RENESAS Tool News

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Note on Using Code Generator for RL78 Family, 78K0R, and 78K0 MCUs Managed by CubeSuite+

When using CubeSuite+ Code_Generator for RL78_78K, the code generator for the RL78 Family, 78K0R, and 78K0 MCUs managed by CubeSuite+, take note of the following problems:

- With setting of P20 and P21 of port 2 (target: RL78/L1C group)
- With setting of port 1 (target: RL78/G14 group)

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1. Problem with Setting of P20 and P21 of Port 2

1.1 Product and Version Concerned

CubeSuite+ Code_Generator for RL78_78K V2.04.00

1.2 MCUs Involved

RL78/L1C group of MCUs (RL78 family)

1.3 Description

For port 2, even if digital input to or output from port pins P20 and P21, which are multiplexed with analog pin functions, is selected, the generated code will not reflect the corresponding settings of the port mode control register (PMC register).

1.4 Workaround

To use P20 and P21 as port pins, change "_03_PMC2_DEFAULT", which is part of the R_PORT_Create function's code for setting up the PMC2 register, to "0xFC".

Example:

Source code before modification

```
------------------------------------------------------------
PMC2 = _00_PMCn0_DI_ON | _02_PMCn1_NOT_USE | _03_PMC2_DEFAULT;
------------------------------------------------------------
```

Source code after modification

```
------------------------------------------------------------
PMC2 = _00_PMCn0_DI_ON | _02_PMCn1_NOT_USE | 0xFC;
------------------------------------------------------------
```

1.5 Schedule for Fixing the Problem

This problem will be fixed in the next version of CubeSuite+ Code_Generator for RL78_78K.

2. Problem with Setting of Port 1

2.1 Product and Version Concerned

CubeSuite+ Code_Generator for RL78_78K V2.04.00

2.2 MCUs Involved

RL78/G14 group of MCUs (RL78 family)

The description applies to those of the above MCUs with 96 KB or more of code flash memory and having model names of the form R5F104xy (see NOTE below).

NOTE:
x represents A, B, C, E, F, G, J, L, M, or P.
y represents F, G, H, or J.

2.3 Description

When the port pins listed below are selected for port 1, the Code Generator outputs the unnecessary operator and value "| _33_PMC1_DEFAULT". This is because the initial settings for unused bits in the PMC1 register are incorrect.

- P12
- P13
- P16
- P17

2.4 Workaround

Delete "| _33_PMC1_DEFAULT" from the R_PORT_Create function's code for setting up the PMC1 register.

Example: If you are using R5F104AF and have selected P12 and P13 as outputs

Source code before modification

```
------------------------------------------------------------
PMC1 = _00_PMCn2_DI_ON | _00_PMCn3_DI_ON | _40_PMCn6_NOT_USE |
     _80_PMCn7_NOT_USE | _33_PMC1_DEFAULT;
------------------------------------------------------------
```

Source code after modification

```
------------------------------------------------------------
PMC1 = _00_PMCn2_DI_ON | _00_PMCn3_DI_ON | _40_PMCn6_NOT_USE |
     _80_PMCn7_NOT_USE;
------------------------------------------------------------
```

2.5 Schedule for Fixing the Problem

This problem will be fixed in the next version of CubeSuite+ Code_Generator for RL78_78K.
