

[Notes]

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Rev.1.00

Dec. 20, 2024

CS+ Integrated Development Environment

(Note of the properties for setting the CRC calculation result output option)

Outline

When using the CS+ integrated development environment, note the following points:

1. Note of the properties for setting the build tool's CRC calculation result output option

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1.1 Applicable Products

CS+ for CC V8.10.00 or later

1.2 Applicable Devices

RX family, RL78 family and RH850 family MCUs that support the CS+ for CC

1.3 Details

When you execute the Build on a project that met the "Conditions", the initial value is not output to the parameter for the linker's CRC calculation result output option. As a result, the linker performs CRC calculation using the defined value for when the initial value is omitted, and a calculation result different from the expected result is output to the output file.

1.4 Conditions

In a project that uses any of the compiler packages versions listed in "A) Compiler packages", if you specify any of the patterns listed in "B) Properties for setting CRC calculation result output option":

A) Compiler packages

- C/C++ Compiler Package for RX Family CC-RX V2.04.00 to V3.04.00
- C Compiler Package for RL78 Family CC-RL V1.00.00 to V1.11.00
- C Compiler Package for RH850 Family CC-RH V1.03.00 to V2.04.01

B) Properties for setting CRC calculation result output option

- Select "32-ETHERNET Type" in the [CRC Type] property and enter 0 in the [Initial Value] property.
 - (Calculation result) The CRC calculation is performed assuming that "FFFFFFFF" instead of "0" is specified as the initial value, and the calculation result is output to the output file.
- Select "CCITT type" in the [Type of CRC] property and enter 0 in the [Initial Value] property.
 - (Calculation result) The CRC calculation is performed assuming that "FFFF" instead of "0" is specified as the initial value, and the calculation result is output to the output file.
- Select "SENT(MSB) type" or "SENT(MSB) type(General-purpose CRC(SENT))" in the [Type of CRC] property and enter 0 in the [Initial Value] property.
 - (Calculation result) The CRC calculation is performed assuming that "5" instead of "0" is specified as the initial value, and the calculation result is output to the output file.

The properties for setting the CRC calculation result output option are located in the following category for each build tool.

- CC-RX build tool:
The [Hex Format] category in the [Hex Output Options] tab
- CC-RL build tool and CC-RH build tool:
The [CRC Operation] category in the [Hex Output Options] tab

1.5 Workaround

This problem can be avoided by performing one of the following ways:

- Select "No" for the [Outputs the calculation result of CRC] property. And manually add the -crc option to the [Other additional options] property in the [Others] category on the [Hex Output Options] tab.
For details about the -crc option, see the manual for each compiler package.
- Using a compiler package version other than the one listed in the "Conditions".

1.6 Schedule for Fixing the Problem

This problem will be fixed in the future version of the CS+ integrated development environment.

Revision History

Rev.	Date	Description	
		Page	Summary
1.00	Dec.20.24	-	First edition issued

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