



Data-consistent Process Communication

PROBLEM DESCRIPTION

Data inconsistency occurs during transfer of several signals between processes/modules.

CAUSE

The INTECRIO-Crossbar only guarantees data consistency for single signals. This means that the transfer of a single signal is protected by an interrupt lock, so that inconsistent more-byte signals cannot occur. In For this, an additional interrupt lock has to realized for reading/writing to the Crossbar.

SOLUTION

The code generation in INTECRIO is based on the use of templates. The interrupt lock has to be added to the template.

...\ETAS\INTECRIOV2.1\Templates\CodeGeneration\OSC\ERCOSEK\osc_hooks.c.tpl.

In the lower part of this template you will find the following paragraph

```
/* {HookType} hook processes */  
[void {HookType}Hook_{HookList_TaskNumber[#]}_ {HookList_HookNumber[#]}](void)  
{  
    {HookType}Hook({HookList_TaskNumber[#]},{HookList_HookNumber[#]});  
    return;  
}
```

The interrupt lock and the final release of the interrupts is inserted here as follows:

```
/* {HookType} hook processes */  
[void {HookType}Hook_{HookList_TaskNumber[#]}_ {HookList_HookNumber[#]}](void)  
{  
    SUSPEND_HS_INTERRUPTS  
    {HookType}Hook({HookList_TaskNumber[#]},{HookList_HookNumber[#]});  
    RESUME_INTERRUPTS  
    return;  
}
```

APPLIES TO PRODUCTS

INTECRIO





ADDITIONAL SEARCH TERMS

Message, Copy, Ercosek

