Integration Manual –GenPosTraj

Table of Contents

[1 Dependencies 2](#_Toc368573092)

[1.1 SWCs 2](#_Toc368573093)

[1.2 Global Functions(Non RTE) to be provided to Integration Project 2](#_Toc368573094)

[2 Configuration 3](#_Toc368573095)

[2.1 Build Time Config 3](#_Toc368573096)

[2.2 Configuration Files to be provided by Integration Project 3](#_Toc368573097)

[2.2.1 Da Vinci Parameter Configuration Changes 3](#_Toc368573098)

[2.2.2 DaVinci Interrupt Configuration Changes 3](#_Toc368573099)

[2.2.3 Manual Configuration Changes 3](#_Toc368573100)

[3 Integration 4](#_Toc368573101)

[3.1 Required Global Data Inputs 4](#_Toc368573102)

[3.2 Required Global Data Outputs 4](#_Toc368573103)

[3.3 Specific Include Path present 4](#_Toc368573104)

[4 Runnable Scheduling 5](#_Toc368573105)

[5 Memory Mapping 6](#_Toc368573106)

[5.1 Mapping 6](#_Toc368573107)

[5.2 Usage 6](#_Toc368573108)

[5.3 Non RTE NvM Blocks 6](#_Toc368573109)

[5.4 RTE NvM Blocks 6](#_Toc368573110)

[6 Compiler Settings 6](#_Toc368573111)

[6.1 Preprocessor MACRO 6](#_Toc368573112)

[6.2 Optimization Settings 6](#_Toc368573113)

[7 Revision Control Log 7](#_Toc368573114)

# Dependencies

## SWCs

|  |  |
| --- | --- |
| Module | Required Feature |
| None |  |

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\_GenPosTraj\_Cfg.h generated by Ap\_GenPosTraj\_Cfg.h.tt

### Da Vinci Parameter Configuration Changes

|  |  |  |
| --- | --- | --- |
| Parameter | Notes | SWC |
| GenPosTrajGeneral/GenPosTrajCPEnable | To enable checkpoints | GenPosTraj |

### DaVinci Interrupt Configuration Changes

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

### Manual Configuration Changes

|  |  |  |
| --- | --- | --- |
| Constant | Notes | SWC |
| None |  |  |

# Integration

## Required Global Data Inputs

|  |
| --- |
| HwPosition\_HwDeg\_f32 |
| PosTrajEnable\_Cnt\_lgc |
|  |
|  |

## Required Global Data Outputs

|  |
| --- |
| PosTrajHwAngle\_HwDeg\_f32 |
|  |

## Specific Include Path present

No

# Runnable Scheduling

This section specifies the required runnable scheduling.

|  |  |  |
| --- | --- | --- |
| Init | Scheduling Requirements | Trigger |
|  |  |  |

|  |  |  |
| --- | --- | --- |
| Runnable | Scheduling Requirements | Trigger |
| GenPosTraj\_Per1 | None | RTE 2ms |
|  |  |  |

**.**

# Memory Mapping

## Mapping

|  |  |  |
| --- | --- | --- |
| Memory Section | Contents | Notes |
| GENPOSTRAJ\_START\_SEC\_VAR\_CLEARED\_32 |  |  |
| GENPOSTRAJ\_START\_SEC\_VAR\_CLEARED\_16 |  |  |
| GENPOSTRAJ\_START\_SEC\_VAR\_CLEARED\_UNSPECIFIED |  |  |
| GENPOSTRAJ\_START\_SEC\_VAR\_CLEARED\_BOOLEAN |  |  |
| RTE\_START\_SEC\_AP\_GENPOSTRAJ\_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 | 06-Oct-13 | Selva |