

## Outline

When using the CS+ integrated development environment, note the following point.

1. Compile error generated when using a definition in the I/O header file for a special function register (IOR) having an alias with the same address

## 1. Compile Error Generated When Using a Definition in the I/O Header File for a Special Function Register (IOR) Having an Alias with the Same Address

### 1.1 Applicable Products

- CS+ Integrated Development Environment V7.00.00 to V8.00.00
- [Evaluation Software] CS+ for CC V7.00.00 to V8.00.00

### 1.2 Applicable MCUs

RH850 family MCUs that support CS+

### 1.3 Details

Unnecessary code is generated in the I/O header file for an IOR having an alias with the same address. A compile error may occur when coding with this unnecessary code.

Example of unnecessary code:

```
AAA.BBB.REGS8.BBBL.UNIT8
```

```
AAA.BBB.REGS8.BBBH.UNIT8
```

AAA: Module name, BBB: Register name, BBBL: Low-order 8 bits, BBBH: High-order 8 bits

### 1.4 Conditions

BBBL is converted to CCCL and BBBH to CCCH if both conditions (1) and (2) below are met.\*  
A compiler error results because CCCL and CCCH are not defined in the I/O header file.

\*: #define applies to the symbol having the same address in the I/O header file as follows:

```
#define BBBL CCCL
```

```
#define BBBH CCCH
```

(1) BBBL and CCCL share the same address or BBBH and CCCH share the same address.

(2) BBBL or BBBH in (1) above is referenced or set.

Code description: AAA.BBB.REGS8.BBBL.UNIT8

: AAA.BBB.REGS8.BBBH.UNIT8

- Code description example for setting BBBL to 0x0

```
AAA.BBB.REGS8. BBBL.UNIT8 = 0x0;
```

- Code description example for setting BBBH to 0x0  
AAA.BBB.REGS8. BBBH.UNIT8 = 0x0;

## 1.5 Workaround

Describe AAA.BBB.UINT8[L]; or AAA.BBB.UINT8[H]; as shown below.

- Code description example for setting BBBL to 0x0  
AAA.BBB.UINT8[L] = 0x0;
- Code description example for setting BBBH to 0x0  
AAA.BBB.UINT8[H] = 0x0;

## 1.6 Schedule for Fixing the Problem

No unnecessary code is generated in CS+ Integrated Development Environment V8.01.00.

Note that, even if an I/O header file created in CS+ V8.01.00 is used, a compile error occurs if the file contains a code description as shown below. In such a case, describe code as shown in section 1.5, Workaround.

- Code description example for setting BBBL to 0x0  
AAA.BBB.REGS8. BBBL.UNIT8 = 0x0;
- Code description example for setting BBBH to 0x0  
AAA.BBB.REGS8. BBBH.UNIT8 = 0x0;

**Revision History**

Rev.	Date	Description	
		Page	Summary
1.00	Apr.01.19	-	First edition issued

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