|  |  |
| --- | --- |
| **ComMIf SW Detailed Design** | |
| **Summary** | Software Detailed Design Document of the ComMIf Component |

|  |  |  |
| --- | --- | --- |
| **Author** | **Review** | **Approval** |
| Title: Andreea Suiu | See Project Master Document for the roles and Project Members List for the name of people | See Project Master Document for the roles and Project Members List for the name of people |
|  |  |  |
| **Distribution** | | |
| See Project Master Document for the roles and Project Members List for the name of people | See Project Master Document for the roles and Project Members List for the name of people | See Project Master Document for the roles and Project Members List for the name of people |

# Table of content

1. General Information 3

1.1. Revision history \* 3

1.2. Purpose and Scope 3

1.3. Referenced documents 3

1.3.1. External documents 3

1.3.2. Internal Documents 3

1.4. Terminology and definitions 3

2. SW atomic architectural unit design 4

2.1. Overview 4

2.2. Traceability 4

3. FEATURES 4

3.1. Services 4

3.1.1. Service Name 4

3.2. Types 5

3.2.1. Name Structure definition 5

3.3. Variables 5

3.4. Constants 5

4. EEPROM 5

5. Configuration 5

6. Compilation Options 5

# General Information

## Revision history \*

|  |  |  |  |
| --- | --- | --- | --- |
| **Revision** | **Date** | **Author(s)** | **Description/comment** |
| 1.0. | 09.12.2022 | Andreea Suiu | First revision. |
|  |  |  |  |
|  |  |  |  |

*\* Template history is found in the CM tool used for templates*

## Purpose and Scope

The purpose of this document is to provide an overview of the ComMIf SW Component operation principle, and to present the implementation choices in terms of module and function splitting.

## Referenced documents

### External documents

|  |  |  |
| --- | --- | --- |
| **Id** | **Title** | **Reference** |
|  |  |  |
|  |  |  |
|  |  |  |

### Internal Documents

|  |  |  |
| --- | --- | --- |
| **Id** | **Title** | **Reference** |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

## Terminology and definitions

The generic acronyms are available in the [AEM process and method wiki](https://alvteams.alv.autoliv.int/sites/aeuaeequalityassurance/AEM%20Process%20wiki/acronyms.aspx)

|  |  |
| --- | --- |
| **Terminology** | **Meaning** |
| AAU | Atomic architectural unit |
| SW | software |
|  |  |

# SW Module Detailed Design

## Overview

The aim of ComMIf component is to indicate the communication type.

## Traceability

# Features

## Services

### ComM\_BusSM\_ModeIndication

|  |  |  |  |
| --- | --- | --- | --- |
| Object | | | |
| Function used to indicate the communication type. | | | |
| **Prototype** | | | |
| extern FUNC(void, COMM\_CODE) ComM\_BusSM\_ModeIndication (NetworkHandleType Channel, P2VAR(uint8, AUTOMATIC, COMM\_APPL\_DATA) ComMode); | | | |
| **Detailed Design Requirement** | | | |
| DSG\_ComMIf\_ComM\_BusSM\_ModeIndication | | | |
| **Architecture Requirement** | | | |
| ARCH\_SW\_ComMIf\_ComM\_BusSM\_ModeIndication | | | |
| **Input parameters** | | | |
| Name | Type | Description | Range |
| Channel | NetworkHandleType | the identifier of a communication channel | NA |
| **Output parameters** | | | |
| Name | Type | Description | Range |
| ComMode | P2VAR | communication mode | NA |
| **Return value** | | | |
| Type | Description | | |
| NA | NA | | |
| **Dynamic aspect** | | | |
| Who (callers) | Description | | |
| Tresos BSW generated module. | Called in CANSM\_CALL\_SM\_MODEINDICATION function | | |
| **Static aspect** | | | |
| \* | | | |
| **Constrains** | | | |
|  | | | |

## Variabiles

## Macros

### COMM\_FULL\_COMMUNICATION

|  |  |
| --- | --- |
| Name | Value |
| COMM\_FULL\_COMMUNICATION | 2U |
| **Definition** | |
| #define COMM\_FULL\_COMMUNICATION 2U | |
| **Description** | |
| Full communication value. | |

### COMM\_NO\_COMMUNICATION

|  |  |
| --- | --- |
| Name | Value |
| COMM\_NO\_COMMUNICATION | 0U |
| **Definition** | |
| #define COMM\_NO\_COMMUNICATION 0U | |
| **Description** | |
| No communication value. | |

### COMM\_SILENT\_COMMUNICATION

|  |  |
| --- | --- |
| Name | Value |
| COMM\_SILENT\_COMMUNICATION | 1U |
| **Definition** | |
| #define COMM\_SILENT\_COMMUNICATION 1U | |
| **Description** | |
| Silent communication value. | |

# EEPROM

# Configuration

# Compilation Options