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# [Notes] CS+ Code Generator for RH850, AP4 Coding Assistance Tool for RH850

# Outline

When using the products in the title, note the following points.

- 1. When using Clocked Serial Interface H
- 2. When using Clocked Serial Interface G
- 1. When using Clocked Serial Interface H
- 1.1 Applicable Products
  - > CS+ Code Generator for RH850 V1.00.00 (CS+ for CC V4.00) or later
  - > AP4 for RH850 V1.01.00 or later

#### 1.2 Applicable Devices

RH850 family: RH850/F1K group

#### 1.3 Details

When using CSIH with slave mode and receive mode or transmit/receive mode selected on the following peripherals, transmission processing will not work from the second time because the variable of receive count initialization is incorrect.

➢ RH850/F1K:

CSIH0, CSIH1, CSIH2, CSIH3

■ GUI configuration when using slave mode in receive mode on CSIH0

CSIH0	CSIH1	CSIH2	CSIH3						
Transfer mode		General setting		CS setting					
- Clocked serial interface H setting									
0	Unused				⊙ Us	ed			
- Transfer mode setting							1		
Transfer modes					Recei	ive		~	
– Master/	Slave m	ode setting	g						
○ Master					Sla	ave			



#### 1.4 Workaround

Manually modify the variable name of receive count from "g\_<*csihn*>\_tx\_num" to "g\_<*csihn*>\_rx\_num" in the following source file (Note). <*csihn*> varies depending on the selected peripheral.

- Source file: "r\_cg\_csih.c".
- Function: "MD\_STATUS R\_<CSIHn>\_Slave\_Receive (uint16\_t\* rx\_buf, uint16\_t rx\_num)"

Note: If code is generated again, the previous state is restored. Modification is necessary each time you perform code generation.

The following is an example of the required modification when *<CSIHn*> is CSIH0. Manually modify the wrong code in red to correct code in blue.



Before modification

```
MD_STATUS R_CSIH0_Slave_Receive(uint16_t* rx_buf, uint16_t rx_num)
{
    MD_STATUS status = MD_OK;
    if (rx_num < 1U)
    {
        status = MD_ARGERROR;
    }
    else
    {
        g_csih0_rx_total_num = rx_num;
        gp_csih0_rx_address = rx_buf;
        g_csih0_tx_num = 0U;
    }
    return (status);
}</pre>
```

#### After modification

```
MD_STATUS R_CSIH0_Slave_Receive(uint16_t* rx_buf, uint16_t rx_num)
{
    MD_STATUS status = MD_OK;
    if (rx_num < 1U)
    {
        status = MD_ARGERROR;
    }
    else
    {
        g_csih0_rx_total_num = rx_num;
        gp_csih0_rx_address = rx_buf;
        g_csih0_rx_num = 0U;
    }
    return (status);
}</pre>
```

1.5 Schedule for Fixing the Problem This problem will be fixed in a later version.



# 2. When using Clocked Serial Interface G

- 2.1 Applicable Products
  - > CS+ Code Generator for RH850 V1.00.00 (CS+ for CC V4.00) or later
  - > AP4 for RH850 V1.01.00 or later

#### 2.2 Applicable Devices

RH850 family: RH850/F1KM group

#### 2.3 Details

When using CSIG and receive mode or transmit/receive mode selected on the following peripherals, transmission processing will not work from the second time because the variable of receive count initialization is incorrect.

► RH850/F1K: 100-pin products

CSIG0

- RH850/F1K: 144-pin, 176-pin products
   CSIG0, CSIG1
- GUI configuration when using receive mode on CSIG0

CSIG0 CSIG1						
Transfer mode	General setting	CS setting				
- Clocked serial interface G setting						
O Unused			• Used			
- Transfer mode setting						
Transfer modes			Receive ~			

#### 2.4 Workaround

Manually modify the variable name of receive count from "g\_<csign>\_tx\_num" to "g\_<csign>\_rx\_num" in the following source file <sup>(Note)</sup>. <csign> varies depending on the selected peripheral.

- Source file: "r\_cg\_csig.c".
- Function: "MD\_STATUS R\_<CSIGn>\_Receive (uint16\_t\* rx\_buf, uint16\_t rx\_num)"

Note: If code is generated again, the previous state is restored. Modification is necessary each time you perform code generation.

The following is an example of the required modification when <CSIGn> is CSIG0. Manually modify the wrong code in red to correct code in blue.



Before modification

```
MD STATUS R CSIGO Receive(uint16 t* rx buf, uint16 t rx num)
{
   MD STATUS status = MD OK;
   if (rx num < 1U)
   {
      status = MD ARGERROR;
   }
   else
   {
      g_csig0_rx_total_num = rx_num;
      gp csig0 rx address = rx buf;
      g_csig0_tx_num = 0U;
      .....
   }
   return (status);
}
```

After modification

```
MD STATUS R CSIGO Receive(uint16 t* rx buf, uint16 t rx num)
{
   MD_STATUS status = MD_OK;
   if (rx_num < 1U)
   {
      status = MD ARGERROR;
   }
   else
   {
       g_csig0_rx_total_num = rx_num;
       gp_csig0_rx_address = rx_buf;
       g_csig0_rx_num = OU;
       .....
   }
   return (status);
}
```



2.5 Schedule for Fixing the Problem This problem will be fixed in a later version.



# **Revision History**

		Description				
Rev.	Date	Page	Summary			
1.00	Oct.01.20	-	First edition issued			

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