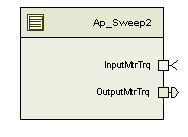
# Module – Sweep2

# High-Level Description

# Figures

## Component Diagram



# Variable Data Dictionary

|  |  |  |
| --- | --- | --- |
| Module Inputs | Module Outputs | |
| InputMtrTrq\_MtrNm\_f32 | | OutputMtrTrq\_MtrNm\_f32 |

## Module Internal Variables

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Variable Name | Datatype | Resolution | Legal Range  (min) | Legal Range  (max) | Software Segment  {Data Type} |
| SweepModeEn\_Cnt\_M\_lgc | Boolean | N/A | FALSE | TRUE |  |
| SweepConfig\_Cnt\_M\_u16 | Uint16 | 1 | 0 | FULL |  |

### User defined typedef definition/declaration

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Typedef Name | Element Name | User Defined Type | Legal Range  (min) | Legal Range  (max) |
|  |  |  |  |  |

# Constant Data Dictionary

## Calibration Constants

|  |
| --- |
| Constant Name |
|  |

## Program(fixed) Constants

### Embedded Constants

#### Local

|  |  |  |  |
| --- | --- | --- | --- |
| Constant Name | Resolution | Units | Value |
| D\_SWEEPMTRTRQ\_CNT\_U16 | 1 | Uint16 | 1 |

#### Global

|  |
| --- |
| Constant Name |
| D\_FALSE\_CNT\_LGC |
| D\_ZERO\_ULS\_F32 |

### Module specific Lookup Tables Constants

|  |  |  |  |
| --- | --- | --- | --- |
| Constant Name | Resolution | Value | Software Segment |
|  |  |  |  |

# Functions/Macros used by the Sub-Modules

## Library Functions / Macros

The library and functions / Macros that are called by the various sub modules are identified below,

## Data Hiding Functions

1. <None>

## Global Functions/Macros Defined by this Module

none

## Local Functions/Macros Used by this MDD only

none

# Software Module Implementation

## Runtime Environment (RTE) Initial Values

|  |  |
| --- | --- |
| Data | Value |
| InputMtrTrq\_MtrNm\_f32 | 0 |

## Initialization Functions

None

## Periodic Functions

#### Design Rationale

None

#### Store Module Inputs to Local copies Fault Recovery Functions

See below

#### Description



#### Store Local copy of outputs into Module Outputs

See above

## Shutdown Functions

None

## Interrupt Functions

None

## Fault Recovery Functions

None

## Shutdown Functions

None

## Interrupt Functions

None

## Serial Communication Functions

None

# Execution Requirements

## Execution Sequence of the Module

## Execution Rates for sub-modules called by the Scheduler

This table serves as reference for the Scheduler design

|  |  |  |
| --- | --- | --- |
| Function Name | Calling Frequency | System State(s) in which the function is called |
| Sweep2\_Per1 | 2ms | RTE\_AP\_SWEEP2\_APPL\_CODE |

## Execution Requirements for Serial Communication Functions

|  |  |
| --- | --- |
| Function Name | Sub-Module called by (Serial Comm Function Name) |
|  |  |

# Memory Map Definition Requirements

## Sub Modules (Functions)

This table identifies the software segments for functions identified in this module.

|  |  |
| --- | --- |
| Name of Sub Module | Software Segment |
|  |  |

## Global and Local Functions

This table identifies the software segments for local functions identified in this module.

|  |  |
| --- | --- |
| Name of Sub Module | Software Segment |
| Sweep2\_Per1 | RTE\_AP\_SWEEP2\_APPL\_CODE |

# Known Issues / Limitations With Design

1. (Item #1)

# Revision Control Log

|  |  |  |  |
| --- | --- | --- | --- |
| **Rev #** | **Change Description** | **Date** | **Author Initials** |
| 1 | Initial MDD version | 25-Mar-13 | VK |