

致尊敬的顾客

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瑞萨电子公司

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## R8C 如何混合编程

### Trouble

用户询问有关 R8C C 语言中嵌套汇编程序的问题.

### Analyze

有关R8C/M16C C语言混合汇编问题, 在RCJ10J0051-0100 《M16C R8C C 编译器套件 V.5.43 - C 编译器用户手册》的附录B 中有详尽表述。

### Do

初略的总结有三种方式:

1. 行汇编方式, 使用关键字 **asm**(“汇编命令”), 在 C 程序中嵌入汇编程序如  
Void cal(void)

```
{
    ...
    asm (“bset start_bit”);
    ....
}
```

2. 使用**#pragma ASM** 和**#pragma ASMEND** 格式, 整段嵌入汇编程序, 如:

```
#pragma ASM
    FSETI
    nop
    bset start_bit
#pragma ASMEND
```

3. 使用**#pragma PARAMETER** 定义带参数的汇编函数
  - 在声明 #pragma PARAMETER 之前编写汇编函数的原型声明。同时也必须声明参数类型。
  - 2. 在汇编函数的参数列表中通过 #pragma PARAMETER 声明所使用的寄存器的名称。
  - 例如:

```
extern unsigned int asm_func(unsigned int, unsigned int);
#pragma PARAMETER asm_func(R0, R1)
```

**RTSHCMCAN0003-0100 Rev.1.00**

## **Scope**

适用于 R8C M16C 全系列, 可作 H8, H8S, SH2MCU 的参考.