RENESAS Tool News

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A Note on Using Relocatable Assembler M3T-SRA74

Please take note of the following problems in using the M3T-SRA74 relocatable assembler for the 740 family MCUs:

• On describing conditional expressions in structured description

1. Versions Concerned

M3T-SRA74 V.1.00 Release 1 through V.4.10 Release 1B

2. Description

In a conditional expression in structured description, if the equality or inequality is tested between a memory bit variable and a memory variable, an unnecessary instruction will be created without interpreting the evaluation as an error.

2.1 Conditions

This problem occurs if the following three conditions are satisfied:

- An equality or inequality operator (== or !=) is used in a conditional expression in structured description.
- (2) The left operand of the operator in (1) is a memory bit variable.
- (3) The right operand of the operator in (1) is a memory variable.
- 2.2 Example

In the example shown below, flag1 and work1 denote a memory bit variable and a memory variable respectively.

```
if [flag1] == [work1]
nop
```

endif

When the above example is assembled, the following assembler instructions including an unnecessary one are generated:

;if [flag1] == [work1] CMP work1 ; Unnecessary instruction BBS flag1,.I0 nop ;endif .I0:

3. Workaround

In a conditional expression in structured description, don't test the equality or inequality between a memory bit variable and a memory variable.

NOTE:

When the left term of a conditional expression is a memory bit variable, only 0 (zero) or 1 is allowed in its right term. For details, see Appendix F.4 "Syntax maps of Structured Commands" in the M3T-SRA74's User's manual.

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