Integration Manual –LrnEOT

Table of Contents

[1 Dependencies 2](#_Toc378149244)

[1.1 SWCs 2](#_Toc378149245)

[1.2 Global Functions(Non RTE) to be provided to Integration Project 2](#_Toc378149246)

[2 Configuration 3](#_Toc378149247)

[2.1 Build Time Config 3](#_Toc378149248)

[2.2 Configuration Files to be provided by Integration Project 3](#_Toc378149249)

[2.2.1 Da Vinci Parameter Configuration Changes 3](#_Toc378149250)

[2.2.2 DaVinci Interrupt Configuration Changes 3](#_Toc378149251)

[2.2.3 Manual Configuration Changes 3](#_Toc378149252)

[3 Integration 4](#_Toc378149253)

[3.1 Required Global Data Inputs 4](#_Toc378149254)

[3.2 Required Global Data Outputs 4](#_Toc378149255)

[3.3 Specific Include Path present 4](#_Toc378149256)

[4 Runnable Scheduling 5](#_Toc378149257)

[5 Memory Mapping 6](#_Toc378149258)

[5.1 Mapping 6](#_Toc378149259)

[5.2 Usage 6](#_Toc378149260)

[5.3 Non RTE NvM Blocks 6](#_Toc378149261)

[5.4 RTE NvM Blocks 6](#_Toc378149262)

[6 Compiler Settings 6](#_Toc378149263)

[6.1 Preprocessor MACRO 6](#_Toc378149264)

[6.2 Optimization Settings 6](#_Toc378149265)

[7 Revision Control Log 7](#_Toc378149266)

# 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

< None>

# Configuration

## Build Time Config

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

## Configuration Files to be provided by Integration Project

Ap\_LrnEOT\_Cfg.h for checkpoint enable

### Da Vinci Parameter Configuration Changes

|  |  |  |
| --- | --- | --- |
| Parameter | Notes | SWC |
| <None> |  |  |

### DaVinci Interrupt Configuration Changes

|  |  |  |  |
| --- | --- | --- | --- |
| ISR Name | VIM # | Priority Dependency | Notes |
| <None> |  |  |  |

### Manual Configuration Changes

|  |  |  |
| --- | --- | --- |
| Constant | Notes | SWC |
| <None> |  |  |

# Integration

## Required Global Data Inputs

DiagStsHwPosDis\_Cnt\_lgc

HandwheelAuthority\_Uls\_f32

HandwheelPosition\_HwDeg\_f32

HwTorque\_HwNm\_f32

MtrVelCRF\_MtrRadpS\_f32

## Required Global Data Outputs

CCWFound\_Cnt\_lgc

CCWPosition\_HwDeg\_f32

CWFound\_Cnt\_lgc

CWPosition\_HwDeg\_f32

## Specific Include Path present

No

# Runnable Scheduling

This section specifies the required runnable scheduling.

|  |  |  |
| --- | --- | --- |
| Init | Scheduling Requirements | Trigger |
| LrnEOT\_Init1() | None | Init |

|  |  |  |
| --- | --- | --- |
| Runnable | Scheduling Requirements | Trigger |
| LrnEOT\_Per1 | Triggered on Timing Event | 10ms |
| LrnEOT\_Scom\_ResetEOT | triggered by server invocation for OperationPrototype <ResetEOT> of PortPrototype <LrnEOT\_Scom> | On event |

**.**

# Memory Mapping

## Mapping

|  |  |  |
| --- | --- | --- |
| Memory Section | Contents | Notes |
| LRNEOT\_START\_SEC\_VAR\_CLEARED\_32 |  |  |
| LRNEOT\_START\_SEC\_VAR\_CLEARED\_BOOLEAN |  |  |

\* 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 | 01-May-14 | SB |