Integration Manual - PwrLmtFuncCr

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# Dependencies

## SWCs

|  |  |
| --- | --- |
| Module | Required Feature |
| <Name of SWC> | <Addition of global data, function\*. |

Note : Referencing the external components should be avoided in most cases. Only in unavoidable circumstance external components should be refered. Developer should track the references.

## Global Functions(Non RTE) to be provided to Integration Project

< Global function (except the ones that are defined in RTE modules) that is defined in this component but used by other function>

# Configuration

## Build Time Config

|  |  |  |
| --- | --- | --- |
| Modules | Notes |  |
| None |  |  |

## Configuration Files to be provided by Integration Project

Ap\_PwrLmtFuncCr\_Cfg.h

### Da Vinci Parameter Configuration Changes

|  |  |  |
| --- | --- | --- |
| Parameter | Notes | SWC |
| PwrLmtFuncCrGeneral/PwrLmtFuncCrCPEnable | Enable checkpoints if needed | PwrLmtFuncCr |

### DaVinci Interrupt Configuration Changes

|  |  |  |  |
| --- | --- | --- | --- |
| ISR Name | VIM # | Priority Dependency | Notes |
| <Configurator Changes for Interrupts> |  |  |  |

### Manual Configuration Changes

|  |  |  |
| --- | --- | --- |
| Constant | Notes | SWC |
| <Additional configuration changes> |  |  |

# Integration

## Required Global Data Inputs

EstKe\_VpRadpS\_f32

MotorVelMRF\_MtrRadpS\_f32

PosServEnable\_Cnt\_lgc

Vecu\_Volt\_f32

CntDisMtrTrqCmdMRF\_MtrNm\_f32

AltFaultActive\_Cnt\_lgc

## Required Global Data Outputs

MRFMtrTrqCmd\_MtrNm\_f32

FltTrqLmt\_Uls\_f32

ThresholdExceeded\_Cnt\_lgc

## Specific Include Path present

< No >

# Runnable Scheduling

This section specifies the required runnable scheduling.

|  |  |  |
| --- | --- | --- |
| Init | Scheduling Requirements | Trigger |
| PwrLmtFuncCr\_Init1 | Called from RTE before first call of periodic function | RTE at init |

|  |  |  |
| --- | --- | --- |
| Runnable | Scheduling Requirements | Trigger |
| PwrLmtFuncCr\_Per1 | Not in WARMINIT, OFF, DISABLE | RTE 2ms |
| PwrLmtFuncCr\_Per2 | Not in WARMINIT, OFF, DISABLE | RTE 10ms |

**.**

# Memory Mapping

## Mapping

|  |  |  |
| --- | --- | --- |
| Memory Section | Contents | Notes |
| PWRLMTFUNCCR\_START\_SEC\_VAR\_CLEARED\_32 |  |  |
| PWRLMTFUNCCR\_START\_SEC\_VAR\_CLEARED\_BOOLEAN |  |  |
| PWRLMTFUNCCR\_START\_SEC\_VAR\_CLEARED\_UNSPECIFIED |  |  |
| RTE\_START\_SEC\_AP\_PWRLMTFUNCCR\_APPL\_CODE |  |  |

\* Each …START\_SEC… constant is terminated by a …STOP\_SEC… constant as specified in the AUTOSAR Memory Mapping requirements.

## Usage

|  |  |  |
| --- | --- | --- |
| Feature | RAM | ROM |
| <Memmap usuage info> |  |  |

Table 1: ARM Cortex R4 Memory Usage

## Non RTE NvM Blocks

|  |
| --- |
| Block Name |
| <NVM block used Non RTE functions > |

Note : Size of the NVM block if configured in developer

## RTE NvM Blocks

|  |
| --- |
| Block Name |
| <NVM block used in RTE functions > |

Note : Size of the NVM block if configured in developer

# Compiler Settings

## Preprocessor MACRO

<Define all the preprocessor Macros needed and conditions when needed>.

## Optimization Settings

<Define Optimization levels that are needed and conditions when needed>.

# Revision Control Log

|  |  |  |  |
| --- | --- | --- | --- |
| **Rev #** | **Change Description** | **Date** | **Author** |
| 1 | Initial version | 28-Aug-13 | KMC |