

Note on Using Renesas Peripheral Driver Library for RX63N/RX631 Groups of MCUs and Peripheral Driver Generator --With Setting Privileged Instruction Exception and Access Exception Interrupts--

When using Renesas Peripheral Driver Library for the RX63N/RX631 Groups of MCUs and Peripheral Driver Generator, take note of the following problem:

- Setting privileged instruction exception and access exception interrupts

1. Products and Versions Concerned

- RX63N, RX631 Group Renesas Peripheral Driver Library V.1.01
- Peripheral Driver Generator V.2.05 and later

2. Description

In the R_INTC_CreateExceptionHandler function of the above Renesas Peripheral Driver Library and the R_PG_Exception_Set function of the above Peripheral Driver Generator, if an access exception interrupt is generated after you make the setting of the callback function for a privileged instruction exception interrupt, a call is made to this callback function in error.

3. Workarounds

Rectify the definition of the Excep_Access function in the Interrupt_INTC.c file as follows:

- Replace the symbol "PDL_INTC_PRIVILEGED," which is found twice in the Excep_Access function, with "PDL_INTC_ACCESS."

In Peripheral Driver Generator, rectify the Interrupt_INTC.c file as above. This file resides under the source¥RX¥RX63N¥i_src path within the directory where the product has been installed.

The rectification of the Interrupt_INTC.c file shown below is common to both the products concerned.

Rectification of Interrupt_INTC.c File:

Source code before rectification:

```
-----  
/* Exception (Access) */  
#pragma interrupt Excep_Access  
void Excep_Access(void)  
{  
    if (rpdl_INTC_callback_func[PDL_INTC_PRIVILEGED] != PDL_NO_FUNC)  
    {  
        /* Call the user function */  
        rpdl_INTC_callback_func[PDL_INTC_PRIVILEGED]();  
    }  
}
```

Source code after rectification:

```
-----  
/* Exception (Access) */  
#pragma interrupt Excep_Access  
void Excep_Access(void)  
{  
    /* Here begins rectification */  
    if (rpdl_INTC_callback_func[PDL_INTC_ACCESS] != PDL_NO_FUNC)  
    {  
        /* Call the user function */  
        rpdl_INTC_callback_func[PDL_INTC_ACCESS]();  
    }  
    /* Here ends rectification */  
}
```

4. Schedule of Fixing Problem

We plan to fix this problem in a later version of the product.

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