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|  |  | | |  |
|  | Classic Memory  <<Feature>>  (F000171) | | |  |
|  |  | | |  |
| Document Type | **Feature Document (FD)** | | |  |
| Template Version | **6.1b** | | |  |
| SysML Report Template Version | **6.1b.1 (2021/08/25)** | | |  |
| Document ID | **ffst01.10\_featuredocument\_sysmlreporttemplate** | | |  |
| Document Location |  | | |  |
| Document Owner | **Matheus Brasileiro (MFERN203)** | | |  |
| Document Revision | **FD17** | | |  |
| Document Status | **Completed** | | |  |
| Date Issued | **2021/09/14** | | |  |
| Date Revised | **2021/09/14** | | |  |
| Document Classification | GIS1 Item Number: | **27.60/35** | |  |
| GIS2 Classification: | **Confidential** | |
|  | | | | |
|  | | | | |
| Document Approval | | | | |
| Person | Role | | Email Confirmation | Date |
|  |  | |  |  |
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# Introduction

## Document Purpose

A Feature Document (FD) document defines a Feature on [Concept Level](https://bd101001.pd2.ford.com/stages/#/workspace/209/_vv/(process/activity/_Y6ftAPI2VsW5zd82DgHb6g)). It specifies **what** the feature shall do and how it shall behave from customer perspective. It should also provide reasoning and background **why** we have the feature in the vehicle.

The FD also serves as an Item Definition as defined by ISO26262 for those features, which follow the Ford Functional Safety process. Refer [FFSG01.10 Feature Document Guideline](https://azureford.sharepoint.com/sites/GlobalFunctionalSafety/Released%20Templates%20Guidelines%20and%20Examples/Guidelines/FFSG01.10_FeatureDocument_Guideline.pdf) for how to apply the Feature Doc template for Functional Safety.

## Document Scope

This Feature Document (FD) specifies the following features:

| **Feature ID** | **Feature Name** | **Owner** | **Reference** |
| --- | --- | --- | --- |
| F000171 | Classic Memory | Matheus Brasileiro (MFERN203) |  |

Table 1: Features described in this FD

## Document Audience

The FD is written by the feature owner of Matheus Brasileiro (MFERN203). All Stakeholders, i.e., all people who have a valid interest in the feature should read and, if possible, review the FD. It needs to be guaranteed, that all stakeholders have access to the currently valid version of the FD.

### Stakeholder List

For the latest list of stakeholder of the feature and their influence refer to <Put VSEM Link here>.

| **Name** | **CDSID** | **Contact Info** | **Role** | **Stakeholder Group** |
| --- | --- | --- | --- | --- |

## Document Organization

### Document Context

Refer to the [Specification Structure page](http://wiki.ford.com/display/RequirementsEngineering/Specification+templates) in the [Ford RE Wiki](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Engineering+for+SW+Enabled+Features) to understand how the FD relates to other Ford Requirements Documents and Specifications.

### Document Structure

The structure of this document is explained below:

**Introduction** – Explains how to use this document including responsibilities and requisite documents. Explains the terminology. Gives a clarification of the definitions, concepts and abbreviations used in the document.

**Feature Overview** – States briefly the background and the purpose of the feature, feature variants and corresponding regions and markets. Also includes input requirements, assumptions and constraints.

**Feature Context** – describes all external entities, which have an influence on the feature.

**Feature Modeling** – Contains Use Case, Driving Scenarios, State Charts to describe the functional behavior of the feature.

**Feature Requirements** – Lists functional and non-functional requirements of the feature.

**Functional Safety** – Lists System Behaviors, Safety Goals and Safety Requirements of the feature.

**Cybersecurity** – Lists Security Goals and Security Requirements of the feature.

**Architecture** – Shows the coarse architecture, which the feature requirements are deployed to. Describes the elements and the boundary of the feature as well as the decomposition and distribution of associated functions.

**Traceability Matrix** – Traceability Matrix.

**Open Concerns** – List of Open Concerns

**Revision History** – Document Change History including a list of new or modified requirements. The requirements in this document are tagged, and this section contains different types of tables listing all, new, or changed requirements by their title and page no.

**Appendix** – Appendix

## Document Conventions

### Classification of Chapters

A chapter is considered mandatory, unless the chapter or its parent chapter(s) are categorized by using the tag:

**#Classification:** Some Condition

If no requirement/other content is known for a mandatory chapter, leave a statement “Not Applicable”

Some chapters have a follow certain rules in context of specific Ford processes, e.g. Functional Safety. This is indicated at the beginning of the corresponding chapter by the tags:

**#Functional Safety:** Some process specific explanation

**#Cybersecurity:** Some process specific explanation

### Requirements Templates

Refer to “[How to use the Specification Templates](http://wiki.ford.com/display/RequirementsEngineering/How+to+use+the+Specification+Templates?src=contextnavpagetreemode)” on how to use the specification templates and the VBA macros to create/edit the requirements in the specifications.

#### **Requirements Attributes**

The templates provided by *Specification\_Macros.dotm* define a list of attributes for each requirement. This helps to classify the requirement. The attributes are explained at [RE Wiki - Requirements Attributes](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes?src=contextnavpagetreemode).

## References

### Ford Documents

List here all Ford internal documents, which are directly related to the feature.

| **Reference** | **Title** | **Doc. ID** | **Document Location** | **Revision** |
| --- | --- | --- | --- | --- |
| Auto Save Feature Document |  |  | Auto Save Feature Spec. |  |
| Enhanced Memory Feature Document |  |  |  |  |
| Multi-Contour Seat Feature Document |  |  |  |  |
| Personal Portable Profile Feature Document |  |  |  |  |

Table 4: Ford internal Documents

### External Documents and Publications

The list of external documents could include books, reports and online sources.

*External documents and publications not specified in SysML model*

## Glossary

See Appendix for Definitions and Abbreviations.

### Definitions

### Abbreviations

### Parameters / Values

| **Name** | **Description** | **Range / Resolution** |
| --- | --- | --- |

Table 8: Parameters / Values used in this document

# Feature Overview

## Purpose and Description of Feature

2.1.1 Driver Memory

The Classic Memory feature is the algorithm behind the Positional Memory Commodities (memory seat, memory mirrors, etc) that determines when to store and recall positional settings for those commodities. Classic Memory is responsible for the hard settings (positional settings) while the Enhanced Memory feature is responsible for the soft settings (digital settings).

When a Driver Profile is created via Enhanced Memory and associated to a Driver Memory Seat Switch then Classic Memory will store the current positional settings that will be recalled by the switch. Pressing a Driver Memory Seat Switch will recall the positional settings and soft settings associated to that button. Pressing and holding a Driver Memory Seat Switch will store the current positional setting to the profile associated to the held button.

If Enhanced Memory is not available on the current vehicle then soft settings will not be saved and the ACM feature is implemented. Pressing and holding a Driver Memory Seat Switch will store the current positional settings that will be recalled by the switch. Pressing the Driver Memory Seat Switch will recall the positional settings associated to that button. Additionally, Advanced Classic Memory will guide the user regarding the association of a key fob when storing positional settings. After a user stores their current positional settings then Advanced Classic Memory will prompt the user to trigger their preferred key fob so that the vehicle can associate that fob to the stored settings.

2.1.2 Passenger Memory

Likewise, a Passenger Profile can be created by Enhanced Memory allowing the passenger to save positional settings. The Passenger Memory Seat Switches behave in the same fashion as their Driver counterparts but with relation to the passenger’s positions. Pressing a Passenger Memory Seat Switch will recall the selected profile while pressing and holding will store current positions to the selected profile. The passenger has fewer adjustable commodities with memory and thus the Passenger Profile will be smaller with fewer positionals needing to be saved.

2.1.3 Easy Entry / Easy Exit

The Easy Entry Easy Exit (EEEE) function automatically moves EEEE controlled commodities(memory seat, memory steering column, etc) making it easier for user to enter or exit the vehicle.EEEE will adjust EEEE controlled commodities away from the user to the offset position, seat to rear configurable offset (relative to drive position) and column fully up (tilt) and/or in (telescope). When the user inserts the key into the ignition (or presses the Ignition Switch ON for PEPS) then EEEE will move to the drive position. When the user removes the key (or presses the Ignition Switch OFF for Passive Entry Passive Start (PEPS)) then EEEE will move to the offset position. Additionally, when a user (key is out of ignition and user is identified to a profile with EEEE enabled) unlocks the vehicle then EEEE will move to the offset position.

When a user manually adjusts an EEEE controlled commodity then EEEE considers the current position (post-movement) the drive position. This manual movement will cancel automatic movement if EEEE was in motion. Likewise, if there is a memory store of settings for EEEE controlled commodities then EEEE considers the current position the drive position. When the EEEE controlled commodities are in the offset position when a recall occurs, then the recalled memory positions will become the drive position and the EEEE controlled commodities will move to the offset position of the newly recalled drive position.

EEEE is available to only the Driver. A user can set EEEE enabled or disabled in their profile

Drive Control Optimization (DCO) is an effort to simplify the ignition and gear switches. This sees the removal of many switches and the relocation of others. When DCO is on a vehicle then EEEE will use new inputs to trigger behavior. When a remote transmitter is detected outside the vehicle then EEEE will move the seat and steering to the offset position for easy entry.When the vehicle ignition status is On, the driver door is closed and driver presses the brake pedal then EEEE will move the seat and steering to the drive position. Lastly, when the vehicle shifts to Park and the driver door is open then EEEE will move the seat and steering to the offset position for easy exit.

2.1.4 Multicontour Seats

When a Multicontour seat is available the Classic Memory feature will notify it of any relevant store or recall events. The Multicontour seat module has its own memory locations for its unique seat settings separate from the memory locations the Classic Memory feature has for the seat settings.

2.1.5 Restriction Settings

The Restriction Setting is a configurable setting that determines if there are certain restrictions on the vehicle profiles.The settings are:

• Factory

All profiles are set to Default Profile. Recalling any memory location will always recall Default Profile. Storing of settings is restricted. No profile may store new settings to the Default Profile.

• Vehicle

All profiles are set to Vehicle Profile. Recalling any memory location will always recall Vehicle Profile. Storing of settings is allowed. Storing settings to any memory location will update all memory locations.

• Non-Movable Person

All profiles are unique. Recalling any memory location will recall that location’s unique settings. Storing of settings is allowed. Storing settings to any memory location will update only that memory locations. Profile settings are not allowed to be saved to or loaded from external storage devices.

• Movable Person

All profiles are unique. Recalling any memory location will recall that location’s unique settings. Storing of settings is allowed. Storing settings to any memory location will update only that memory locations. Profile settings are allowed to be saved to or loaded from external storage devices.

2.1.6 Stowable Steering Wheel

The Stowable Steering Wheel (SSW) feature also stores and recalls positional settings for the steering column and driver seat. To prevent conflicts, when SSW is active and thus actively controlling the steering column then Easy Entry Easy Exit functionality will be disabled. When SSW becomes inactive then Easy Entry Easy Exit will recover functionality.

2.1.7 Rejuvenate

The Rejuvenate feature also stores and recalls positional settings for the steering column and driver seat. To prevent conflicts, when Rejuvenate is active and thus actively controlling the steering column then Easy Entry Easy Exit functionality will be disabled. When Rejuvenate becomes inactive, then Easy Entry Easy Exit will recover functionality.

2.1.8 Switchless Memory

Switchless Memory does not create any requirements or use cases for Classic Memory and thus is not a variant. However, the shift from manual to automatic triggers warrants a description of how the Classic Memory feature is affected.

The Reductive Switch effort aims to remove many physical switches from a vehicle. The effort for the Memory Switches, Switchless Memory, removes functionality from the basic Classic Memory feature. It is designed to remove the physical memory switches and thus remove the user’s ability to store or recall the Classic Memory feature manually. Switchless Memory is dependent on the redundant functionality of Enhanced Memory and Auto Save (function of Personal and Portable Profiles). Enhanced Memory recalls profiles when the user selects them in SYNC or unlocks the vehicle with a remote transmitter. Enhanced Memory will become the only way for the user to recall a profile. Auto Save stores positional settings when the user adjusts positional settings. Auto Save will be the way the user stores updates to their positional settings (Note: Enhanced Memory also triggers the store of positional settings at the instance the Driver Profile is created).

Normally during Driver/Passenger Profile creation the user would select a Memory Switch. Each Memory Switch (1,2,3) was permanently associated to a memory location (1,2,3). Classic Memory and Enhanced Memory would then associate their respective created profiles (one storing positionals and the other digital settings) to the memory location associated to the selected Memory Switch. When Switchless Memory is available then during the creation of a Driver/Passenger Profile, Enhanced Memory will automatically associate the new profile to the next memory location available. (ex. If driver memory location 1 has been associated to a Driver Profile then Enhanced Memory will associate the next Driver Profile to memory location 2). During the creation process Enhanced Memory will send a Copy command (within Feature\_Rq) to Classic Memory. This command will include the memory location in which to store the current positional settings.

Switchless Memory is dependent on Enhanced Memory and Auto Save and thus cannot function on a program without them.

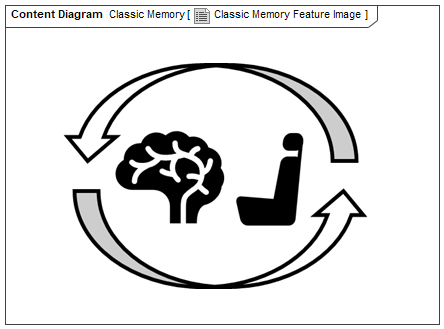


Figure 2: Classic Memory Feature Image

## Feature Variants

| **Variant Name** | **Variant Description** | **Remarks** |
| --- | --- | --- |
| **Advanced Classic Memory** | The Advanced Classic Memory variant adds functionality onto the basic Classic Memory feature. It is designed to 1) allow users to associated remote transmitters (RKEs) to memory locations and 2) display prompts to assist the user with memory functionality. Users were unaware and unfamiliar with the process of associating a remote transmitter, so this variant provides additional instructions on the prompts to guide the user through the remote transmitter process.  When settings are stored to a memory location and there is no remote transmitter associated to that memory location then Advanced Classic Memory will prompt the user. The prompt will assist the user on how to pair a remote transmitter. If the user desires to associate more remote transmitters, then they have the option to add up to a total of 12 remote transmitters (Remote keyless entries or RKEs). These RKEs can include 8 integrated keyhead transmitters (IKTs) + 4 passive keys (PKs). An IKT is a key with a blade and PK is without a blade (used for PEPS). Pressing and holding a memory location will generate 2 beeps indicating a remote transmitter may be associated or disassociated. There are no prompts when associating or disassociating additional remote transmitters.  Advanced Classic Memory is designed to allow the user to use remote transmitters when the Enhanced Memory feature is not available. Thus the Advanced Classic Memory variant cannot function on a program that also has Enhanced Memory |  |

Table 2: Feature Variants

### Regions & Markets

| **Market /**  **Region**  Variant Name | **North America** | **South America** | **Europe** | **Middle East/Africa** | **Asia / Pacific** | **China** |
| --- | --- | --- | --- | --- | --- | --- |
| **Advanced Classic Memory** | Optional |  | Optional |  |  | Optional |

Table 3: Regions & Markets

## Input Requirements/Documents

| **Reference**  (Reference as listed in ch. “References”) | **Section/Requirement** | **Description** | **Derived Requirement**  (optional – reference to requirement in ch. “Feature Implementation Requirements”) |
| --- | --- | --- | --- |
| **Attribute Requirements** | | | |
| **Ford Engineering Standards** | | | |
|  | <Example: some SDS (requirement)> |  |  |
| **Legal Regulations** | | | |
|  | Compliance with FMVSS101 | The Feature shall comply with FMVSS101. |  |
| **Industry Standards** | | | |
|  | ISO 26262 | The system should be developed according to Ford's implementation of Functional Safety. |  |
| **Other Sources** | | | |

Table 2‑1: Input Requirements/Documents

## Lessons Learned

1. 1/3 of users rely on the Driver Seat Memory Buttons for recalling user settings
2. No system has been in place to instruct user how to pair key fobs
3. 30% of users rely on memory controls as primary recall method
4. 30% of the population recall with the door closed and ignition OFF as their primary method (60% of the time) (other 70% recall with door closed and IGN ON)
5. Advanced Classic Memory adds prompts to assist user in pairing a key fob

## Assumptions

Automatic Transmission - Safe for Recall

While the vehicle has automatic transmission, the vehicle will provide notification when the transmission gear is Park or Neutral

|  |
| --- |
| **Purpose** |
| Positional setting recalls can only occur when the vehicle is not in motion (a gear for motion is not selected) |

Vehicle has Memory Features

Vehicle has Memory features:

Memory Driver Seat

Memory Passenger Seat (optional)

Memory Steering Column (optional)

Memory Side Mirrors (optional)

Memory Pedals (optional)

A HUD (optional)

|  |
| --- |
| **Purpose** |
| There are positional setting elements available to be controlled by Classic Memory |

Manual Transmission - Safe for Recall

While the vehicle has manual transmission, the vehicle will provide notification when the transmission gear is Neutral or when Park Brake is engaged

|  |
| --- |
| **Purpose** |
| Positional setting recalls can only occur when the vehicle is not in motion (a gear for motion is not selected) |

Vehicle Speed - Safe for Recall

Vehicle will provide status of speed indicating if it is above or below Vehicle Speed Threshold

|  |
| --- |
| **Purpose** |
| Positional setting recalls can only occur when the vehicle is not in motion (speed below threshold) |

Vehicle has HMI

Vehicle has HMI

|  |
| --- |
| **Purpose** |
| Vehicle has ability to visually notify user |

# Feature Context

## Feature Context Diagram

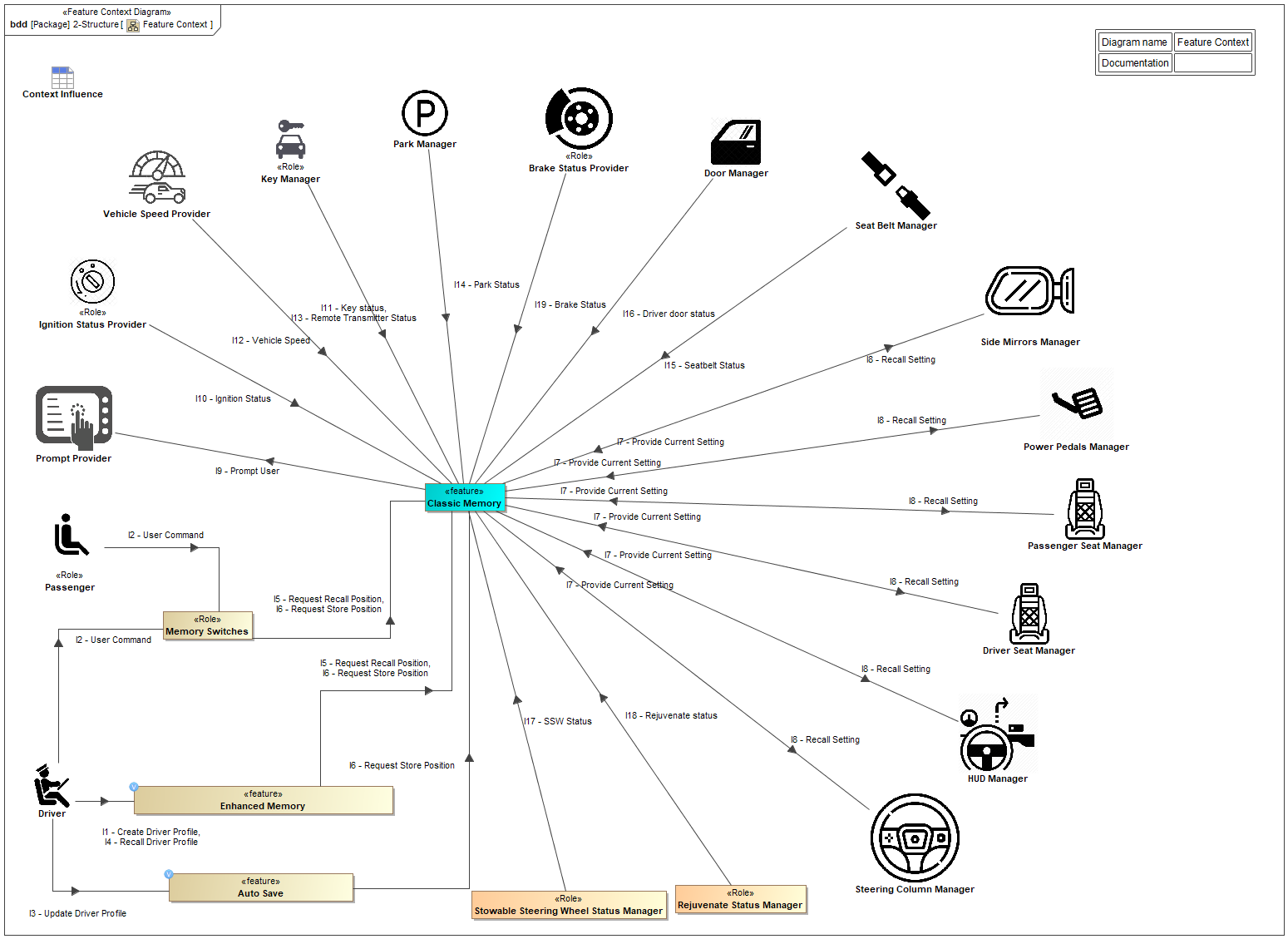


Figure 4: Feature Context

## List of Influences

| **ID** | **External Entity** | **Influence Description** |
| --- | --- | --- |
| I1 - Create Driver Profile | Driver To Enhanced Memory | User creates a driver profile for digital and positional settings |
| I2 - User Command | Driver To Memory Switches | User interaction with the switches |
| Passenger To Memory Switches | User interaction with the switches |
| I3 - Update Driver Profile | Driver To Auto Save | User updates a driver profile for digital and positional settings |
| I4 - Recall Driver Profile | Driver To Enhanced Memory | User can select his profile and recall settings |
| I5 - Request Recall Position | Enhanced Memory To Classic Memory | Request to Recall positional settings |
| Memory Switches To Classic Memory | Request to Recall positional settings |
| I6 - Request Store Position | Auto Save To Classic Memory | Request to Store positional settings |
| Enhanced Memory To Classic Memory | Request to Store positional settings |
| Memory Switches To Classic Memory | Request to Store positional settings |
| I7 - Provide Current Setting | Driver Seat Manager To Classic Memory | Save Positional Setting |
| HUD Manager To Classic Memory | Save Positional Setting |
| Memory Switches To Classic Memory | Save Positional Setting |
| Passenger Seat Manager To Classic Memory | Save Positional Setting |
| Power Pedals Manager To Classic Memory | Save Positional Setting |
| Side Mirrors Manager To Classic Memory | Save Positional Setting |
| Steering Column Manager To Classic Memory | Save Positional Setting |
| I8 - Recall Setting | Classic Memory To Driver Seat Manager | Recall Positional Setting |
| Classic Memory To HUD Manager | Recall Positional Setting |
| Classic Memory To Passenger Seat Manager | Recall Positional Setting |
| Classic Memory To Power Pedals Manager | Recall Positional Setting |
| Classic Memory To Side Mirrors Manager | Recall Positional Setting |
| Classic Memory To Steering Column Manager | Recall Positional Setting |
| I9 - Prompt User | Classic Memory To Prompt Provider | Use of HMI to let know the user the position is stored |
| I10 - Ignition Status | Ignition Status Provider To Classic Memory | Ignition state of the vehicle |
| I11 - Key status | Key Manager To Classic Memory | Status of the key fob monitored by CM |
| I12 - Vehicle Speed | Vehicle Speed Provider To Classic Memory | Current speed of the vehicle |
| I13 - Remote Transmitter Status | Key Manager To Classic Memory | Status of the remote transmitter |
| I14 - Park Status | Park Manager To Classic Memory | User creates a driver profile for digital and positional settings |
| I15 - Seatbelt Status | Seat Belt Manager To Classic Memory | Status of driver seatbelt |
| I16 - Driver door status | Door Manager To Classic Memory | Status of driver's door |
| I17 - SSW Status | Stowable Steering Wheel Status Manager To Classic Memory | Status of SSW Feature |
| I18 - Rejuvenate status | Rejuvenate Status Manager To Classic Memory | Status of Rejuvenate Feature |
| I19 - Brake Status | Brake Status Provider To Classic Memory | Status of the brake pedal |

Table 9: List of Influences

# Feature Modeling

## Operation Modes and States

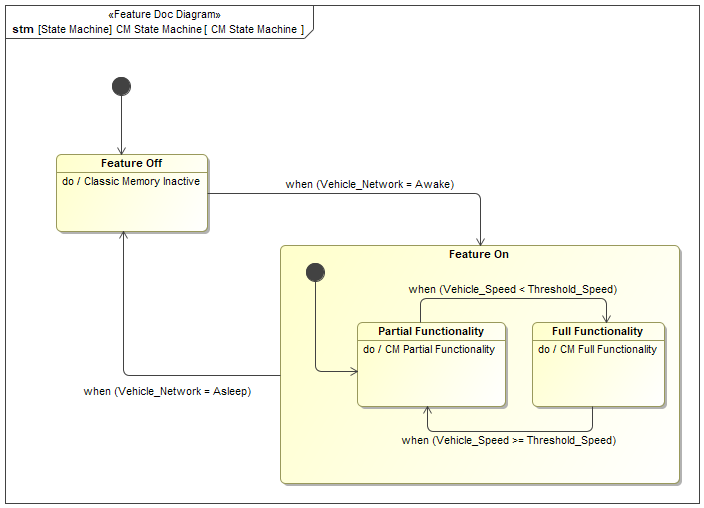


Figure 5: CM State Machine

| **State** | **Description** | **Requirements Reference** (optional) |
| --- | --- | --- |
| Feature Off | Classic Memory is not Functional  Do behavior: Classic Memory Inactive |  |
| Feature On | Classic Memory has functionality |  |
| Full Functionality | Classic Memory can store and recall positional settings  Do behavior: CM Full Functionality |  |
| Partial Functionality | Classic Memory can Store but not Recall positional settings  Do behavior: CM Partial Functionality |  |

Table 10: Operation Modes and States on CM State Machine

| **Transition ID** | **Source** | **Destination** | **Description** | **Requirements Reference**  (optional) |
| --- | --- | --- | --- | --- |
| T1 | Feature On | Feature Off | Documentation: 456  ChangeEvent when (Vehicle\_Network = Asleep) |  |
| T2 | Full Functionality | Partial Functionality | ChangeEvent when (Vehicle\_Speed >= Threshold\_Speed) |  |
| T3 |  |  |  |  |
| T4 | Partial Functionality | Full Functionality | ChangeEvent when (Vehicle\_Speed < Threshold\_Speed) |  |
| T5 |  |  |  |  |
| T6 | Feature Off | Feature On | ChangeEvent when (Vehicle\_Network = Awake) |  |

Table 11: Transitions between Operation Modes and States on CM State Machine

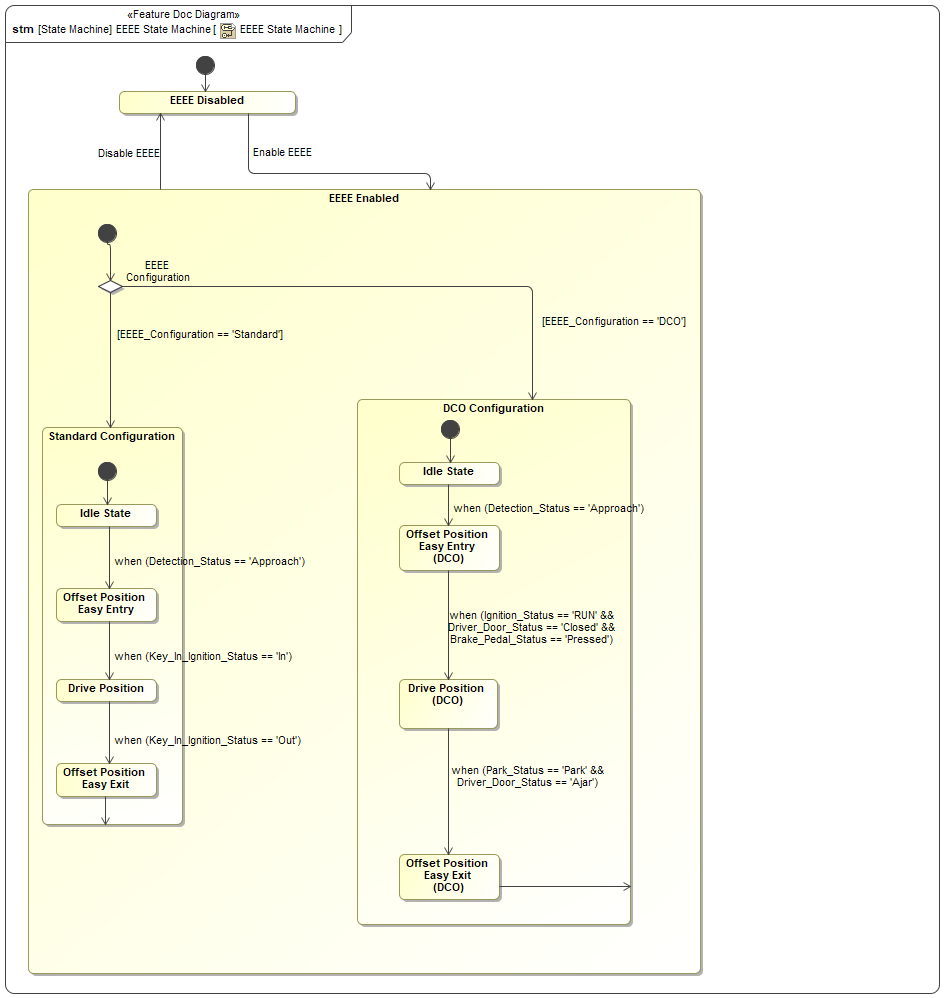


Figure 5: EEEE State Machine

| **State** | **Description** | **Requirements Reference** (optional) |
| --- | --- | --- |
| DCO Configuration | State that represents that EEEE will work under DCO Configuration |  |
| Drive Position | EEEE will go to Drive Position |  |
| Drive Position (DCO) | EEEE will go to Drive Position (DCO Configuration) |  |
| EEEE Disabled | EEEE is Disabled |  |
| EEEE Enabled | EEEE is Enabled |  |
| Idle State | State in which EEEE is waiting for an input |  |
| Idle State | State in which EEEE is waiting for an input |  |
| Offset Position Easy Entry | EEEE will go to Offset position for an easy entry |  |
| Offset Position Easy Entry (DCO) | EEEE will go to Offset position for an easy entry (DCO Configuration) |  |
| Offset Position Easy Exit | EEEE will go to Offset position for an easy exit |  |
| Offset Position Easy Exit  (DCO) | EEEE will go to Offset position for an easy exit (DCO Configuration) |  |
| Standard Configuration | State that represents that EEEE will work under Standard Configuration (No DCO) |  |

Table 10: Operation Modes and States on EEEE State Machine

| **Transition ID** | **Source** | **Destination** | **Description** | **Requirements Reference**  (optional) |
| --- | --- | --- | --- | --- |
| T1 |  |  |  |  |
| T2 | Drive Position | Offset Position Easy Exit | ChangeEvent when (Key\_In\_Ignition\_Status == 'Out') |  |
| T3 | EEEE Disabled | EEEE Enabled | Trigger signal: Enable EEEE  SignalEvent Enable EEEE |  |
| T4 | Idle State | Offset Position Easy Entry (DCO) | ChangeEvent when (Detection\_Status == 'Approach') |  |
| T5 |  |  |  |  |
| T6 | Offset Position Easy Entry (DCO) | Drive Position (DCO) | Name: when  (Ignition\_Status == 'RUN' &&  Driver\_Door\_Status == 'Closed' &&  Brake\_Pedal\_Status == 'Pressed')  ChangeEvent when (Ignition\_Status == 'RUN' && Driver\_Door\_Status == 'Closed' && Brake\_Pedal\_Status == 'Pressed') |  |
| T7 | Idle State | Offset Position Easy Entry | ChangeEvent when (Detection\_Status == 'Approach') |  |
| T8 | EEEE Configuration | Standard Configuration | Guard: EEEE\_Configuration == 'Standard' |  |
| T9 | Offset Position Easy Entry | Drive Position | ChangeEvent when (Key\_In\_Ignition\_Status == 'In') |  |
| T10 | Drive Position (DCO) | Offset Position Easy Exit  (DCO) | ChangeEvent when (Park\_Status == 'Park' && Driver\_Door\_Status == 'Ajar') |  |
| T11 | EEEE Enabled | EEEE Disabled | Trigger signal: Disable EEEE  SignalEvent Disable EEEE |  |
| T12 | Offset Position Easy Exit | Standard Configuration |  |  |
| T13 |  |  |  |  |
| T14 |  |  |  |  |
| T15 | EEEE Configuration | DCO Configuration | Guard: EEEE\_Configuration == 'DCO' |  |
| T16 | Offset Position Easy Exit  (DCO) | DCO Configuration |  |  |

Table 11: Transitions between Operation Modes and States on EEEE State Machine

## Use Cases

### Use Case Diagram

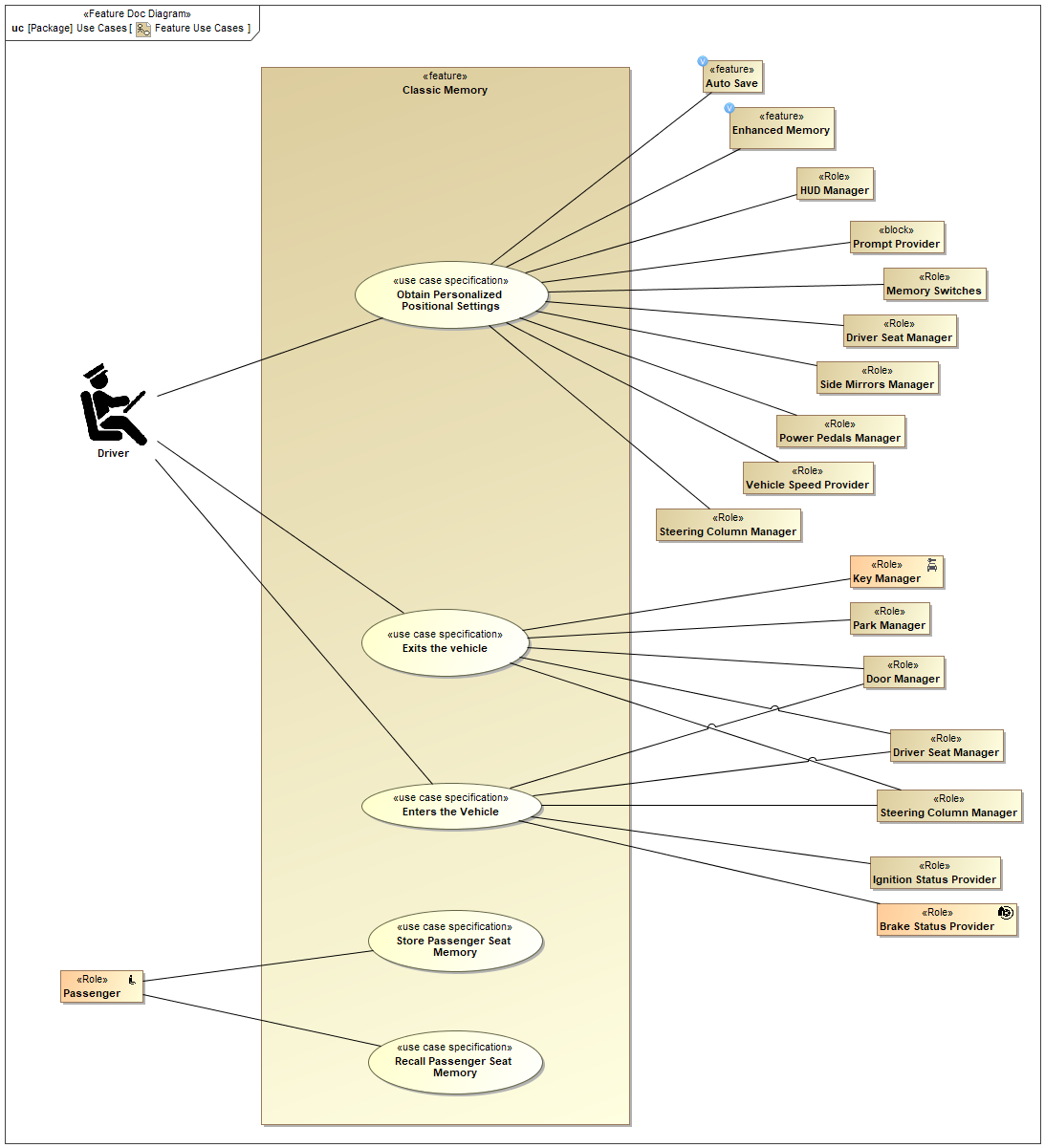


Figure 6: Feature Use Cases

### Actors

| **Actor** | **Description** |
| --- | --- |
| Auto Save | Indirect Save Requester |
| Brake Status Provider | Provides Status of the Brake pedal |
| Door Manager | Provides Status of the vehicle doors |
| Driver | User of the Feature |
| Driver Seat Manager | Manager that will handle the driver seat position |
| Enhanced Memory | Driver Profile Manager |
| HUD Manager | Manager that will handle the HUD position |
| Ignition Status Provider | The responsible to provide the ignition status to classic memory |
| Key Manager | Provides the status of the key |
| Memory Switches | Switch for the user input |
| Park Manager | Provides Park status |
| Passenger |  |
| Power Pedals Manager | Manager that will handle the power pedals position |
| Prompt Provider | Human Machine Interface |
| Side Mirrors Manager | Manager that will handle the side mirrors position |
| Steering Column Manager | Manager that will handle the steering column position |
| Vehicle Speed Provider | Responsible of providing vehicle speed to classic memory |

Table 12: List of Actors

### Use Case Descriptions

Enters the Vehicle

|  |  |  |
| --- | --- | --- |
| **Actors** | Primary | Driver |
| Secondary | Brake Status Provider |
| Secondary | Driver Seat Manager |
| Secondary | Key Manager |
| Secondary | Door Manager |
| Secondary | Steering Column Manager |
| **Subject** |  | Classic Memory |
| **Description** |  |  |
| **Preconditions** | PreC1 | Steering wheel and seat on offset position |
| **Main Flow Description** |  | The steering wheel and seat will go to drive position for the user to begin his journey |
| **Main Flow** | M1 | User enters the vehicle |
| M2 | User turns ignition on |
| M3 | Steering wheel and seat will move to drive position |
| **Alternative Flow Description** |  | DCO Implemented: The steering wheel and seat will go to drive position for the user to begin his journey |
| **Alternative Flow Steps** | A1 | User enters the vehicle |
| A2 | User presses brake pedal |
| A3 | Key is detected inside the vehicle |
| A4 | Steering wheel and seat will move to drive position |
| **Postconditions** | PostC1 | Steering wheel and seat in drive position |

Exits the vehicle

|  |  |  |
| --- | --- | --- |
| **Actors** | Primary | Driver |
| Secondary | Key Manager |
| Secondary | Door Manager |
| Secondary | Steering Column Manager |
| Secondary | Park Manager |
| Secondary | Driver Seat Manager |
| **Subject** |  | Classic Memory |
| **Description** |  |  |
| **Preconditions** | PreC1 | Steering wheel and seat on drive position |
| **Main Flow Description** |  | The steering wheel and seat will go to offset position for the user to exit the vehicle |
| **Main Flow** | M1 | User turns ignition off |
| M2 | Steering wheel and seat will move to offset position |
| **Alternative Flow Description** |  | DCO Implemented: The steering wheel and seat will go to offset position for the user to exit the vehicle |
| **Alternative Flow Steps** | A1 | User puts vehicle in Park |
| A2 | User disengages the seatbelt |
| A3 | Steering wheel and seat will move to ofsset position |
| **Postconditions** | PostC1 | Steering wheel and seat in offset position |

Recall Passenger Seat Memory

|  |  |  |
| --- | --- | --- |
| **Actors** | Primary |  |
| Secondary |  |
| **Subject** |  | Classic Memory |
| **Description** |  |  |
| **Preconditions** |  |  |

Store Passenger Seat Memory

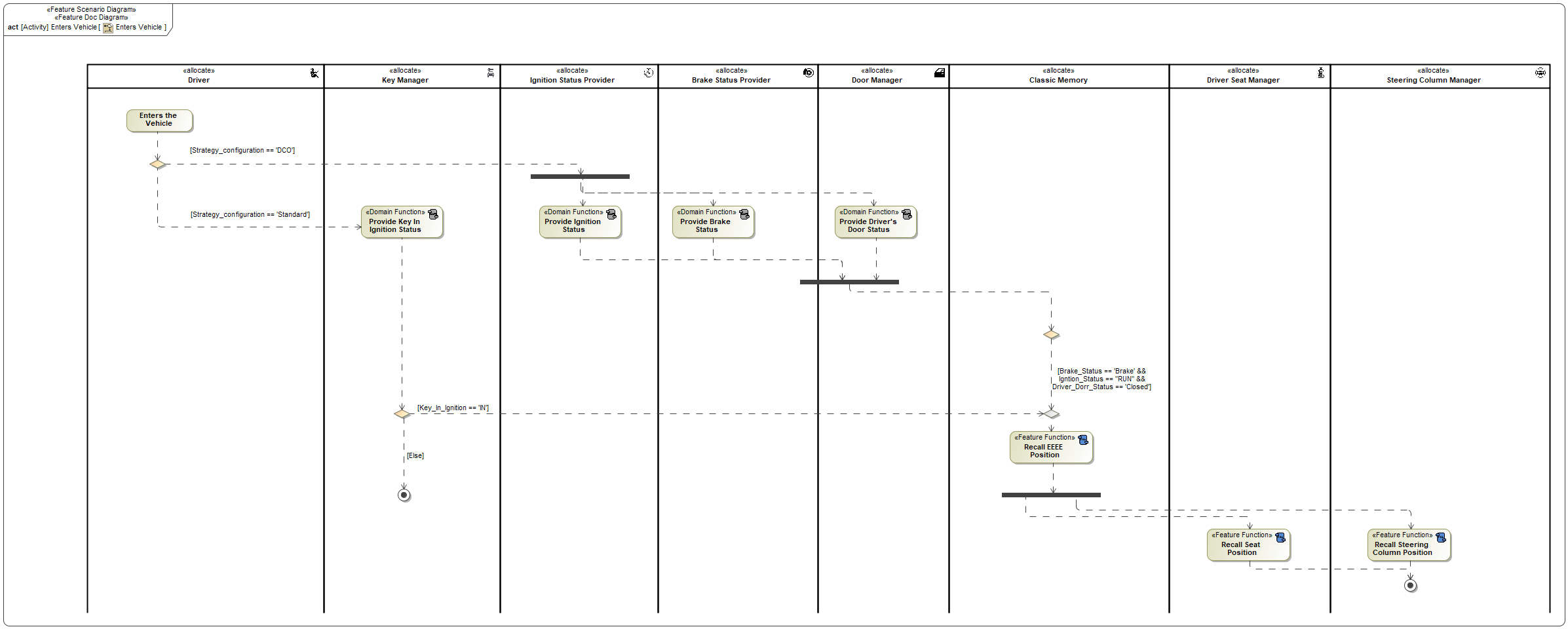
|  |  |  |
| --- | --- | --- |
| **Actors** | Primary |  |
| Secondary |  |
| **Subject** |  | Classic Memory |
| **Description** |  |  |
| **Preconditions** |  |  |

Obtain Personalized Positional Settings

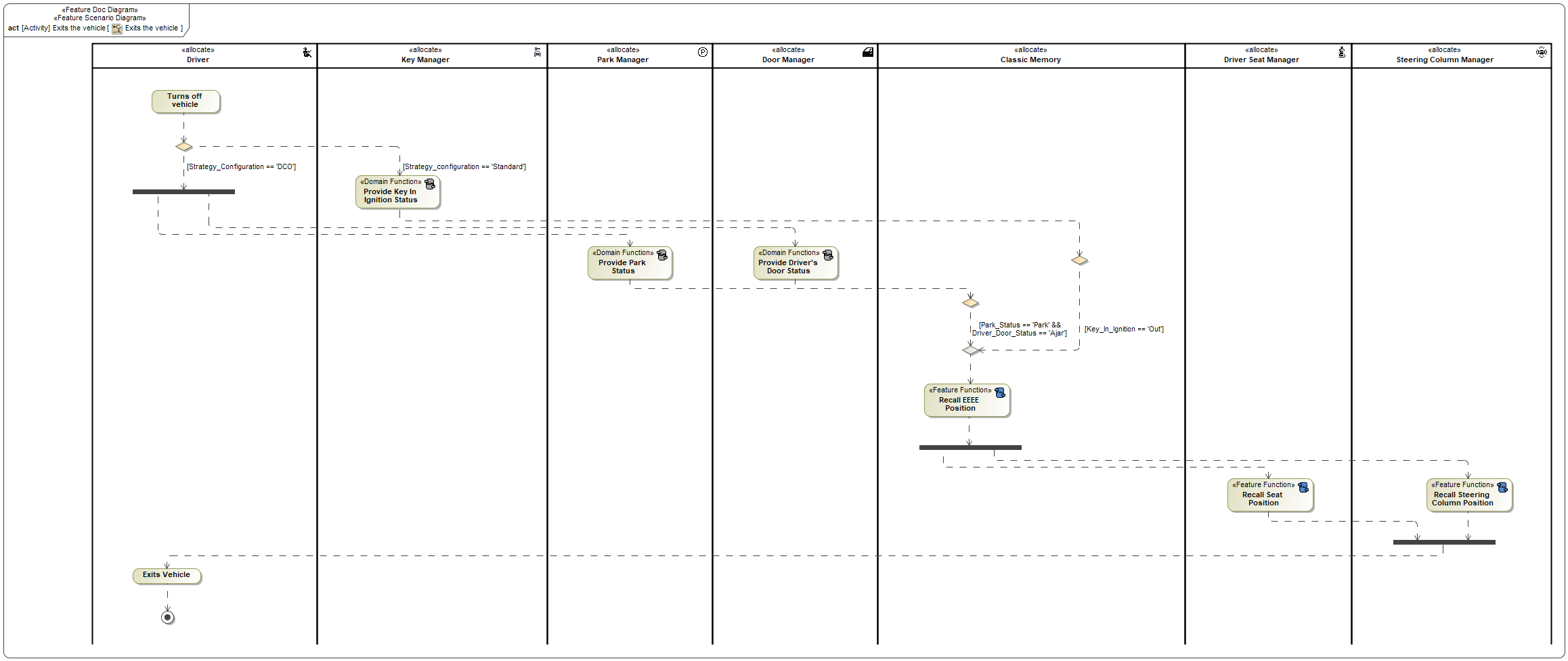
|  |  |  |
| --- | --- | --- |
| **Actors** | Primary | Driver |
| Secondary | Auto Save |
| Secondary | Driver Seat Manager |
| Secondary | Enhanced Memory |
| Secondary | HUD Manager |
| Secondary | Memory Switches |
| Secondary | Power Pedals Manager |
| Secondary | Prompt Provider |
| Secondary | Steering Column Manager |
| Secondary | Side Mirrors Manager |
| Secondary | Vehicle Speed Provider |
| **Subject** |  | Classic Memory |
| **Description** |  |  |
| **Preconditions** | PreC1 | Classic memory avaialbe on the vehicle |

## Driving and Operation Scenarios

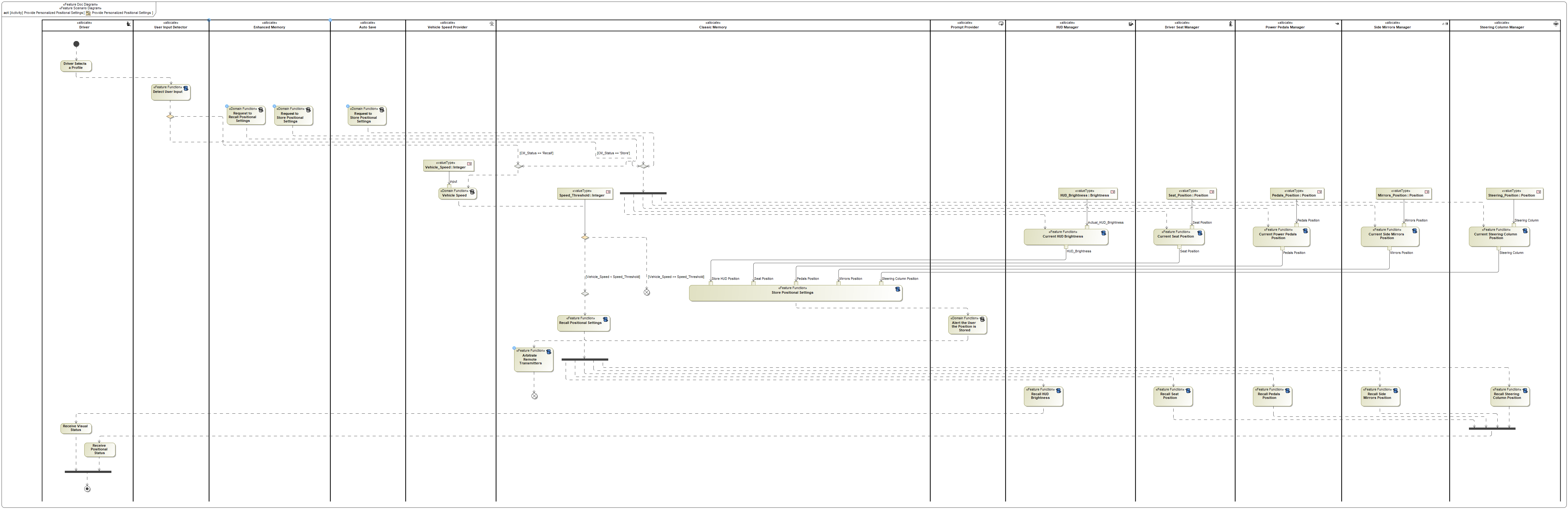
Enters Vehicle



Exits the vehicle

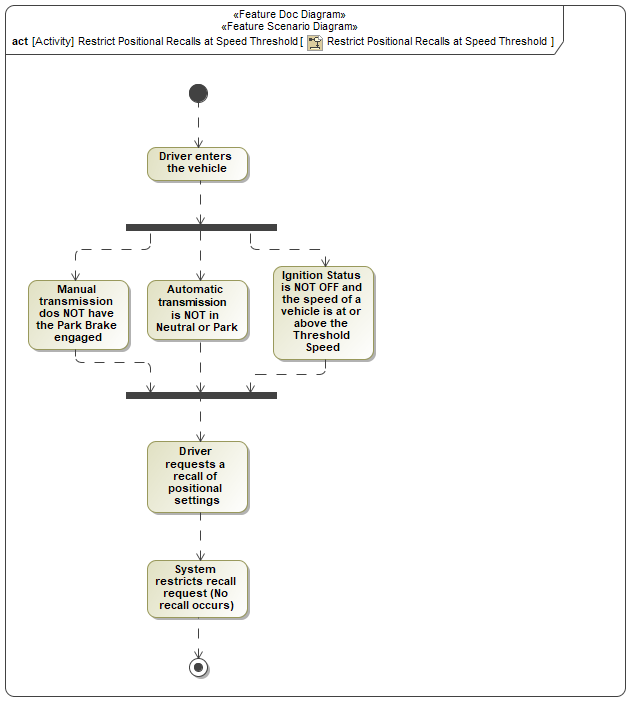


Provide Personalized Positional Settings



Restrict Positional Recalls at Speed Threshold

There are various methods (Brake, Gear, and Seed) for detecting that a vehicle is operating in a way such that automatic positional movement is deemed not safe.



## Decision Tables

*Not supported by MagicDraw report generation.*

# Feature Requirements

## Functional Requirements

Feature\_Req\_1 RKE Automatic Trigger

While

- Classic Memory feature is set to the Advanced Classic Memory configuration

- Vehicle Speed is below Vehicle Speed Threshold

- There is no remote transmitter associated to the memory location being stored

When a Classic Memory store occurs then the Classic Memory feature shall

- Display an Advanced Classic Memory store prompt instead of the Classic Memory store prompt

- Enter Wait Mode for a valid remote transmitter signal

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: Feature\_Req\_1 | | | | | | | |
| **Rationale** |  | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** |  |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** |  | **Status** | In-Progress |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Feature\_Req\_2 RKE Manual Trigger

While

- Classic Memory feature is set to the Advanced Classic Memory configuration

- Vehicle Speed is below Vehicle Speed Threshold

- There is at least one remote transmitter associated to the memory location being stored

When a Classic Memory store occurs then the Classic Memory feature shall enter Wait Mode for a valid remote transmitter signal

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: Feature\_Req\_2 | | | | | | | |
| **Rationale** |  | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** |  |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** |  | **Status** | In-Progress |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Feature\_Req\_3 RKE Association

While

- Vehicle Speed is below Vehicle Speed Threshold

- Classic Memory feature is waiting for a valid remote transmitter signal

When a valid remote transmitter 'Lock' signal is identified then the Classic Memory feature shall

- Associate the remote transmitter that sent the 'Lock' signal with the current memory location

- Display a prompt indicating successful remote transmitter association

- Exit Wait Mode

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: Feature\_Req\_3 | | | | | | | |
| **Rationale** |  | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** |  |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** |  | **Status** | In-Progress |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Feature\_Req\_5 RKE Dissociation

While

- Ignition Status is Not OFF

- Vehicle Speed is below Vehicle Speed Threshold

- Classic Memory feature is in Wait Mode for a valid remote transmitter signal

When a valid remote transmitter 'Unlock' signal is identified then the Classic Memory feature shall:

- Dissociate the remote transmitter that sent the 'Unlock' signal with the current memory location

- Exit Wait Mode

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: Feature\_Req\_5 | | | | | | | |
| **Rationale** |  | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** |  |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** |  | **Status** | In-Progress |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Feature\_Req\_6 RKE Incomplete

When the Classic Memory feature enters Wait Mode for a valid remote transmitter signal and no valid signal is identified within Transmitter Wait Period then the Classic Memory feature shall exit Wait Mode

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: Feature\_Req\_6 | | | | | | | |
| **Rationale** |  | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** |  |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** |  | **Status** | In-Progress |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Feature\_Req\_8 Personalization - ACM Recall Methods

The Classic Memory feature shall recall the associated memory location when it receives one of the following triggers:

- Selecting a memory location via a Memory Input

- Recalling a memory location via Enhanced Memory feature

- A valid remote transmitter associated to a memory location is detected at vehicle unlock

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: Feature\_Req\_8 | | | | | | | |
| **Rationale** |  | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** |  |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** |  | **Status** | In-Progress |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Feature\_Req\_9 Personalization - CM Recall Methods

The Classic Memory feature shall recall the associated memory location when it recieves one of the following triggers:

- Selecting a memory location via a Memory Input

- Recalling a memory location via Enhanced Memory feature

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: Feature\_Req\_9 | | | | | | | |
| **Rationale** |  | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** |  |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** |  | **Status** | In-Progress |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Feature\_Req\_10 Personalization - Manual Move Cancels Automatic Movement

When any memory commodity for a user is manually operated then Classic Memory feature shall cease any active Classic Memory recall for all memory commodities of that user

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: Feature\_Req\_10 | | | | | | | |
| **Rationale** |  | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** |  |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** |  | **Status** | In-Progress |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Feature\_Req\_11 Personalization - Memory Set Indicator Cancels Automatic Movement

When the Memory Set Indicator for a user is selected then Classic Memory feature shall cease any active Classic Memory recall for all memory commodities of that user

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: Feature\_Req\_11 | | | | | | | |
| **Rationale** |  | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** |  |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** |  | **Status** | In-Progress |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Feature\_Req\_12 Personalization - Recall Cancels Automatic Movement

When a Classic Memory recall occurs for a user then Classic Memory feature shall cease any active automatic movement for all memory commodities of that user

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: Feature\_Req\_12 | | | | | | | |
| **Rationale** |  | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** |  |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** |  | **Status** | In-Progress |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Feature\_Req\_13 Personalization - Store Cancels Automatic Movement

When a Classic Memory store occurs for a user then Classic Memory feature shall cease any active Classic Memory recall for all memory commodities of that user

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: Feature\_Req\_13 | | | | | | | |
| **Rationale** |  | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** |  |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** |  | **Status** | In-Progress |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Feature\_Req\_14 Personalization - Memory Set Indicator Trigger

While the Classic Memory feature is not waiting

When the Memory Set Indicator for a user is selected then the Classic Memory feature shall:

- Emit chime

- Display a prompt with instructions for storing a memory location

- Enter Wait Mode for the user to be select a memory location

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: Feature\_Req\_14 | | | | | | | |
| **Rationale** |  | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** |  |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** |  | **Status** | In-Progress |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Feature\_Req\_16 Personalization - Memory Set Indicator Store

While:

- Classic Memory feature in Wait Mode for the user to be select a memory location

- Set Selection Period has not elapsed

When the user selects a memory location occurs then the Classic Memory feature shall:

- Exit Wait Mode

- Classic Memory store to the user’s selected memory location

- Emit chime

- Display prompt indicating store complete

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: Feature\_Req\_16 | | | | | | | |
| **Rationale** |  | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** |  |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** |  | **Status** | In-Progress |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Feature\_Req\_19 Personalization - Memory Set Indicator Cease Waiting

While the Classic Memory feature is in Wait Mode for the user to be select a memory location and Set Selection Period elapses then the Classic Memory feature shall exit Wait Mode

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: Feature\_Req\_19 | | | | | | | |
| **Rationale** |  | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** |  |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** |  | **Status** | In-Progress |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Feature\_Req\_20 Personalization - Memory Set Indicator Second Trigger

While the Classic Memory feature is in Wait Mode for the user to be select a memory location and the Memory Set Indicator for that user is selected then the Classic Memory feature shall exit Wait Mode

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: Feature\_Req\_20 | | | | | | | |
| **Rationale** |  | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** |  |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** |  | **Status** | In-Progress |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Feature\_Req\_21 Personalization - Memory Set Illuminate

While the Classic Memory feature is in Wait Mode for the user to be select a memory location then that user’s Memory Set indicator shall be illuminated

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: Feature\_Req\_21 | | | | | | | |
| **Rationale** |  | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** |  |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** |  | **Status** | In-Progress |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Feature\_Req\_22 Personalization - Memory Store

When a Classic Memory store occurs for a user's memory location then the Classic Memory feature shall notify all memory commodities for that user to store the current positional settings to that memory location

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: Feature\_Req\_22 | | | | | | | |
| **Rationale** |  | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** |  |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** |  | **Status** | In-Progress |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Feature\_Req\_23 Personalization - Memory Recall

When a Classic Memory recall occurs for a user's memory location then the Classic Memory feature shall notify all memory commodities for that user to recall the positional settings stored in that memory location

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: Feature\_Req\_23 | | | | | | | |
| **Rationale** |  | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** |  |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** |  | **Status** | In-Progress |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Feature\_Req\_24 Personalization - Memory Input Store

While a vehicle does not have a Memory Set Indicator and a user selects a memory location via Memory Input for equal or longer than Memory Selection Period then the Classic Memory feature shall trigger a Classic Memory store

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: Feature\_Req\_24 | | | | | | | |
| **Rationale** |  | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** |  |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** |  | **Status** | In-Progress |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Feature\_Req\_26 Driver Profile Creation - Button Association Mode

When Button Association Mode becomes Active for a user then the Classic Memory feature shall enter Wait Mode for the user to be select a memory location

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: Feature\_Req\_26 | | | | | | | |
| **Rationale** |  | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** |  |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** |  | **Status** | In-Progress |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Feature\_Req\_27 Driver Profile Creation - Store

While the Classic Memory feature is in Wait Mode for the user to be select a memory location and Button Association Mode is Active when selection of a user’s memory location occurs then the Classic Memory feature shall trigger a Classic Memory store to the selected memory location and notify the Enhanced Memory feature of the selected memory location

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: Feature\_Req\_27 | | | | | | | |
| **Rationale** |  | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** |  |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** |  | **Status** | In-Progress |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Feature\_Req\_28 Driver Profile Creation - Cease Waiting

While the Classic Memory feature is in Wait Mode for the user to be select a memory location and Button Association Mode is Active when Association Selection Period elapses then the Classic Memory feature shall exit Wait Mode and notify the Enhanced Memory feature of the timeout

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: Feature\_Req\_28 | | | | | | | |
| **Rationale** |  | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** |  |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** |  | **Status** | In-Progress |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Feature\_Req\_30 Auto Save Feature Store

When the Personal and Portable Profile feature requests an update for the active memory location of a user then the Classic Memory feature shall perform a Classic Memory store to the active memory location

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: Feature\_Req\_30 | | | | | | | |
| **Rationale** |  | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** |  |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** |  | **Status** | In-Progress |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Feature\_Req\_31 Enhanced Memory Recall - EM to CM

When the Enhanced Memory feature triggers an Enhanced Memory recall of a memory location then the Classic Memory feature shall trigger a Classic Memory recall of that memory location

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: Feature\_Req\_31 | | | | | | | |
| **Rationale** |  | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** |  |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** |  | **Status** | In-Progress |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Feature\_Req\_32 Enhanced Memory Recall - CM to EM

When the user requests the Classic Memory feature to recall a memory location and the Enhanced Memory feature is available on the vehicle then the Classic Memory feature shall notify the Enhanced Memory feature of the recall

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: Feature\_Req\_32 | | | | | | | |
| **Rationale** |  | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** |  |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** |  | **Status** | In-Progress |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Feature\_Req\_33 Classic Memory Restriction Settings - Settings

The Restriction Settings for the Classic Memory feature are:

- Factory

- Vehicle

- Moveable\_Person

- Non\_Moveable\_Person

|  |  |  |  |  |  |  |  |
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| Requirement ID: Feature\_Req\_33 | | | | | | | |
| **Rationale** |  | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** | "The Restriction Settings for the Classic Memory feature are:  - Factory  - Vehicle  - Moveable\_Person  - Non\_Moveable\_Person" | | | | | | |
| **Source** |  | | | | | **Owner** |  |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** |  | **Status** | In-Progress |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Feature\_Req\_34 Classic Memory Restriction Settings - Factory Setting

When the Restriction Setting is 'Factory' then the Classic Memory feature shall:

- set all memory locations to Default Profile

- not allow the store of changes to profiles

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: Feature\_Req\_34 | | | | | | | |
| **Rationale** |  | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** |  |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** |  | **Status** | In-Progress |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Feature\_Req\_35 Classic Memory Restriction Settings - Vehicle Setting

When the Restriction Setting is 'Vehicle' then the Classic Memory feature shall:

- set all memory locations to Vehicle Profile

- allow store of changes to Vehicle Profile (changes applied to all memory locations)

|  |  |  |  |  |  |  |  |
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| Requirement ID: Feature\_Req\_35 | | | | | | | |
| **Rationale** |  | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** |  |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** |  | **Status** | In-Progress |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Feature\_Req\_36 Classic Memory Restriction Settings - Moveable Person Setting

When the Restriction Setting is 'Moveable\_Person' then the Classic Memory feature shall:

- allow to recall selected Moveable\_Person Profile

- allow to store changes Moveable\_Person Profile (changes only apply to selected memory location)

- allow settings to be saved or loaded from an external storage device

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: Feature\_Req\_36 | | | | | | | |
| **Rationale** |  | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** |  |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** |  | **Status** | In-Progress |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Feature\_Req\_37 Classic Memory Restriction Settings - Non-Moveable Person Setting

When the Restriction Setting is 'Non\_Moveable\_Person' then the Classic Memory feature shall:

- allow recall selected Moveable\_Person Profile

- allow to store changes to Moveable\_Person Profile (changes only apply to selected memory location)

- not allow settings to be saved or loaded from an external storage device

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: Feature\_Req\_37 | | | | | | | |
| **Rationale** |  | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** |  |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** |  | **Status** | In-Progress |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Feature\_Req\_38 Store Prevention - Matching Data

When a Classic Memory store is triggered and the current position to be stored matches the stored position in the memory location then the Classic Memory feature shall not update the memory location

|  |  |  |  |  |  |  |  |
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| Requirement ID: Feature\_Req\_38 | | | | | | | |
| **Rationale** |  | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** |  |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** |  | **Status** | In-Progress |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Feature\_Req\_39 Recall Prevention - Matching Data

When a Classic Memory recall is triggered and the position to be recalled from the memory location matches with current position then the Classic Memory feature shall not notify the memory commodities

|  |  |  |  |  |  |  |  |
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| Requirement ID: Feature\_Req\_39 | | | | | | | |
| **Rationale** |  | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** |  |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** |  | **Status** | In-Progress |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Feature\_Req\_40 Recall Prevention - Vehicle Speed Restriction

When the Classic Memory feature receives notification that the speed of a vehicle is below the Vehicle Speed Threshold then the Classic Memory feature shall allow Classic Memory recalls

|  |  |  |  |  |  |  |  |
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| Requirement ID: Feature\_Req\_40 | | | | | | | |
| **Rationale** |  | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** |  |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** |  | **Status** | In-Progress |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Feature\_Req\_42 Recall Prevention - Automatic Transmission Restriction

While a vehicle with an automatic transmission is in Park or Neutral, only then shall the Classic Memory feature allow a positional settings recall to trigger

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: Feature\_Req\_42 | | | | | | | |
| **Rationale** |  | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** |  |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** |  | **Status** | In-Progress |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Feature\_Req\_43 Recall Prevention - Manual Transmission Restriction

While a vehicle with an manual transmission is in Neutral or has the Park Brake engaged, only then shall the Classic Memory feature allow a positional settings recall to trigger

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: Feature\_Req\_43 | | | | | | | |
| **Rationale** |  | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** |  |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** |  | **Status** | In-Progress |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Feature\_Req\_44 Easy Entry Easy Exit - Toggle Activation

The user shall be able to set Easy Entry Easy Exit enabled/disabled per profile

|  |  |  |  |  |  |  |  |
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| Requirement ID: Feature\_Req\_44 | | | | | | | |
| **Rationale** |  | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** |  |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** |  | **Status** | In-Progress |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Feature\_Req\_45 Easy Entry Easy Exit - Key Trigger to Offset Position

While

- Easy Entry Easy Exit is set Enabled for the active profile

- Easy Entry Easy Exit controlled features are in the drive position

When a Key transitions from inserted to not inserted (Key In Ignition Status: OUT) then the Classic Memory feature shall automatically move Easy Entry Easy Exit controlled commodities to the Easy Entry Easy Exit offset position

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: Feature\_Req\_45 | | | | | | | |
| **Rationale** |  | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** |  |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** |  | **Status** | In-Progress |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Feature\_Req\_46 Easy Entry Easy Exit - Key Trigger to Drive Position

While

- Easy Entry Easy Exit is set enabled for the active profile

- Easy Entry Easy Exit controlled features are in the offset position

When a Key is inserted into the vehicle (Key In Ignition Status: IN) then the Classic Memory feature shall automatically move Easy Entry Easy Exit controlled commodities to the drive position

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: Feature\_Req\_46 | | | | | | | |
| **Rationale** |  | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** |  |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** |  | **Status** | In-Progress |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Feature\_Req\_47 Feature\_Req\_47 Easy Entry Easy Exit - Drive Control Optimization (DCO) - Easy Exit Offset Position - Park Transition

While

- Drive Control Optimization is configured on a vehicle

- Easy Entry Easy Exit is enabled for the active profile

- Driver Door is AJAR

When the vehicle transitions from NOT PARK to PARK then the Classic Memory feature shall automatically move Easy Entry Easy Exit controlled commodities to the Easy Entry Easy Exit offset position

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: Feature\_Req\_47 | | | | | | | |
| **Rationale** |  | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** |  |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** |  | **Status** | In-Progress |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Feature\_Req\_48 Feature\_Req\_48 Easy Entry Easy Exit - Drive Control Optimization (DCO) - Easy Exit Offset Position – Driver Door Transition

While

- Drive Control Optimization is configured on a vehicle

- Easy Entry Easy Exit is enabled for the active profile

- Vehicle is in PARK

When the driver door transitions from closed to Ajar then the Classic Memory feature shall automatically move Easy Entry Easy Exit controlled commodities to the Easy Entry Easy Exit offset position

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: Feature\_Req\_48 | | | | | | | |
| **Rationale** |  | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** |  |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** |  | **Status** | In-Progress |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Feature\_Req\_50 Feature\_Req\_50 Easy Entry Easy Exit - Drive Control Optimization (DCO) - Drive Position

While

- Drive Control Optimization is configured on a vehicle

- Easy Entry Easy Exit is enabled for the active profile

- Easy Entry Easy Exit controlled features are in the offset position

When the break pedal is pressed, driver door is closed and ignition is ON the vehicle then the Classic Memory feature shall automatically move Easy Entry Easy Exit controlled commodities to the drive position

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: Feature\_Req\_50 | | | | | | | |
| **Rationale** |  | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** |  |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** |  | **Status** | In-Progress |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Feature\_Req\_51 Easy Entry Easy Exit - Manual Move - Cancel Automatic Movement

While Easy Entry Easy Exit is automatically moving Easy Entry Easy Exit controlled commodities when the user makes a manual movement of an Easy Entry Easy Exit controlled commodity then the Classic Memory feature shall cancel that automatic movement

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: Feature\_Req\_51 | | | | | | | |
| **Rationale** |  | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** |  |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** |  | **Status** | In-Progress |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Feature\_Req\_52 Easy Entry Easy Exit - Manual Move - Drive Position

While Easy Entry Easy Exit controlled commodities are in the offset position when the user makes a manual movement of an Easy Entry Easy Exit controlled commodity then the Classic Memory feature shall consider the new position the drive position

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: Feature\_Req\_52 | | | | | | | |
| **Rationale** |  | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** |  |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** |  | **Status** | In-Progress |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Feature\_Req\_53 Easy Entry Easy Exit - Store to Drive Position

While the Easy Entry Easy Exit controlled commodities are in the offset position and positional setting store occurs then the Classic Memory feature shall consider the current position the drive position

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: Feature\_Req\_53 | | | | | | | |
| **Rationale** |  | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** |  |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** |  | **Status** | In-Progress |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Feature\_Req\_54 Easy Entry Easy Exit - Recall to Offset Position

When Easy Entry Easy Exit controlled commodities are in the offset position when a Classic Memory recall occurs for a profile with Easy Entry Easy Exit enabled then the Classic Memory feature shall consider the newly recalled memory position the drive position and automatically move Easy Entry Easy Exit controlled commodities to the Easy Entry Easy Exit offset position of the newly recalled drive position

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: Feature\_Req\_54 | | | | | | | |
| **Rationale** |  | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** |  |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** |  | **Status** | In-Progress |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Feature\_Req\_59 Easy Entry Easy Exit - Inhibit Auto Save

While Easy Entry Easy Exit controlled commodities transition to or are in the Easy Entry Easy Exit offset position then Classic Memory shall request Auto Save to inhibit saving functionality

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: Feature\_Req\_59 | | | | | | | |
| **Rationale** |  | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** |  |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** |  | **Status** | In-Progress |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Feature\_Req\_60 Easy Entry Easy Exit - Resume Auto Save

While Easy Entry Easy Exit controlled commodities transition are in the drive position then Classic Memory shall request Auto Save to resume saving functionality

|  |  |  |  |  |  |  |  |
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| Requirement ID: Feature\_Req\_60 | | | | | | | |
| **Rationale** |  | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** |  |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** |  | **Status** | In-Progress |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Feature\_Req\_61 Multicontour Seat

When the Classic Memory feature performs a Classic Memory store or Classic Memory recall for a user and that user has a Multicontour seat then Classic Memory shall notify the Multicontour seat of the respective event (store or recall)

|  |  |  |  |  |  |  |  |
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| Requirement ID: Feature\_Req\_61 | | | | | | | |
| **Rationale** |  | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** |  |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** |  | **Status** | In-Progress |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Feature\_Req\_62 Stowable Steering Wheel - Inhibit EEEE

While The Classic Memory feature receives notification that the Stowable Steering Wheel feature is active then the Classic Memory feature shall inhibit Easy Entry Easy Exit functionality

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: Feature\_Req\_62 | | | | | | | |
| **Rationale** |  | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** |  |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** |  | **Status** | In-Progress |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Feature\_Req\_63 Rejuvenate - Inhibit EEEE

While The Classic Memory feature receives notification that the Rejuvenate feature is active then the Classic Memory feature shall inhibit Easy Entry Easy Exit functionality

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: Feature\_Req\_63 | | | | | | | |
| **Rationale** |  | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** |  |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** |  | **Status** | In-Progress |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Feature\_Req\_64 Rejuvenate - Inhibit EEEE

When Rejuvenate active signal goes from 0 to 1 AND after column movement (if applicable) is finished, disable EEEE functionality for duration of Rejuvenate

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: Feature\_Req\_64 | | | | | | | |
| **Rationale** |  | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** |  |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** |  | **Status** | In-Progress |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Feature\_Req\_65 Rejuvenate - Inhibit EEEE

When Rejuvenate active signal goes from 1 to 0 AND after column return (if applicable) is finished, re-enable EEEE functionality

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: Feature\_Req\_64 | | | | | | | |
| **Rationale** |  | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** |  |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** |  | **Status** | In-Progress |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Feature\_Req\_66 Rejuvenate – Easy Entry / Easy Exit

Easy Entry / Easy Exit is applicable only for driver only

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: Feature\_Req\_64 | | | | | | | |
| **Rationale** |  | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** |  |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** |  | **Status** | In-Progress |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

### Error Handling

No Error Handling Requirements specified.

## Non-Functional Requirements

### Security

No Security Requirements specified.

### Reliability

No Reliability Requirements specified.

### Performance

Feature\_Req\_7 Transmitter Wait Period

Transmitter Wait Period is a configurable parameter with a default time of 10 seconds

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: Feature\_Req\_7 | | | | | | | |
| **Rationale** |  | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** |  |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** |  | **Status** | In-Progress |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Feature\_Req\_18 Set Selection Period

Set Selection Period is a configurable parameter with a default time of 5 seconds

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: Feature\_Req\_18 | | | | | | | |
| **Rationale** |  | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** |  |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** |  | **Status** | In-Progress |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Feature\_Req\_25 Personalization - Memory Selection Period

Memory Selection Period is a configurable parameter with a default time of 1.5 seconds

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: Feature\_Req\_25 | | | | | | | |
| **Rationale** |  | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** |  |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** |  | **Status** | In-Progress |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Feature\_Req\_29 Association Selection Period

Association Selection Period is a configurable parameter with a default time of 70 seconds

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: Feature\_Req\_29 | | | | | | | |
| **Rationale** |  | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** |  |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** |  | **Status** | In-Progress |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Feature\_Req\_55 Easy Entry Easy Exit - Seat Offset

When the Easy Entry Easy Exit controlled commodities include the seat then the seat Easy Entry Easy Exit offset position shall be the offset by EE Seat Horizontal Offset

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: Feature\_Req\_55 | | | | | | | |
| **Rationale** |  | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** |  |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** |  | **Status** | In-Progress |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Feature\_Req\_56 Easy Entry Easy Exit - EE Seat Horizontal Offset

EE Seat Horizintal Offset is a configurable parameter with a default distance of 50mm

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: Feature\_Req\_56 | | | | | | | |
| **Rationale** |  | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** |  |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** |  | **Status** | In-Progress |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Feature\_Req\_57 Easy Entry Easy Exit - Steering Column Tilt Offset

When the Easy Entry Easy Exit controlled commodities include the steering column with tilt then the steering column tilt offset position shall be fully up

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: Feature\_Req\_57 | | | | | | | |
| **Rationale** |  | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** |  |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** |  | **Status** | In-Progress |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Feature\_Req\_58 Easy Entry Easy Exit - Steering Column Telescope Offset

When the Easy Entry Easy Exit controlled commodities include the steering column with telescoping then the steering column telescoping offset position shall be fully in (fully retracted – 117mm)

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: Feature\_Req\_58 | | | | | | | |
| **Rationale** |  | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** |  |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** |  | **Status** | In-Progress |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

## HMI Requirements

Feature\_Req\_74 Auto Save Conditional Message

When the driver triggers a save with a physical interface (memory switch) then prompt and chime on cluster

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: Feature\_Req\_74 | | | | | | | |
| **Rationale** |  | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** |  |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** |  | **Status** | In-Progress |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Feature\_Req\_75 Auto Save Conditional Message 2

When the driver tirggers a save with HMI (SYNC) then prompt on the HMI (SYNC)

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: Feature\_Req\_75 | | | | | | | |
| **Rationale** |  | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** |  |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** |  | **Status** | In-Progress |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Feature\_Req\_76 Auto Save Conditional Message 3

When the passenger triggers a save then prompt on the HMI (SYNC)

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: Feature\_Req\_76 | | | | | | | |
| **Rationale** |  | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** |  |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** |  | **Status** | In-Progress |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

## Other Requirements

### Design Requirements

*Not supported by MagicDraw report generation.*

### Manufacturing Requirements

No Manufacturing Requirements specified.

### Service Requirements

Feature\_Req\_73 Diagnostics - Technician

The Classic Memory feature shall provide the Technician with a mechanism to control the feature and diagnose any issues originating with the process of storing or recalling settings

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: Feature\_Req\_73 | | | | | | | |
| **Rationale** |  | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** |  |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** |  | **Status** | In-Progress |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

#### **Cloud Connectivity Data Analytics Requirements**

### After Sales Requirements

No After Sales Requirements specified.

### Process Requirements

Feature\_Req\_64 Personalization - Memory Location Settings

Classic Memory shall provide only one set of positional settings per memory location per memory commodity

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: Feature\_Req\_64 | | | | | | | |
| **Rationale** |  | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** |  |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** |  | **Status** | In-Progress |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Feature\_Req\_65 Memory Seat - Memory Locations

Classic Memory shall provide up to 4 memory locations per user

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: Feature\_Req\_65 | | | | | | | |
| **Rationale** |  | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** |  |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** |  | **Status** | In-Progress |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Feature\_Req\_66 Memory Pedals - Settings

Where Power Adjustable Pedals is supported, then the Classic Memory feature shall include the following positional settings:

- Memory Gas Pedal

- Memory Brake Pedal

- Memory Clutch Pedal (on vehicles with manual transmission only)

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: Feature\_Req\_66 | | | | | | | |
| **Rationale** |  | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** |  |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** |  | **Status** | In-Progress |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Feature\_Req\_67 Memory Seat - Memory Mirrors

Where a vehicle has Driver Seat memory then that vehicle shall also have the Memory Mirrors (Power Exterior Side Mirrors)

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: Feature\_Req\_67 | | | | | | | |
| **Rationale** |  | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** |  |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** |  | **Status** | In-Progress |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Feature\_Req\_68 Memory Mirrors - Settings

Where Power Exterior Side Mirrors is supported, then the Classic Memory feature shall include the following positional settings for:

- Memory Driver Side Mirror

- Memory Passenger Side Mirror

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: Feature\_Req\_68 | | | | | | | |
| **Rationale** |  | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** |  |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** |  | **Status** | In-Progress |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Feature\_Req\_69 Memory Seat - Driver Settings

Where the Power Driver Seat is supported then the Classic Memory feature shall include positional settings for Memory Driver Seat

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: Feature\_Req\_69 | | | | | | | |
| **Rationale** |  | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** |  |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** |  | **Status** | In-Progress |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Feature\_Req\_70 Memory Seat - Passenger Settings

Where the Power Passenger Seat is supported then the Classic Memory feature shall allow positional settings for Memory Passenger Seat

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: Feature\_Req\_70 | | | | | | | |
| **Rationale** |  | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** |  |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** |  | **Status** | In-Progress |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Feature\_Req\_71 Memory Steering Column - Settings

Where Power Tilt/Telescoping Memory column is supported, then the Classic Memory feature shall include positional settings for the Memory Steering Column

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: Feature\_Req\_71 | | | | | | | |
| **Rationale** |  | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** |  |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** |  | **Status** | In-Progress |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Feature\_Req\_72 Memory HUD - Settings

If the HUD feature is supported, then Classic Memory shall include positional settings for the Advanced Heads Up Display (AHUD)

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: Feature\_Req\_72 | | | | | | | |
| **Rationale** |  | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** |  |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** |  | **Status** | In-Progress |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

# Functional Safety

## System Behaviors for HARA

No System Behaviors specified.

## Functional Safety Assumptions

No Safety Assumptions specified

## Safety Goals

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ID | Goal | | | |
|  | **Goal Name** | Prevent Hazard (Example) | | |
| **Description** |  | | |
| **Safety Goal Concept** | Safety Goal Concept:  Warning & Recovery Concept: | | |
| **ASIL** |  | **FTTI** |  |
| **Related FSR IDs** |  | | |

Table 15: Functional Safety Goals

## Functional Safety Requirements

### Safety Goal: Prevent Hazard (Example)

**Name:** Prevent Hazard (Example)

**Purpose:**

**Text:**

**ASIL:**

#### Safety Goal Concept

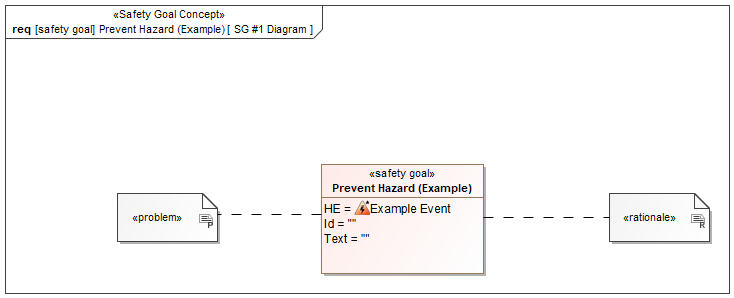


Figure 1: SG #1 Diagram – Prevent Hazard (Example)

*Note: The authoritative source for the Safety Goals is document “FFSD 02 Hazard Analysis* *and Risk Assessment”. The documentation of Safety Goals in this chapter (In the Argumentation for Safety Goal achievement) is for information purposes only.*

*The authoritative source for the Functional Safety Requirements is section 2.1.x.3: of this document. The documentation of Functional Safety Requirements in the following chapter (complete or summarised) is for information purposes only.*

#### Warning and Recovery Concept

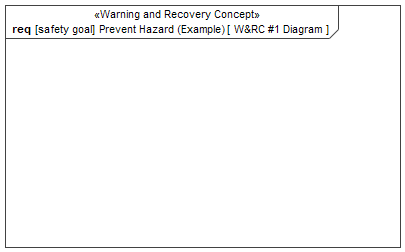


Figure 7: W&RC #1 Diagram – Prevent Hazard (Example)

### Derivation of Functional Safety Requirements on Assumptions

No Functional Safety Requirements tracing to Assumptions specified.

### ASIL Decomposition of Functional Safety Requirements

No Functional Safety Requirements with ASIL Decompositions specified.

# CyberSecurity

## Security Goals

|  |  |
| --- | --- |
| ID | Goal |

Table 18: Cybersecurity Goals

## Cybersecurity Requirements

# Architecture

## Functional Decomposition

This diagram contains all the functions required to Store and Recall the positional settings. This includes inputs and outputs to the user, other features, and external systems.

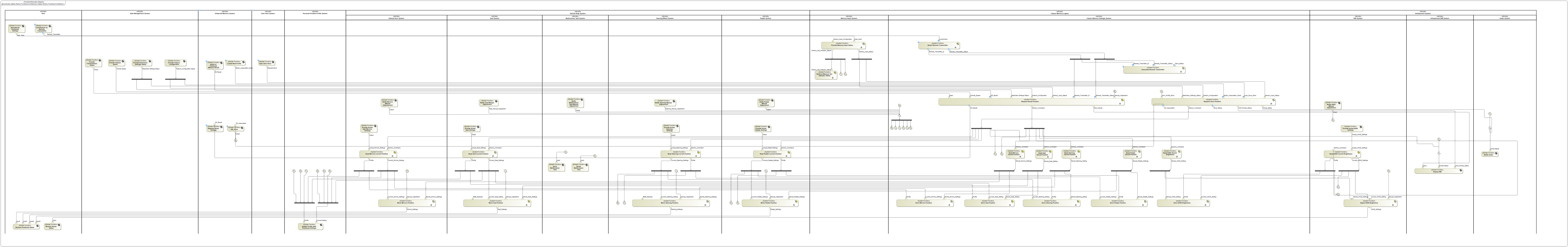


Figure 8: Classic Memory Functional Architecture

This diagram contains all the functions required to adjust seats and steering to provide additional space for the user to enter and exit. This includes inputs and outputs to the user, other features, and external systems.

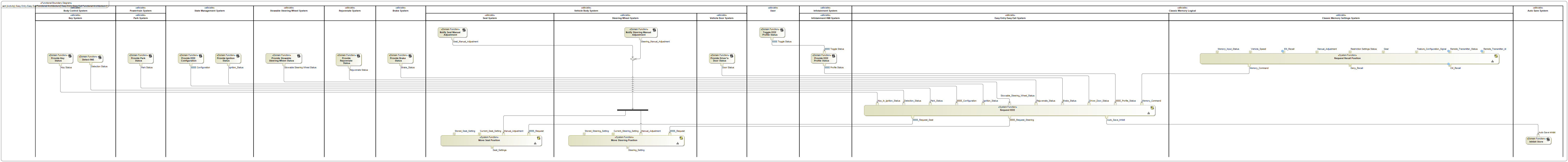


Figure 8: Easy Entry Easy Exit Functional Architecture

### Functions

| **Function Name** | Description | Comments |
| --- | --- | --- |
| *(activity)* Move Seat Position | *(activity)* The purpose of this function is to adjust the position of the seats to a stored value. This is the final step of the Classic Memory recall process. This function receives the stored settings and applies them. |  |
| *(activity)* Request Recall Settings | *(activity)* (activity) The purpose of this function is to indicate to Enhanced Memory when Classic Memory performed a recall. Enhanced Memory will then respond by performing a recall as well. |  |
| *(activity)* Provide Transmission Status | *(activity)* (activity) The purpose of this function is to indicate the status of the transmission (gear). |  |
| *(activity)* Provide Restriction Settings Status | *(activity)* (activity) The purpose of this function is to indicate the status of the Restriction Setting Status. |  |
| *(activity)* Provide Feature Configuration | *(activity)* activity) The purpose of this function is to indicate if the feature variant is implemented. |  |
| *(activity)* Provide Actual Pedals Settings | *(activity)* (activity) The purpose of this function is to indicate the current values of the pedals. |  |
| *(activity)* Detect Remote Transmitter | *(activity)* activity) The purpose of this function is to detect when a remote transmitter sends out a Lock or Unlock signal. This function then indicates what signal was received and by which remote transmitter. Other functions will use this data to determine if a recall should occur or if a profile should add/remove a remote transmitter. |  |
| *(activity)* Store Seat Position | *(activity)* The purpose of this function is to store the position of the seats to a profile. This is the final step of the Classic Memory store process. This function receives the current settings and applies them to the user selected profile. |  |
| *(activity)* Provide Actual Side Mirrors Settings | *(activity)* The purpose of this function is to indicate the current values of the side mirrors. |  |
| *(activity)* Provide Actual Seat Settings | *(activity)* (activity) The purpose of this function is to indicate the current values of the seat. |  |
| *(activity)* Associate Remote Transmitter | *(activity)* (activity) The purpose of this function is to add or remove a remote transmitter from a profile. |  |
| *(activity)* Read AHUD Stored Brightness | *(activity)* The purpose of this function is to obtain the stored value of the AHUD brightness. The settings will be applied to the current AHUD brightness. |  |
| *(activity)* Provide Actual AHUD Settings | *(activity)* (activity) The purpose of this function is to indicate the current value of the AHUD brightness. |  |
| *(activity)* Update Profile with Positional Settings | *(activity)* (activity) The purpose of this function is to update the Personal and Portable Profile’s profile. When Classic Memory updates a profile setting then this function makes the same update. |  |
| *(activity)* Store AHUD Brightness | *(activity)* The purpose of this function is to store the brightness of the AHUD to a profile. This is the final step of the Classic Memory store process. This function receives the current settings and applies them to the user selected profile. |  |
| *(activity)* Notify Multicontour Seat Manual Adjustment | *(activity)* (activity) The purpose of this function is to indicate when the Multicontour Seat has made a manual adjustment. Other functions use this data to determine when to cancel automatic movement. |  |
| *(activity)* Recall Multicontour Seat | *(activity)* (activity) The purpose of this function is to automatically adjust the positional settings of the Multicontour Seat. |  |
| *(activity)* Provide Vehicle Speed | *(activity)* (activity) The purpose of this function is to indicate the current speed of the vehicle. |  |
| *(activity)* Provide Memory Input Status | *(activity)* The purpose of this function is to indicates when and which input the user selects. This function processes some of the input depending on the type of memory input available (Memory Set). |  |
| *(activity)* Lock/Unlock via Remote Transmitter | *(activity)* (activity) The purpose of this function is to indicate when the user has triggered either Lock or Unlock signal via a remote transmitter. |  |
| *(activity)* Notify Seat Manual Adjustment | *(activity)* (activity) The purpose of this function is to indicate when the Seat has made a manual adjustment. Other functions use this data to determine when to cancel automatic movement. |  |
| *(activity)* Read Seat Current Position | *(activity)* The purpose of this function is to obtain the current value of the seat positions. This function also identifies a profile that settings should be stored to. |  |
| *(activity)* Notify of Enhanced Memory Recall | *(activity)* (activity) The purpose of this function is to indicate when the Enhanced Memory feature has performed a recall. The Classic Memory feature’s functions will respond by performing a recall as well. |  |
| *(activity)* Notify of Memory Set Indicator Status | *(activity)* The purpose of this function is to alert the user that Memory Set is active. The user has activated the Memory Set functionality and this function will notify the user for the duration that it is active. |  |
| *(activity)* Adjust AHUD Brightness | *(activity)* The purpose of this function is to adjust the brightness of the AHUD to a stored value. This is the final step of the Classic Memory recall process. This function receives the stored settings and applies them. |  |
| *(activity)* Read Mirrors Current Position | *(activity)* The purpose of this function is to obtain the current value of the mirror positions. This function also identifies a profile that the settings should be stored to. |  |
| *(activity)* Store Pedals Position | *(activity)* The purpose of this function is to store the position of the pedals to a profile. This is the final step of the Classic Memory store process. This function receives the current settings and applies them to the user selected profile. |  |
| *(activity)* Read Pedals Stored Position | *(activity)* The purpose of this function is to obtain the stored value of the pedal positions. The settings will be applied to the current pedal positions. |  |
| *(activity)* Notify Audio | *(activity)* (activity) The purpose of this function is to notify the user via an audible alert. |  |
| *(activity)* Store Steering Position | *(activity)* The purpose of this function is to store the position of the steering to a profile. This is the final step of the Classic Memory store process. This function receives the current settings and applies them to the user selected profile. |  |
| *(activity)* Read Seat Stored Position | *(activity)* The purpose of this function is to obtain the stored value of the seat positions. The settings will be applied to the current seat positions. |  |
| *(activity)* Read Mirrors Stored Position | *(activity)* The purpose of this function is to obtain the stored value of the mirror positions. The settings will be applied to the current mirror positions. |  |
| *(activity)* Receive Visual Status | *(activity)* (activity) The purpose of this function is to indicate that the user is aware of the visual outputs. |  |
| *(activity)* Notify Mirrors Manual Adjustement | *(activity)* (activity) The purpose of this function is to indicate when a side mirror has made a manual adjustment. Other functions use this data to determine when to cancel automatic movement. |  |
| *(activity)* Notify Steering Manual Adjustment | *(activity)* (activity) The purpose of this function is to indicate when the steering column has made a manual adjustment. Other functions use this data to determine when to cancel automatic movement. |  |
| *(activity)* Read Steering Stored Position | *(activity)* The purpose of this function is to obtain the stored value of the steering positions. The settings will be applied to the current steering positions. |  |
| *(activity)* Store/Recall Positional Settings | *(activity)* (activity) The purpose of this function is to indicate when the user has triggered either a recall or store via the Memory Input. |  |
| *(activity)* Receive Positional Status | *(activity)* (activity) The purpose of this function is to indicate that the user is aware of the positional setting adjustments. |  |
| *(activity)* Store Mirrors Position | *(activity)* The purpose of this function is to store the position of the mirrors to a profile. This is the final step of the Classic Memory store process. This function receives the current settings and applies them to the user selected profile. |  |
| *(activity)* Request Store Position | *(activity)* The purpose of this function is to determine that the result of the user input is a store action. From this determination this function will then trigger a Classic Memory store. This store will retrieve current settings and store them to the user select profile. |  |
| *(activity)* Notify Pedals Manual Adjustment | *(activity)* (activity) The purpose of this function is to indicate when a pedal has made a manual adjustment. Other functions use this data to determine when to cancel automatic movement. |  |
| *(activity)* Read AHUD Current Brightness | *(activity)* The purpose of this function is to obtain the current value of the AHUD brightness. This function also identifies a profile that the settings should be stored to. |  |
| *(activity)* Move Pedals Position | *(activity)* (activity) The purpose of this function is to adjust the position of the pedals to a stored value. This is the final step of the Classic Memory recall process. This function receives the stored settings and applies them. |  |
| *(activity)* Auto Save Store | *(activity)* (activity) The purpose of this function is to indicate when the Auto Save system has determined that the current profile should perform a Classic Memory store. |  |
| *(activity)* Store Multicontour Seat | *(activity)* (activity) The purpose of this function is to store the current Multicontour Seat settings to the indicated profile. |  |
| *(activity)* EM\_Store | *(activity)* (activity) The purpose of this function is to indicate which profile Classic Memory should perform a Classic Memory store. This is part of the new profile creation process. |  |
| *(activity)* Move Mirrors Position | *(activity)* The purpose of this function is to adjust the position of the mirrors to a stored value. This is the final step of the Classic Memory recall process. This function receives the stored settings and applies them. |  |
| *(activity)* Read Steering Current Position | *(activity)* The purpose of this function is to obtain the current value of the steering positions. This function also identifies a profile that settings should be stored to. |  |
| *(activity)* Display HMI | *(activity)* (activity) The purpose of this function is to notify the user via a visual alert. |  |
| *(activity)* Move Steering Position | *(activity)* The purpose of this function is to adjust the position of the steering column to a stored value. This is the final step of the Classic Memory recall process. This function receives the stored settings and applies them. |  |
| *(activity)* Notify AHUD Manual Adjustment | *(activity)* (activity) The purpose of this function is to indicate when the AHUD has made a manual adjustment. Other functions use this data to determine when to cancel automatic movement. |  |
| *(activity)* Provide Actual Steering Settings | *(activity)* (activity) The purpose of this function is to indicate the current values of the steering column. |  |
| *(activity)* Create New Profile | *(activity)* (activity) The purpose of this function is to indicate when the Enhanced Memory feature has begun the process of creating a new profile for the user. |  |
| *(activity)* Read Pedals Current Position | *(activity)* The purpose of this function is to obtain the current value of the pedal positions. This function also identifies a profile that settings should be stored to. |  |
| *(activity)* Request Recall Position | *(activity)* The purpose of this function is to determine that the result of the user input is a recall action. From this determination this function will then trigger a Classic Memory recall. This recall will retrieve stored settings from a user selected profile and apply them to the current settings. |  |

Table 17: List of Functions on Classic Memory Functional Architecture

| **Function Name** | Description | Comments |
| --- | --- | --- |
| *(activity)* Provide Rejuvenate Status | *(activity)* (activity) The purpose of this function is to indicate when the Rejuvenate feature is active. Easy Entry Easy Exit functions will be restricted when Rejuvenate is active. |  |
| *(activity)* Notify Steering Manual Adjustment | *(activity)* (activity) The purpose of this function is to indicate when the steering column has made a manual adjustment. Other functions use this data to determine when to cancel automatic movement. |  |
| *(activity)* Provide Driver's Door Status | *(activity)* The purpose of this function is to indicate the status of the driver door. |  |
| *(activity)* Detect RKE | *(activity)* (activity) The purpose of this function is to detect the RKE. |  |
| *(activity)* Provide Ignition Status |  |  |
| *(activity)* Provide Stowable Steering Wheel Status | *(activity)* (activity) The purpose of this function is to indicate when the Stowable Steering Wheel feature is active. Easy Entry Easy Exit functions will be restricted when Stowable Steering Wheel is active. |  |
| *(activity)* Provide EEEE Configuration | *(activity)* (activity) The purpose of this function is to indicate when Drive Control Optimization variant is implemented. |  |
| *(activity)* Inhibit Store | *(activity)* (activity) The purpose of this function is to inhibit Auto Save to do a store |  |
| *(activity)* Move Seat Position | *(activity)* The purpose of this function is to adjust the position of the seats to a stored value. This is the final step of the Classic Memory recall process. This function receives the stored settings and applies them. |  |
| *(activity)* Provide Brake Status | *(activity)* (activity) The purpose of this function is to indicate the status of the brake pedal. |  |
| *(activity)* Request EEEE | *(activity)* The purpose of this function is to determine when the user is entering and exiting the vehicle. From that determination this function will then adjust the seat and steering positions. |  |
| *(activity)* Provide Key Status | *(activity)* (activity) The purpose of this function is to indicate the status of the key slot / push to start (ignition). |  |
| *(activity)* Toggle EEEE Profile Status | *(activity)* (activity) The purpose of this function is to indicate when the user toggles Easy Entry Easy Exit between ON and OFF for a profile. |  |
| *(activity)* Notify Seat Manual Adjustment | *(activity)* (activity) The purpose of this function is to indicate when the Seat has made a manual adjustment. Other functions use this data to determine when to cancel automatic movement. |  |
| *(activity)* Provide Park Status | *(activity)* (activity) The purpose of this function is to indicate when the vehicle is not in motion (Park or Neutral). |  |
| *(activity)* Request Recall Position | *(activity)* The purpose of this function is to determine that the result of the user input is a recall action. From this determination this function will then trigger a Classic Memory recall. This recall will retrieve stored settings from a user selected profile and apply them to the current settings. |  |
| *(activity)* Move Steering Position | *(activity)* The purpose of this function is to adjust the position of the steering column to a stored value. This is the final step of the Classic Memory recall process. This function receives the stored settings and applies them. |  |
| *(activity)* Provide EEEE Profile Status | *(activity)* (activity) The purpose of this function is to indicate if a profile has Easy Entry Easy Exit set ON or OFF. |  |

Table 17: List of Functions on Easy Entry Easy Exit Functional Architecture

## Logical Architecture

Description of diagram and content on logical architecture in Documentation field of Structural Boundary Diagram.

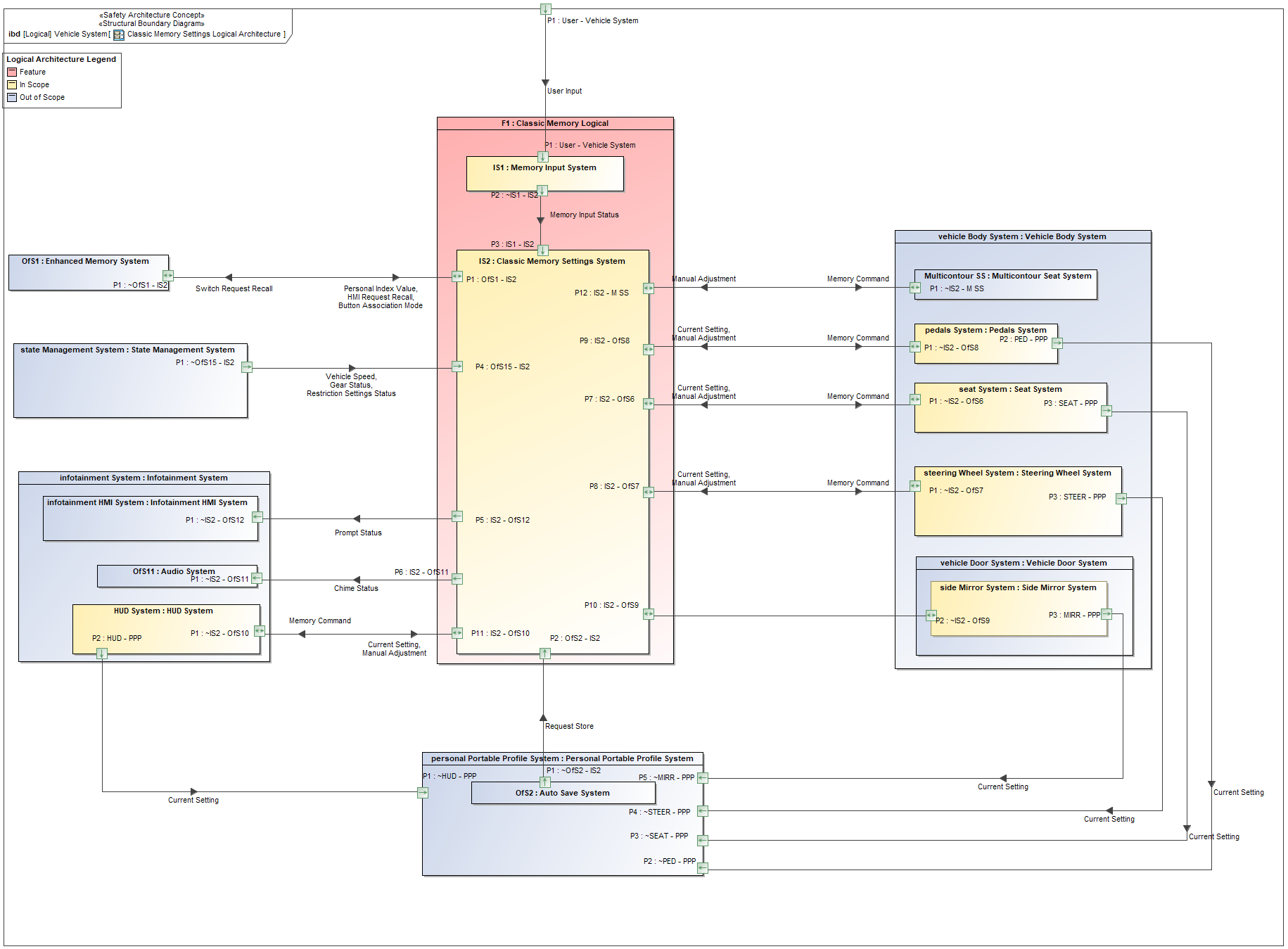


Figure 9: Classic Memory Settings Logical Architecture

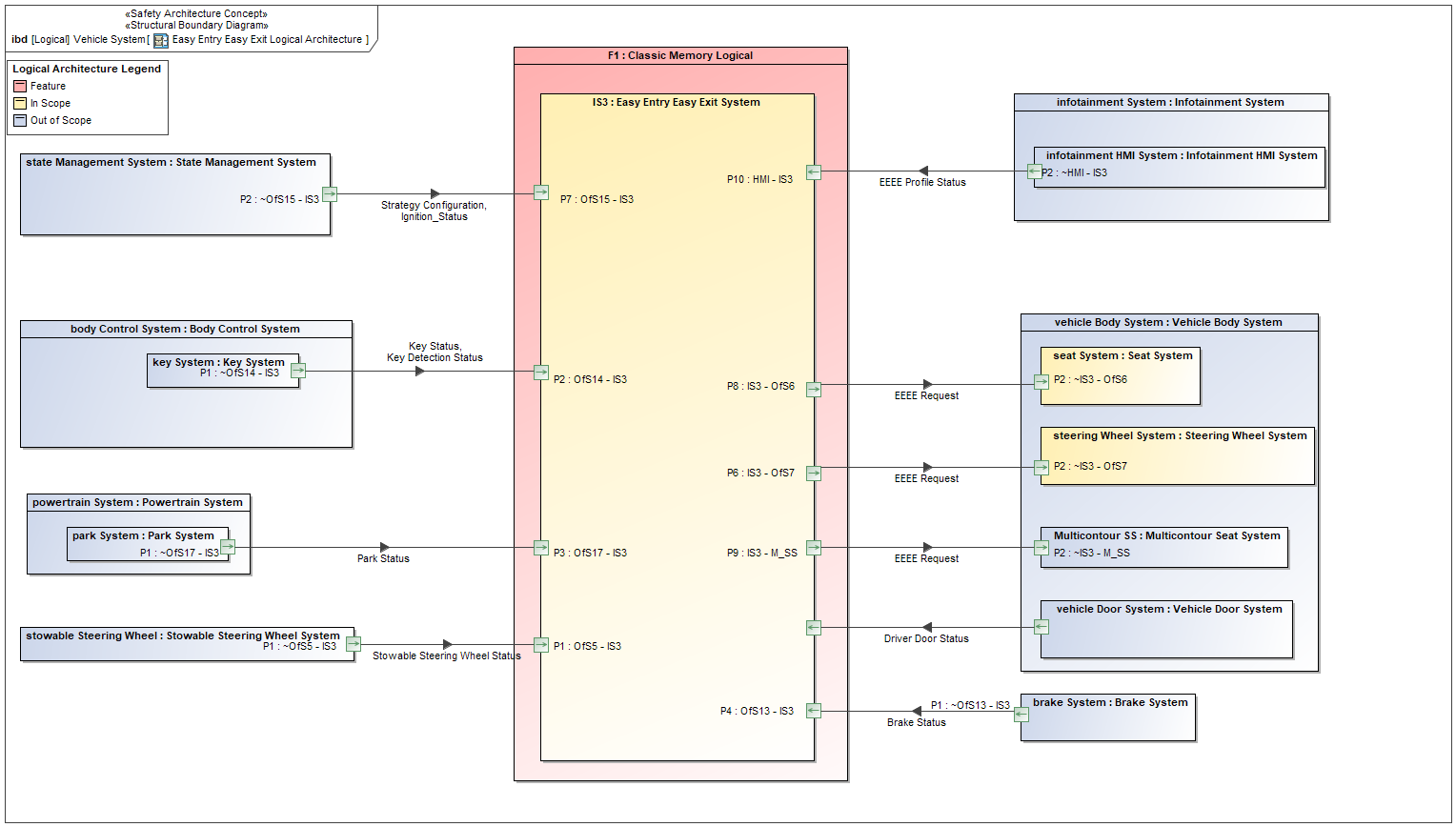


Figure 9: Easy Entry Easy Exit Logical Architecture

### Logical Elements

| **Element Name** | **Description** | **Allocated Functions** | **Comments** |
| --- | --- | --- | --- |
|  |  |  |  |
| Audio System | Provides audible notification to user | * Alert the User the Position is Stored * Notify Audio |  |
| Auto Save System | Feature that monitors position adjustments and requests Classic Memory to store settings | * Request to Store Positional Settings * Create New Profile * Inhibit Store * Auto Save Store |  |
| Body Control System | Contains the elements regarding keys and restraints | * Provide Key Status * Provide Seatbelt Status * Detect RKE |  |
| Brake System | Provides the status of the brake pedal | * Provide Brake Status |  |
| Classic Memory Logical | Contains the elements that make up Classic Memory | * System Function * Read AHUD Stored Brightness * Read Mirrors Stored Position * Read Pedals Stored Position * Read Seat Stored Position * Read Steering Stored Position * Request EEEE * Request Store Position * Request Recall Position * Store Steering Position * Store Mirrors Position * Store AHUD Brightness * Store Pedals Position * Store Seat Position * Provide Memory Input Status * Notify of Memory Set Indicator Status * Associate Remote Transmitter * Detect Remote Transmitter |  |
| Classic Memory Settings System | Determines when to store or recall settings | * Detect User Input * Recall Positional Settings * Store Positional Settings * Read AHUD Stored Brightness * Read Mirrors Stored Position * Read Pedals Stored Position * Read Seat Stored Position * Read Steering Stored Position * Request Store Position * Request Recall Position * Store Steering Position * Store Mirrors Position * Store AHUD Brightness * Store Pedals Position * Store Seat Position * Associate Remote Transmitter * Detect Remote Transmitter |  |
| Easy Entry Easy Exit System | Determines the Easy Entry Easy Exit status | * Recall EEEE Position * Request EEEE |  |
| Enhanced Memory System | Feature that requests Classic memory to store or recall settings | * Ideal Subfunction 2 * Ideal Subfunction 5 * Request to Store Positional Settings * Request to Recall Positional Settings * Create New Profile * Notify of Enhanced Memory Recall * EM\_Store * Request Recall Settings |  |
| HUD System | HUD brightness is stored and recalled via Classic Memory | * Current HUD Brightness * Recall HUD Brightness * Read AHUD Current Brightness * Adjust AHUD Brightness * Notify AHUD Manual Adjustment * Provide Actual AHUD Settings |  |
| Infotainment HMI System | Provides visual notification to user | * Alert the User the Position is Stored * Display HMI * Provide EEEE Profile Status |  |
| Infotainment System | Contains user interfacing elements that are visual and audible | * Read AHUD Current Brightness * Adjust AHUD Brightness * Notify Audio * Display HMI * Notify AHUD Manual Adjustment * Provide EEEE Profile Status * Provide Actual AHUD Settings |  |
| Key System | 1. Detects remote transmitters  2. Monitors and provides key slot status | * Detect Key * Monitor Key Status * Provide Key Status * Detect RKE |  |
| Memory Input System | Provides the current status of the Memory Buttons | * Driver Holds Down Memory Button * Provide Memory Input Status * Notify of Memory Set Indicator Status |  |
| Multicontour Seat System | Multicontour Seat | * Store Multicontour Seat * Recall Multicontour Seat * Notify Multicontour Seat Manual Adjustment |  |
| Park System | Provides the current status of PARK | * Provide Park Status * Provide Park Status |  |
| Pedals System | Pedals positions are stored and recalled via Classic Memory | * Current Power Pedals Position * Recall Pedals Position * Read Pedals Current Position * Move Pedals Position * Notify Pedals Manual Adjustment * Provide Actual Pedals Settings |  |
| Personal Portable Profile System | Personal Portable Profile Feature | * Update Profile with Positional Settings |  |
| Powertrain System | Contains Park elements | * Provide Park Status |  |
| Seat System | Seat positions are stored and recalled via Classic Memory | * Current Seat Position * Read Seat Current Position * Move Seat Position * Notify Seat Manual Adjustment * Provide Actual Seat Settings |  |
| Side Mirror System |  |  |  |
| State Management System | Provides the vehicle speed | * Vehicle Speed * Provide EEEE Configuration * Provide Feature Configuration * Provide Transmission Status * Provide Restriction Settings Status * Provide Vehicle Speed * Provide Ignition Status |  |
| Steering Wheel System | Steering column positions are stored and recalled via Classic Memory | * Current Steering Column Position * Recall Steering Column Position * Read Steering Current Position * Move Steering Position * Notify Steering Manual Adjustment * Provide Actual Steering Settings |  |
| Stowable Steering Wheel System | Stowable Steering Wheel | * Provide Stowable Steering Wheel Status |  |
| Vehicle Body System | Contains the elements from the vehicle body | * Read Seat Current Position * Read Steering Current Position * Read Pedals Current Position * Read Mirrors Current Position * Move Mirrors Position * Move Pedals Position * Move Seat Position * Move Steering Position * Store Multicontour Seat * Recall Multicontour Seat * Notify Mirrors Manual Adjustement * Notify Seat Manual Adjustment * Notify Steering Manual Adjustment * Notify Pedals Manual Adjustment * Notify Multicontour Seat Manual Adjustment * Provide Actual Side Mirrors Settings * Provide Actual Pedals Settings * Provide Actual Seat Settings * Provide Actual Steering Settings * Provide Driver's Door Status |  |
| Vehicle Door System | Provides the status of the door | * Provide Brake Status * Read Mirrors Current Position * Move Mirrors Position * Notify Mirrors Manual Adjustement * Provide Actual Side Mirrors Settings * Provide Driver's Door Status |  |

Table 19: Logical Elements

### Logical Interfaces

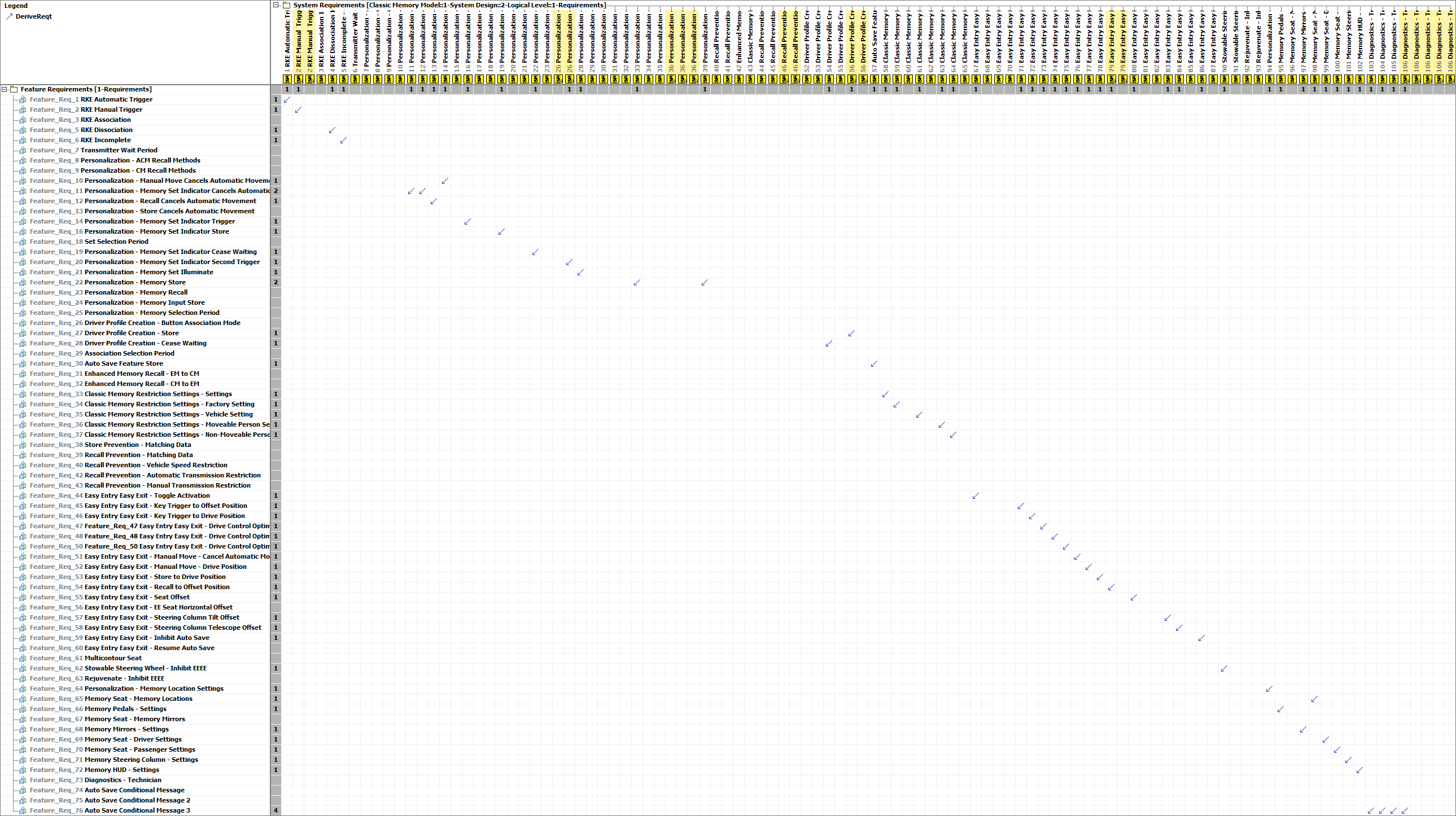
| **Interface** | **Direction** | **Description** | **Value Range** |
| --- | --- | --- | --- |
| Button Association Mode | P1 (Enhanced Memory System) To P1 (Classic Memory Settings System) | Indicates status of Button Association Mode | Active / Not Active |
| Chime Status | P6 (Classic Memory Settings System) To P1 (Audio System) | Request chime to be audible | Request |
| Current Setting | P1 (HUD System) To P11 (Classic Memory Settings System) | Current Position of the different commodities |  |
| P1 (Pedals System) To P9 (Classic Memory Settings System) | Current Position of the different commodities |  |
| P1 (Seat System) To P7 (Classic Memory Settings System) | Current Position of the different commodities |  |
| P1 (Steering Wheel System) To P8 (Classic Memory Settings System) | Current Position of the different commodities |  |
| P2 (HUD System) To P1 (Personal Portable Profile System) | Current Position of the different commodities |  |
| P2 (Pedals System) To P2 (Personal Portable Profile System) | Current Position of the different commodities |  |
| P2 To Classic Memory Logical | Current Position of the different commodities |  |
| P3 (Seat System) To P3 (Personal Portable Profile System) | Current Position of the different commodities |  |
| P3 (Side Mirror System) To P5 (Personal Portable Profile System) | Current Position of the different commodities |  |
| P3 (Steering Wheel System) To P4 (Personal Portable Profile System) | Current Position of the different commodities |  |
| EEEE Profile Status | P1 (Infotainment HMI System) To P5 (Classic Memory Settings System) | Indicates if EEEE is enabled or disabled | Enabled / Disabled |
| Gear Status | P1 (State Management System) To P4 (Classic Memory Settings System) | Indicates the vehicle status |  |
| HMI Request Recall | P1 (Enhanced Memory System) To P1 (Classic Memory Settings System) | Recall Request | Request |
| Manual Adjustment | P1 (HUD System) To P11 (Classic Memory Settings System) | Indicates if there has been a manual adjustment of any commodity setting |  |
| P1 (Multicontour Seat System) To P12 (Classic Memory Settings System) | Indicates if there has been a manual adjustment of any commodity setting |  |
| P1 (Pedals System) To P9 (Classic Memory Settings System) | Indicates if there has been a manual adjustment of any commodity setting |  |
| P1 (Seat System) To P7 (Classic Memory Settings System) | Indicates if there has been a manual adjustment of any commodity setting |  |
| P1 (Steering Wheel System) To P8 (Classic Memory Settings System) | Indicates if there has been a manual adjustment of any commodity setting |  |
| P2 To Classic Memory Logical | Indicates if there has been a manual adjustment of any commodity setting |  |
| Memory Command | Classic Memory Logical To P2 | Indicates Classic Memory request | Store Profile 1 - Store Profile 4 / Recall Profile 1 - Recall Profile 4 |
| P7 (Classic Memory Settings System) To P1 (Seat System) | Indicates Classic Memory request | Store Profile 1 - Store Profile 4 / Recall Profile 1 - Recall Profile 4 |
| P8 (Classic Memory Settings System) To P1 (Steering Wheel System) | Indicates Classic Memory request | Store Profile 1 - Store Profile 4 / Recall Profile 1 - Recall Profile 4 |
| P9 (Classic Memory Settings System) To P1 (Pedals System) | Indicates Classic Memory request | Store Profile 1 - Store Profile 4 / Recall Profile 1 - Recall Profile 4 |
| P10 (Classic Memory Settings System) To P2 (Side Mirror System) | Indicates Classic Memory request | Store Profile 1 - Store Profile 4 / Recall Profile 1 - Recall Profile 4 |
| P11 (Classic Memory Settings System) To P1 (HUD System) | Indicates Classic Memory request | Store Profile 1 - Store Profile 4 / Recall Profile 1 - Recall Profile 4 |
| P12 (Classic Memory Settings System) To P1 (Multicontour Seat System) | Indicates Classic Memory request | Store Profile 1 - Store Profile 4 / Recall Profile 1 - Recall Profile 4 |
| Memory Input Status | P2 (Memory Input System) To P3 (Classic Memory Settings System) | Indicates user selected profile | Pers 1 - Pers 4 |
| Personal Index Value | P1 (Enhanced Memory System) To P1 (Classic Memory Settings System) | Indicates user selected profile | Pers 1 - Pers 4 |
| Prompt Status | P5 (Classic Memory Settings System) To P1 (Infotainment HMI System) | Request variant prompt to be displayed | Store 1 - Store 4, Store with Link 1 - Store woth Link 4 |
| Request Store | P1 (Auto Save System) To P2 (Classic Memory Settings System) | Store Request | Request |
| Restriction Settings Status | P1 (State Management System) To P4 (Classic Memory Settings System) |  |  |
| Switch Request Recall | P1 (Classic Memory Settings System) To P1 (Enhanced Memory System) | Recall Request | Request |
| User Input | P1 (Vehicle System) To P1 (Memory Input System) | User selects a memory button/profile | Press / Not Press |
| Vehicle Speed | P1 (State Management System) To P4 (Classic Memory Settings System) | Indicates the speed of the vehicle | Slow / Not Slow |

Table 19: Feature Interactions on Classic Memory Settings Logical Architecture

| **Interface** | **Direction** | **Description** | **Value Range** |
| --- | --- | --- | --- |
| Brake Status | P1 (Brake System) To P4 (Easy Entry Easy Exit System) | Indicates status of Brake pedal | Ajar / Closed |
| P1 (Vehicle Door System) To P4 (Easy Entry Easy Exit System) | Indicates status of Brake pedal | Ajar / Closed |
| Driver Door Status | P1 (Vehicle Door System) To P11 (Easy Entry Easy Exit System) |  |  |
| EEEE Profile Status | P2 (Infotainment HMI System) To P10 (Easy Entry Easy Exit System) | Indicates if EEEE is enabled or disabled | Enabled / Disabled |
| EEEE Request | P6 (Easy Entry Easy Exit System) To P2 (Steering Wheel System) |  |  |
| P8 (Easy Entry Easy Exit System) To P2 (Seat System) |  |  |
| P9 (Easy Entry Easy Exit System) To P2 (Multicontour Seat System) |  |  |
| Gear Status | P2 (State Management System) To P7 (Easy Entry Easy Exit System) | Indicates the vehicle status |  |
| Ignition\_Status | P2 (State Management System) To P7 (Easy Entry Easy Exit System) | Ignition status of the vehicle |  |
| Key Detection Status | P1 (Key System) To P2 (Easy Entry Easy Exit System) | Indicates the Status of the remote transmitter |  |
| Key Status | P1 (Key System) To P2 (Easy Entry Easy Exit System) | Indicates the Status of the Key | Key IN / Key OUT |
| Memory Command | P6 (Easy Entry Easy Exit System) To P2 (Steering Wheel System) | Indicates Classic Memory request | Store Profile 1 - Store Profile 4 / Recall Profile 1 - Recall Profile 4 |
| P8 (Easy Entry Easy Exit System) To P2 (Seat System) | Indicates Classic Memory request | Store Profile 1 - Store Profile 4 / Recall Profile 1 - Recall Profile 4 |
| Park Status | P1 (Park System) To P3 (Easy Entry Easy Exit System) | Indicates if vehicle is in Park | Active / Not Active |
| Stowable Steering Wheel Status | P1 (Stowable Steering Wheel System) To P1 (Easy Entry Easy Exit System) | Indicates the status of the Stowable Steering Wheel |  |
| Strategy Configuration | P2 (State Management System) To P7 (Easy Entry Easy Exit System) | Indicates status of Easy Entry Easy Exit | Offset Position / Drive Position |
| Vehicle Speed | P2 (State Management System) To P7 (Easy Entry Easy Exit System) | Indicates the speed of the vehicle | Slow / Not Slow |

Table 19: Feature Interactions on Easy Entry Easy Exit Logical Architecture

# Traceability Matrix





# Open Concerns

| ID | Concern Description | e-Tracker / Reference | Responsible | Status | Solution |
| --- | --- | --- | --- | --- | --- |
| 1 |  |  |  |  |  |

Table 20: Open Concerns *(Not supported by MagicDraw report generation)*

# Revision History

No Revision History found.

## Template Revisions

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Version | Rev. | Date | Description | Responsible |
| 0 | 6 | 2015-05-26 | * Chapter “Feature Overview” and made a 2nd level heading. * Chapter “Feature Modeling” divided into 3 subchapter (“Scenarios”, “Use Cases”, “State Machines”) for different modeling methods | Jbaden1 |
| 0 | 7 | 2015-05-27 | * Table of Content updated * Template Revision History chapter added | Jbaden1 |
| 0 | 8 | 2015-07-02 | * Section “Unsettled Issues” added | Alevin7 |
| 0 | 9 | 2015-08-04 | * Section “Feature Variants” added * Section “Feature Boundary Diagram” renamed to “Feature Context Diagram” * Document Properties adapted to match needs of VBA macros | Jbaden1, Awegman1 |
| 1 | 0 | 2015-09-11 | * Section “Feature Variants” reworked * Feature Goals removed. Only “Safety Goals“ chapter remains. * Heading 2 formatting issues corrected. * Requirements / Use Cases Listing removed from traceability chapter. * Formatting of attribute table in Notation chapter corrected * Open Topics / Known Issues chapter moved to the end | Jbaden1 |
| 1 | 1 | 2015-11-16 | * Table-Styles removed (for smooth VSEM import) * Some clean-up of sections “Purpose” and “Audience” | Awegman1, jbaden1 |
| 1 | 2 | 2016-02-26 | * Minor corrections based on lessons learned from CC and PCL pilot (e.g. section market/regions) and discussion with Functional Safety Team (purpose of feature) * Footer corrected * Boundary diagram interface chapter renamed to influences. | Jbaden1 |
| 1 | 3 | 2016-02-26 | * Minor corrections after review with Whitney Keith from Functional Safety team | Jbaden1 |
| 1 | 4 | 2016-03-10 | * Some cleanup of meta-data in Word Properties | Jbaden1 |
| 1 | 5 | 2016-03-10 | * Footer formatting corrected (Issue 19) * Results from review with Functional Safety Team incorporated (Issue 20). | jbaden1 |
| 1 | 6 | 2016-04-18 | * Scenario Template added | Jbaden1 |
| 1 | 7 | 2016-04-18 | * Chapter “Operation Modes and States” moved before “Use Case” section. | Jbaden1 |
| 1 | 8 | 2016-04-18 | * Broken Wiki links repaired. | Jbaden1 |
| 2 | 0 | 2016-05-19 | * Adapted to Specification\_Macros.dotm V2.0 * Requirements Templates chapter (ch. 1.7.1) no longer has an attribute table, but refers directly to the Wiki.. | Jbaden1 |
| 2 | 1 | 2016-06-10 | * Table for Context Diagram modified (lists external entities and Influence Description only) | Jbaden1 |
| 2 | 2 | 2016-07-08 | * Template version added to footer * Several hints added to the various sections * Findings from Functional Safety Team incorporated. * RE\_SafetyRequirement style added | Jbaden1 |
| 2 | 3 | 2016-09-21 | * Update from Functional Safety Team incorporated (“Lessons Learned”, “System Behaviors for HARA”) | Jbaden1 |
| 2 | 4 | 2016-11-15 | * Update from Functional Safety Team incorporated (“Lessons Learned”, “System Behaviors for HARA”) * Explanatory notes made more formal | Jbaden1 |
| 3 |  |  | Skipped to synchronize with Specification\_Macros.dotm |  |
| 4 |  |
| 5 | 0 | 2017-01-13 | * Meta data updated for specification macros, version 3.1 * SW Unit chapter removed for the time being * Green boxes added for user hints | Jbaden1 |
| 5 | 1 | 2017-01-18 | * Minor editorial changes | Jbaden1 |
| 6 | 0 | 2017-02-03 | * CR48: Chapter 6 renamed from “Safety” to “Functional Safety”. New sub-chapter “Safety” introduced in Non-Functional Requirements section | Jbaden1 |
| 6 | 0 | 2017-04-28 | * CR7: “RequirementsTraceability” chapter removed | Jbaden1 |
| 6 | 0 | 2017-11-15 | * CR32/53: New Cover Sheet + Disclaimer replaces FAP-150 like ones. * CR75: Some rewording -> Terminology to Glossary, Notation -> Document Conventions * CR49: Rename “Assumptions & Constraints” to “Assumptions” * CR74: Safety Assumptions added to chapter 6. * CR58: Add function allocation column to Logical Architecture chapter | Jbaden1 |
| 6 | 0 | 2018-01-31 | * CR63: Updated links to Functional Safety Sharepoint | Jbaden1 |
| 6 | 0 | 2018-07-24 | * CR69: Add FSR to FeatureDoc * CR64: Add new section "Design Requirements" to Function Spec and Feature Spec | Jbaden1 |
| 6 | 0 | 2018-08-06 | * CR53: some corrections for metada and formatting | Jbaden1 |
| 6 | 0 | 2018-09-28 | * Broken links to RE Wiki repaired | Jbaden1 |
| 6 | 0 | 2018-10-31 | * Cover sheet and footer more GIS like. Functional Safety team feedback incorporated:   + New subsections “Functional Safety Requirements, (Decomposed) FSRs and Parameters / Values   + Removal of “Logical Architecture” | Jbaden1 |
| 6 | 0 | 2018-12-12 | * FSR template removed, now as a macro in the Specification\_Macros.dotm | Jbaden1 |
| 6 | 0a | 2019-05-23 | * Re-introduce “Logical Architecture” (for Functional Safety) | Jbaden1 |
| 6 | 0b | 2019-06-26 | * Chapter “Logical Elements” in “Logical Architecture” section added (FuSa CR 15136240) | Jbaden1 |
| 6 | 0c | 2019-03-22 | * Chapter “Decomposed FSRs” renamed to “ASIL Decomposition of Functional Safety Requirements” and moved beneath Chapter “Functional Safety Requirements”. Explanatory text improved. | Jbaden1 |
| 6 | 0c | 2019-04-05 | * Some wording in ASIL decomposition table modified. Description of fields in that table improved. | Jbaden1 |
| 6 | 0c | 2019-06-24 | * “Input Requirements” section modified (table approach as for the other RE templates). * “References” and “Glossary” chapter moved to the “Introduction” chapter. | Jbaden1 |
| 6 | 0c | 2019-07-02 | * "Important" box added on cover sheet which points to the macros | Jbaden1 |
| 6 | 0c | 2019-07-02 | * Subsection “Error Handling” removed form chapter “Feature Requirements”->”Functional Requirements” (teams are free to create their own substructure of that section). Note tells author not to forget about error handling. * Hint for chapter “Feature Variants” improved reworded upon request from Functional Safety Team. | Jbaden1 |
| 6 | 0c | 2019-05-11 | * Copyright notice shortened and moved to cover sheet and added to footer (to be compliant [with Ford copyright guidelines](http://www.fgti.ford.com/client/NewFGTI/CopyrightNotice.html)) * Term “Disclaimer” no longer used for what is actually only a copyright notice | Jbaden1 |
| 6 | 0c | 2019-22-11 | * Chapter “Input Requirements/Documentst: minor modifications (examples added), Word comment removed” | Jbaden1 |
| 6 | 0c | 2019-12-05 | * Upstream Documents section added to “Input Requirements/Documents” table * Custom style table formatting removed * Hint on system behaviors modified as requested from FuSa team | Jbaden1 |
| 6 | 0c | 2019-12-09 | * Term “Upstream Documents” replaced by “Attribute Requirements” in “Input Requirements/Documents” table * ASIL Decomposition table replaced by a version, which get not corrupted during VSEM import. | Jbaden1 |
| 6 | 0c | 2019-12-10 | * In ch. “Functional Safety Requirements” Word reference Id by Word reference text replaced.. | Jbaden1 |
| 6 | 1a | 2020-02-12 | * New chapter “Cybersecurity” added. | Jbaden1 |
| 6 | 1a | 2020-03-03 | * All User Hints formatted using style “RE\_UserHint” to enable automatic removal by a macro. | Jbaden1 |
| 6 | 1a | 2020-03-04 | * Chapter “Cloud Connectivity Data Analytics Requirements” added upon request by D. Crockett/J. Rawlings | Jbaden1 |
| 6 | 1a | 2020-03-09 | * Missing doc property “LatestSigMappingID” and “LatestAisInterfaceID” added * doc property “CopyrightDate” re-formatted to text and copyright date field in footer corrected * Version numbering re-initialized as 0.1 * Init value of version/revision date set to “yyyy/mm/dd” instead of “yyyy-mm-dd” to be in line with the “Edit Document Property” dialog * type of document property for latest IDs changed to number instead of text | Jbaden1 |
| 6 | 1b | 2020-03-17 | * Chapter “Functional Architecture” renamed to “Functional Decomposition” * New MBSE terminology introduced: “Feature Level”, “Function Level” and “Component Level” renamed to “Concept Level”, “Logical Level” and “Technology Level” | Jbaden1 |
| 6 | 1b | 2020-07-03 | * CR31: Chapter “Traceability Matrix” added. | Jbaden1 |
| 6 | 1b | 2020-23-09 | * CR28: Alignment to [*FFSG01.10 Feature Document Guideline*](https://azureford.sharepoint.com/sites/GlobalFunctionalSafety/Released%20Templates%20Guidelines%20and%20Examples/Guidelines/FFSG01.10_FeatureDocument_Guideline.pdf) for how to apply the Feature Doc template for Functional Safety. New section “Classification of Chapters” added. “Active Tilt Control” Example in section “Logical Architecture” updated based on input from HARA training. | Jbaden1 |
| 6 | 1b | 2020-25-11 | * Reference to process definition in Stages added to “How to Use” section on cover sheet. User hints removed from “Document Purpose” chapter. * RE-Wiki links mostly replaced by Stages links, links to Functional Safety Sharepoint updated | Jbaden1 |

# Appendix

## Definitions

| **Definition** | **Description** |
| --- | --- |
| Chime | An audible alert |
| Classic Memory Recall | When Classic Memory performs a recall of positional settings. Positoinal settings are recalled from a profile. Note: other features perform recalls. |
| Classic Memory Store | When Classic Memory performs a store of positional settings. Positoinal settings are stored to a profile. Note: other features perform stores. |
| Configurable Parameter | The setting is a variable that can be adjusted by a technician |
| Drive Control Optimization | Effort to remove the key slot/PEPS from vehicle. Drives changes to other features that relied on the key slot/PEPS for input triggers. |
| Drive Position | The position where the Driver has manually set positional settings. The assumption is this is the preferred position from which the Driver plans to drive the vehicle. |
| EEEE Offset Position | This position has the seat rearward and the steering column forward to allow more space for entering and exiting the vehicle. |
| Memory Commodity | A system that has adjustable positions and memory capability (ex. Memory Seat can store and recall positions to memory) |
| Memory Input | The interface which a user can use to select a Profile to recall or store. |
| Memory Location | The location which stores the settings for a profile |
| Memory Set | A variant of Memory Input has Memory Set and profile options (instead of just profile options). Instead of pressing and holding a profile option to perform a memory store, this variant has the user select Memory Set then the profile option to perform a memory store. Note: Pressing a memory option in the variant performs a memory recall as normal. |
| Multicontour Seat | A specialized seat that contains adjustable massagers and air bladders |
| Personality | Another term for ‘Profile’. Terms have changed over the years and may not align with signals. |
| Profile | A profile stores the settings for a user |
| Prompt | A visual alert |
| Vehicle Speed Threshold | The speed at which it is determined to be too dangerous to trigger a positional setting recall. |
| Wait Mode | When Classic Memory is expecting input of a certain type. When Wait Mode is entered it will specify which input will trigger its exit. |

Table 21: Definitions used in this document

## Abbreviations

| **Abbr.** | **Stands for** |
| --- | --- |
| ACM | Advanced Classic Memory |
| AHUD | Advanced Head-Up Display |
| APIM | Accessory Protocol Interface Module |
| BCM | Body Control Module |
| CM | Classic Memory |
| DCO | Drive Control Optimization |
| DDM | Driver Door Module |
| DSM | Drivers Seat Module |
| ECG | Enhanced Central Gateway |
| ECM | Engine Control Module |
| EEEE | Easy Entry / Easy Exit |
| EM | Enhanced Memory |
| HMI | Human-Machine Interface |
| HUD | Head-Up Display |
| IPC | Instrument Panel Cluster |
| PDCM | Primary Drive Control Module |
| PDM | Passenger Door Module |
| PPP | Personal and Portable Profile |
| PSM | Passenger Seat Module |
| RCM | Restraint Control Module |
| RKE | Remote Key-less Entry |
| SCMG | Seat Control Module G |
| SCSM | Steering Column Switch Module |
| SSW | Stowable Steering Wheel |

Table 22: Abbreviations used in this document

Document ends here.