(None) -> No(No option specified)
		209	The name of the following property in "(5) [Optimization]" is amended. Expansion method of the library function -> Execution method of library function that can be expanded to RX instructions In accordance with the above changes, the description of the property and the description of Restriction are amended.
		217	The following property is added to "(7) [MISRA-C Rule Check]". Enables checking that spans files
		220	"Figure A.15 Property Panel: [Individual Compile Options(C++)] Tab" is deleted.
		232	The Restriction of the [Detect stack smashing] property in "(3) [Quality Improvement]" is amended. No(None) -> No(No option specified)

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		Page	Summary
		238	The name of the following property in "(5) [Optimization]" is amended. Expansion method of the library function -> Execution method of library function that can be expanded to RX instructions In accordance with the above changes, the description of the property and the description of Restriction are amended.
		245	"Figure A.16 Property Panel: [Individual Assemble Options] Tab" is deleted.
		250	The name of the following property in "(5) [Others]" is amended. Checks for a floatingpoint operation instruction -> Checks for a single-precision floating-point operation instruction
		250	The following property is added to "(5) [Others]". Checks for a double-precision floating-point operation instruction
1.07	Nov 01, 2019	51	The Restriction of the [Uses double-precision floating-point operation instructions] property in "(2) [CPU]" is amended.
		72	The default of the following properties in "(10) [Build Method]" are amended. Build simultaneously Build in parallel
		85	The following property is added to "(2) [Object]". Enhances debug information with optimization
		100	The display condition is amended in the description of the [Optimizes modification of the operation order of a floating-point expression] property in "(5) [Optimization]".
		113	A caution is added to the description of the [Other additional options] property in "(5) [Others]".
		162	The following property is added to "(1) [Input]". Allows duplicate module names
		188	The display condition is amended in the description of the [Optimizes modification of the operation order of a floating-point expression] property in "(5) [Optimization]".
		201	The following property is added to "(2) [Object]". Enhances debug information with optimization
		215	The display condition is amended in the description of the [Optimizes modification of the operation order of a floating-point expression] property in "(5) [Optimization]".
		231	The following property is added to "(2) [Object]". Enhances debug information with optimization
		245	The display condition is amended in the description of the [Optimizes modification of the operation order of a floating-point expression] property in "(5) [Optimization]".
		256	A caution is added to the description of the [Other additional options] property in "(5) [Others]".
1.08	Nov, 01 2020	97, 101	The following property is added to "(5) [Optimization]". Execution method of library function that can use trigonometric function unit Reduces code size of relative branch instructions
		154	The following property is added to "(2) [Hex Format]". Displays the result of CRC calculation and output address
		214, 217, 245, 248	The following property is added to "(5) [Optimization]". Execution method of library function that can use trigonometric function unit Reduces code size of relative branch instructions

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		Page	Summary
1.09	Nov 01, 2021	61	The influence of the change of the value of the [Intermediate file output folder] property in "(4) [Output File Type and Path]" is added.
		97,216, 247	The following property is added to "(5) [Optimization]". Accesses to volatile qualified variables with the sizes of the variable types
		136	The remark is added to the [Optimization type] property in "(5) [Optimization]".
		151	The restriction of the [Alignment of start address] property in “(2) Hex Format” is amended.
		188	The following property is added to "(4) [Optimization]". Accesses to volatile qualified variables with the sizes of the variable types
1.10	Dec 01, 2022	101	The [Performs optimization considering the type of the data indicated by the pointer] property in "(5) [Optimization]" is amended as follows. * “Depends on the optimization level option” is added to the restriction. * The default is changed to the “Depends on the optimization level option”
		151	The display condition of the [Fill unused areas in the output ranges with the value] property in "(2) [Hex Format]" is amended.
		184	The [Adjustment for instruction in branch] property in "(3) [Object]" is changed as follows. * The default is amended. * The order of the restriction items is amended.
		184	The following property is added to "(3) [Object]". Align fetch address of string manipulation instructions
		191	The following property in "(4) [Optimization]" is removed. Performs optimization considering the type of the data indicated by the pointer
		192	The following property is added to "(4) [Optimization]". Reduces code size of relative branch instructions
		219, 250	The [Performs optimization considering the type of the data indicated by the pointer] property in "(5) [Optimization]" is amended as follows. * “Depends on the optimization level option” is added to the restriction.
1.11	Dec 01, 2023	45	The following dialog box is added to "Table A.1 List of Panels/Dialog Boxes". CRC Operations dialog box
		135	The following property is added to "(4) [List]". Outputs information of members of struct or union
		139	The following property is added to "(5) [Optimization]". Optimizes area allocated before execution start symbol
		155	The following property is added to "(2) [Hex Format]". CRC Operations
		156 ~160	The display condition of the [Outputs the calculation result of CRC] ~ [Displays the result of CRC calculation and output address] properties in "(2) [Hex Format]" are amended.
		280 ~283	CRC Operations dialog box is added.
1.12	Nov 01, 2024	51	The default of the following property in "(2) [CPU]" is amended. Uses double-precision floating-point operation instructions
		73	The following property is added to "(10) [Build Method]". Group messages by each source file/target in the parallel build

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		Page	Summary
		77	Add a note to the [Other additional options] property in "(13) [Others]".
		106	The 'How to change' of the following property in "(7) [MISRA C rule check]" is amended. Rule check exclusion file
		134	The default of the following properties in "(4) [List]" is amended. Outputs a symbol name list in a module Shows the total sizes of sections
		227	The 'How to change' of the following property in "(7) [MISRA C rule check]" is amended. Rule check exclusion file
		258, 262	The category name of "(4) [Optimization]" is amended.

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