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|  | Function Group Spec  PPP/Auto Save Feature – Decide  <<Logical>> (Allocated)  F002032 | | |  |
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| Document Approval | | | | |
| Name | Role | | Email Confirmation | Date |
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# Introduction

## Document Purpose

The Function (Group) Specification (FS) specifies an individual function / a group of functions.

To get more information about the concept of feature, function and component level abstraction refer to the [Ford RE Wiki](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Engineering+for+SW+Enabled+Features).

## Document Scope

The following set of functions from the [Global Feature & Function List](https://www.vsemweb.ford.com:443/tc/launchapp?-attach=true&-s=226TCSession&-o=ZmZNi0JHx3NrTDAAAAAAAAAAAAA) is described in this specification.

|  |  |  |  |
| --- | --- | --- | --- |
| **Function ID** | **Function Name** | **Owner** | **Reference** |
| Fn007928 | Infotainment – PP Functions | Walter Stephens (wstephe1) | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=z1QxwXN4x3NrTDAAAAAAAAAAAAA&servername=Production_Server) |

|  |  |  |  |
| --- | --- | --- | --- |
|  |  |  |  |

**Table 1: Functions described in this specification**

## Document Audience

The FS is authored by the owners of the individual functions. All Stakeholders, i.e., all people who have a valid interest in the functions and their behavior should read and, if possible, review the FS. It needs to be guaranteed, that all stakeholders have access to the currently valid version of the FS.

**#Hint:** The FS template has the IP Classification “Proprietary” by default. IP Classification “Confidential” might be required in some cases, e.g. by Ford Functional Safety.

### Stakeholder List

For the latest list of stakeholder of the feature and their influence refer to [Stakeholder List for Auto Save in VSEM (VDOC085550)](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=SZU9Xk_yx3NrTDAAAAAAAAAAAAA&servername=Production_Server).

## 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 FS relates to other Ford Requirements Documents and Specifications.

### Document Structure

The structure of this document is explained below:

**Section 1** – Introduction 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.

**Section 2** – Function Group Description. Gives an overview and the purpose of the function group.

**Section 3** – Functional Architecture: Specifies the overall functional architecture of the function group

**Section 4** – Function Specifications: Specifies the logical functions of the function group in detail

**Section 5** – List of Open Concerns

**Section 6** Revision 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.

**Section 7** – Appendix: Presenting additional data mainly in a tabular form, e.g., a data dictionary

**#Hint:** All sections are mandatory, unless explicitly marked by the tag “#Classification” as “optional” or as applicable e.g. to certain domains like “Functional Safety”.

## Document Conventions

### Requirements Templates

Each requirement, use case or scenario in this specification shall follow the corresponding template given in the document template *Specification\_Macros.dotm* at [RE Wiki - Specification Templates](http://wiki.ford.com/display/RequirementsEngineering/Specification+templates?src=contextnavpagetreemode).

#### Identification of Requirements

#### 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).

# Function Group Description

**#Classification:** Function Group only (remove section, if only a single Function is specified in this document)

**#Hint**: Provide an overview / a description of the Function Group

This Function Group consists of all functions allocated to -2098041031.jpg **Infotainment Controller** <<Logical>> including all functions in their corresponding call trees.

Description of Infotainment Controller:

The Infotainment Controller is the abstraction that encompasses the system and features that are responsible for executing the Decide Functional Group of the Auto Save feature.

Auto Save is comprised of two functional groups: Decide and Monitor/Compare. The Monitor/Compare Functional Group is responsible for monitoring the adjustments the user has made to positional settings and classifying them.

The Decide Functional Group comprises the control aspects of the Automatic Saving functionality. It receives the classifications of positional settings from the Monitor/Compare Functional Group. It stores these settings in the Classified Adjustments Repository. Based on these classifications, the Decide Functional Group will save immediately or prompt the user for feedback. The feedback is then used to save the adjustments, ignore further adjustments, or change the profile.

Owner: Matt Borrelli, IVI SPSS Author

# Functional Architecture

**#Classification:** Function Group only (remove section, if only a single Function is specified in this document)

**#Hint:** The Functional Architecture shall reflect the result of the functional decomposition for a given feature or parts of it.

Refer to the [*RE Wiki – Functional Decomposition*](http://wiki.ford.com/display/RequirementsEngineering/Functional+Analysis+and+Architecture) for some guidance on how to decompose a feature into functions, i.e., how to find the right functional partitioning for the function level. The functions shown here are those, which are specified in section 4 “Function Specifications”.

## Description

**#Hint:** Provide some informal description of the characteristics of the chosen architecture. Also give some graphical representation of the Functional Architecture. Either SysML Internal Block diagrams or [Data Flow Diagrams](http://wiki.ford.com/display/RequirementsEngineering/Data+Flow+Diagram?src=contextnavpagetreemode) could be used to depict such a Functional Architecture.

**#Link:** [*SysML – Internal Block Diagrams*](https://pd3.spt.ford.com/sites/SystemsEngineering/SEC/sysml-teamsite/SysML%20Wiki/Internal%20Block%20Diagram%20Basics.aspx) or [*RE Wiki - Data Flow Diagrams*](http://wiki.ford.com/display/RequirementsEngineering/Data+Flow+Diagram?src=contextnavpagetreemodehttp://wiki.ford.com/display/RequirementsEngineering/Data+Flow+Diagram?src=contextnavpagetreemode)

Graphical user interface, application, Word

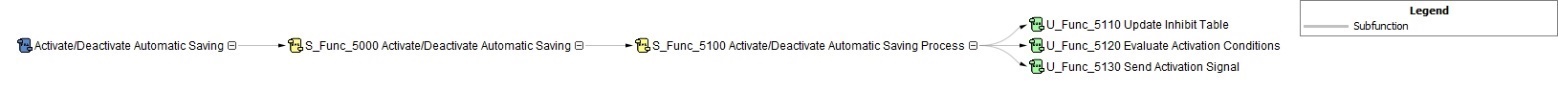
Description automatically generated

Figure 1: Block Definition Diagram of Auto Save Feature

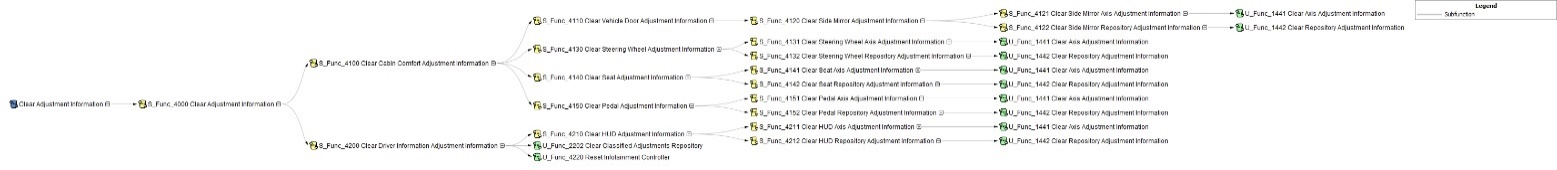
**Diagram

Description automatically generated**

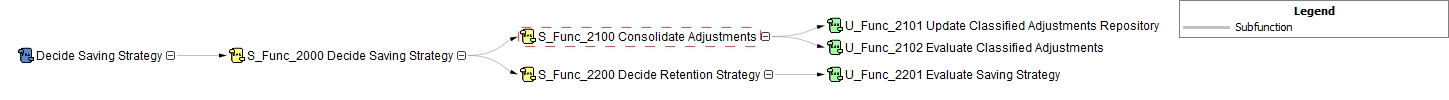
**Figure 2: Block Definition Diagram of Decide Functionality of Auto Save Feature**

****

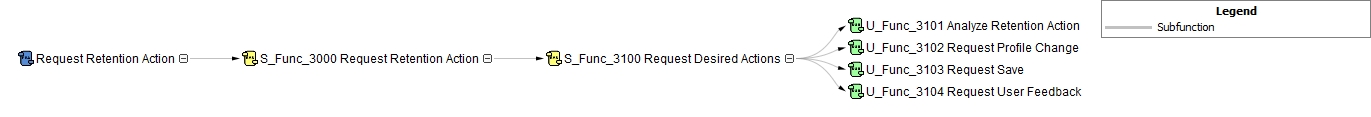
**Figure 3:** **Functional Decomposition of the “Activate/Deactivate Automatic Saving” Feature Function of Auto Save Feature**

****

**Figure 4:** **Functional Decomposition of the “Clear Adjustment Information” Feature Function of Auto Save Feature**

****

**Figure 5:** **Functional Decomposition of the “Decide Saving Strategy” Feature Function of Auto Save Feature**

****

**Figure 6:** **Functional Decomposition of the “Request Retention Action” Feature Function of Auto Save Feature**



**Figure 7:** **Internal Block Diagram of the Infotainment System**

## Function List

|  |  |  |  |
| --- | --- | --- | --- |
| **Function ID** | **Function Name** | **Function Description** | **ASIL** |
| U\_Func\_2101 | -819558372.jpg [U\_Func\_2101 Update Classified Adjustments Repository](#_7df515678151b418d41d477025a8445d) <<Subsystem Function>> | SUBSYSTEM FUNCTION - When new adjustment information from a sub-domain arrives, this function will examine the current value for that sub-domain in the Classified Adjustments Repository. If the value has changed, it will updated the Classified Adjustments Repository and notify the Evaluated Classified Adjustments function. | N/A |
| U\_Func\_2201 | -819558372.jpg [U\_Func\_2201 Evaluate Saving Strategy](#_cb282f773a3721cf9ea10ba433d7f7f5) <<Subsystem Function>> | SUBSYSTEM FUNCTION - The primary purpose of this function is to take the Adjustment Classification and decide what retention action should be undertaken. It monitors to see if more adjustments arrive and will either save or prompt the user. Major adjustments result in a prompt; minor adjustments result in a save. It also responds to Profile Change Notification and Manual Save Notification and makes sure that Auto Save responds to these events by returning to a default state of monitoring for more adjustments. | N/A |
| U\_Func\_3102 | -819558372.jpg [U\_Func\_3102 Request Profile Change](#_523bca233e0c52d03a839718dd120203) <<Subsystem Function>> | SUBSYSTEM FUNCTION - This function requests that the profile system change the current user profile. | N/A |
| U\_Func\_2202 | -819558372.jpg [U\_Func\_2202 Clear Classified Adjustments Repository](#_8e87e12a70257bb1a61fa226762fd84b) <<Subsystem Function>> | SUBSYSTEM FUNCTION - This function clears the Classified Adjustments Repository, which contains the classifications of adjustments that the Infotainment Controller has received from the Body Modules. | N/A |
| U\_Func\_5110 | -819558372.jpg [U\_Func\_5110 Update Inhibit Table](#_80aed59ae91688b663888b11b881c543) <<Subsystem Function>> | SUBSYSTEM FUNCTION - This function monitors incoming Inhibit Requests. It compares the Inhibit Request to the stored value in the Inhibit Table on the Infotainment Controller. If the Inhibit Request results in changes to the status in the Inhibit Table, it notifies the Evaluate Activation Conditions function. | N/A |
| U\_Func\_5130 | -819558372.jpg [U\_Func\_5130 Send Activation Signal](#_4066d3aba6d72a720a1f99a18eb40399) <<Subsystem Function>> | SUBSYSTEM FUNCTION - This function sends a signal to all elements of the Auto Save feature that the feature is either activated or deactivated. | N/A |
| U\_Func\_3103 | -819558372.jpg [U\_Func\_3103 Request Save](#_f45bf497aa51f6045b17eb7ba6c4a0c3) <<Subsystem Function>> | SUBSYSTEM FUNCTION - This function requests that the current positions be retained in the user profile. | N/A |
| U\_Func\_5120 | -819558372.jpg [U\_Func\_5120 Evaluate Activation Conditions](#_103587e3e3c890004bbf68d061e65f6d) <<Subsystem Function>> | SUBSYSTEM FUNCTION - This function checks the list of activation conditions necessary for Auto Save to function. If there are changes to the active state of Auto Save, it will request that the Send Activation Signal function send the Activation Status signal. | N/A |
| U\_Func\_3101 | -819558372.jpg [U\_Func\_3101 Analyze Retention Action](#_10994ddd8b71218a589950d94f629166) <<Subsystem Function>> | SUBSYSTEM FUNCTION - Based on the feedback provided by the user, this function determines whether Auto Save should save the changes, ignore the changes, or change the profile. | N/A |
| U\_Func\_4220 | -819558372.jpg [U\_Func\_4220 Reset Infotainment Controller](#_abc72ce0a1adbd7eb08a6ea8f48846a2) <<Subsystem Function>> | SUBSYSTEM FUNCTION - This function resets the current state of the Auto Save algorithm running on the Infotainment Controller. It will also request the clearing of the Classified Adjustments Repository by the Clear Classified Adjustments Repository function. | N/A |
| U\_Func\_2102 | -819558372.jpg [U\_Func\_2102 Evaluate Classified Adjustments](#_f22eb4e0fa62b228ad42683cd8735886) <<Subsystem Function>> | SUBSYSTEM FUNCTION - When notified that there are new adjustments by the Update Classified Adjustments Repository function, the Evaluate Classified Adjustments function checks the repository on the Infotainment Controller. When the Classified Adjustments Repository has been updated with additional adjustments, the Evaluate Classified Adjustments function will inform the Evaluate Saving Strategy function. | N/A |
| U\_Func\_3104 | -819558372.jpg [U\_Func\_3104 Request User Feedback](#_a1a2faaa033e86c10210b6f860d096c9) <<Subsystem Function>> | SUBSYSTEM FUNCTION - This function requests feedback from the user using HMI. The user's feedback is whether they want to save adjustments, ignore adjustments, or change the profile. The user's feedback is passed as an input to the Analyze Retention Action function. | N/A |

Table 2: List of Logical Functions

## Signal List

Refer to the [Data Dictionary](#_Data_Dictionary) - [Logical Signals](#_Logical_Signals).

# Function Specifications

## -819558372.jpg U\_Func\_2101 Update Classified Adjustments Repository

### Function Overview

#### Description

**#Hint:** Some descriptive text to explain the purpose and functionality of the function.

Function is allocated to:

* -2098041031.jpg Infotainment Controller <<Logical>>

SUBSYSTEM FUNCTION - When new adjustment information from a sub-domain arrives, this function will examine the current value for that sub-domain in the Classified Adjustments Repository. If the value has changed, it will updated the Classified Adjustments Repository and notify the Evaluated Classified Adjustments function.

#### Variants

**#Classification**: Mandatory (State “Not applicable”, if not used)

**#Hint:** If different variants of the same function are specified in this section, list those variants in the table below.

Variants on Function level could be driven technology or feature content. Example: There could be a “Low Content” and a “High Content” variant of some exterior lighting function. The Low Content variant applies for Conventional Headlight technology, the High Content variant applies for LED and Xenon technology. In this case we call the different technologies the Variant Options (for the time being you could think of them as Logical Parameters) which the Variant depends on. The optional column “Variant condition” allows to express the dependency of a Variant based on Variant Options/Logical Parameters.

If requirements/signals are not applicable for all variants/variant options, those requirements should state explicitly, which function variant/variant option they apply to.

**#Link:** [RE Wiki – Variant Management](http://wiki.ford.com/display/RequirementsEngineering/Variant+Management).

Not applicable

#### Input Requirements

**#Classification**: Mandatory (State “Not applicable”, if not used)

**#Hint:** List any input requirements here (legal, Trustmark), which need to be taken into account, beyond what is specified in the corresponding Feature Documents.

Not applicable

#### Assumptions

**#Classification**: Mandatory (State “Not applicable”, if not used)

**#Hint:** A list of known assumptions concerning the effects of the function’s behavior on other functions or elements (i.e., dependencies) as well as assumptions on the behavior expected by the function (e.g. known limitations). During the course of the development most of those assumptions are typically either converted into actual requirements or discarded at some point – such that this chapter remains mostly empty.

Not applicable

#### References

##### Ford Documents

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

| **Reference** | **Title** | **Doc. ID** | **Document Location** | **Revision** |
| --- | --- | --- | --- | --- |
| VDOC080441 | Auto Save Feature Specification | VDOC080441 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=zNX5hzEYx3NrTDAAAAAAAAAAAAA&servername=Production_Server) | F |
| VDOC089611 | Auto Save Functional Specification | VDOC089611 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=zqsBkU6Cx3NrTDAAAAAAAAAAAAA&servername=Production_Server) | A |
| VDOC089612 | Auto Save Implementation Specification | VDOC089612 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=DDgBkU6Cx3NrTDAAAAAAAAAAAAA&servername=Production_Server) | A |
| VDOC075158 | PPP Feature Document | VDOC075158 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=iWYxEeXyx3NrTDAAAAAAAAAAAAA&servername=Production_Server) | B |
| VDOC085831 | PPP Functional Specifications | VDOC085831 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=h$b9Xjn8x3NrTDAAAAAAAAAAAAA&servername=Production_Server) | B |
| VDOC080627 | PPP Feature Implementation | VDOC080627 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=F0c5z4zQx3NrTDAAAAAAAAAAAAA&servername=Production_Server) | A |
| VDOC083702 | Classic Memory Feature Specification | VDOC083702 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=iaQ9AR4Cx3NrTDAAAAAAAAAAAAA&servername=Production_Server) | F |
| VDOC088610 | Classic Memory Functional Specification | VDOC088610 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=idlBBLxox3NrTDAAAAAAAAAAAAA&servername=Production_Server) | B |
| VDOC089667 | Classic Memory Implementation Spec | VDOC089667 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=SNhBkV85x3NrTDAAAAAAAAAAAAA&servername=Production_Server) | A |
| VDOC041625 | Enhanced Memory Feature Specification | VDOC041625 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=boRV6owSx3NrTDAAAAAAAAAAAAA&servername=Production_Server) | J |
| VDOC041626 | Enhance Memory Feature Implementation Guide (Feature Level) | VDOC041626 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=rkWV6owSx3NrTDAAAAAAAAAAAAA&servername=Production_Server) | H |

Table 3: Ford internal Documents *(not specified in model)*

##### External Documents and Publications

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

**#Hint:** You may refer to [IEEE Citation Reference](http://www.ieee.org/documents/ieeecitationref.pdf) on how to format a reference.

| **Reference** | **Document / Publication** |
| --- | --- |
|  |  |

Table 4: External documents and publications *(not specified in model)*

#### Glossary

See Appendix for Definitions and Abbreviations.

### Function Scope

The -819558372.jpg **– “U\_Func\_2101 Update Classified Adjustments Repository”** function is called by the following functions:

* -479160504.jpg – “[S\_Func\_2100 Consolidate Adjustments](#_bcff10d86d7e3f08a33788a076975a3c)”

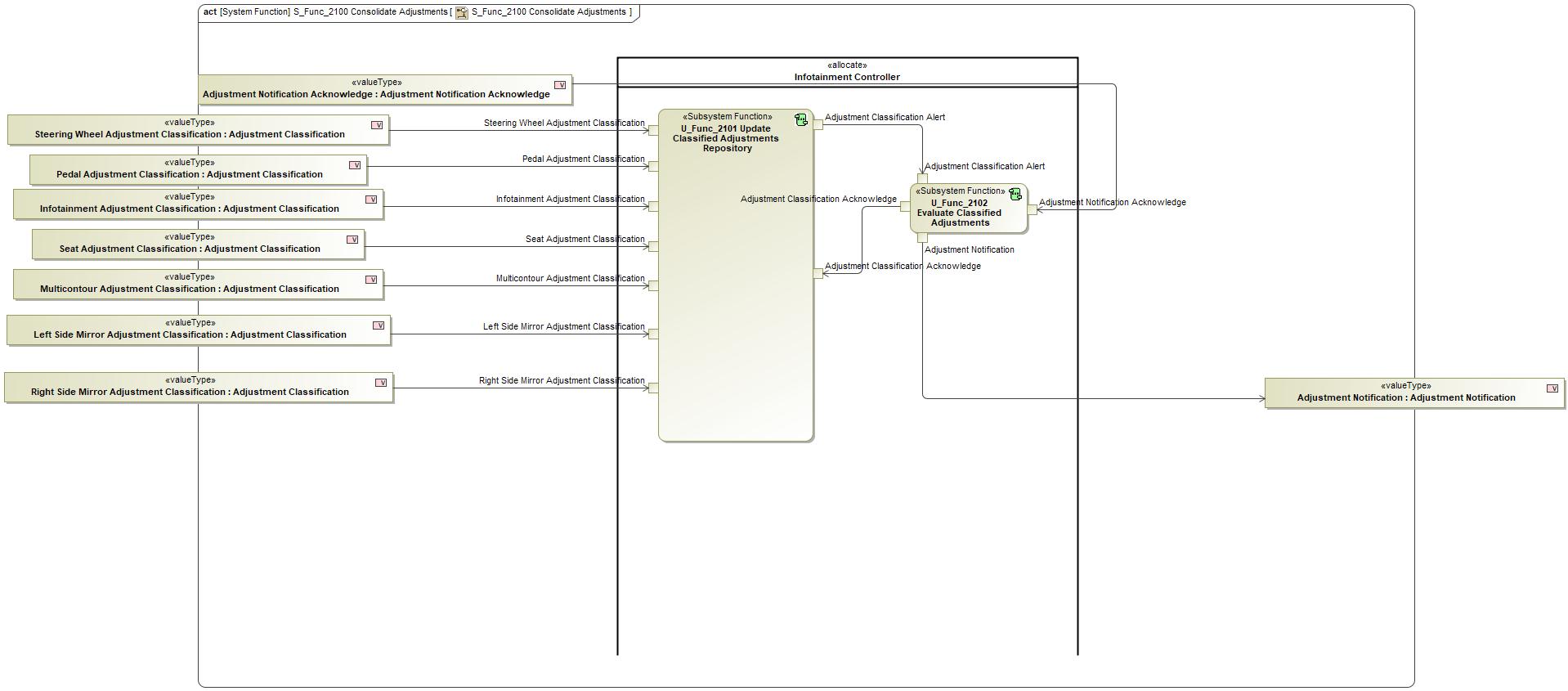


Figure 8: Activity Diagram of -479160504.jpg “S\_Func\_2100 Consolidate Adjustments” calling -819558372.jpg “U\_Func\_2101 Update Classified Adjustments Repository”

### Function Interfaces

**#Link:** [RE Wiki – Adding a Logical Signal or Parameter](http://wiki.ford.com/display/RequirementsEngineering/Adding+a+Logical+Signal+or+Parameter)

#### Logical Inputs

|  |  |
| --- | --- |
| **Signal Name** | **Description** |
| Multicontour Adjustment Classification  Type:  -814667776.jpg [Adjustment Classification](#_b71c4150d5180ab929a0bf22f5361e7a) | Signal Description:  This signal contains the consolidated classification of a sub-domain of axes.  ASIL: QM  Encoding Type: Adjustment Classification  Discrete Encoding Values:  0x0 None  0x1 In Progress  0x2 Major  0x3 Minor  Unit: Enumeration  Received from:   * -1679618778.jpg Activity Parameter Node: Multicontour Adjustment Classification |
| Left Side Mirror Adjustment Classification  Type:  -814667776.jpg [Adjustment Classification](#_b71c4150d5180ab929a0bf22f5361e7a) | Signal Description:  This signal contains the consolidated classification of a sub-domain of axes.  ASIL: QM  Encoding Type: Adjustment Classification  Discrete Encoding Values:  0x0 None  0x1 In Progress  0x2 Major  0x3 Minor  Unit: Enumeration  Received from:   * -1679618778.jpg Activity Parameter Node: Left Side Mirror Adjustment Classification |
| Steering Wheel Adjustment Classification  Type:  -814667776.jpg [Adjustment Classification](#_b71c4150d5180ab929a0bf22f5361e7a) | Signal Description:  This signal contains the consolidated classification of a sub-domain of axes.  ASIL: QM  Encoding Type: Adjustment Classification  Discrete Encoding Values:  0x0 None  0x1 In Progress  0x2 Major  0x3 Minor  Unit: Enumeration  Received from:   * -1679618778.jpg Activity Parameter Node: Steering Wheel Adjustment Classification |
| Pedal Adjustment Classification  Type:  -814667776.jpg [Adjustment Classification](#_b71c4150d5180ab929a0bf22f5361e7a) | Signal Description:  This signal contains the consolidated classification of a sub-domain of axes.  ASIL: QM  Encoding Type: Adjustment Classification  Discrete Encoding Values:  0x0 None  0x1 In Progress  0x2 Major  0x3 Minor  Unit: Enumeration  Received from:   * -1679618778.jpg Activity Parameter Node: Pedal Adjustment Classification |
| Infotainment Adjustment Classification  Type:  -814667776.jpg [Adjustment Classification](#_b71c4150d5180ab929a0bf22f5361e7a) | Signal Description:  This signal contains the consolidated classification of a sub-domain of axes.  ASIL: QM  Encoding Type: Adjustment Classification  Discrete Encoding Values:  0x0 None  0x1 In Progress  0x2 Major  0x3 Minor  Unit: Enumeration  Received from:   * -1679618778.jpg Activity Parameter Node: Infotainment Adjustment Classification |
| Right Side Mirror Adjustment Classification  Type:  -814667776.jpg [Adjustment Classification](#_b71c4150d5180ab929a0bf22f5361e7a) | Signal Description:  This signal contains the consolidated classification of a sub-domain of axes.  ASIL: QM  Encoding Type: Adjustment Classification  Discrete Encoding Values:  0x0 None  0x1 In Progress  0x2 Major  0x3 Minor  Unit: Enumeration  Received from:   * -1679618778.jpg Activity Parameter Node: Right Side Mirror Adjustment Classification |
| Adjustment Classification Acknowledge  Type:  -814667776.jpg [Adjustment Classification Acknowledge](#_2b4c62f5d5d85dc78d1f1dd970d13e0e) | Signal Description:  Indicates that the update to the Classified Adjustments Repository has been acknowledged by the Evaluate Classified Adjustments function.  ASIL: QM  Encoding Type: Boolean  Discrete Encoding Values:  0x0 FALSE  0x1 TRUE  Unit: Boolean  Received from:   * -819558372.jpg [U\_Func\_2102 Evaluate Classified Adjustments](#_f22eb4e0fa62b228ad42683cd8735886) |
| Seat Adjustment Classification  Type:  -814667776.jpg [Adjustment Classification](#_b71c4150d5180ab929a0bf22f5361e7a) | Signal Description:  This signal contains the consolidated classification of a sub-domain of axes.  ASIL: QM  Encoding Type: Adjustment Classification  Discrete Encoding Values:  0x0 None  0x1 In Progress  0x2 Major  0x3 Minor  Unit: Enumeration  Received from:   * -1679618778.jpg Activity Parameter Node: Seat Adjustment Classification |

#### Logical Outputs

|  |  |
| --- | --- |
| **Signal Name** | **Description** |
| Adjustment Classification Alert  Type:  -814667776.jpg [Adjustment Classification Alert](#_5bf70d97b7c759ba11a473a02b72b88b) | Signal Description:  Indicates that an update has occurred in the Classified Adjustments Repository and the Auto Save feature should evaluate it.  ASIL: QM  Encoding Type: Boolean  Discrete Encoding Values:  0x0 FALSE  0x1 TRUE  Unit: Boolean  Sent to:   * -819558372.jpg [U\_Func\_2102 Evaluate Classified Adjustments](#_f22eb4e0fa62b228ad42683cd8735886) |

#### Logical Parameters

**#Hint**: Put requirements for parameters here, which are implemented as configuration parameters using Method 2 or 3 or as parameters for calibration.

No Logical Parameters applicable for this function

### Function Modeling

**#Classification:** Mandatory

**#Hint:** Typical modeling artifacts in this section are State Machines, Activity Diagrams / Flow Charts, Decision Tables, and possibly Sequence Diagrams, which can all be used as techniques to analyze the function requirements.

**#Links:** Analyze / Model Requirements: [RE Wiki – Analyze / Model Requirements](http://wiki.ford.com/pages/viewpage.action?pageId=110594919&src=contextnavpagetreemode)

#### Use Cases

**#Classification:** Infotainment Only (remove section, if not used)

**#Hint:** Some Domains (e.g. Infotainment) use not only Customer Use Cases (in the Feature Doc), but refine Use Case descriptions down to function level. In general, the RE approach encourages the use of Use Cases on Feature Level but not on Function Level. Activity Diagrams are a more suitable way to express the same on Function Level.

**#Links:** Infotainment – “Harmony Systems Engineering” Approach

Not applicable

#### State Charts / Activity Diagrams / Sequence Diagrams / Decision Tables

**#Classification:** Mandatory

**#Hint:** It is highly recommended to use at least one of the following modeling techniques for modeling and analyzing the Function behavior and derived requirements (refer to sample diagrams below):

State Machines, Activity Diagrams / Flow Charts, or Decision Tables

Optionally, Sequence Diagrams might help to analyze the interaction between Functions.

**#Links:** Analyze / Model Requirements: [RE Wiki – Analyze / Model Requirements](http://wiki.ford.com/pages/viewpage.action?pageId=110594919&src=contextnavpagetreemode)

State Charts [RE Wiki – State Charts](http://wiki.ford.com/display/RequirementsEngineering/State+Charts?src=contextnavpagetreemode)

Activity Diagrams: [RE Wiki – Activity Diagram](http://wiki.ford.com/display/RequirementsEngineering/Activity+Diagram?src=contextnavpagetreemode), [SysML User Group – Activity Diagram Basics](https://pd3.spt.ford.com/sites/SystemsEngineering/SEC/sysml-teamsite/SysML%20Wiki/Activity%20Diagram%20Basics.aspx)

Sequence Diagrams: [RE Wiki – Sequence Chart](http://wiki.ford.com/display/RequirementsEngineering/Sequence+Chart?src=contextnavpagetreemode), [SysML User Group – Sequence Diagram Basics](https://pd3.spt.ford.com/sites/SystemsEngineering/SEC/sysml-teamsite/SysML%20Wiki/Sequence%20Diagram%20Basics.aspx)

Diagram

Description automatically generated

**Figure 9:** **Finite State Machine of Update Classified Adjustments Repository**



**Figure 10:** **Classified Adjustments Repository during Auto Save operation**

### Function Requirements

#Link: [*RE Wiki – How to write good requirements*](http://wiki.ford.com/display/RequirementsEngineering/How+to+write+better+requirements?src=contextnavpagetreemode)

#### Functional Requirements

***#Hint:*** *Please also consider specific situations like Initialization (Startup) and Deinitialization (Shutdown) apart from Normal Operation and Error Handling. E.g. a* state chart or activity diagram might help for better understanding.

##### Normal Operation

Update Classified Adjustments Repository: Decide Inactive

When the value of 'Auto Save Active Status' is 'Disabled' or 'Enabled Inactive', the Update Classified Adjustments Repository function shall ignore changes to the following values:

'Left Side Mirror Adjustment Classification'

'Right Side Mirror Adjustment Classification'

'Infotainment Adjustment Classification'

'Seat Adjustment Classification'

'Multicontour Adjustment Classification'

'Pedal Adjustment Classification'

'Steering Column Adjustment Classification'

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Need to stop updated the classified adjustments repository when Auto Save not running. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Infotainment Controller: Adjustment Classification Alert

The Infotainment Controller shall allocate space for the 'Adjustment Classification Alert' data value in order to execute the Update Classified Adjustments function.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Infotainment Controller needs to have a place for Adjustment Classification Alert. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Infotainment Controller: Classified Adjustments Repository

The Infotainment Controller shall maintain space for the following data values in the Classified Adjustments Repository:

'Left Side Mirror Adjustment Classification'

'Right Side Mirror Adjustment Classification'

'Infotainment Adjustment Classification'

'Seat Adjustment Classification'

'Multicontour Adjustment Classification'

'Pedal Adjustment Classification'

'Steering Column Adjustment Classification'

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Infotainment Controller needs to hold Classified Adjustments. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Infotainment Controller: Update Classified Adjustments Repository Function

The Infotainment Controller shall implement the Update Classified Adjustments Repository function.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Infotainment Controller needs to execute the Update Classified Adjustments Repository function to execute the Auto Save Feature. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Update Classified Adjustments Repository: Classification Alert Upon Change

When the Update Classified Adjustments Repository function replaces old data in the Classified Adjustments Repository, the Update Classified Adjustments Repository function shall set the value of 'Adjustment Classification Alert' to 'TRUE'.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Need to set classification alert to TRUE. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Infotainment Controller: Adjustment Classification Acknowledge

The Infotainment Controller shall allocate space for the 'Adjustment Classification Acknowledge' data value.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Infotainment Controller needs to have a place for Adjustment Classification Acknowledge. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Update Classified Adjustments Repository: Acknowledge Complete

When the Update Classified Adjustments Repository function is waiting for the value of 'Adjustment Classification Acknowledge' to be 'TRUE' and the value of 'Adjustment Classification Acknowledge' has become 'TRUE', the Update Classified Adjustments Repository function shall set the value of 'Adjustment Classification Alert' to 'FALSE'.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Need to end acknowledgment. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Update Classified Adjustments Repository: Classification Alert After Clear

When all the data in the Classified Adjustments Repository is 'None', the Update Classified Adjustments Repository function shall set the value of 'Adjustment Classification Alert' to 'TRUE'.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | When a clear occurs and all the items in the repository are 'None', this function needs to set 'Adjustment Classification Alert' to 'TRUE'. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Update Classified Adjustments Repository: Decide Active

When the value of 'Auto Save Active Status' is 'Enabled Active', the Update Classified Adjustments Repository function shall replace the old data in the Classified Adjustments Repository when changes occur to the following values:

'Left Side Mirror Adjustment Classification'

'Right Side Mirror Adjustment Classification'

'Infotainment Adjustment Classification'

'Seat Adjustment Classification'

'Multicontour Adjustment Classification'

'Pedal Adjustment Classification'

'Steering Column Adjustment Classification'

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Need to wait for any adjustments. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Update Classified Adjustments Repository: Wait for Acknowledge

When the Update Classified Adjustments Repository function sets the value of 'Adjustment Classification Alert' to 'TRUE', the Update Classified Adjustments Repository function shall wait for the value of 'Adjustment Classification Acknowledge' to be 'TRUE'.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Need to wait for acknowledgment. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

##### Error Handling

***#Hint:*** *FMEA counter measures could be considered as requirements in this chapter*

Update Classified Adjustments Repository: Missing Message

If the signal carrying one of these values is missing for more than 5 seconds, the Update Classified Adjustments Repository function shall ignore changes to the following values:

'Left Side Mirror Adjustment Classification'

'Right Side Mirror Adjustment Classification'

'Infotainment Adjustment Classification'

'Seat Adjustment Classification'

'Multicontour Adjustment Classification'

'Pedal Adjustment Classification'

'Steering Column Adjustment Classification'

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | We need to define a missing message strategy for the link between the positional modules and the Infotainment Controller. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

#### Non-Functional Requirements

***#Hint:*** *Non-functional requirements specify some performance criteria in addition to the functional behavior given defined by the functional requirements. Timing (if not already included in the functional requirements), security details (e.g. how secure does an algorithm have to be) or reliability (e.g. mean time between failure) could be specified in this section.*

No Non-Functional Requirements specified.

#### Functional Safety Requirements

**#Classification**: Functional Safety only – If not used, remove content and state “Not Applicable”

***#Hint:*** *Add Functional Safety Requirements (FSRs) derived for this function.*

**#Link:** [Functional Safety Sharepoint](https://pd3.spt.ford.com/sites/GlobalFunctionalSafety/Pages/default.aspx) – Functional Safety Concept

[RE Wiki - Requirements Attributes](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes)

No Functional Safety Requirements specified.

##### ASIL Decomposition of Functional Safety Requirements

**#Classification**: Functional Safety only – If not used, remove content and state “Not Applicable”

***#Hint:*** *Sometimes an ASIL decomposition of Functional Safety Requirements is required. The decomposed FSRs should be listed beneath each ASIL Decomposition table below and referenced inside the table by ID and Title*

**#Link:** [Functional Safety Sharepoint](https://pd3.spt.ford.com/sites/GlobalFunctionalSafety/Pages/default.aspx) – Functional Safety Concept

No Functional Safety Requirements with ASIL Decompositions specified.

#### Other Requirements

##### Design Requirements

***#Hint:*** *Requirements of a Logical Function should be typically agnostic of their SW/HW implementation*. If for specific reasons the function owner needs to define explicitly design constraints, it can be done in this chapter.

No Design Requirements specified.

## -819558372.jpg U\_Func\_2102 Evaluate Classified Adjustments

### Function Overview

#### Description

Function is allocated to:

* -2098041031.jpg Infotainment Controller <<Logical>>

SUBSYSTEM FUNCTION - When notified that there are new adjustments by the Update Classified Adjustments Repository function, the Evaluate Classified Adjustments function checks the repository on the Infotainment Controller. When the Classified Adjustments Repository has been updated with additional adjustments, the Evaluate Classified Adjustments function will inform the Evaluate Saving Strategy function.

#### Variants

Not applicable

#### Input Requirements

Not applicable

#### Assumptions

Not applicable

#### References

##### Ford Documents

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

| **Reference** | **Title** | **Doc. ID** | **Document Location** | **Revision** |
| --- | --- | --- | --- | --- |
| VDOC080441 | Auto Save Feature Specification | VDOC080441 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=zNX5hzEYx3NrTDAAAAAAAAAAAAA&servername=Production_Server) | F |
| VDOC089611 | Auto Save Functional Specification | VDOC089611 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=zqsBkU6Cx3NrTDAAAAAAAAAAAAA&servername=Production_Server) | A |
| VDOC089612 | Auto Save Implementation Specification | VDOC089612 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=DDgBkU6Cx3NrTDAAAAAAAAAAAAA&servername=Production_Server) | A |
| VDOC075158 | PPP Feature Document | VDOC075158 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=iWYxEeXyx3NrTDAAAAAAAAAAAAA&servername=Production_Server) | B |
| VDOC085831 | PPP Functional Specifications | VDOC085831 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=h$b9Xjn8x3NrTDAAAAAAAAAAAAA&servername=Production_Server) | B |
| VDOC080627 | PPP Feature Implementation | VDOC080627 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=F0c5z4zQx3NrTDAAAAAAAAAAAAA&servername=Production_Server) | A |
| VDOC083702 | Classic Memory Feature Specification | VDOC083702 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=iaQ9AR4Cx3NrTDAAAAAAAAAAAAA&servername=Production_Server) | F |
| VDOC088610 | Classic Memory Functional Specification | VDOC088610 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=idlBBLxox3NrTDAAAAAAAAAAAAA&servername=Production_Server) | B |
| VDOC089667 | Classic Memory Implementation Spec | VDOC089667 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=SNhBkV85x3NrTDAAAAAAAAAAAAA&servername=Production_Server) | A |
| VDOC041625 | Enhanced Memory Feature Specification | VDOC041625 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=boRV6owSx3NrTDAAAAAAAAAAAAA&servername=Production_Server) | J |
| VDOC041626 | Enhance Memory Feature Implementation Guide (Feature Level) | VDOC041626 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=rkWV6owSx3NrTDAAAAAAAAAAAAA&servername=Production_Server) | H |

Table 5: Ford internal Documents *(not specified in model)*

##### External Documents and Publications

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

| **Reference** | **Document / Publication** |
| --- | --- |
|  |  |

Table 6: External documents and publications *(not specified in model)*

#### Glossary

See Appendix for Definitions and Abbreviations.

### Function Scope

The -819558372.jpg **– “U\_Func\_2102 Evaluate Classified Adjustments”** function is called by the following functions:

* -479160504.jpg – “[S\_Func\_2100 Consolidate Adjustments](#_bcff10d86d7e3f08a33788a076975a3c)”

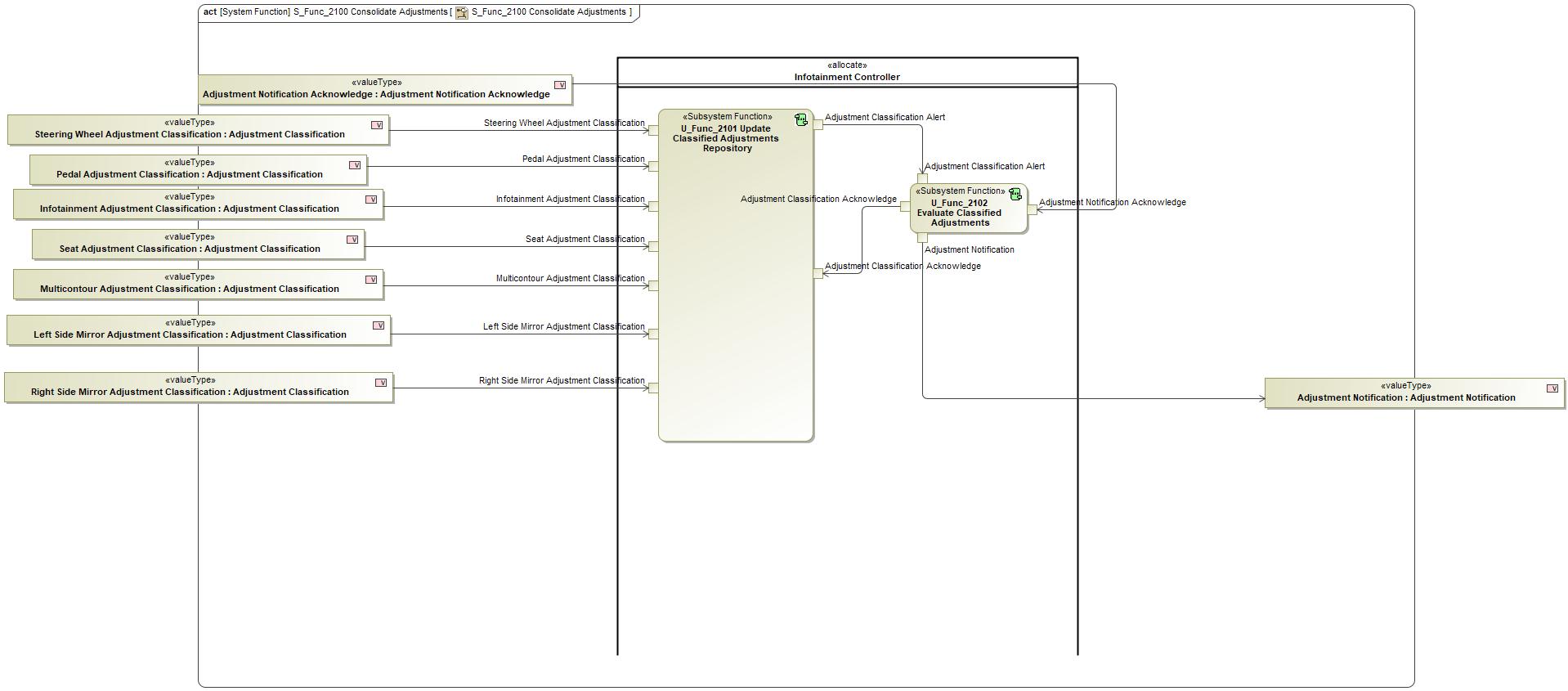


Figure 11: Activity Diagram of -479160504.jpg “S\_Func\_2100 Consolidate Adjustments” calling -819558372.jpg “U\_Func\_2102 Evaluate Classified Adjustments”

### Function Interfaces

#### Logical Inputs

|  |  |
| --- | --- |
| **Signal Name** | **Description** |
| Adjustment Classification Alert  Type:  -814667776.jpg [Adjustment Classification Alert](#_5bf70d97b7c759ba11a473a02b72b88b) | Signal Description:  Indicates that an update has occurred in the Classified Adjustments Repository and the Auto Save feature should evaluate it.  ASIL: QM  Encoding Type: Boolean  Discrete Encoding Values:  0x0 FALSE  0x1 TRUE  Unit: Boolean  Received from:   * -819558372.jpg [U\_Func\_2101 Update Classified Adjustments Repository](#_7df515678151b418d41d477025a8445d) |
| Adjustment Notification Acknowledge  Type:  -814667776.jpg [Adjustment Notification Acknowledge](#_4304e025b6b44ed323a2a402718b9be3) | Indicates that the update to the Classified Adjustments Repository has been acknowledged by the Evaluate Saving Strategy function.  ASIL: QM  Encoding Type: Boolean  Discrete Encoding Values:  0x0 FALSE  0x1 TRUE  Unit: Boolean  Received from:   * -1679618778.jpg Activity Parameter Node: Adjustment Notification Acknowledge |

#### Logical Outputs

|  |  |
| --- | --- |
| **Signal Name** | **Description** |
| Adjustment Classification Acknowledge  Type:  -814667776.jpg [Adjustment Classification Acknowledge](#_2b4c62f5d5d85dc78d1f1dd970d13e0e) | Signal Description:  Indicates that the update to the Classified Adjustments Repository has been acknowledged by the Evaluate Classified Adjustments function.  ASIL: QM  Encoding Type: Boolean  Discrete Encoding Values:  0x0 FALSE  0x1 TRUE  Unit: Boolean  Sent to:   * -819558372.jpg [U\_Func\_2101 Update Classified Adjustments Repository](#_7df515678151b418d41d477025a8445d) |
| Adjustment Notification  Type:  -814667776.jpg [Adjustment Notification](#_9a9edfb07826873eca84ac3c016e320b) | Signal Description:  This signal contains the classification of the whole Auto Save Domain.  ASIL: QM  Encoding Type: Adjustment Classification  Discrete Encoding Values:  0x0 None  0x1 In Progress  0x2 Major  0x3 Minor  Unit: Enumeration  Sent to:   * -1055653945.jpg * -1679618778.jpg Activity Parameter Node: Adjustment Notification |

#### Logical Parameters

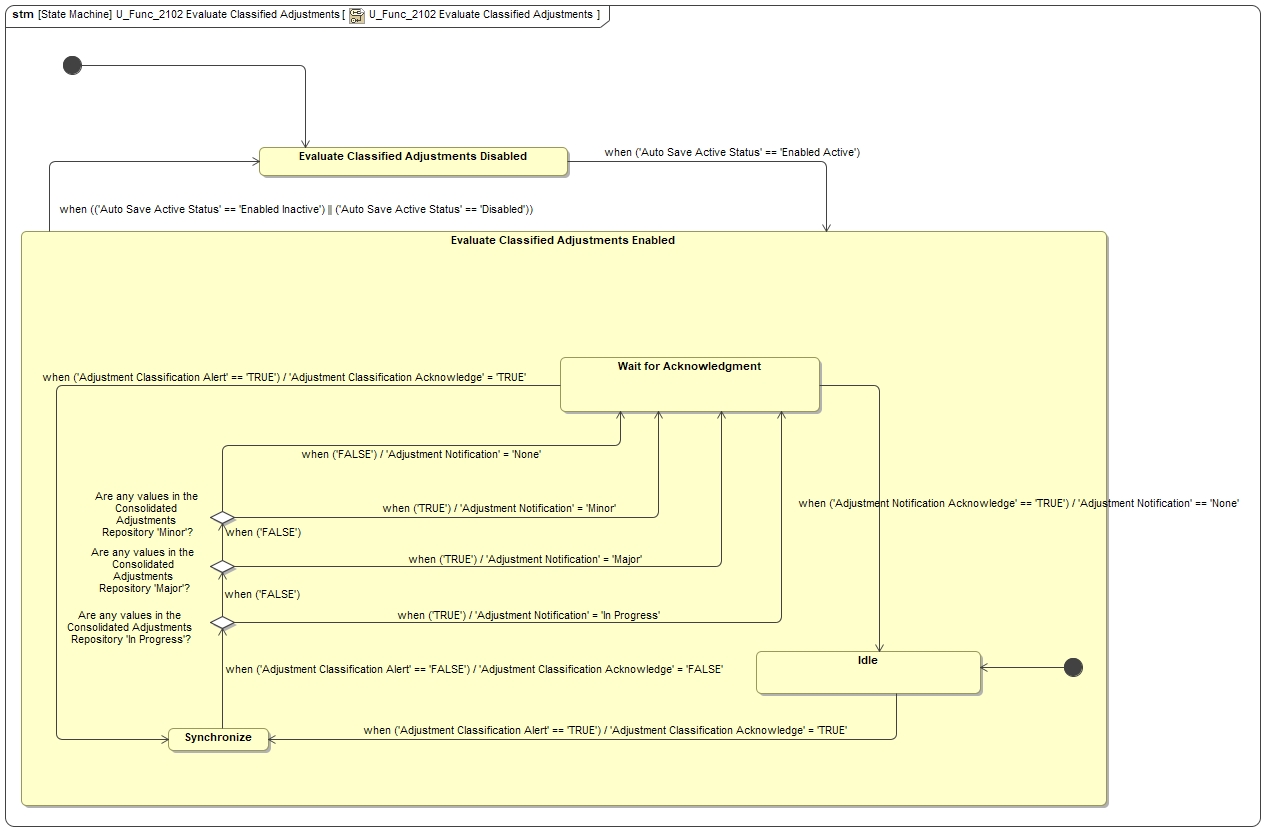
No Logical Parameters applicable for this function

### Function Modeling

#### Use Cases

Not applicable

#### State Charts / Activity Diagrams / Sequence Diagrams / Decision Tables



**Figure 12:** **Finite State Machine of Evaluate Classified Adjustments**

### Function Requirements

#### Functional Requirements

##### Normal Operation

Evaluate Classified Adjustments: No Adjustment

'When the Evaluate Classified Adjustments function evaluates the Classified Adjustments Repository, at least one value in the Classified Adjustments Repository is 'None', and no value in the Classified Adjustments Repository is 'In Progress', 'Major', or 'Minor', the Evaluate Classified Adjustments function shall set the value of 'Adjustment Notification' to 'None'.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Need to respond to no adjustments in repository. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Evaluate Classified Adjustments: Classified Adjustments Repository Evaluate

When Evaluate Classified Adjustments function is synchronizing with the Update Classified Adjustments Repository function and the value of 'Adjustment Classification Alert' is 'FALSE', the Evaluate Classified Adjustments function shall evaluate the Classified Adjustments Repository.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Need to evaluate repository | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Evaluate Classified Adjustments: Minor Adjustment

'When the Evaluate Classified Adjustments function evaluates the Classified Adjustments Repository, at least one value in the Classified Adjustments Repository is 'Minor', and no value in the Classified Adjustments Repository is 'In Progress' or 'Major', the Evaluate Classified Adjustments function shall set the value of 'Adjustment Notification' to 'Minor'.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Need to respond to minor adjustments in repository. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Evaluate Classified Adjustments: In Progress Adjustment

When the Evaluate Classified Adjustments function evaluates the Classified Adjustments Repository, at least one value in the Classified Adjustments Repository is 'In Progress', the Evaluate Classified Adjustments function shall set the value of 'Adjustment Notification' to 'In Progress'.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Need to respond to in progress adjustments in repository. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Evaluate Classified Adjustments: No Notification

When the value of 'Auto Save Active Status' is 'Disabled' or 'Enabled Inactive', the Evaluate Classified Adjustments function shall set the value of 'Adjustment Notification' to 'None'.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Need to turn off consolidating notification. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Infotainment Controller: Evaluate Classified Adjustments Function

The Infotainment Controller shall implement the Evaluate Classified Adjustments function.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Infotainment Controller needs to execute the Evaluate Classified Adjustments function to execute the Auto Save Feature. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Evaluate Classified Adjustments: Acknowledge False

When the Evaluate Classified Adjustments function evaluates the Classified Adjustments Repository, the Evaluate Classified Adjustments function shall set the value of 'Adjustment Classification Acknowledge' to 'FALSE'.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Need to set classification acknowledge to FALSE. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Evaluate Classified Adjustments: Classified Adjustments Repository Synchronize

When the value of 'Auto Save Active Status' is 'Enabled Active', the Evaluate Classified Adjustments function is Idle, and the value of 'Adjustment Classification Alert' is 'TRUE', then the Evaluate Classified Adjustments function shall synchronize with the Update Classified Adjustments Repository function.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Need to synchronize changes | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Infotainment Controller: Adjustment Notification

The Infotainment Controller shall allocate space for the 'Adjustment Notification' data value.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Infotainment Controller needs to have a place for Adjustment Notification. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Evaluate Classified Adjustments: Major Adjustment

When the Evaluate Classified Adjustments function evaluates the Classified Adjustments Repository, at least one value in the Classified Adjustments Repository is 'Major' and no value in the Classified Adjustments Repository is 'In Progress', the Evaluate Classified Adjustments function shall set the value of 'Adjustment Notification' to 'Major'.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Need to respond to major adjustments in repository. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Evaluate Classified Adjustments: Synchronize Complete

When the Evaluate Classified Adjustments function is waiting for acknowledgment from the Evaluate Saving Strategy function and the value of 'Adjustment Notification Acknowledge' is 'TRUE', then the Evaluate Classified Adjustments function shall return to being idle.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Return to idle. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Evaluate Classified Adjustments: Classified Adjustments Repository Acknowledge

When Evaluate Classified Adjustments function is synchronizing with the Update Classified Adjustments Repository function, the Evaluate Classified Adjustments function shall set the value of 'Adjustment Classification Acknowledge' to 'TRUE'.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Need to acknowledge changes | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Evaluate Classified Adjustments: Return to Idle

When the Evaluate Classified Adjustments function returns to being idle, the Evaluate Classified Adjustments function shall set the value of 'Adjustment Notification' to 'None'.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Need to clear Adjustment Notification on return to idle. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Evaluate Classified Adjustments: Wait for Evaluate Saving Strategy

When the Evaluate Classified Adjustments function has completed evaluating the Classified Adjustments Repository, the Evaluate Classified Adjustments function shall wait for acknowledgment from the Evaluate Saving Strategy function.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Need to wait for Evaluate Saving Strategy | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

##### Error Handling

Evaluate Classified Adjustments: Redo Synchronize

When the Evaluate Classified Adjustments function is waiting for acknowledgment from the Evaluate Saving Strategy function and the value of 'Adjustment Classification Alert' is 'TRUE', then the Evaluate Classified Adjustments function shall synchronize with the Update Classified Adjustments Repository function.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Need to re-synchronize if more adjustments appear | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

#### Non-Functional Requirements

No Non-Functional Requirements specified.

#### Functional Safety Requirements

No Functional Safety Requirements specified.

##### ASIL Decomposition of Functional Safety Requirements

No Functional Safety Requirements with ASIL Decompositions specified.

#### Other Requirements

##### Design Requirements

No Design Requirements specified.

## -819558372.jpg U\_Func\_2201 Evaluate Saving Strategy

### Function Overview

#### Description

Function is allocated to:

* -2098041031.jpg Infotainment Controller <<Logical>>

SUBSYSTEM FUNCTION - The primary purpose of this function is to take the Adjustment Classification and decide what retention action should be undertaken. It monitors to see if more adjustments arrive and will either save or prompt the user. Major adjustments result in a prompt; minor adjustments result in a save. It also responds to Profile Change Notification and Manual Save Notification and makes sure that Auto Save responds to these events by returning to a default state of monitoring for more adjustments.

#### Variants

Not applicable

#### Input Requirements

Not applicable

#### Assumptions

Not applicable

#### References

##### Ford Documents

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

| **Reference** | **Title** | **Doc. ID** | **Document Location** | **Revision** |
| --- | --- | --- | --- | --- |
| VDOC080441 | Auto Save Feature Specification | VDOC080441 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=zNX5hzEYx3NrTDAAAAAAAAAAAAA&servername=Production_Server) | F |
| VDOC089611 | Auto Save Functional Specification | VDOC089611 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=zqsBkU6Cx3NrTDAAAAAAAAAAAAA&servername=Production_Server) | A |
| VDOC089612 | Auto Save Implementation Specification | VDOC089612 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=DDgBkU6Cx3NrTDAAAAAAAAAAAAA&servername=Production_Server) | A |
| VDOC075158 | PPP Feature Document | VDOC075158 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=iWYxEeXyx3NrTDAAAAAAAAAAAAA&servername=Production_Server) | B |
| VDOC085831 | PPP Functional Specifications | VDOC085831 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=h$b9Xjn8x3NrTDAAAAAAAAAAAAA&servername=Production_Server) | B |
| VDOC080627 | PPP Feature Implementation | VDOC080627 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=F0c5z4zQx3NrTDAAAAAAAAAAAAA&servername=Production_Server) | A |
| VDOC083702 | Classic Memory Feature Specification | VDOC083702 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=iaQ9AR4Cx3NrTDAAAAAAAAAAAAA&servername=Production_Server) | F |
| VDOC088610 | Classic Memory Functional Specification | VDOC088610 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=idlBBLxox3NrTDAAAAAAAAAAAAA&servername=Production_Server) | B |
| VDOC089667 | Classic Memory Implementation Spec | VDOC089667 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=SNhBkV85x3NrTDAAAAAAAAAAAAA&servername=Production_Server) | A |
| VDOC041625 | Enhanced Memory Feature Specification | VDOC041625 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=boRV6owSx3NrTDAAAAAAAAAAAAA&servername=Production_Server) | J |
| VDOC041626 | Enhance Memory Feature Implementation Guide (Feature Level) | VDOC041626 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=rkWV6owSx3NrTDAAAAAAAAAAAAA&servername=Production_Server) | H |

Table 7: Ford internal Documents *(not specified in model)*

##### External Documents and Publications

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

| **Reference** | **Document / Publication** |
| --- | --- |
|  |  |

Table 8: External documents and publications *(not specified in model)*

#### Glossary

See Appendix for Definitions and Abbreviations.

### Function Scope

The -819558372.jpg **– “U\_Func\_2201 Evaluate Saving Strategy”** function is called by the following functions:

* -479160504.jpg – “[S\_Func\_2200 Decide Retention Strategy](#_ab5b240eddac4d85f7c93701ce26793e)”

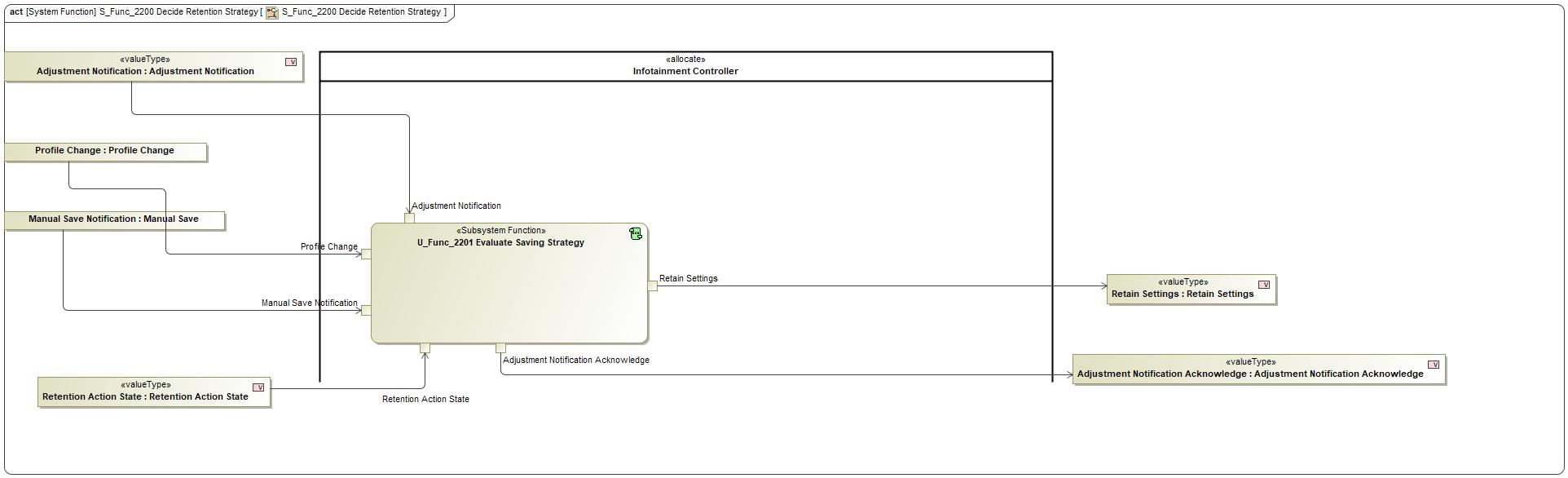


Figure 13: Activity Diagram of -479160504.jpg “S\_Func\_2200 Decide Retention Strategy” calling -819558372.jpg “U\_Func\_2201 Evaluate Saving Strategy”

### Function Interfaces

#### Logical Inputs

|  |  |
| --- | --- |
| **Signal Name** | **Description** |
| Adjustment Notification  Type:  -814667776.jpg [Adjustment Notification](#_9a9edfb07826873eca84ac3c016e320b) | Signal Description:  This signal contains the classification of the whole Auto Save Domain.  ASIL: QM  Encoding Type: Adjustment Classification  Discrete Encoding Values:  0x0 None  0x1 In Progress  0x2 Major  0x3 Minor  Unit: Enumeration  Received from:   * -1679618778.jpg Activity Parameter Node: Adjustment Notification |
| Retention Action State  Type:  -814667776.jpg [Retention Action State](#_4d22777875e0d8ad00e61663e9b11f8a) | Signal Description:  The Retention Action State signal indicates the current state of the Analyze Retention Action function. It is used to inform the Evaluate Saving Strategy function of how the Analyze Retention Action Function is responding to the requested retention strategy.  ASIL: QM  Encoding Type: Retention Action Status  Discrete Encoding Values:  0x0 Off  0x1 Idle  0x2 Prompt Wait  0x3 Timeout Prompt  0x4 Trap  0x5 Not Used  0x6 Not Used  0x7 Not Used  Unit: Enumeration  Received from:   * -1679618778.jpg Activity Parameter Node: Retention Action State |
| Manual Save Notification  Signal:  -1684996416.jpg [Manual Save](#_2f061125609695098e0347c9ad6c9a84) | Signal Description:  Indicates that the user has manually saved the current position settings and Auto Save should respond by returning to idle.  This signal is the same as the existing Memory\_Cmd signal.  ASIL: QM  Encoding Type: Memory\_Cmd  Discrete Encoding Values:  0x0 Null  0x1 Store\_1  0x2 Store\_2  0x3 Store\_3  0x4 Store\_4  0x5 Recall\_1  0x6 Recall\_2  0x7 Recall\_3  0x8 Recall\_4  Unit: Enumeration  Received from:   * -1679618778.jpg Activity Parameter Node: Manual Save Notification |
| Profile Change  Signal:  -1684996416.jpg [Profile Change](#_1391a3845ea555b7a050725c88e81c2f) | Signal Description:  Indicates that a change of profile has occurred and Auto Save should respond by returning to an idle state.  This signal is the same as the existing Memory\_Cmd signal.  ASIL: QM  Encoding Type: Memory\_Cmd  Discrete Encoding Values:  0x0 Null  0x1 Store\_1  0x2 Store\_2  0x3 Store\_3  0x4 Store\_4  0x5 Recall\_1  0x6 Recall\_2  0x7 Recall\_3  0x8 Recall\_4  Unit: Enumeration  Received from:   * -1679618778.jpg Activity Parameter Node: Profile Change |

#### Logical Outputs

|  |  |
| --- | --- |
| **Signal Name** | **Description** |
| Adjustment Notification Acknowledge  Type:  -814667776.jpg [Adjustment Notification Acknowledge](#_4304e025b6b44ed323a2a402718b9be3) | Indicates that the update to the Classified Adjustments Repository has been acknowledged by the Evaluate Saving Strategy function.  ASIL: QM  Encoding Type: Boolean  Discrete Encoding Values:  0x0 FALSE  0x1 TRUE  Unit: Boolean  Sent to:   * -1679618778.jpg Activity Parameter Node: Adjustment Notification Acknowledge |
| Retain Settings  Type:  -814667776.jpg [Retain Settings](#_2b770ef8a9d2f9196b96ea103fd4fc8a) | Signal Description:  This signal indicates that the Auto Save feature has determined what retention action should occur. It is different from the signal sent to the Profile Update Manager of Positional Settings.  ASIL: QM  Encoding Type: Retain Settings  Discrete Encoding Values:  0x0 None  0x1 Save  0x2 Feedback  0x3 Exit  Unit: Enumeration  Sent to:   * -1679618778.jpg Activity Parameter Node: Retain Settings |

#### Logical Parameters

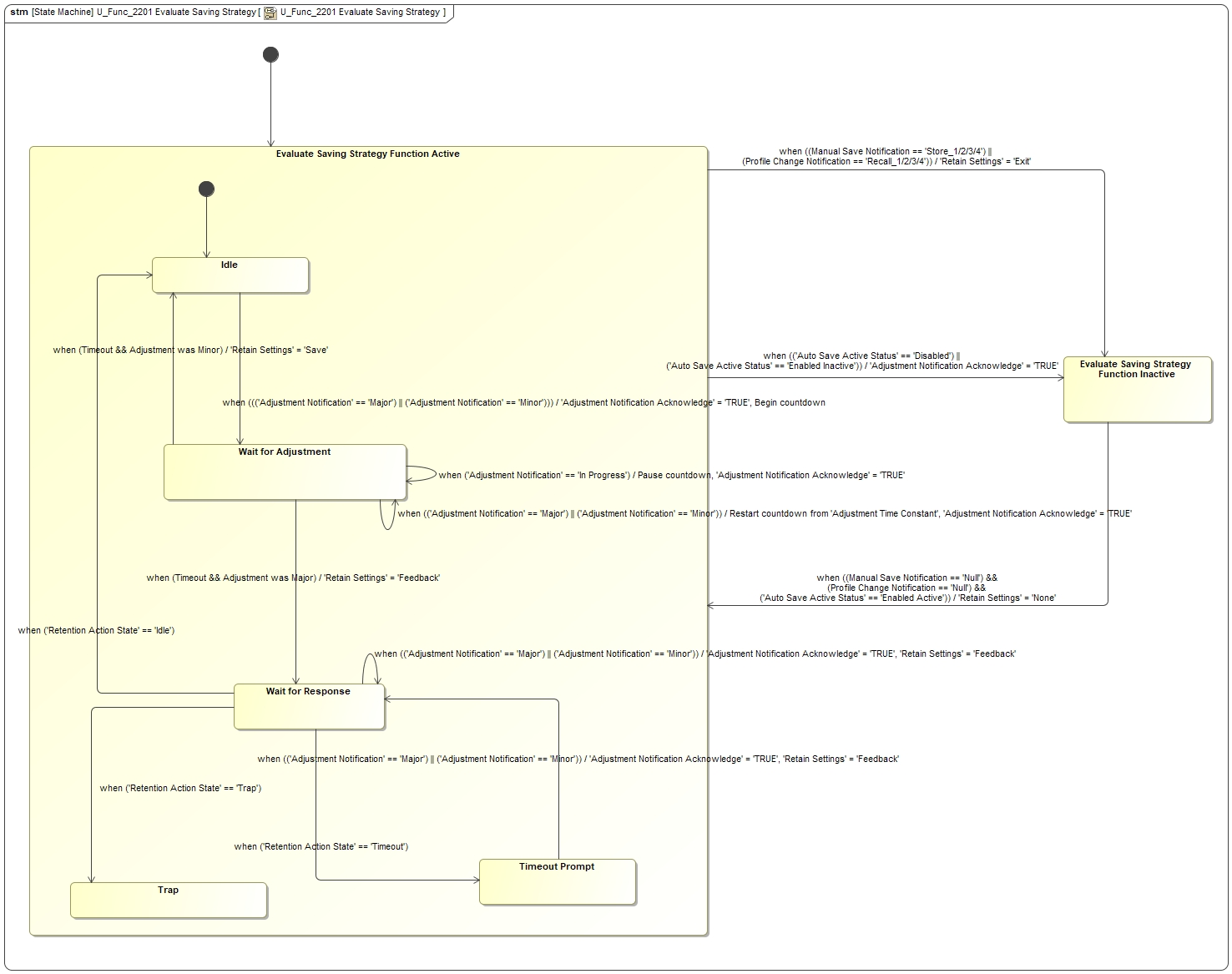
|  |  |
| --- | --- |
| **Parameter Name** | **Description** |
| Adjustment Time Constant | See Data Dictionary |

### Function Modeling

#### Use Cases

Not applicable

#### State Charts / Activity Diagrams / Sequence Diagrams / Decision Tables



**Figure 14:** **Finite State Machine of Evaluate Saving Strategy**

### Function Requirements

#### Functional Requirements

##### Normal Operation

Evaluate Saving Strategy: Trap State

When the Evaluate Saving Strategy function is waiting for a response from 'Retention Action State' and 'Retention Action State' changes to 'Trap', the Evaluate Saving Strategy function shall cease monitoring the value of 'Adjustment Notification'.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | A response of 'No Save' means that Auto Save enters the trap state, where it will wait for a key cycle to restart evaluating adjustments. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Evaluate Saving Strategy: Return to Idle

When the Evaluate Saving Strategy function sets the value of 'Retain Settings' to 'Save', the Evaluate Saving Strategy function shall return to waiting for changes to 'Adjustment Notification'.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Need to return to an idle state. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Evaluate Saving Strategy: Request Retain Settings Feedback

When the value of 'Auto Save Active Status' is 'Enabled Active', the value of 'Manual Save Notification' is 'Null', the value of 'Profile Change' is 'Null', the count down from 'Adjustment Time Constant' ends, and the value of 'Adjustment Notification' was 'Major', the Evaluate Saving Strategy function shall request feedback from the user by setting the value of 'Retain Settings' to 'Feedback'.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Need to request feedback from the user if some settings are Major. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Evaluate Saving Strategy: Wait for Response - Feedback Off

When the Evaluate Saving Strategy function is waiting for a response from 'Retention Action State' and 'Retention Action State' changes to 'Prompt Wait', the Evaluate Saving Strategy function shall set the value of 'Retain Settings' to 'None'.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Need to turn feedback request off. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Evaluate Saving Strategy: Manual Save Suspend Processing

If the value of 'Manual Save Notification' transitions from 'Null' to 'Store\_1', 'Store\_2', 'Store\_3', or 'Store\_4', the Evaluate Saving Strategy function shall cease monitoring the value of 'Adjustment Notification'.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Need to suspend processing if Manual Save occurs. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Evaluate Saving Strategy: Wait for Response - Additional Adjustments Acknowledge

When the Evaluate Saving Strategy function is waiting for a response from 'Retention Action State' and 'Adjustment Notification' changes to 'Major' or 'Minor', the Evaluate Saving Strategy function shall set Adjustment Notification Acknowledge' to 'TRUE' in order to acknowledge the adjustments in the Classified Adjustments Repository.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Need to acknowledge if more adjustments arrive | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Evaluate Saving Strategy: Acknowledge Classified Adjustments Repository upon Reset

If the Evaluate Saving Strategy function restarts counting down from 'Adjustment Time Constant', the Evaluate Saving Strategy function shall set the value of 'Adjustment Notification Acknowledge' to 'TRUE' in order to acknowledge the new adjustments in the Classified Adjustments Repository.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Need to acknowledge current adjustments if restart happens. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Evaluate Saving Strategy: Processing Time Countdown Reset

If 'Adjustment Notification' changes to 'Major' or 'Minor' but not 'In Progress' during the wait time, the Evaluate Saving Strategy function shall restart counting down from 'Adjustment Time Constant'.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Need to restart countdown if new adjustments appear. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Evaluate Saving Strategy: Profile Change Stop Clear

If the value of 'Profile Change' transitions from 'Recall\_1', 'Recall\_2', 'Recall\_3', or 'Recall\_4' to 'Null', the Evaluate Saving Strategy function shall set the value of 'Retain Settings' to 'None'.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Need to stop clearing the repository upon end of Profile Change. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Evaluate Saving Strategy: Process Adjustment Classification

When the value of 'Auto Save Active Status' is 'Enabled Active' and the value of 'Adjustment Notification' is 'Major' or 'Minor', the Evaluate Saving Strategy function shall begin processing classified adjustments by monitoring the value of 'Adjustment Notification'.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Need to process new adjustments. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Evaluate Saving Strategy: Processing Time Countdown Pause

If 'Adjustment Notification' changes to 'In Progress' during the wait time, the Evaluate Saving Strategy function shall restart counting down from 'Adjustment Time Constant' until 'Adjustment Notification' changes to 'Major' or 'Minor'.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Need to pause countdown if new adjustments appear. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Evaluate Saving Strategy: Wait for Response - Additional Adjustments Feedback

When the Evaluate Saving Strategy function is waiting for a response from 'Retention Action State' and 'Adjustment Notification' changes to 'Major' or 'Minor', the Evaluate Saving Strategy function shall set the value of 'Retain Settings' to 'Feedback'.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Need to re-request prompt if more adjustments arrive. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Evaluate Saving Strategy: Acknowledge Repository End

When the Evaluate Saving Strategy function receives 'Adjustment Notification' with the value 'None', it shall set the value of 'Adjustment Notification Acknowledge' to 'FALSE'.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Need to complete the process of acknowledging adjustments. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Evaluate Saving Strategy: Profile Change Resume Processing

If the value of 'Profile Change' transitions from 'Recall\_1', 'Recall\_2', 'Recall\_3', or 'Recall\_4' to 'Null', the Evaluate Saving Strategy function shall resume monitoring the value of 'Adjustment Notification'.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Need to resume processing if Profile Change ends. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Evaluate Saving Strategy: Manual Save Stop Clear

If the value of 'Manual Save Notification' transitions from 'Store\_1', 'Store\_2', 'Store\_3', or 'Store\_4' to 'Null', the Evaluate Saving Strategy function shall set the value of 'Retain Settings' to 'None'.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Need to stop clearing the repository. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Infotainment Controller: Adjustment Time Constant Parameter

The Infotainment Controller shall set the default value of the 'Adjustment Time Constant' parameter to 5 seconds.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Infotainment Controller needs to set a default value for how long Auto Save will wait for new adjustments. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Infotainment Controller: Manual Save Notification

The Infotainment Controller shall provide the value of 'Manual Save Notification' to the Evaluate Saving Strategy function.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Infotainment Controller needs to pass on information about a Manual Save. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Evaluate Saving Strategy: Manual Save Resume Processing

If the value of 'Manual Save Notification' transitions from 'Store\_1', 'Store\_2', 'Store\_3', or 'Store\_4' to 'Null', the Evaluate Saving Strategy function shall resume monitoring the value of 'Adjustment Notification'.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Need to resume processing if Manual Save ends. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Infotainment Controller: Profile Change

The Infotainment Controller shall provide the value of 'Profile Change' to the Evaluate Saving Strategy function.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Infotainment Controller needs to pass on information about a Profile Change. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Infotainment Controller: Retain Settings Data Value

The Infotainment Controller shall allocate space for the 'Retain Settings' data value.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Infotainment Controller needs to have a place for Retain Settings. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Evaluate Saving Strategy: Processing Time Countdown Start

When the Evaluate Saving Strategy function begins processing classified adjustments, the Evaluate Saving Strategy function shall count down from 'Adjustment Time Constant' to wait for 'Adjustment Notification' to change to 'In Progress', 'Major', or 'Minor', which indicates additional adjustments.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Need to wait for any additional new adjustments. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Evaluate Saving Strategy: Profile Change Cease Retention

If the value of 'Profile Change' transitions from 'Null' to 'Recall\_1', 'Recall\_2', 'Recall\_3', or 'Recall\_4', the Evaluate Saving Strategy function shall set the value of 'Retain Settings' to 'Exit'.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Need to cease retention and clear repository if Profile Change occurs. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Infotainment Controller: Adjustment Time Constant Data Value

The Infotainment Controller shall allocate space for the 'Adjustment Time Constant' data value.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Infotainment Controller needs to make space for how long Auto Save will wait for new adjustments. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Evaluate Saving Strategy: Timeout Prompt - Additional Adjustments Acknowledge

When the Evaluate Saving Strategy function is waiting for 'Adjustment Notification' to change to 'Major' or 'Minor' and the value of 'Adjustment Notification' changes to 'Major' or 'Minor', the Evaluate Saving Strategy function shall set Adjustment Notification Acknowledge' to 'TRUE' in order to acknowledge the adjustments in the Classified Adjustments Repository.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Need to acknowledge these adjustments that arrive after a prompt that timed out. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Infotainment Controller: Adjustment Notification Acknowledge

The Infotainment Controller shall allocate space for the 'Adjustment Notification Acknowledge' data value.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Infotainment Controller needs to have a place for Adjustment Notification Acknowledge. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Infotainment Controller: Evaluate Saving Strategy

The Infotainment Controller shall implement the Evaluate Saving Strategy function.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Infotainment Controller needs to execute the Evaluate Saving Strategy function to execute the Auto Save Feature. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Evaluate Saving Strategy: Manual Save Cease Retention

If the value of 'Manual Save Notification' transitions from 'Null' to 'Store\_1', 'Store\_2', 'Store\_3', or 'Store\_4', the Evaluate Saving Strategy function shall set the value of 'Retain Settings' to 'Exit'.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Need to cease retention and clear repository if Manual Save occurs. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Infotainment Controller: Request Feedback Data Value

The Infotainment Controller shall allocate space for the 'Request Feedback' data value.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Infotainment Controller needs to have a place for Request Feedback. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Evaluate Saving Strategy: Wait for Response to Idle

When the Evaluate Saving Strategy function is waiting for a response from 'Retention Action State' and 'Retention Action State' changes to 'Idle', the Evaluate Saving Strategy function shall return to waiting for changes to 'Adjustment Notification'.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Need to return to idle if Retention Action State does. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Evaluate Saving Strategy: Request Retain Settings Save

When the value of 'Auto Save Active Status' is 'Enabled Active', the count down from 'Adjustment Time Constant' ends, and the value of 'Adjustment Notification' was always 'Minor', the Evaluate Saving Strategy function shall set the value of 'Retain Settings' to 'Save'.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Need to request the retention of settings if all settings are Minor. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Evaluate Saving Strategy: Profile Change Suspend Processing

If the value of 'Profile Change' transitions from 'Null' to 'Recall\_1', 'Recall\_2', 'Recall\_3', or 'Recall\_4', the Evaluate Saving Strategy function shall cease monitoring the value of 'Adjustment Notification'.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Need to suspend processing if Profile Change occurs. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Evaluate Saving Strategy: Acknowledge Classified Adjustments Repository

When the Evaluate Saving Strategy function begins processing classified adjustments, the Evaluate Saving Strategy function shall set the value of 'Adjustment Notification Acknowledge' to 'TRUE' in order to acknowledge the adjustments in the Classified Adjustments Repository.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Need to acknowledge current adjustments. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Infotainment Controller: Clear Repository Data Value

The Infotainment Controller shall allocate space for the 'Clear Repository' data value.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Infotainment Controller needs to have a place for Clear Repository. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Evaluate Saving Strategy: Wait for Response

When the Evaluate Saving Strategy function requests feedback from the user by setting the value of 'Retain Settings' to 'Feedback', the Evaluate Saving Strategy function shall wait for a response from 'Retention Action State'.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Need to wait for feedback. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

##### Error Handling

Evaluate Saving Strategy: Timeout Prompt - Special Request Feedback

When the Evaluate Saving Strategy function is waiting for 'Adjustment Notification' to change to 'Major' or 'Minor' and the value of 'Adjustment Notification' changes to 'Major' or 'Minor', the Evaluate Saving Strategy function shall again request feedback from the user by setting the value of 'Retain Settings' to 'Feedback'.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | If the user ignored feedback before, we want to be able to request feedback again the next time they make an adjustment. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Evaluate Saving Strategy: Wait for Response - Timeout Prompt

When the Evaluate Saving Strategy function is waiting for a response from 'Retention Action State' and 'Retention Action State' changes to 'Timeout', the Evaluate Saving Strategy function shall wait for 'Adjustment Notification' to change to 'Major' or 'Minor'.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Need to handle prompt timeout. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Evaluate Saving Strategy: Timeout Prompt - Wait for Response

When the Evaluate Saving Strategy function is waiting for 'Adjustment Notification' to change to 'Major' or 'Minor' and the value of 'Adjustment Notification' changes to 'Major' or 'Minor', the Evaluate Saving Strategy function shall wait for a response from 'Retention Action State'.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Once we have re-requested feedback, we need to return to a state in which we wait once more. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

#### Non-Functional Requirements

No Non-Functional Requirements specified.

#### Functional Safety Requirements

No Functional Safety Requirements specified.

##### ASIL Decomposition of Functional Safety Requirements

No Functional Safety Requirements with ASIL Decompositions specified.

#### Other Requirements

##### Design Requirements

No Design Requirements specified.

## -819558372.jpg U\_Func\_2202 Clear Classified Adjustments Repository

### Function Overview

#### Description

Function is allocated to:

* -2098041031.jpg Infotainment Controller <<Logical>>

SUBSYSTEM FUNCTION - This function clears the Classified Adjustments Repository, which contains the classifications of adjustments that the Infotainment Controller has received from the Body Modules.

#### Variants

Not applicable

#### Input Requirements

Not applicable

#### Assumptions

Not applicable

#### References

##### Ford Documents

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

| **Reference** | **Title** | **Doc. ID** | **Document Location** | **Revision** |
| --- | --- | --- | --- | --- |
| VDOC080441 | Auto Save Feature Specification | VDOC080441 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=zNX5hzEYx3NrTDAAAAAAAAAAAAA&servername=Production_Server) | F |
| VDOC089611 | Auto Save Functional Specification | VDOC089611 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=zqsBkU6Cx3NrTDAAAAAAAAAAAAA&servername=Production_Server) | A |
| VDOC089612 | Auto Save Implementation Specification | VDOC089612 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=DDgBkU6Cx3NrTDAAAAAAAAAAAAA&servername=Production_Server) | A |
| VDOC075158 | PPP Feature Document | VDOC075158 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=iWYxEeXyx3NrTDAAAAAAAAAAAAA&servername=Production_Server) | B |
| VDOC085831 | PPP Functional Specifications | VDOC085831 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=h$b9Xjn8x3NrTDAAAAAAAAAAAAA&servername=Production_Server) | B |
| VDOC080627 | PPP Feature Implementation | VDOC080627 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=F0c5z4zQx3NrTDAAAAAAAAAAAAA&servername=Production_Server) | A |
| VDOC083702 | Classic Memory Feature Specification | VDOC083702 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=iaQ9AR4Cx3NrTDAAAAAAAAAAAAA&servername=Production_Server) | F |
| VDOC088610 | Classic Memory Functional Specification | VDOC088610 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=idlBBLxox3NrTDAAAAAAAAAAAAA&servername=Production_Server) | B |
| VDOC089667 | Classic Memory Implementation Spec | VDOC089667 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=SNhBkV85x3NrTDAAAAAAAAAAAAA&servername=Production_Server) | A |
| VDOC041625 | Enhanced Memory Feature Specification | VDOC041625 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=boRV6owSx3NrTDAAAAAAAAAAAAA&servername=Production_Server) | J |
| VDOC041626 | Enhance Memory Feature Implementation Guide (Feature Level) | VDOC041626 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=rkWV6owSx3NrTDAAAAAAAAAAAAA&servername=Production_Server) | H |

Table 9: Ford internal Documents *(not specified in model)*

##### External Documents and Publications

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

| **Reference** | **Document / Publication** |
| --- | --- |
|  |  |

Table 10: External documents and publications *(not specified in model)*

#### Glossary

See Appendix for Definitions and Abbreviations.

### Function Scope

The -819558372.jpg **– “U\_Func\_2202 Clear Classified Adjustments Repository”** function is called by the following functions:

* -479160504.jpg – “[S\_Func\_4200 Clear Driver Information Adjustment Information](#_eb6c54f43312dcdd1dd1660069bf50cc)”

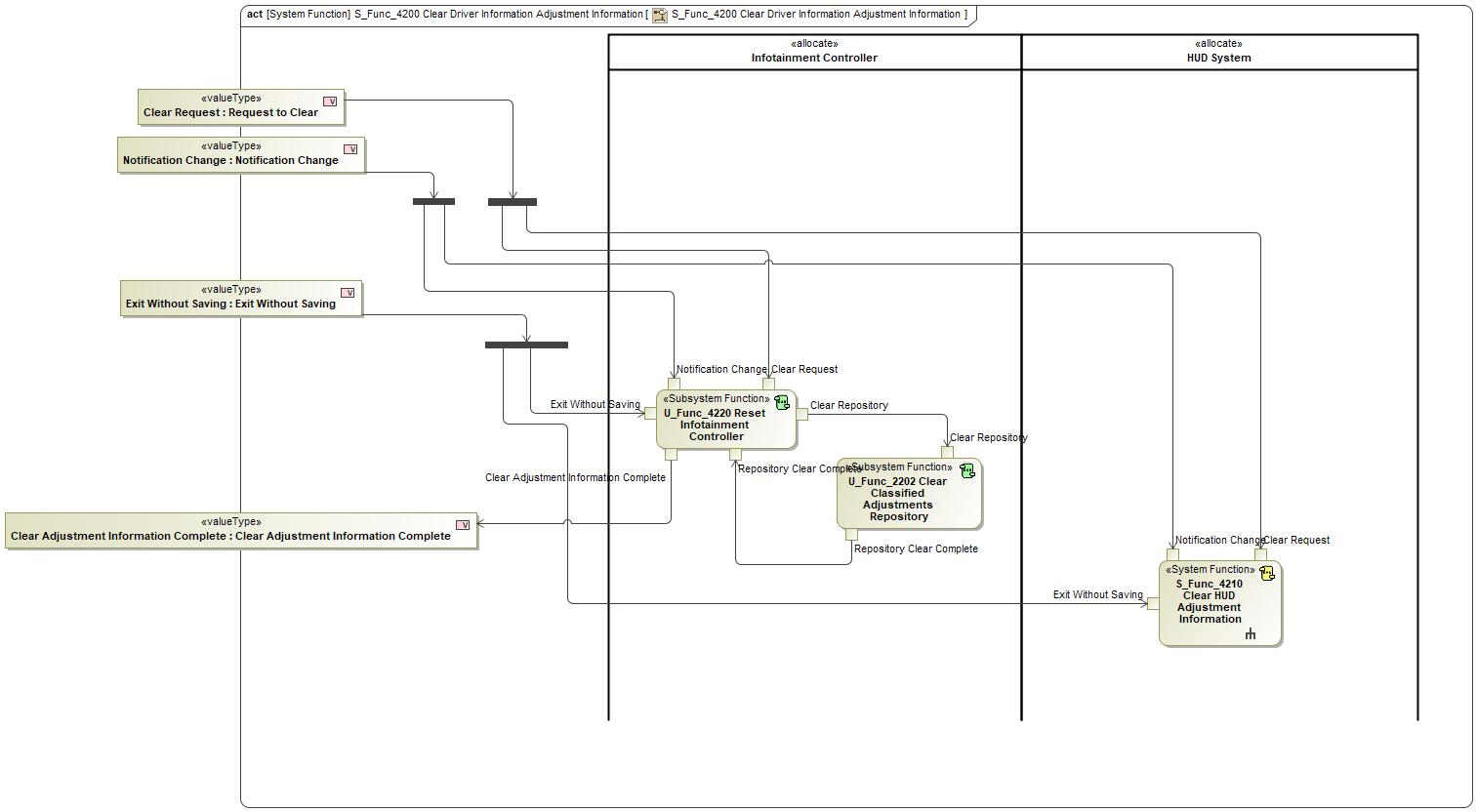


Figure 15: Activity Diagram of -479160504.jpg “S\_Func\_4200 Clear Driver Information Adjustment Information” calling -819558372.jpg “U\_Func\_2202 Clear Classified Adjustments Repository”

### Function Interfaces

#### Logical Inputs

|  |  |
| --- | --- |
| **Signal Name** | **Description** |
| Clear Repository  Type:  -814667776.jpg [Clear Repository](#_87e47e33b8d1fca30f8055796cefea54) | Signal Description:  This signal indicates whether the Auto Save Decide Function should clear the information that has been retained in the Classified Adjustments Repository.  ASIL: QM  Encoding Type: Boolean  Discrete Encoding Values:  0x0 FALSE  0x1 TRUE  Unit: Boolean  Received from:   * -819558372.jpg [U\_Func\_4220 Reset Infotainment Controller](#_abc72ce0a1adbd7eb08a6ea8f48846a2) |

#### Logical Outputs

|  |  |
| --- | --- |
| **Signal Name** | **Description** |
| Repository Clear Complete  Type:  -814667776.jpg [Repository Clear Complete](#_0ed02841b6bc7bcdcdc683d8507e4da9) | Signal Description:  This signal indicates when the clearing of the information that has been retained in the Classified Adjustments Repository is complete. It is true when the process is complete, false otherwise.  ASIL: QM  Encoding Type: Boolean  Discrete Encoding Values:  0x0 FALSE  0x1 TRUE  Unit: Boolean  Sent to:   * -819558372.jpg [U\_Func\_4220 Reset Infotainment Controller](#_abc72ce0a1adbd7eb08a6ea8f48846a2) |

#### Logical Parameters

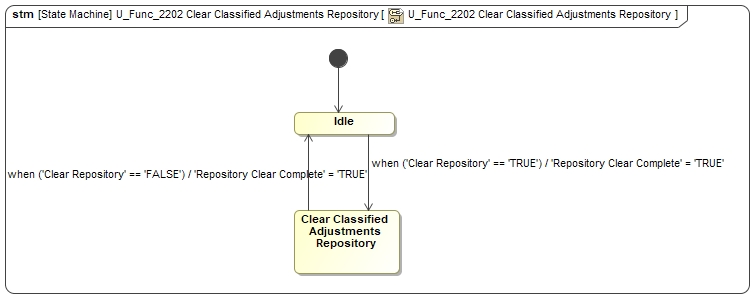
No Logical Parameters applicable for this function

### Function Modeling

#### Use Cases

Not applicable

#### State Charts / Activity Diagrams / Sequence Diagrams / Decision Tables



**Figure 16:** **Finite State Machine of Clear Classified Adjustments Repository**

### Function Requirements

#### Functional Requirements

##### Normal Operation

Clear Classified Adjustments Repository: Repository Clear Complete Deactivation

When the value of 'Clear Repository' is 'FALSE', the Clear Classified Adjustments Repository function shall set the value of 'Repository Clear Complete' to 'FALSE'.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Need to indicate that a clear operation is not happening. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Clear Classified Adjustments Repository: Clear Repository Signal Activation

When the value of 'Clear Repository' is 'TRUE', the Clear Classified Adjustments Repository function shall clear the Classified Adjustments Repository.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Need to clear adjustments upon request. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Infotainment Controller: Clear Classified Adjustments Repository

The Infotainment Controller shall implement the Clear Classified Adjustments Repository function.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Infotainment Controller needs to execute the Clear Classified Adjustments Repository function to execute the Auto Save Feature. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Infotainment Controller: Repository Clear Complete

The Infotainment Controller shall allocate space for the 'Repository Clear Complete' data value.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Infotainment Controller needs to allocate space to indicate when the clear of the Classified Adjustments Repository is complete. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Clear Classified Adjustments Repository: Repository Clear Complete Activation

When the Clear Classified Adjustments Repository function clears the Classified Adjustments Repository, the Clear Classified Adjustments Repository function shall set the value of 'Repository Clear Complete' to 'TRUE'.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Need to indicate that the adjustments have been cleared. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Clear Classified Adjustments Repository: Clear Repository

When the Clear Classified Adjustments Repository function clears the Classified Adjustments Repository, the Clear Classified Adjustments Repository function shall update the following values in the Classified Adjustments Repository to 'None':

'Left Side Mirror Adjustment Classification'

'Right Side Mirror Adjustment Classification'

'Infotainment Adjustment Classification'

'Seat Adjustment Classification'

'Multicontour Adjustment Classification'

'Pedal Adjustment Classification'

'Steering Column Adjustment Classification'

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Need to set adjustments to 'None'. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [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

No Non-Functional Requirements specified.

#### Functional Safety Requirements

No Functional Safety Requirements specified.

##### ASIL Decomposition of Functional Safety Requirements

No Functional Safety Requirements with ASIL Decompositions specified.

#### Other Requirements

##### Design Requirements

No Design Requirements specified.

## -819558372.jpg U\_Func\_3101 Analyze Retention Action

### Function Overview

#### Description

Function is allocated to:

* -2098041031.jpg Infotainment Controller <<Logical>>

SUBSYSTEM FUNCTION - Based on the feedback provided by the user, this function determines whether Auto Save should save the changes, ignore the changes, or change the profile.

#### Variants

Not applicable

#### Input Requirements

Not applicable

#### Assumptions

Not applicable

#### References

##### Ford Documents

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

| **Reference** | **Title** | **Doc. ID** | **Document Location** | **Revision** |
| --- | --- | --- | --- | --- |
| VDOC080441 | Auto Save Feature Specification | VDOC080441 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=zNX5hzEYx3NrTDAAAAAAAAAAAAA&servername=Production_Server) | F |
| VDOC089611 | Auto Save Functional Specification | VDOC089611 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=zqsBkU6Cx3NrTDAAAAAAAAAAAAA&servername=Production_Server) | A |
| VDOC089612 | Auto Save Implementation Specification | VDOC089612 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=DDgBkU6Cx3NrTDAAAAAAAAAAAAA&servername=Production_Server) | A |
| VDOC075158 | PPP Feature Document | VDOC075158 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=iWYxEeXyx3NrTDAAAAAAAAAAAAA&servername=Production_Server) | B |
| VDOC085831 | PPP Functional Specifications | VDOC085831 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=h$b9Xjn8x3NrTDAAAAAAAAAAAAA&servername=Production_Server) | B |
| VDOC080627 | PPP Feature Implementation | VDOC080627 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=F0c5z4zQx3NrTDAAAAAAAAAAAAA&servername=Production_Server) | A |
| VDOC083702 | Classic Memory Feature Specification | VDOC083702 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=iaQ9AR4Cx3NrTDAAAAAAAAAAAAA&servername=Production_Server) | F |
| VDOC088610 | Classic Memory Functional Specification | VDOC088610 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=idlBBLxox3NrTDAAAAAAAAAAAAA&servername=Production_Server) | B |
| VDOC089667 | Classic Memory Implementation Spec | VDOC089667 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=SNhBkV85x3NrTDAAAAAAAAAAAAA&servername=Production_Server) | A |
| VDOC041625 | Enhanced Memory Feature Specification | VDOC041625 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=boRV6owSx3NrTDAAAAAAAAAAAAA&servername=Production_Server) | J |
| VDOC041626 | Enhance Memory Feature Implementation Guide (Feature Level) | VDOC041626 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=rkWV6owSx3NrTDAAAAAAAAAAAAA&servername=Production_Server) | H |

Table 11: Ford internal Documents *(not specified in model)*

##### External Documents and Publications

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

| **Reference** | **Document / Publication** |
| --- | --- |
|  |  |

Table 12: External documents and publications *(not specified in model)*

#### Glossary

See Appendix for Definitions and Abbreviations.

### Function Scope

The -819558372.jpg **– “U\_Func\_3101 Analyze Retention Action”** function is called by the following functions:

* -479160504.jpg – “[S\_Func\_3100 Request Desired Actions](#_e3c2e6fa419c93f581607a0766a6ebfc)”

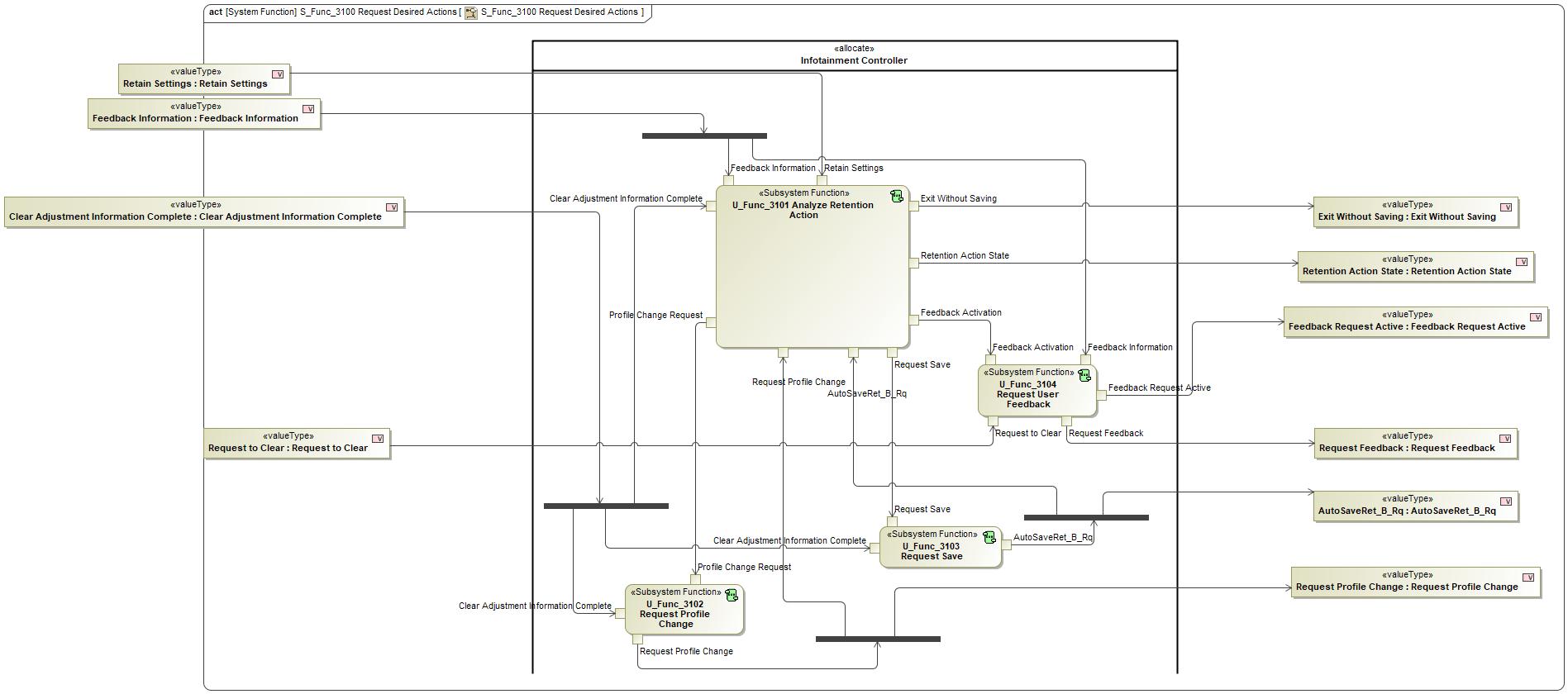


Figure 17: Activity Diagram of -479160504.jpg “S\_Func\_3100 Request Desired Actions” calling -819558372.jpg “U\_Func\_3101 Analyze Retention Action”

### Function Interfaces

#### Logical Inputs

|  |  |
| --- | --- |
| **Signal Name** | **Description** |
| Feedback Information  Type:  -814667776.jpg [Feedback Information](#_ddb1aa97b3258a44cd3369f15ec7395b) | Signal Description:  Infotainment HMI will send this signal to the Auto Save feature to indicate the user's response to the prompt.  ASIL: QM  Encoding Type: Feedback Information  Discrete Encoding Values:  0x0 = None  0x1 = No Save  0x2 = Save  0x3 = Change Profile  0x4 = Blocked  0x5 = Timeout  0x6 = Not Used  0x7 = Not Used  Unit: Enumeration  Received from:   * -1679618778.jpg Activity Parameter Node: Feedback Information |
| Request Profile Change  Type:  -814667776.jpg [Request Profile Change](#_7f447bb31459aa68d6e59cd5ad9f91cc) | Signal Description:  Indicates that the Auto Save feature wants the Profile Manager to open a change profile screen so that the user can change profile.  ASIL: QM  Encoding Type: Request Profile Change  Discrete Encoding Values:  0x0 No  0x1 Yes  Unit: Enumeration  Note: Based on discussions with NetCom, this signal will likely need to be assigned values of "No" and "Yes".  Received from:   * -819558372.jpg [U\_Func\_3102 Request Profile Change](#_523bca233e0c52d03a839718dd120203) |
| AutoSaveRet\_B\_Rq  Type:  -814667776.jpg [AutoSaveRet\_B\_Rq](#_30bc7766ba83653206d9edd676ed6a75) | Signal Description:  Indicates that Auto Save is requesting the retention of positional settings and the Profile Update Manager of Positional Settings should retain the current positional settings.  ASIL: QM  Encoding Type: Boolean  Discrete Encoding Values:  0x0 No  0x1 Yes  Unit: Boolean  Note: Based on discussions with NetCom, this signal will likely need to be assigned values of "No" and "Yes" instead of the preferred "FALSE" and "TRUE".  Received from:   * -819558372.jpg [U\_Func\_3103 Request Save](#_f45bf497aa51f6045b17eb7ba6c4a0c3) |
| Clear Adjustment Information Complete  Type:  -814667776.jpg [Clear Adjustment Information Complete](#_574544d42ee23434918a6435c3e6e43d) | Signal Description:  This signal indicates when the clearing of the adjustment information is complete. It is true when the process is complete, false otherwise.  ASIL: QM  Encoding Type: Boolean  Discrete Encoding Values:  0x0 FALSE  0x1 TRUE  Unit: Boolean  Received from:   * -1679618778.jpg Activity Parameter Node: Clear Adjustment Information Complete |
| Retain Settings  Type:  -814667776.jpg [Retain Settings](#_2b770ef8a9d2f9196b96ea103fd4fc8a) | Signal Description:  This signal indicates that the Auto Save feature has determined what retention action should occur. It is different from the signal sent to the Profile Update Manager of Positional Settings.  ASIL: QM  Encoding Type: Retain Settings  Discrete Encoding Values:  0x0 None  0x1 Save  0x2 Feedback  0x3 Exit  Unit: Enumeration  Received from:   * -1679618778.jpg Activity Parameter Node: Retain Settings |

#### Logical Outputs

|  |  |
| --- | --- |
| **Signal Name** | **Description** |
| Request Feedback  Type:  -814667776.jpg [Feedback Activation](#_95340b3835070d2bde84ed4856bf5649) | Signal Description:  This signal indicates that the Auto Save feature has determined that it should request the activation of feedback. This is an internal signal, not found on the network.  ASIL: QM  Encoding Type: Boolean  Discrete Encoding Values:  0x0 FALSE  0x1 TRUE  Unit: Boolean  Sent to:   * -819558372.jpg [U\_Func\_3104 Request User Feedback](#_a1a2faaa033e86c10210b6f860d096c9) |
| Retention Action State  Type:  -814667776.jpg [Retention Action State](#_4d22777875e0d8ad00e61663e9b11f8a) | Signal Description:  The Retention Action State signal indicates the current state of the Analyze Retention Action function. It is used to inform the Evaluate Saving Strategy function of how the Analyze Retention Action Function is responding to the requested retention strategy.  ASIL: QM  Encoding Type: Retention Action Status  Discrete Encoding Values:  0x0 Off  0x1 Idle  0x2 Prompt Wait  0x3 Timeout Prompt  0x4 Trap  0x5 Not Used  0x6 Not Used  0x7 Not Used  Unit: Enumeration  Sent to:   * -1679618778.jpg Activity Parameter Node: Retention Action State |
| Request Save  Type:  -814667776.jpg [Request Save](#_3f0c1100f06294007ef8b5bf940b83cf) | Signal Description:  This signal indicates that the Auto Save feature has determined that the retention of positional settings should occur. It is different from the signal sent to the Profile Update Manager of Positional Settings.  ASIL: QM  Encoding Type: Boolean  Discrete Encoding Values:  0x0 FALSE  0x1 TRUE  Unit: Boolean  Sent to:   * -819558372.jpg [U\_Func\_3103 Request Save](#_f45bf497aa51f6045b17eb7ba6c4a0c3) |
| Profile Change Request  Type:  -814667776.jpg [Request Profile Change](#_cc1156cfd72411a9e705030546d17ada) | Signal Description:  This signal indicates that the Auto Save feature has determined that a profile change should occur. It is different from the signal sent to the profile manager.  ASIL: QM  Encoding Type: Boolean  Discrete Encoding Values:  0x0 FALSE  0x1 TRUE  Unit: Boolean  Sent to:   * -819558372.jpg [U\_Func\_3102 Request Profile Change](#_523bca233e0c52d03a839718dd120203) |
| Exit Without Saving  Type:  -814667776.jpg [Exit Without Saving](#_b5a3ceb81a5acb5e135507954e53f22a) | Signal Description:  This signal indicates that the Auto Save feature has determined that it should stop operation for this key cycle without saving the adjustments.  ASIL: QM  Encoding Type: Boolean  Discrete Encoding Values:  0x0 No  0x1 Yes  Unit: Boolean  Note: Based on discussions with NetCom, this signal will likely need to be assigned values of "No" and "Yes" instead of the preferred "FALSE" and "TRUE".  Sent to:   * -1679618778.jpg Activity Parameter Node: Exit Without Saving |

#### Logical Parameters

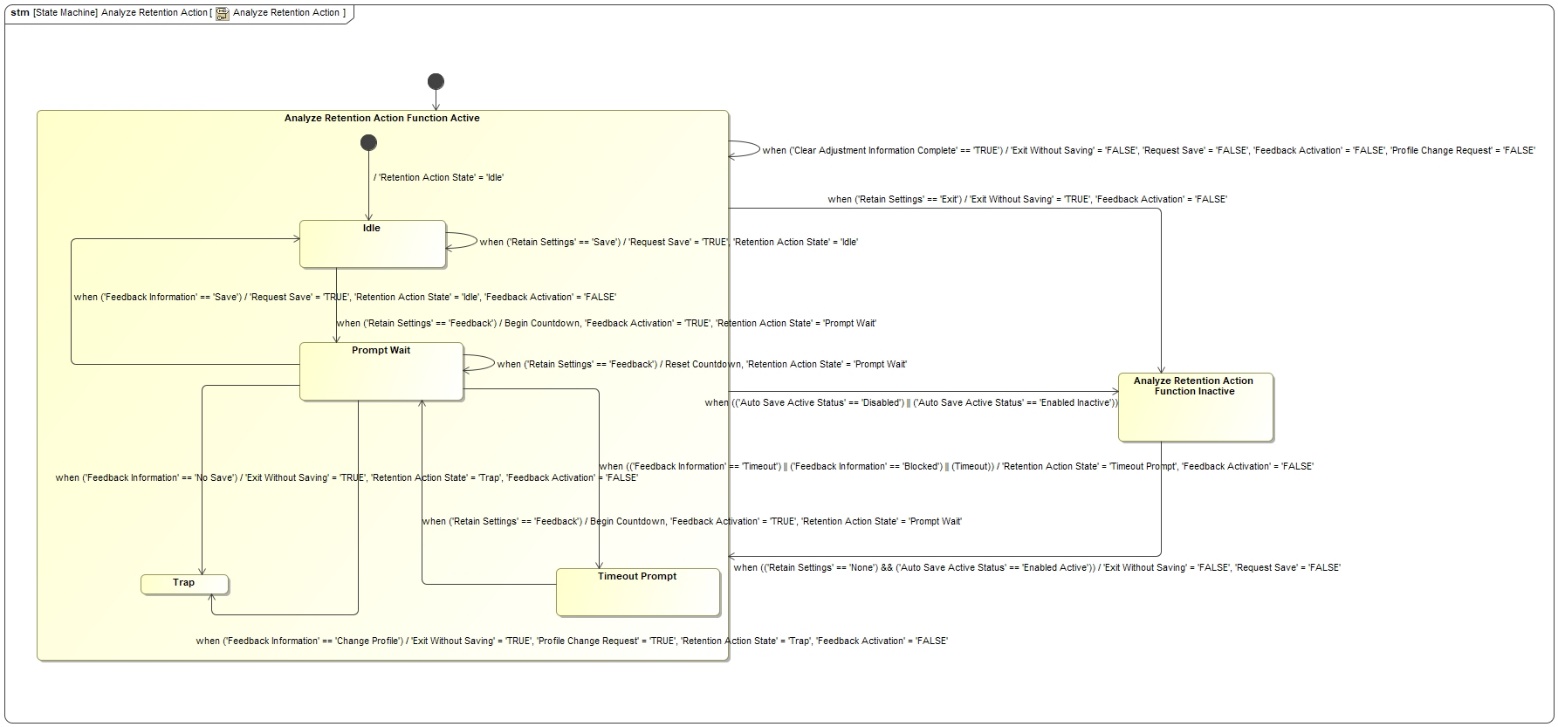
No Logical Parameters applicable for this function

### Function Modeling

#### Use Cases

Not applicable

#### State Charts / Activity Diagrams / Sequence Diagrams / Decision Tables



**Figure 18:** **Finite State Machine of Analyze Retention Action**

### Function Requirements

#### Functional Requirements

##### Normal Operation

Analyze Retention Action: Prompt Wait - Save

When the Analyze Retention Action function is waiting for a change in 'Feedback Information' and the value of 'Feedback Information' changes to 'Save', the Analyze Retention Action function shall set the value of 'Request Save' to 'TRUE'.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Need to request the saving of changes if user wishes it. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Infotainment Controller: Profile Change Request Data Value

The Infotainment Controller shall allocate space for the 'Profile Change Request' parameter.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Infotainment Controller needs to have a place for Profile Change Request. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Analyze Retention Action: Trap - Change Profile Cease

When the Analyze Retention Action function is waiting for a change in 'Feedback Information' and the value of 'Feedback Information' changes to 'Change Profile', the Analyze Retention Action function shall suspend retention activities.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Need to enter trap state if change profile. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Analyze Retention Action: Inactive to Active Cancel Request Save

When the Analyze Retention Action was suspended, the value of 'Auto Save Active Status' changes to 'Enabled Active', and 'Retain Settings' changes to 'None', the Analyze Retention Action function shall set the value of 'Request Save' to 'FALSE'.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Need to cancel the request the saving of Minor changes. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Analyze Retention Action: Prompt Wait - Restart Countdown

If 'Retain Settings' changes to 'Feedback' while the Analyze Retention Action function is waiting for a change in 'Feedback Information', the Analyze Retention Action function shall restart counting down from 'Prompt Time Constant'.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Need to restart HMI countdown. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Analyze Retention Action: Prompt Wait - Request Feedback

When the Analyze Retention Action function requests feedback from the user, the Analyze Retention Action function shall set the value of 'Feedback Activation' to 'TRUE'.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Need to send request for feedback. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Analyze Retention Action: Inactive to Active State

When the Analyze Retention Action was suspended, the value of 'Auto Save Active Status' changes to 'Enabled Active', and 'Retain Settings' changes to 'None', the Analyze Retention Action function shall return to waiting for changes to 'Retain Settings'.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Need to go back to the idle state. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Analyze Retention Action: Timeout Prompt - Timeout Feedback Cancel Feedback

When the Analyze Retention Action function is waiting for a change in 'Feedback Information' and the value of 'Feedback Information' changes to the value of 'Timeout' or 'Blocked', the Analyze Retention Action function shall set the value of 'Feedback Activation' to 'FALSE'.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Need to cancel feedback. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Infotainment Controller: Exit Without Saving Data Value

The Infotainment Controller shall allocate space for the 'Exit Without Saving' data value.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Infotainment Controller needs to be able to exit without saving. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Infotainment Controller: Retain Settings Data Value Provision

The Infotainment Controller shall provide the Analyze Retention Action function with the Retain Settings data value.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Infotainment Controller needs to pass on the Retain Settings request to the Analyze Retention Action function. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Analyze Retention Action: Prompt Wait - Idle

Whent he Analyze Retention Action function is waiting for a change in 'Feedback Information' and the value of 'Feedback Information' changes to 'Save', the Analyze Retention Action function shall return to waiting for changes to 'Retain Settings'.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Need to return to idle. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Infotainment Controller: Request Save Data Value

The Infotainment Controller shall allocate space for the 'Request Save' data value.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Infotainment Controller needs to have a place for Request Save. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Analyze Retention Action: Timeout Prompt - Request Feedback

When the Analyze Retention Action function is waiting for 'Retain Settings' to change to 'Feedback' and 'Retain Settings' changes to 'Feedback', the Analyze Retention Action function shall set the value of 'Feedback Activation' to 'TRUE'.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Need to send request for feedback again. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Analyze Retention Action: Trap - No Save Feedback

When the Analyze Retention Action function is waiting for a change in 'Feedback Information' and the value of 'Feedback Information' changes to 'No Save', the Analyze Retention Action function shall suspend retention activities.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Need to enter trap state if user does not want to save. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Analyze Retention Action: Active to Inactive

When the value of 'Auto Save Active Status' transitions to 'Disabled' or 'Enabled Inactive', the Analyze Retention Action function shall suspend its operation.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Need to suspend operations if Auto Save off. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Analyze Retention Action: Trap - No Save Cancel Feedback

When the Analyze Retention Action function is waiting for a change in 'Feedback Information' and the value of 'Feedback Information' changes to 'No Save', the Analyze Retention Action function shall set the value of 'Feedback Activation' to 'FALSE'.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | No save cancels feedback request. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Analyze Retention Action: Prompt Wait - Change Profile

When the Analyze Retention Action function is waiting for a change in 'Feedback Information' and the value of 'Feedback Information' changes to 'Change Profile', the Analyze Retention Action shall change the value of 'Profile Change Request' to 'TRUE'.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Need to change profile based on user response. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Analyze Retention Action: Timeout Prompt - State

When the Analyze Retention Action function is waiting for 'Retain Settings' to change to 'Feedback', the Analyze Retention Action function shall set the value of 'Retention Action State' to 'Timeout Prompt'.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Timeout response means that we enter a wait state for another adjustment. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Analyze Retention Action: Idle State - Feedback Request

When the Analyze Retention Action function is waiting for changes to 'Retain Settings' and the value of 'Retain Settings' changes to 'Feedback', the Analyze Retention Action function shall request feedback from the user.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Need to request feedback. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Analyze Retention Action: Prompt Wait - Save Feedback Cancel

When the Analyze Retention Action function is waiting for a change in 'Feedback Information' and the value of 'Feedback Information' changes to 'Save', the Analyze Retention Action function shall set the value of 'Feedback Activation' to 'FALSE'.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Need to cancel our feedback request when user gives feedback. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Analyze Retention Action: Prompt Wait - Begin Countdown

When the Analyze Retention Action function requests feedback from the user, the Analyze Retention Action function shall begin a count down from 'Prompt Time Constant' for a response from 'Feedback Information'.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Need to wait on HMI response. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Analyze Retention Action: Prompt Wait - State

When the Analyze Retention Action function is waiting for a change in 'Feedback Information', the Analyze Retention Action function shall set the value of 'Retention Action State' to 'Prompt Wait'.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Need to set up a prompt wait state. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Analyze Retention Action: Timeout Prompt - Begin Countdown

When the Analyze Retention Action function is waiting for 'Retain Settings' to change to 'Feedback' and 'Retain Settings' changes to 'Feedback', the Analyze Retention Action function shall begin a count down from 'Prompt Time Constant' for a response from 'Feedback Information'.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Need to begin countdown again. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Analyze Retention Action: Trap - Change Profile Cancel Feedback

When the Analyze Retention Action function is waiting for a change in 'Feedback Information' and the value of 'Feedback Information' changes to 'Change Profile', the Analyze Retention Action function shall set the value of 'Feedback Activation' to 'FALSE'.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Change profile cancels feedback request. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Infotainment Controller: Feedback Acknowledgment Data Value

The Infotainment Controller shall allocate space for the 'Feedback Acknowledgment' data value.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Infotainment Controller needs to have a place for Feedback Acknowledgment. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Infotainment Controller: Analyze Retention Action Function

The Infotainment Controller shall implement the Analyze Retention Action function.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Infotainment Controller needs to execute the Analyze Retention Action function to execute the Auto Save Feature. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Infotainment Controller: Feedback Activation Data Value

The Infotainment Controller shall allocate space for the 'Feedback Activation' data value.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Infotainment Controller needs to have a place for Feedback Activation. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Analyze Retention Action: Prompt Wait - Feedback Information

When the Analyze Retention Action function has requested feedback from the user, the Analyze Retention Action function shall wait for a change in 'Feedback Information'.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Need to wait for feedback. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Analyze Retention Action: Exit Without Saving Forward

If the value of 'Retain Settings' is 'Exit', the Analyze Retention Action function shall set the value of 'Exit Without Saving' to 'Yes'.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Need to Exit Without Saving. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Analyze Retention Action: Timeout Prompt - Feedback Information

When the Analyze Retention Action function is waiting for 'Retain Settings' to change to 'Feedback' and 'Retain Settings' changes to 'Feedback', the Analyze Retention Action function shall wait for a change in 'Feedback Information'.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Need to return to waiting for feedback. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Analyze Retention Action: Timeout Prompt - Timeout Feedback

When the Analyze Retention Action function is waiting for a change in 'Feedback Information' and the value of 'Feedback Information' changes to the value of 'Timeout' or 'Blocked', the Analyze Retention Action function shall wait for 'Retain Settings' to change to 'Feedback' before requesting feedback again.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Need to go to timeout response state. This is necessary in case the user misses the prompt or the prompt is blocked. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Analyze Retention Action: Trap - State

When the Analyze Retention Action function suspends retention activities, the Analyze Retention Action function shall set the value of 'Retention Action State' to 'Trap'.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Need to inform trap state. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Analyze Retention Action: Idle State - Request Save

When the Analyze Retention Action function is waiting for changes to 'Retain Settings' and the value of 'Retain Settings' changes to 'Save', the Analyze Retention Action function shall set 'Request Save' to 'TRUE'.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Need to request a save. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Analyze Retention Action: Exit Without Saving Cancel Feedback

If the value of 'Retain Settings' is 'Exit', the Analyze Retention Action function shall suspend its operation.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Need to suspend. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Infotainment Controller: Feedback Information

The Infotainment Controller shall provide the 'Feedback Information' information to the Analyze Retention Action function.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Infotainment Controller needs to pass on the Feedback Information to the Analyze Retention Action function so it can decide how to respond to HMI. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Analyze Retention Action: Request Save Cancel

When the value of 'AutoSaveRet\_B\_Rq' is 'Yes', the Analyze Retention Action function shall set the value of 'Request Save' to 'FALSE'.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Need to clear request for save. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Analyze Retention Action: Feedback Request Cancel

When the value of 'Auto Save Active Status' transitions to 'Disabled' or 'Enabled Inactive', the Analyze Retention Action function shall set the value of 'Feedback Activation' to 'FALSE'.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Need to cancel feedback requests if Auto Save is off. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Analyze Retention Action: Inactive to Active Exit Without Saving

When the Analyze Retention Action was suspended, the value of 'Auto Save Active Status' changes to 'Enabled Active', and 'Retain Settings' changes to 'None', the Analyze Retention Action function shall set 'Exit Without Saving' to 'No'.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Need to return to active state | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Analyze Retention Action: Clear Adjustment Information Complete

When the value of 'Clear Adjustment Information Complete' is 'TRUE', the Evaluate Saving Strategy function shall set the following values as follows:

'Exit Without Saving' to 'No'

'Request Save' to 'No'

'Feedback Activation' to 'FALSE'

'Profile Change Request' to 'FALSE'

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Need to clear information when save cycle complete. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Analyze Retention Action: Request Profile Change Cancel

When the value of 'Request Profile Change' is 'Yes', the Analyze Retention Action function shall set the value of 'Profile Change Request' to 'FALSE'.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Need to clear request for profile change. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Analyze Retention Action: Idle State

When the Analyze Retention Action function is waiting for changes to 'Retain Settings', the Analyze Retention Action function shall set the value of 'Retention Action State' to 'Idle'.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Need to set up an idle state. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

##### Error Handling

Analyze Retention Action: Timeout Prompt Failure

When the Analyze Retention Action function's prompt count down ends and the value of 'Feedback Information' is 'None' or the response is missing, the Analyze Retention Action function shall wait for 'Retain Settings' to change to 'Feedback' before requesting feedback again.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | End of countdown means that we enter a wait state for another adjustment. This is necessary in case the user misses the prompt or the prompt is blocked. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Analyze Retention Action: Exit Without Saving Suspend

If the value of 'Retain Settings' is 'Exit', the Analyze Retention Action function shall set the value of 'Feedback Activation' to 'FALSE'.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Need to stop feedback if profile change happens. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Analyze Retention Action: Timeout Prompt Failure - Cancel Feedback Request

When the Analyze Retention Action function's prompt count down ends and the value of 'Feedback Information' is 'None' or the response is missing, the Analyze Retention Action function shall set the value of 'Feedback Activation' to 'FALSE'.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | End of countdown means that Auto Save cancels its request for feedback. This is necessary in case the user misses the prompt or the prompt is blocked. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

#### Non-Functional Requirements

No Non-Functional Requirements specified.

#### Functional Safety Requirements

No Functional Safety Requirements specified.

##### ASIL Decomposition of Functional Safety Requirements

No Functional Safety Requirements with ASIL Decompositions specified.

#### Other Requirements

##### Design Requirements

No Design Requirements specified.

## -819558372.jpg U\_Func\_3102 Request Profile Change

### Function Overview

#### Description

Function is allocated to:

* -2098041031.jpg Infotainment Controller <<Logical>>

SUBSYSTEM FUNCTION - This function requests that the profile system change the current user profile.

#### Variants

Not applicable

#### Input Requirements

Not applicable

#### Assumptions

Not applicable

#### References

##### Ford Documents

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

| **Reference** | **Title** | **Doc. ID** | **Document Location** | **Revision** |
| --- | --- | --- | --- | --- |
| VDOC080441 | Auto Save Feature Specification | VDOC080441 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=zNX5hzEYx3NrTDAAAAAAAAAAAAA&servername=Production_Server) | F |
| VDOC089611 | Auto Save Functional Specification | VDOC089611 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=zqsBkU6Cx3NrTDAAAAAAAAAAAAA&servername=Production_Server) | A |
| VDOC089612 | Auto Save Implementation Specification | VDOC089612 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=DDgBkU6Cx3NrTDAAAAAAAAAAAAA&servername=Production_Server) | A |
| VDOC075158 | PPP Feature Document | VDOC075158 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=iWYxEeXyx3NrTDAAAAAAAAAAAAA&servername=Production_Server) | B |
| VDOC085831 | PPP Functional Specifications | VDOC085831 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=h$b9Xjn8x3NrTDAAAAAAAAAAAAA&servername=Production_Server) | B |
| VDOC080627 | PPP Feature Implementation | VDOC080627 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=F0c5z4zQx3NrTDAAAAAAAAAAAAA&servername=Production_Server) | A |
| VDOC083702 | Classic Memory Feature Specification | VDOC083702 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=iaQ9AR4Cx3NrTDAAAAAAAAAAAAA&servername=Production_Server) | F |
| VDOC088610 | Classic Memory Functional Specification | VDOC088610 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=idlBBLxox3NrTDAAAAAAAAAAAAA&servername=Production_Server) | B |
| VDOC089667 | Classic Memory Implementation Spec | VDOC089667 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=SNhBkV85x3NrTDAAAAAAAAAAAAA&servername=Production_Server) | A |
| VDOC041625 | Enhanced Memory Feature Specification | VDOC041625 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=boRV6owSx3NrTDAAAAAAAAAAAAA&servername=Production_Server) | J |
| VDOC041626 | Enhance Memory Feature Implementation Guide (Feature Level) | VDOC041626 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=rkWV6owSx3NrTDAAAAAAAAAAAAA&servername=Production_Server) | H |

Table 13: Ford internal Documents *(not specified in model)*

##### External Documents and Publications

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

| **Reference** | **Document / Publication** |
| --- | --- |
|  |  |

Table 14: External documents and publications *(not specified in model)*

#### Glossary

See Appendix for Definitions and Abbreviations.

### Function Scope

The -819558372.jpg **– “U\_Func\_3102 Request Profile Change”** function is called by the following functions:

* -479160504.jpg – “[S\_Func\_3100 Request Desired Actions](#_e3c2e6fa419c93f581607a0766a6ebfc)”

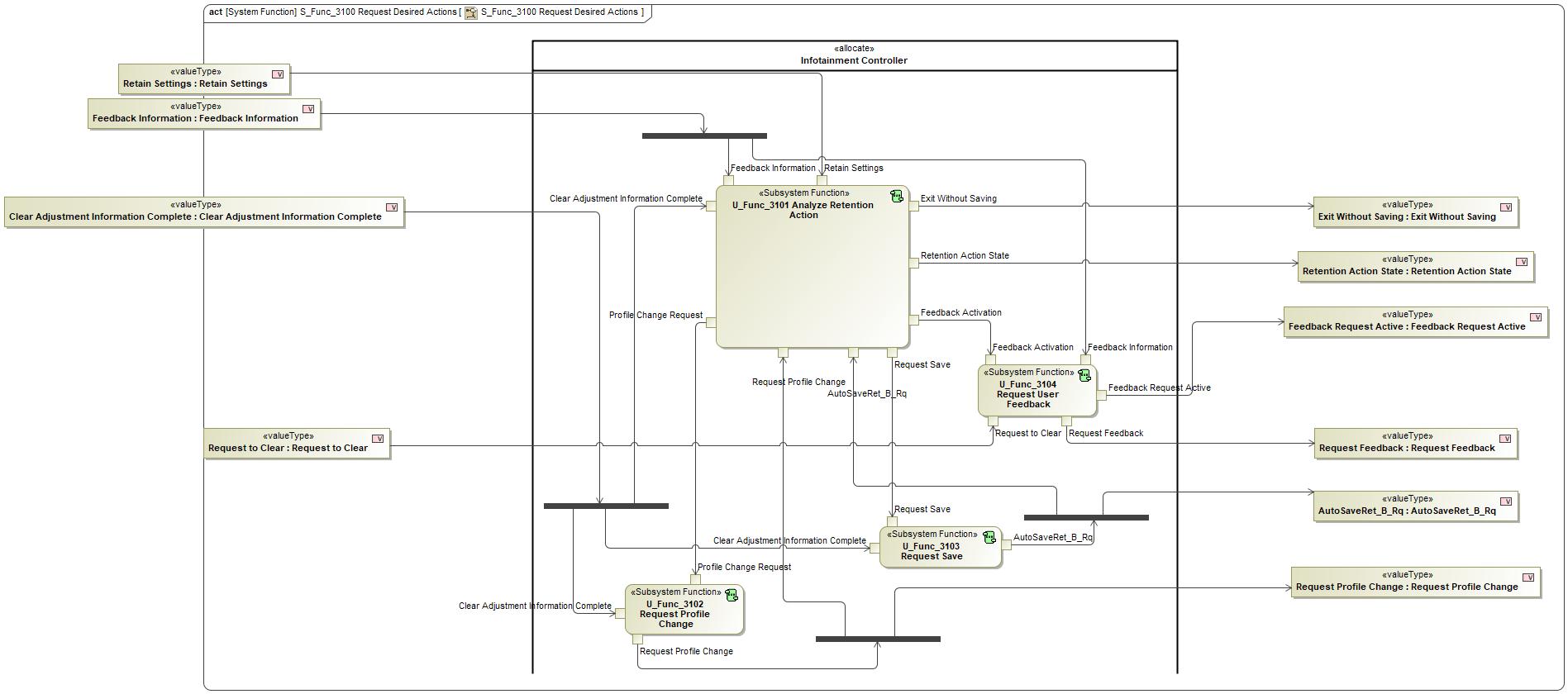


Figure 19: Activity Diagram of -479160504.jpg “S\_Func\_3100 Request Desired Actions” calling -819558372.jpg “U\_Func\_3102 Request Profile Change”

### Function Interfaces

#### Logical Inputs

|  |  |
| --- | --- |
| **Signal Name** | **Description** |
| Profile Change Request  Type:  -814667776.jpg [Request Profile Change](#_cc1156cfd72411a9e705030546d17ada) | Signal Description:  This signal indicates that the Auto Save feature has determined that a profile change should occur. It is different from the signal sent to the profile manager.  ASIL: QM  Encoding Type: Boolean  Discrete Encoding Values:  0x0 FALSE  0x1 TRUE  Unit: Boolean  Received from:   * -819558372.jpg [U\_Func\_3101 Analyze Retention Action](#_10994ddd8b71218a589950d94f629166) |
| Clear Adjustment Information Complete  Type:  -814667776.jpg [Clear Adjustment Information Complete](#_574544d42ee23434918a6435c3e6e43d) | Signal Description:  This signal indicates when the clearing of the adjustment information is complete. It is true when the process is complete, false otherwise.  ASIL: QM  Encoding Type: Boolean  Discrete Encoding Values:  0x0 FALSE  0x1 TRUE  Unit: Boolean  Received from:   * -1679618778.jpg Activity Parameter Node: Clear Adjustment Information Complete |

#### Logical Outputs

|  |  |
| --- | --- |
| **Signal Name** | **Description** |
| Request Profile Change  Type:  -814667776.jpg [Request Profile Change](#_7f447bb31459aa68d6e59cd5ad9f91cc) | Signal Description:  Indicates that the Auto Save feature wants the Profile Manager to open a change profile screen so that the user can change profile.  ASIL: QM  Encoding Type: Request Profile Change  Discrete Encoding Values:  0x0 No  0x1 Yes  Unit: Enumeration  Note: Based on discussions with NetCom, this signal will likely need to be assigned values of "No" and "Yes".  Sent to:   * -819558372.jpg [U\_Func\_3101 Analyze Retention Action](#_10994ddd8b71218a589950d94f629166) * -1679618778.jpg Activity Parameter Node: Request Profile Change |

#### Logical Parameters

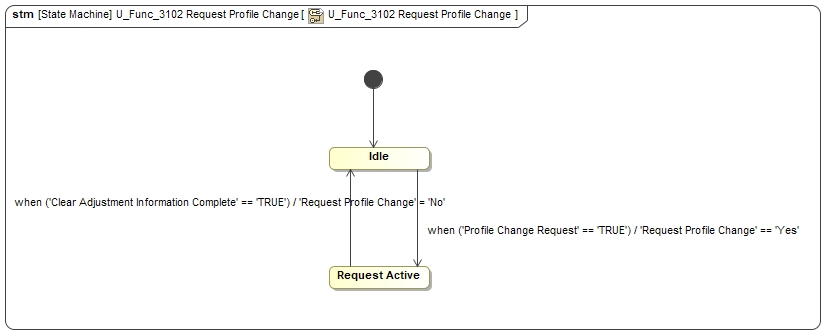
No Logical Parameters applicable for this function

### Function Modeling

#### Use Cases

Not applicable

#### State Charts / Activity Diagrams / Sequence Diagrams / Decision Tables



**Figure 20:** **Finite State Machine of Request Profile Change**

### Function Requirements

#### Functional Requirements

##### Normal Operation

Request Profile Change: Request Profile Change Active

When the value of 'Profile Change Request' is 'TRUE', the Request Profile Change function shall send a request for a profile change by setting the value of 'Request Profile Change' to 'Yes'.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Need to send profile change request. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Infotainment Controller: Request Profile Change Signal

The Infotainment Controller shall provide the 'Request Profile Change' data value to the Profile Manager.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Infotainment Controller needs to be able to request a profile change. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Infotainment Controller: Request Profile Change Function

The Infotainment Controller shall implement the Request Profile Change function.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Infotainment Controller needs to execute the Request Profile Change function to execute the Auto Save Feature. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Infotainment Controller: Request Profile Change Data Value

The Infotainment Controller shall allocate space for the 'Request Profile Change' data value.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Infotainment Controller needs to have a place for Request Profile Change. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Request Profile Change: Reset Profile Change Request

When the value of 'Clear Adjustment Information Complete' is 'TRUE', the Request Profile Change function shall set the value of 'Request Profile Change' to 'No'.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Need to reset request for changing profile. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [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

No Non-Functional Requirements specified.

#### Functional Safety Requirements

No Functional Safety Requirements specified.

##### ASIL Decomposition of Functional Safety Requirements

No Functional Safety Requirements with ASIL Decompositions specified.

#### Other Requirements

##### Design Requirements

No Design Requirements specified.

## -819558372.jpg U\_Func\_3103 Request Save

### Function Overview

#### Description

Function is allocated to:

* -2098041031.jpg Infotainment Controller <<Logical>>

SUBSYSTEM FUNCTION - This function requests that the current positions be retained in the user profile.

#### Variants

Not applicable

#### Input Requirements

Not applicable

#### Assumptions

Not applicable

#### References

##### Ford Documents

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

| **Reference** | **Title** | **Doc. ID** | **Document Location** | **Revision** |
| --- | --- | --- | --- | --- |
| VDOC080441 | Auto Save Feature Specification | VDOC080441 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=zNX5hzEYx3NrTDAAAAAAAAAAAAA&servername=Production_Server) | F |
| VDOC089611 | Auto Save Functional Specification | VDOC089611 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=zqsBkU6Cx3NrTDAAAAAAAAAAAAA&servername=Production_Server) | A |
| VDOC089612 | Auto Save Implementation Specification | VDOC089612 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=DDgBkU6Cx3NrTDAAAAAAAAAAAAA&servername=Production_Server) | A |
| VDOC075158 | PPP Feature Document | VDOC075158 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=iWYxEeXyx3NrTDAAAAAAAAAAAAA&servername=Production_Server) | B |
| VDOC085831 | PPP Functional Specifications | VDOC085831 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=h$b9Xjn8x3NrTDAAAAAAAAAAAAA&servername=Production_Server) | B |
| VDOC080627 | PPP Feature Implementation | VDOC080627 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=F0c5z4zQx3NrTDAAAAAAAAAAAAA&servername=Production_Server) | A |
| VDOC083702 | Classic Memory Feature Specification | VDOC083702 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=iaQ9AR4Cx3NrTDAAAAAAAAAAAAA&servername=Production_Server) | F |
| VDOC088610 | Classic Memory Functional Specification | VDOC088610 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=idlBBLxox3NrTDAAAAAAAAAAAAA&servername=Production_Server) | B |
| VDOC089667 | Classic Memory Implementation Spec | VDOC089667 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=SNhBkV85x3NrTDAAAAAAAAAAAAA&servername=Production_Server) | A |
| VDOC041625 | Enhanced Memory Feature Specification | VDOC041625 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=boRV6owSx3NrTDAAAAAAAAAAAAA&servername=Production_Server) | J |
| VDOC041626 | Enhance Memory Feature Implementation Guide (Feature Level) | VDOC041626 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=rkWV6owSx3NrTDAAAAAAAAAAAAA&servername=Production_Server) | H |

Table 15: Ford internal Documents *(not specified in model)*

##### External Documents and Publications

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

| **Reference** | **Document / Publication** |
| --- | --- |
|  |  |

Table 16: External documents and publications *(not specified in model)*

#### Glossary

See Appendix for Definitions and Abbreviations.

### Function Scope

The -819558372.jpg **– “U\_Func\_3103 Request Save”** function is called by the following functions:

* -479160504.jpg – “[S\_Func\_3100 Request Desired Actions](#_e3c2e6fa419c93f581607a0766a6ebfc)”

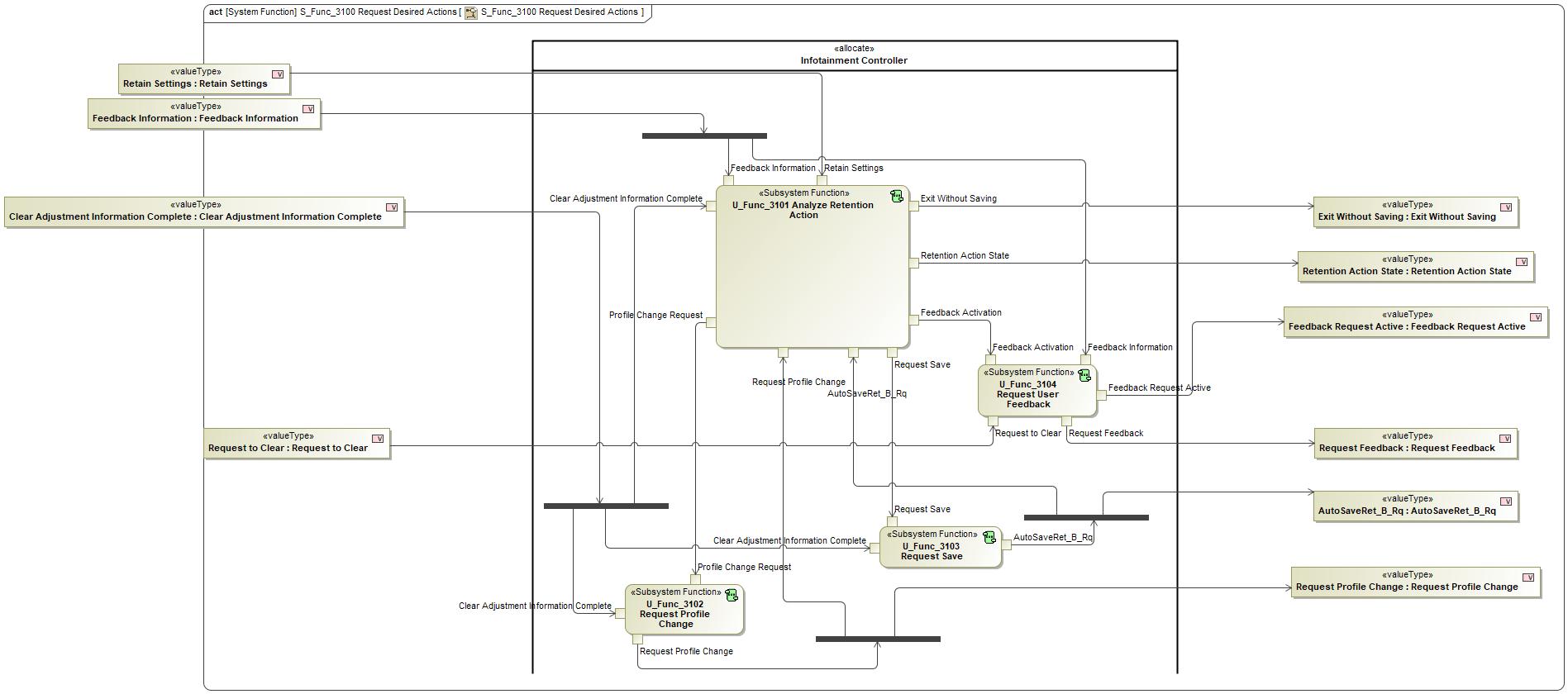


Figure 21: Activity Diagram of -479160504.jpg “S\_Func\_3100 Request Desired Actions” calling -819558372.jpg “U\_Func\_3103 Request Save”

### Function Interfaces

#### Logical Inputs

|  |  |
| --- | --- |
| **Signal Name** | **Description** |
| Request Save  Type:  -814667776.jpg [Request Save](#_3f0c1100f06294007ef8b5bf940b83cf) | Signal Description:  This signal indicates that the Auto Save feature has determined that the retention of positional settings should occur. It is different from the signal sent to the Profile Update Manager of Positional Settings.  ASIL: QM  Encoding Type: Boolean  Discrete Encoding Values:  0x0 FALSE  0x1 TRUE  Unit: Boolean  Received from:   * -819558372.jpg [U\_Func\_3101 Analyze Retention Action](#_10994ddd8b71218a589950d94f629166) |
| Clear Adjustment Information Complete  Type:  -814667776.jpg [Clear Adjustment Information Complete](#_574544d42ee23434918a6435c3e6e43d) | Signal Description:  This signal indicates when the clearing of the adjustment information is complete. It is true when the process is complete, false otherwise.  ASIL: QM  Encoding Type: Boolean  Discrete Encoding Values:  0x0 FALSE  0x1 TRUE  Unit: Boolean  Received from:   * -1679618778.jpg Activity Parameter Node: Clear Adjustment Information Complete |

#### Logical Outputs

|  |  |
| --- | --- |
| **Signal Name** | **Description** |
| AutoSaveRet\_B\_Rq  Type:  -814667776.jpg [AutoSaveRet\_B\_Rq](#_30bc7766ba83653206d9edd676ed6a75) | Signal Description:  Indicates that Auto Save is requesting the retention of positional settings and the Profile Update Manager of Positional Settings should retain the current positional settings.  ASIL: QM  Encoding Type: Boolean  Discrete Encoding Values:  0x0 No  0x1 Yes  Unit: Boolean  Note: Based on discussions with NetCom, this signal will likely need to be assigned values of "No" and "Yes" instead of the preferred "FALSE" and "TRUE".  Sent to:   * -819558372.jpg [U\_Func\_3101 Analyze Retention Action](#_10994ddd8b71218a589950d94f629166) * -1679618778.jpg Activity Parameter Node: AutoSaveRet\_B\_Rq |

#### Logical Parameters

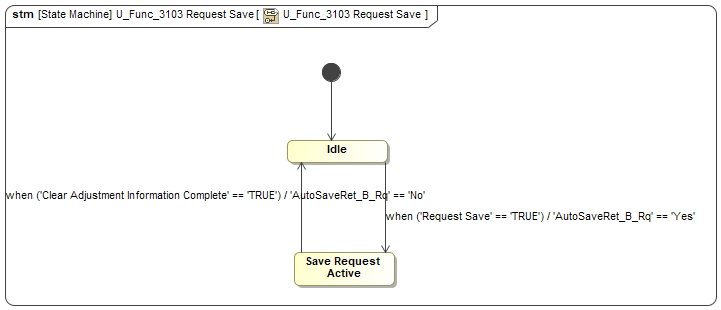
No Logical Parameters applicable for this function

### Function Modeling

#### Use Cases

Not applicable

#### State Charts / Activity Diagrams / Sequence Diagrams / Decision Tables



**Figure 22:** **Finite State Machine of Request Save**

### Function Requirements

#### Functional Requirements

##### Normal Operation

Request Save: Request Save Active

When the value of 'Request Save' is 'TRUE', the Request Save function shall send a request for a save by setting the value of 'AutoSaveRet\_B\_Rq' to 'Yes'.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Need to send AutoSaveRet\_B\_Rq. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Infotainment Controller: AutoSaveRet\_B\_Rq Data Value

The Infotainment Controller shall allocate space for the 'AutoSaveRet\_B\_Rq' data value.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Infotainment Controller needs to have a place for AutoSaveRet\_B\_Rq. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Infotainment Controller: Request Save Function

The Infotainment Controller shall implement the Request Save function.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Infotainment Controller needs to execute the Request Save function to execute the Auto Save Feature. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Request Save: AutoSaveRet\_B\_Rq Reset

When the Request Save function receives 'Clear Adjustment Information Complete' with the value 'TRUE', the Request Save function shall set the value of 'AutoSaveRet\_B\_Rq' to 'No'.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Need to reset AutoSaveRet\_B\_Rq. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Infotainment Controller: AutoSaveRet\_B\_Rq Signal

The Infotainment Controller shall provide the 'AutoSaveRet\_B\_Rq' data value to the Profile Update Manager of Positional Settings.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Infotainment Controller needs to be able to request a save. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [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

No Non-Functional Requirements specified.

#### Functional Safety Requirements

No Functional Safety Requirements specified.

##### ASIL Decomposition of Functional Safety Requirements

No Functional Safety Requirements with ASIL Decompositions specified.

#### Other Requirements

##### Design Requirements

No Design Requirements specified.

## -819558372.jpg U\_Func\_3104 Request User Feedback

### Function Overview

#### Description

Function is allocated to:

* -2098041031.jpg Infotainment Controller <<Logical>>

SUBSYSTEM FUNCTION - This function requests feedback from the user using HMI. The user's feedback is whether they want to save adjustments, ignore adjustments, or change the profile. The user's feedback is passed as an input to the Analyze Retention Action function.

#### Variants

Not applicable

#### Input Requirements

Not applicable

#### Assumptions

Not applicable

#### References

##### Ford Documents

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

| **Reference** | **Title** | **Doc. ID** | **Document Location** | **Revision** |
| --- | --- | --- | --- | --- |
| VDOC080441 | Auto Save Feature Specification | VDOC080441 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=zNX5hzEYx3NrTDAAAAAAAAAAAAA&servername=Production_Server) | F |
| VDOC089611 | Auto Save Functional Specification | VDOC089611 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=zqsBkU6Cx3NrTDAAAAAAAAAAAAA&servername=Production_Server) | A |
| VDOC089612 | Auto Save Implementation Specification | VDOC089612 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=DDgBkU6Cx3NrTDAAAAAAAAAAAAA&servername=Production_Server) | A |
| VDOC075158 | PPP Feature Document | VDOC075158 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=iWYxEeXyx3NrTDAAAAAAAAAAAAA&servername=Production_Server) | B |
| VDOC085831 | PPP Functional Specifications | VDOC085831 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=h$b9Xjn8x3NrTDAAAAAAAAAAAAA&servername=Production_Server) | B |
| VDOC080627 | PPP Feature Implementation | VDOC080627 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=F0c5z4zQx3NrTDAAAAAAAAAAAAA&servername=Production_Server) | A |
| VDOC083702 | Classic Memory Feature Specification | VDOC083702 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=iaQ9AR4Cx3NrTDAAAAAAAAAAAAA&servername=Production_Server) | F |
| VDOC088610 | Classic Memory Functional Specification | VDOC088610 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=idlBBLxox3NrTDAAAAAAAAAAAAA&servername=Production_Server) | B |
| VDOC089667 | Classic Memory Implementation Spec | VDOC089667 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=SNhBkV85x3NrTDAAAAAAAAAAAAA&servername=Production_Server) | A |
| VDOC041625 | Enhanced Memory Feature Specification | VDOC041625 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=boRV6owSx3NrTDAAAAAAAAAAAAA&servername=Production_Server) | J |
| VDOC041626 | Enhance Memory Feature Implementation Guide (Feature Level) | VDOC041626 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=rkWV6owSx3NrTDAAAAAAAAAAAAA&servername=Production_Server) | H |

Table 17: Ford internal Documents *(not specified in model)*

##### External Documents and Publications

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

| **Reference** | **Document / Publication** |
| --- | --- |
|  |  |

Table 18: External documents and publications *(not specified in model)*

#### Glossary

See Appendix for Definitions and Abbreviations.

### Function Scope

The -819558372.jpg **– “U\_Func\_3104 Request User Feedback”** function is called by the following functions:

* -479160504.jpg – “[S\_Func\_3100 Request Desired Actions](#_e3c2e6fa419c93f581607a0766a6ebfc)”

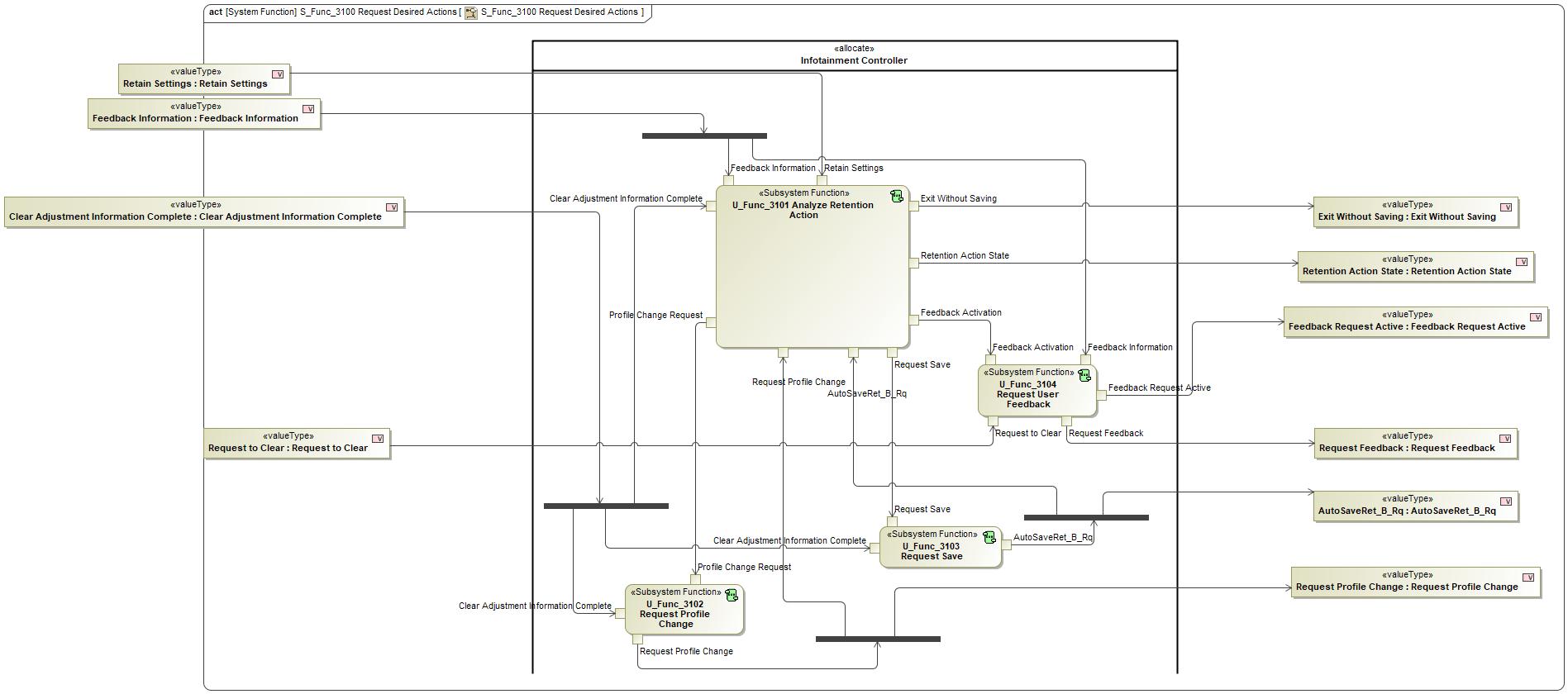


Figure 23: Activity Diagram of -479160504.jpg “S\_Func\_3100 Request Desired Actions” calling -819558372.jpg “U\_Func\_3104 Request User Feedback”

### Function Interfaces

#### Logical Inputs

|  |  |
| --- | --- |
| **Signal Name** | **Description** |
| Feedback Information  Type:  -814667776.jpg [Feedback Information](#_ddb1aa97b3258a44cd3369f15ec7395b) | Signal Description:  Infotainment HMI will send this signal to the Auto Save feature to indicate the user's response to the prompt.  ASIL: QM  Encoding Type: Feedback Information  Discrete Encoding Values:  0x0 = None  0x1 = No Save  0x2 = Save  0x3 = Change Profile  0x4 = Blocked  0x5 = Timeout  0x6 = Not Used  0x7 = Not Used  Unit: Enumeration  Received from:   * -1679618778.jpg Activity Parameter Node: Feedback Information |
| Feedback Activation  Type:  -814667776.jpg [Feedback Activation](#_95340b3835070d2bde84ed4856bf5649) | Signal Description:  This signal indicates that the Auto Save feature has determined that it should request the activation of feedback. This is an internal signal, not found on the network.  ASIL: QM  Encoding Type: Boolean  Discrete Encoding Values:  0x0 FALSE  0x1 TRUE  Unit: Boolean  Received from:   * -819558372.jpg [U\_Func\_3101 Analyze Retention Action](#_10994ddd8b71218a589950d94f629166) |
| Request to Clear  Type:  1491936886.jpg [Request to Clear](#_906c0c0e96fa39f7094234f7554cba6f) | Signal Description:  Indicates that a successful save of positional settings has occurred and Auto Save should respond by clearing any saved adjustment information.  This signal is the same as the existing Memory\_Cmd signal.  ASIL: QM  Encoding Type: Memory\_Cmd  Discrete Encoding Values:  0x0 Null  0x1 Store\_1  0x2 Store\_2  0x3 Store\_3  0x4 Store\_4  0x5 Recall\_1  0x6 Recall\_2  0x7 Recall\_3  0x8 Recall\_4  Unit: Enumeration  Received from:   * -1679618778.jpg Activity Parameter Node: Request to Clear |

#### Logical Outputs

|  |  |
| --- | --- |
| **Signal Name** | **Description** |
| Feedback Request Active  Type:  1491936886.jpg [Feedback Request Active](#_85fb01aeb1942799eb6509b2a10caa68) | Signal Description:  Indicates that the Auto Save feature feedback from the user. The Host Vehicle HMI needs to open up a prompt to request feedback from the user regarding the positional settings that were adjusted.  ASIL: QM  Encoding Type: Request Feedback  Discrete Encoding Values:  0x0 No  0x1 Yes  Unit: Boolean  Sent to:   * -1679618778.jpg Activity Parameter Node: Feedback Request Active |
| Feedback Request  Type:  1491936886.jpg [Request Feedback](#_1d05a36a3ad3c344041767f680fc42cd) | Signal Description:  Indicates the type of feedback the Auto Save feature wants from the user. The Host Vehicle HMI needs to open up a prompt to request feedback from the user regarding the positional settings that were adjusted.  ASIL: QM  Encoding Type: Request Feedback  Discrete Encoding Values:  0x0 Seat  0x1 Mirrors  0x2 Pedals  0x3 Steering Wheel  0x4 HUD  0x5 Multiple  0x6 Save Confirm  0x7 Ignore Confirm  Unit: Enumeration  Sent to:   * -1679618778.jpg Activity Parameter Node: Request Feedback |

#### Logical Parameters

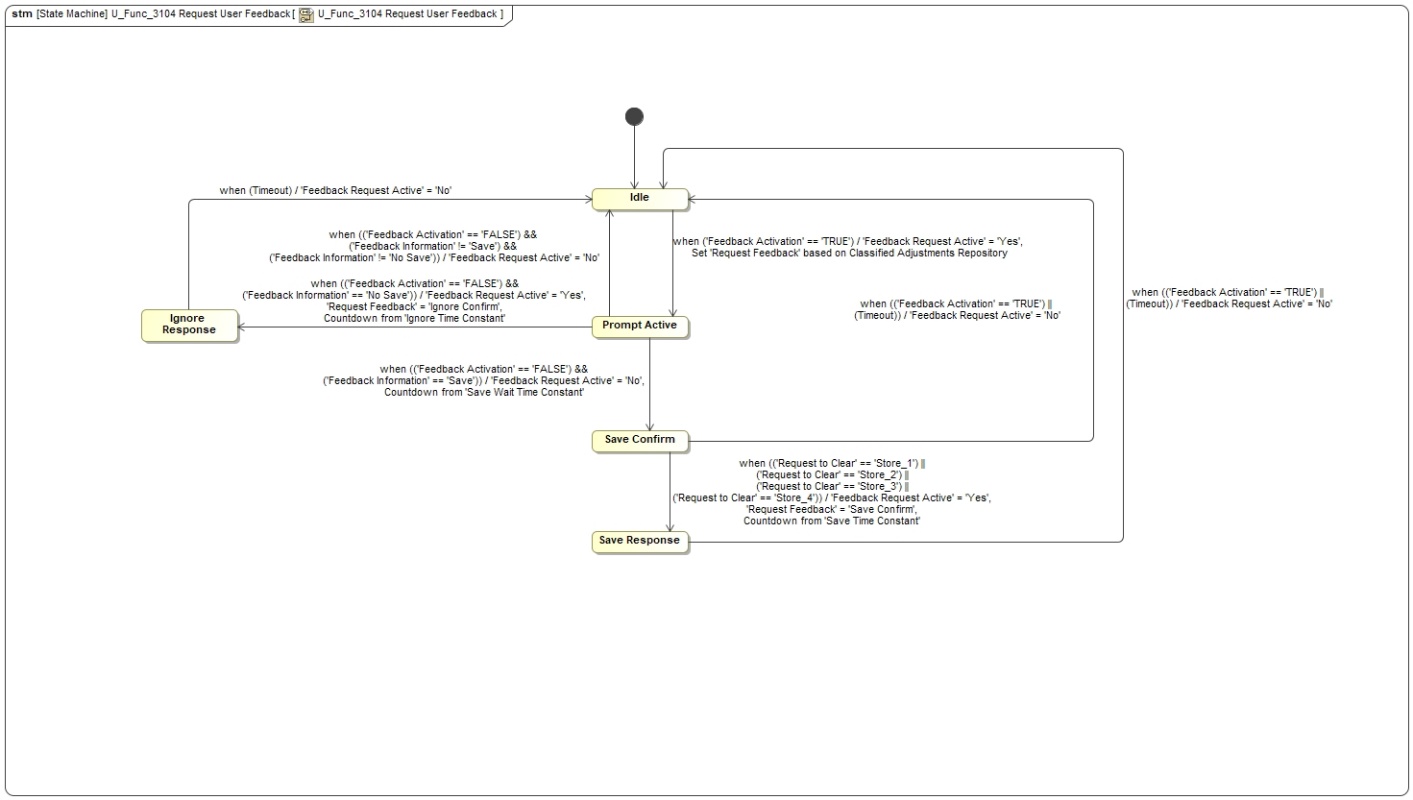
|  |  |
| --- | --- |
| **Parameter Name** | **Description** |
| Prompt Time Constant | See Data Dictionary |
| Save Time Constant | See Data Dictionary |
| Ignore Time Constant | See Data Dictionary |
| Save Wait Time Constant | See Data Dictionary |

### Function Modeling

#### Use Cases

Not applicable

#### State Charts / Activity Diagrams / Sequence Diagrams / Decision Tables



**Figure 24:** **Finite State Machine of Request User Feedback**

### Function Requirements

#### Functional Requirements

##### Normal Operation

Request User Feedback: Ignore Confirm Active

When the Request User Feedback function informs the user that their adjustments will no longer be saved, the Request User Feedback function shall set 'Request Feedback' to 'Ignore Confirm'.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Need to send correct request for ignore message. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Infotainment Controller: Feedback Request Active Data Value

The Infotainment Controller shall allocate space for the 'Feedback Request Active' data value.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Infotainment Controller needs to have a place for Feedback Request. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Request User Feedback: Save Successful

When the Request User Feedback function is waiting for confirmation of the save and 'Request to Clear' changes to 'Store\_1', 'Store\_2', 'Store\_3', or 'Store\_4', the Request User Feedback function shall confirm the successful save by setting 'Feedback Request Active' to 'Yes'.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Need to inform the user that the save was successful. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Request User Feedback: Ignore Confirm

When the Request User Feedback function is sending a request for user feedback, the value of 'Feedback Activation' changes to 'FALSE', the value of 'Feedback Information' is 'No Save', the Request User Feedback function shall inform the user that their adjustments will no longer be saved by setting 'Feedback Request Active' to 'Yes'.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Need to inform the user that their adjustments will no longer be saved. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Infotainment Controller: Feedback Request Data Value

The Infotainment Controller shall allocate space for the 'Feedback Request' data value.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Infotainment Controller needs to have a place for Feedback Request. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Infotainment Controller: Prompt Time Constant Configurable

The 'Prompt Time Constant' parameter of the Infotainment Controller shall be configurable by a technician.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Infotainment Controller needs to make this configurable. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Request User Feedback: Request Prompt Activation for HUD

When the value of 'Feedback Activation' is 'TRUE' and the only value in the Classified Adjustments Repository to have a value other than 'None' is 'Infotainment Adjustment Classification', Request User Feedback function shall set the value of 'Request Feedback' to 'HUD'.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Need to send request for HUD prompt. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Infotainment Controller: Request Feedback Signal

The Infotainment Controller shall provide the 'Request Feedback' data value to the Infotainment HMI System.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Infotainment Controller needs to have a place for Feedback Request. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Request User Feedback: Save Wait Time Constant

The Request User Feedback function shall wait for 'Save Wait Time Constant' for confirmation of the save.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Need to wait for 'Save Wait Time Constant'. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Request User Feedback: Save Successful Timeout

When the Request User Feedback function has waited for 'Save Time Constant' or the value of 'Feedback Activation' changes to 'TRUE', the Request User Feedback function shall return to an idle state.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Need to return to idle after showing the save successful message. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Request User Feedback: Request Prompt Activation for Seat

When the value of 'Feedback Activation' is 'TRUE' and the only value in the Classified Adjustments Repository to have a value other than 'None' is 'Seat Adjustment Classification' or 'Multicontour Adjustment Classification', Request User Feedback function shall set the value of 'Request Feedback' to 'Seat'.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Need to send request for seat prompt. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Request User Feedback: Request Prompt Activation for Pedal

When the value of 'Feedback Activation' is 'TRUE' and the only value in the Classified Adjustments Repository to have a value other than 'None' is 'Pedal Adjustment Classification', Request User Feedback function shall set the value of 'Request Feedback' to 'Pedal'.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Need to send request for Pedal prompt. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Request User Feedback: Ignore Confirm Timeout

When the Request User Feedback function has waited for 'Ignore Time Constant' or the value of 'Feedback Activation' changes to 'TRUE', the Request User Feedback function shall return to an idle state.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Need to return to an idle state when ignore message has been up for long enough. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Request User Feedback: Request Prompt Activation for Multiple

When the value of 'Feedback Activation' is 'TRUE' and there are many values in the Classified Adjustments Repository that have a value other than 'None', Request User Feedback function shall set the value of 'Request Feedback' to 'Multiple'.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Need to send request for multiple axes prompt. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Request User Feedback: Request Prompt Activation for Mirror

When the value of 'Feedback Activation' is 'TRUE' and the only value in the Classified Adjustments Repository to have a value other than 'None' is 'Left Mirror Adjustment Classification' or 'Right Mirror Adjustment Classification', Request User Feedback function set the value of 'Request Feedback' to 'Mirror'.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Need to send request for mirror prompt. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Request User Feedback: Save Successful Confirm

When the Request User Feedback function confirms the successful save, the Request User Feedback function shall set the value of 'Request Feedback' to 'Save Confirm'.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Need to send the user the message that the save was successful. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Request User Feedback: Save Wait Timeout

When the Request User Feedback function has waited for 'Save Wait Time Constant' or 'Feedback Activation' becomes 'TRUE', the Request User Feedback function shall return to an idle state.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Need to return to idle if timeout waiting for successful save. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Infotainment Controller: Feedback Request Active Signal

The Infotainment Controller shall provide the 'Feedback Request Active' data value to the Infotainment HMI System.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Infotainment Controller needs to have a place for Feedback Request. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Request User Feedback: Request Prompt Activation for Steering Wheel

When the value of 'Feedback Activation' is 'TRUE' and the only value in the Classified Adjustments Repository to have a value other than 'None' is 'Steering Wheel Adjustment Classification', Request User Feedback function shall set the value of 'Request Feedback' to 'Steering Wheel'.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Need to send request for steering wheel prompt. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Request User Feedback: Request Prompt Deactivation

When the Request User Feedback function is sending a request for user feedback, the value of 'Feedback Activation' changes to 'FALSE', the value of 'Feedback Information' is not 'Save', and the value of 'Feedback Information' is not 'No Save', the Request User Feedback function shall end the request for user feedback by setting the value of 'Feedback Request Active' to 'No'.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Need to end the prompt request. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Request User Feedback: Ignore Confirm Countdown

When the Request User Feedback function informs the user that their adjustments will no longer be saved, the Request User Feedback function shall set wait for 'Ignore Time Constant'.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Need to send ignore prompt for 'Ignore Time Constant'. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Request User Feedback: Save Successful Time

When the Request User Feedback function confirms the successful save, the Request User Feedback function shall wait for 'Save Time Constant' to keep displaying the save success message.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Need to keep the message up for 'Save Time Constant'. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Infotainment Controller: Prompt Time Constant Data Value

The Infotainment Controller shall allocate space in memory for the 'Prompt Time Constant' parameter, which defines how long Auto Save will wait for a prompt response.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Infotainment Controller needs to make space for how long Auto Save will wait for an HMI response. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Request User Feedback: Save Confirmation

When the Request User Feedback function is sending a request for user feedback, the value of 'Feedback Activation' changes to 'FALSE', the value of 'Feedback Information' is 'Save', the Request User Feedback function shall wait for confirmation of the save by monitoring 'Request to Clear'.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | If the response was to save, Auto Save should wait to see if the save is successful. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Request User Feedback: Request Prompt Activation

When the value of 'Feedback Activation' is 'TRUE', the Request User Feedback function shall send a request for user feedback by setting the value of 'Feedback Request Active' to 'Yes'.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Need to request the prompt | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Request User Feedback: Idle State

When the Request User Feedback function returns to an idle state, the Request User Feedback function shall set the value of 'Feedback Request Active' to 'No'.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Feedback Request Active should be 'No' when Request User Feedback is idle. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Infotainment Controller: Request User Feedback

The Infotainment Controller shall implement the Request User Feedback function.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Infotainment Controller needs to execute the Request User Feedback function to execute the Auto Save Feature. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [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

Infotainment Controller: Save Time Constant Parameter

The 'Save Time Constant' parameter of the Infotainment Controller shall be 5 seconds.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Infotainment Controller needs to set a time for how long the save successful prompt will be. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Infotainment Controller: Ignore Time Constant Parameter

The 'Ignore Time Constant' parameter of the Infotainment Controller shall be 5 seconds.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Infotainment Controller needs to set a time for how long the ignore adjustments prompt will be | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Infotainment Controller: Prompt Time Constant Parameter

The 'Prompt Time Constant' parameter of the Infotainment Controller shall have a default value of 30 seconds.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Infotainment Controller needs to set a default value for how long Auto Save will wait for HMI response. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Infotainment Controller: Save Wait Time Constant Parameter

The 'Save Wait Time Constant' parameter of the Infotainment Controller shall be 5 seconds.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Infotainment Controller needs to set a time for how long it will wait for confirmation of save. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

#### Functional Safety Requirements

No Functional Safety Requirements specified.

##### ASIL Decomposition of Functional Safety Requirements

No Functional Safety Requirements with ASIL Decompositions specified.

#### Other Requirements

##### Design Requirements

No Design Requirements specified.

#### Uncategorized (HMI) Requirements

Infotainment HMI System: Save Confirm Prompt

When the value of 'Request Feedback' is 'Save Confirm', the Infotainment HMI System shall display a message indicating to the user that their adjustments have been saved.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Need to have a special prompt to tell the user that the save was successful. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Infotainment HMI System: Prompt Options

The Infotainment HMI System shall provide a prompt with the options to save the adjustments, ignore the adjustments, or to change profile.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Need to define prompt response options. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Infotainment HMI System: Prompt Definition

The Infotainment HMI System shall obtain feedback from the user utilizing a prompt.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Need to define prompt interaction. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Infotainment HMI System: Prompt Response Change Profile

If the user's response was to change profile, the Infotainment HMI System shall return 'Feedback Information' with the value 'Change Profile'.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Prompt needs to indicate change profile. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Infotainment HMI System: Prompt Close Upon User Response

The Infotainment HMI System shall close the prompt upon user response.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Need to close prompt upon user response. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Infotainment HMI System: Prompt Persistence

The Infotainment HMI System shall display the prompt as long as 'Feedback Request Active' is 'Yes'.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Need to control the prompt display. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Infotainment HMI System: Prompt Variations

The Infotainment HMI System shall have variations for the prompt, including HUD, Seat, Steering Wheel, Mirror, Pedal, and Multiple.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Need to have prompt variations. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Infotainment HMI System: Prompt Response Ignore

If the user's response was to ignore the adjustment, the Infotainment HMI System shall return 'Feedback Information' with the value 'No Save'.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Prompt needs to indicate no save. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Infotainment HMI System: Prompt Close Upon Blocking

If the prompt cannot be displayed, the Infotainment HMI System shall close the prompt.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Need to close upon blocking. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Infotainment HMI System: Prompt Close Upon Timeout

The Infotainment HMI System shall close the prompt upon timeout.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Need to close prompt after timeout. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Infotainment HMI System: Prompt Response Save

If the user's response was to save the adjustment, the Infotainment HMI System shall return 'Feedback Information' with the value 'Save'.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Prompt needs to indicate save. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Infotainment HMI System: Prompt Response Signal

The Infotainment HMI System shall send the 'Feedback Information' signal to provide Auto Save with the user's response.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Need to ensure that prompt response is sent. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Infotainment HMI System: Ignore Confirm Prompt

When the value of 'Request Feedback' is 'Ignore Confirm', the Infotainment HMI System shall display a message indicating to the user that adjustments will no longer be saved.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Need to display a special prompt for ignore. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Infotainment HMI System: Prompt Response Blocked

If the prompt cannot be displayed, the Infotainment HMI System shall return 'Feedback Information' with the value 'Blocked'.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Prompt needs to handle block. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Infotainment HMI System: Prompt Response Timeout

If the prompt reaches its timeout, the Infotainment HMI System shall return 'Feedback Information' with the value 'Timeout'.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Prompt needs to indicate timeout. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

## -1453874747.jpg U\_Func\_4220 Reset Infotainment Controller

### Function Overview

#### Description

Function is allocated to:

* -2098041031.jpg Infotainment Controller <<Logical>>

SUBSYSTEM FUNCTION - This function resets the current state of the Auto Save algorithm running on the Infotainment Controller. It will also request the clearing of the Classified Adjustments Repository by the Clear Classified Adjustments Repository function.

#### Variants

Not applicable

#### Input Requirements

Not applicable

#### Assumptions

Not applicable

#### References

##### Ford Documents

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

| **Reference** | **Title** | **Doc. ID** | **Document Location** | **Revision** |
| --- | --- | --- | --- | --- |
| VDOC080441 | Auto Save Feature Specification | VDOC080441 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=zNX5hzEYx3NrTDAAAAAAAAAAAAA&servername=Production_Server) | F |
| VDOC089611 | Auto Save Functional Specification | VDOC089611 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=zqsBkU6Cx3NrTDAAAAAAAAAAAAA&servername=Production_Server) | A |
| VDOC089612 | Auto Save Implementation Specification | VDOC089612 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=DDgBkU6Cx3NrTDAAAAAAAAAAAAA&servername=Production_Server) | A |
| VDOC075158 | PPP Feature Document | VDOC075158 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=iWYxEeXyx3NrTDAAAAAAAAAAAAA&servername=Production_Server) | B |
| VDOC085831 | PPP Functional Specifications | VDOC085831 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=h$b9Xjn8x3NrTDAAAAAAAAAAAAA&servername=Production_Server) | B |
| VDOC080627 | PPP Feature Implementation | VDOC080627 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=F0c5z4zQx3NrTDAAAAAAAAAAAAA&servername=Production_Server) | A |
| VDOC083702 | Classic Memory Feature Specification | VDOC083702 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=iaQ9AR4Cx3NrTDAAAAAAAAAAAAA&servername=Production_Server) | F |
| VDOC088610 | Classic Memory Functional Specification | VDOC088610 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=idlBBLxox3NrTDAAAAAAAAAAAAA&servername=Production_Server) | B |
| VDOC089667 | Classic Memory Implementation Spec | VDOC089667 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=SNhBkV85x3NrTDAAAAAAAAAAAAA&servername=Production_Server) | A |
| VDOC041625 | Enhanced Memory Feature Specification | VDOC041625 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=boRV6owSx3NrTDAAAAAAAAAAAAA&servername=Production_Server) | J |
| VDOC041626 | Enhance Memory Feature Implementation Guide (Feature Level) | VDOC041626 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=rkWV6owSx3NrTDAAAAAAAAAAAAA&servername=Production_Server) | H |

Table 19: Ford internal Documents *(not specified in model)*

##### External Documents and Publications

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

| **Reference** | **Document / Publication** |
| --- | --- |
|  |  |

Table 20: External documents and publications *(not specified in model)*

#### Glossary

See Appendix for Definitions and Abbreviations.

### Function Scope

The -1453874747.jpg **– “U\_Func\_4220 Reset Infotainment Controller”** function is called by the following functions:

* 1321493006.jpg – “[S\_Func\_4200 Clear Driver Information Adjustment Information](#_eb6c54f43312dcdd1dd1660069bf50cc)”

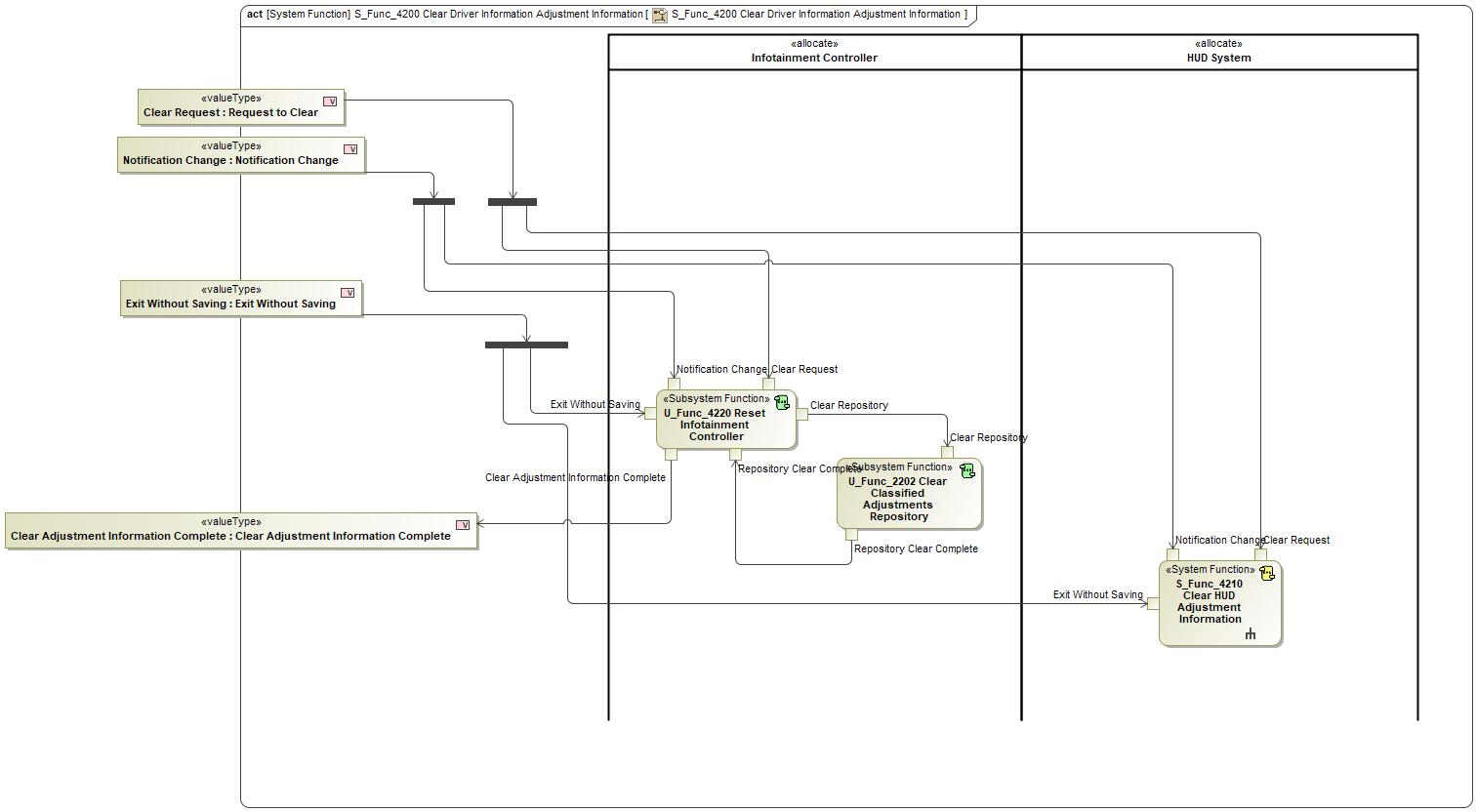


Figure 25: Activity Diagram of 1321493006.jpg “S\_Func\_4200 Clear Driver Information Adjustment Information” calling -1453874747.jpg “U\_Func\_4220 Reset Infotainment Controller”

### Function Interfaces

#### Logical Inputs

|  |  |
| --- | --- |
| **Signal Name** | **Description** |
| Repository Clear Complete  Type:  1491936886.jpg [Repository Clear Complete](#_0ed02841b6bc7bcdcdc683d8507e4da9) | Signal Description:  This signal indicates when the clearing of the information that has been retained in the Classified Adjustments Repository is complete. It is true when the process is complete, false otherwise.  ASIL: QM  Encoding Type: Boolean  Discrete Encoding Values:  0x0 FALSE  0x1 TRUE  Unit: Boolean  Received from:   * -1453874747.jpg [U\_Func\_2202 Clear Classified Adjustments Repository](#_8e87e12a70257bb1a61fa226762fd84b) |
| Notification Change  Type:  1491936886.jpg [Notification Change](#_28752f954942807762289279d55fc03d) | Signal Description:  Indicates that a change of profile has occurred and Auto Save should respond by returning to an idle state.  This signal is the same as the existing Memory\_Cmd signal.  ASIL: QM  Encoding Type: Memory\_Cmd  Discrete Encoding Values:  0x0 Null  0x1 Store\_1  0x2 Store\_2  0x3 Store\_3  0x4 Store\_4  0x5 Recall\_1  0x6 Recall\_2  0x7 Recall\_3  0x8 Recall\_4  Unit: Enumeration  Received from:   * -1679618778.jpg Activity Parameter Node: Notification Change |
| Exit Without Saving  Type:  -814667776.jpg [Exit Without Saving](#_b5a3ceb81a5acb5e135507954e53f22a) | Signal Description:  This signal indicates that the Auto Save feature has determined that it should stop operation for this key cycle without saving the adjustments.  ASIL: QM  Encoding Type: Boolean  Discrete Encoding Values:  0x0 No  0x1 Yes  Unit: Boolean  Note: Based on discussions with NetCom, this signal will likely need to be assigned values of "No" and "Yes" instead of the preferred "FALSE" and "TRUE".  Received from:   * -1679618778.jpg Activity Parameter Node: Exit Without Saving |
| Clear Request  Type:  1491936886.jpg [Request to Clear](#_906c0c0e96fa39f7094234f7554cba6f) | Signal Description:  Indicates that a successful save of positional settings has occurred and Auto Save should respond by clearing any saved adjustment information.  This signal is the same as the existing Memory\_Cmd signal.  ASIL: QM  Encoding Type: Memory\_Cmd  Discrete Encoding Values:  0x0 Null  0x1 Store\_1  0x2 Store\_2  0x3 Store\_3  0x4 Store\_4  0x5 Recall\_1  0x6 Recall\_2  0x7 Recall\_3  0x8 Recall\_4  Unit: Enumeration  Received from:   * -1679618778.jpg Activity Parameter Node: Clear Request |

#### Logical Outputs

|  |  |
| --- | --- |
| **Signal Name** | **Description** |
| Clear Repository  Type:  1491936886.jpg [Clear Repository](#_87e47e33b8d1fca30f8055796cefea54) | Signal Description:  This signal indicates whether the Auto Save Decide Function should clear the information that has been retained in the Classified Adjustments Repository.  ASIL: QM  Encoding Type: Boolean  Discrete Encoding Values:  0x0 FALSE  0x1 TRUE  Unit: Boolean  Sent to:   * -1453874747.jpg [U\_Func\_2202 Clear Classified Adjustments Repository](#_8e87e12a70257bb1a61fa226762fd84b) |
| Clear Adjustment Information Complete  Type:  -814667776.jpg [Clear Adjustment Information Complete](#_574544d42ee23434918a6435c3e6e43d) | Signal Description:  This signal indicates when the clearing of the adjustment information is complete. It is true when the process is complete, false otherwise.  ASIL: QM  Encoding Type: Boolean  Discrete Encoding Values:  0x0 FALSE  0x1 TRUE  Unit: Boolean  Sent to:   * -1679618778.jpg Activity Parameter Node: Clear Adjustment Information Complete |

#### Logical Parameters

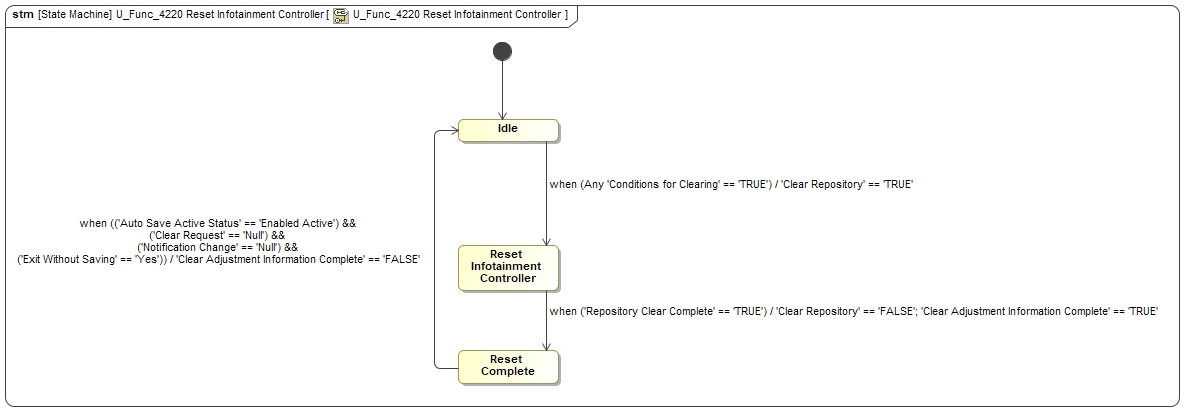
No Logical Parameters applicable for this function

### Function Modeling

#### Use Cases

Not applicable

#### State Charts / Activity Diagrams / Sequence Diagrams / Decision Tables



**Figure 26: Finite State Machine of Reset Infotainment Controller**

### Function Requirements

#### Functional Requirements

##### Normal Operation

Infotainment Controller: Reset Infotainment Controller Function

The Infotainment Controller shall implement the Reset Infotainment Controller function.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Infotainment Controller needs to execute the Reset Infotainment Controller function to execute the Auto Save Feature. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Reset Infotainment Controller: Clear Adjustment Information Complete Activation

After the Reset Infotainment Controller function clears the information about changes in the current user's set of profile position parameters, the Reset Infotainment Controller function shall set the value of 'Clear Adjustment Information Complete' to 'TRUE'.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Need to clear the requests for save and profile change. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Reset Infotainment Controller: Clear Classified Adjustments

When the Reset Infotainment Controller function clears the information about changes in the current user's set of profile position parameters, the Reset Infotainment Controller function shall set the value of 'Clear Repository' to 'TRUE' in order to clear the Classified Adjustments Repository.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Need to clear current adjustments. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Reset Infotainment Controller: Clear Classified Adjustments Complete

When the value of 'Repository Clear Complete' is 'TRUE', the Reset Infotainment Controller function shall set the value of 'Clear Repository' to 'FALSE'.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | When clearing is complete, need to stop sending request to clear repository. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Reset Infotainment Controller: Conditions for Clear

The Reset Infotainment Controller function shall clear the information about changes in the user's set of profile position parameters when any of the Conditions for Clearing are 'TRUE'.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Need to determine when to clear adjustment data. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Reset Infotainment Controller: Clear Adjustment Information Complete Deactivation

The Reset Infotainment Controller function shall set the value of 'Clear Adjustment Information Complete' to 'FALSE' when all of the following are 'TRUE':

1. The value of 'Auto Save Active Status' is 'Enabled Active'

2. The value of 'Clear Request' is 'Null'

3. The value of 'Notification Change' is 'Null'

4. The value of 'Exit Without Saving' is 'Yes'

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Need to indicate that we are no longer clearing information. This is a complementary requirement to "Reset Infotainment Controller: Clear Adjustment Information Complete Activation". | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Infotainment Controller: Clear Adjustment Information Complete Data Value

The Infotainment Controller shall allocate space for the 'Clear Adjustment Information Complete' data value.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Infotainment Controller needs to allocate space for a value to indicate to clear requests. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [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

No Non-Functional Requirements specified.

#### Functional Safety Requirements

No Functional Safety Requirements specified.

##### ASIL Decomposition of Functional Safety Requirements

No Functional Safety Requirements with ASIL Decompositions specified.

#### Other Requirements

##### Design Requirements

No Design Requirements specified.

## -1453874747.jpg U\_Func\_5110 Update Inhibit Table

### Function Overview

#### Description

Function is allocated to:

* -2098041031.jpg Infotainment Controller <<Logical>>

SUBSYSTEM FUNCTION - This function monitors incoming Inhibit Requests. It compares the Inhibit Request to the stored value in the Inhibit Table on the Infotainment Controller. If the Inhibit Request results in changes to the status in the Inhibit Table, it notifies the Evaluate Activation Conditions function.

#### Variants

Not applicable

#### Input Requirements

Not applicable

#### Assumptions

Not applicable

#### References

##### Ford Documents

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

| **Reference** | **Title** | **Doc. ID** | **Document Location** | **Revision** |
| --- | --- | --- | --- | --- |
| VDOC080441 | Auto Save Feature Specification | VDOC080441 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=zNX5hzEYx3NrTDAAAAAAAAAAAAA&servername=Production_Server) | F |
| VDOC089611 | Auto Save Functional Specification | VDOC089611 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=zqsBkU6Cx3NrTDAAAAAAAAAAAAA&servername=Production_Server) | A |
| VDOC089612 | Auto Save Implementation Specification | VDOC089612 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=DDgBkU6Cx3NrTDAAAAAAAAAAAAA&servername=Production_Server) | A |
| VDOC075158 | PPP Feature Document | VDOC075158 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=iWYxEeXyx3NrTDAAAAAAAAAAAAA&servername=Production_Server) | B |
| VDOC085831 | PPP Functional Specifications | VDOC085831 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=h$b9Xjn8x3NrTDAAAAAAAAAAAAA&servername=Production_Server) | B |
| VDOC080627 | PPP Feature Implementation | VDOC080627 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=F0c5z4zQx3NrTDAAAAAAAAAAAAA&servername=Production_Server) | A |
| VDOC083702 | Classic Memory Feature Specification | VDOC083702 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=iaQ9AR4Cx3NrTDAAAAAAAAAAAAA&servername=Production_Server) | F |
| VDOC088610 | Classic Memory Functional Specification | VDOC088610 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=idlBBLxox3NrTDAAAAAAAAAAAAA&servername=Production_Server) | B |
| VDOC089667 | Classic Memory Implementation Spec | VDOC089667 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=SNhBkV85x3NrTDAAAAAAAAAAAAA&servername=Production_Server) | A |
| VDOC041625 | Enhanced Memory Feature Specification | VDOC041625 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=boRV6owSx3NrTDAAAAAAAAAAAAA&servername=Production_Server) | J |
| VDOC041626 | Enhance Memory Feature Implementation Guide (Feature Level) | VDOC041626 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=rkWV6owSx3NrTDAAAAAAAAAAAAA&servername=Production_Server) | H |

Table 21: Ford internal Documents *(not specified in model)*

##### External Documents and Publications

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

| **Reference** | **Document / Publication** |
| --- | --- |
|  |  |

Table 22: External documents and publications *(not specified in model)*

#### Glossary

See Appendix for Definitions and Abbreviations.

### Function Scope

The -1453874747.jpg **– “U\_Func\_5110 Update Inhibit Table”** function is called by the following functions:

* 1321493006.jpg – “[S\_Func\_5100 Activate/Deactivate Automatic Saving Process](#_a2b24bb11f4f5e2c3f2fa74e5c6e0db1)”

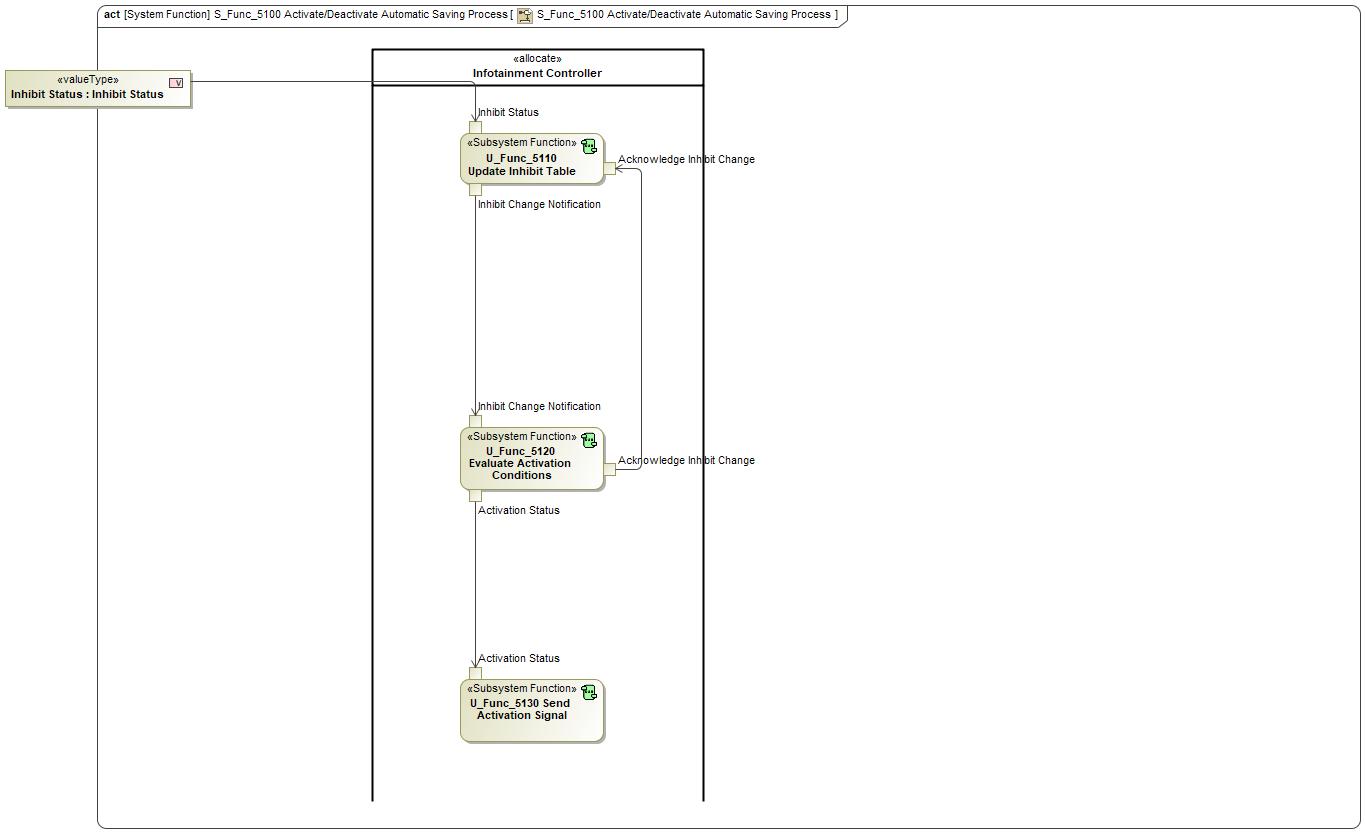


Figure 27: Activity Diagram of 1321493006.jpg “S\_Func\_5100 Activate/Deactivate Automatic Saving Process” calling -1453874747.jpg “U\_Func\_5110 Update Inhibit Table”

### Function Interfaces

#### Logical Inputs

|  |  |
| --- | --- |
| **Signal Name** | **Description** |
| Inhibit Status  Type:  1491936886.jpg [Inhibit Status](#_3a8af6389bdbfb47c959c18c58ea1777) | Signal Description:  Indicates that a Profile Inhibitor Manager has changed the inhibition status and Auto Save should respond by activating or deactivating the feature.  ASIL: QM  Min Value: 0  Max Value: 1023  Resolution: 1  Offset: 0  Unit: Integer  Received from:   * -1679618778.jpg Activity Parameter Node: Inhibit Status |
| Acknowledge Inhibit Change  Type:  1491936886.jpg [Acknowledge Inhibit Change](#_54f2306f9964b1eba207ef79cbf2bfe1) | Signal Description:  Indicates that the examination of the active status of the feature has occurred.  ASIL: QM  Encoding Type: Boolean  Discrete Encoding Values:  0x0 FALSE  0x1 TRUE  Unit: Boolean  Received from:   * -1453874747.jpg [U\_Func\_5120 Evaluate Activation Conditions](#_103587e3e3c890004bbf68d061e65f6d) |

#### Logical Outputs

|  |  |
| --- | --- |
| **Signal Name** | **Description** |
| Inhibit Change Notification  Type:  1491936886.jpg [Inhibit Change Notification](#_21f006f86fe751b695620c59c7c27cb7) | Signal Description:  Indicates that a signal has arrived that may affect the active status of the feature.  ASIL: QM  Encoding Type: Boolean  Discrete Encoding Values:  0x0 FALSE  0x1 TRUE  Unit: Boolean  Sent to:   * -1453874747.jpg [U\_Func\_5120 Evaluate Activation Conditions](#_103587e3e3c890004bbf68d061e65f6d) |

#### Logical Parameters

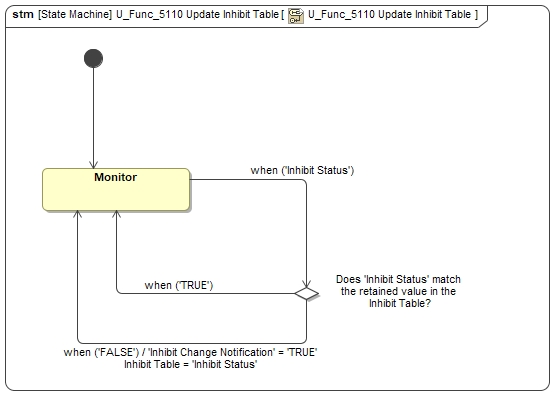
No Logical Parameters applicable for this function

### Function Modeling

#### Use Cases

Not applicable

#### State Charts / Activity Diagrams / Sequence Diagrams / Decision Tables



**Figure 28:** **Finite State Machine of Update Inhibit Table**



Figure 29: Example of Inhibit Table during operation

### Function Requirements

#### Functional Requirements

##### Normal Operation

Update Inhibit Table: Inhibit Request 5 - Stowable Steering Column Disables Auto Save - Deactivation

The Update Inhbit Table function shall set Entry 5 in the Inhibit Table to 'FALSE' when Stowable Steering Column is no longer active on the vehicle, as indicated by the 'Ssw/DttStateStat' signal set to 'Inactive'.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | This is when Stowable Steering Column is not active on the vehicle. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Update Inhibit Table: Inhibit Request 5 - Stowable Steering Column Disables Auto Save - Activation

The Update Inhbit Table function shall set Entry 5 in the Inhibit Table to 'TRUE' when Stowable Steering Column is active on the vehicle, as indicated by the 'Ssw/DttStateStat' signal set to 'Active'.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | This is when Stowable Steering Column is active on the vehicle. Signal subject to change. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Infotainment Controller: Update Inhibit Table Function

The Infotainment Controller shall implement the Update Inhibit Table function.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Infotainment Controller needs to execute the Update Inhibit Table function to execute the Auto Save Feature. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Update Inhibit Table: Inhibit Request 3 - PPP Authentication Disables Auto Save - Deactivation

The Update Inhbit Table function shall set Entry 3 in the Inhibit Table to 'FALSE' when the Profile Manager is able to authenticate the profile on the vehicle, as indicated by the 'Profile Authentication' signal set to 'Authenticated'.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | This is when PPP is able to authenticate the user profile. Signal subject to change. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Update Inhibit Table: Inhibit Request 4 - Rejuvenate Disables Auto Save - Deactivation

The Update Inhbit Table function shall set Entry 4 in the Inhibit Table to 'FALSE' when Rejuvenate is no longer active on the vehicle, as indicated by the 'RejuvActive\_Stat' signal set to 'Inactive'.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | This is when Rejuvenate is not active on the vehicle. Signal subject to change. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Infotainment Controller: Inhibit Request Signal

The Infotainment Controller provide the value of the 'Inhibit Request' signal to the Update Inhibit Table function.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Infotainment Controller needs to pass Inhibit Request information to Update Inhibit Table function. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Update Inhibit Table: Inhibit Request 1 - PPP HMI Disables Auto Save - Activation

The Update Inhbit Table function shall set Entry 1 in the Inhibit Table to 'TRUE' when the Profile Manager disables the Auto Save Feature in the profile on the vehicle, as indicated via the signal 'PPPHMIInhibit\_D\_Rq' set to 'Yes'.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | This is when PPP enables the Auto Save feature on the vehicle, which happens through PPP HMI. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Update Inhibit Table: Inhibit Request 2 - EEEE Disables Auto Save - Activation

The Update Inhbit Table function shall set Entry 2 in the Inhibit Table to 'TRUE' when an Easy Entry Easy Exit event is active on the vehicle, as indicated by the signal 'SeatPos\_D\_Stat' set to 'Easy Entry'.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | This is when EEEE is active on the vehicle. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Update Inhibit Table: Inhibit Request 6 - Profile Manager Complete Recall

The Update Inhbit Table function shall set Entry 6 in the Inhibit Table to 'FALSE' when the Profile Manager is able to complete a recall, as indicated by the value of the signals 'PersNo\_D\_Actl' and 'PersNoPos\_D\_Actl' being equal.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | This is when a complete recall happens. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Infotainment Controller: Inhibit Table Allocation

The Infotainment Controller shall maintain the Inhibit Table to store the status of the following Inhibit Requests:

1. The Profile Manager disables the Auto Save Feature in the profile on the vehicle

2. An Easy Entry Easy Exit event is active on the vehicle

3. The Profile Manager indicates that the profile is not authenticated

4. Rejuvenate Mode is active on the vehicle

5. A Stowable Steering Column event is active on the vehicle

6. The Profile Manager indicates that in incomplete profile recall event has occurred on the vehicle

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Infotainment Controller needs to store Inhibit Requests. Need to account for incomplete recall. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Update Inhibit Table: Inhibit Request 2 - EEEE Disables Auto Save - Deactivation

The Update Inhbit Table function shall set Entry 2 in the Inhibit Table to 'FALSE' when an Easy Entry Easy Exit event is not active on the vehicle, as indicated by the signal 'SeatPos\_D\_Stat' set to 'Drive'.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | This is when EEEE is no longer active on the vehicle. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Infotainment Controller: Inhibit Change Notification Data Allocation

The Infotainment Controller shall allocate space for the 'Inhibit Change Notification' data value.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Infotainment Controller needs to allocate space for the inhibit alert. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Update Inhibit Table: Inhibit Request 3 - PPP Authentication Disables Auto Save - Activation

The Update Inhbit Table function shall set Entry 3 in the Inhibit Table to 'TRUE' when the Profile Manager is unable to authenticate the profile on the vehicle, as indicated by the 'Profile Authentication' signal set to 'Not Authenticated'.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | This is when PPP is unable to authenticate the user profile. Signal subject to change. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Update Inhibit Table: Inhibit Request 4 - Rejuvenate Disables Auto Save - Activation

The Update Inhbit Table function shall set Entry 4 in the Inhibit Table to 'TRUE' when Rejuvenate is active on the vehicle, as indicated by the 'RejuvActive\_Stat' signal set to 'Active'.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | This is when Rejuvenate is active on the vehicle. Signal subject to change. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Update Inhibit Table: Inhibit Request 1 - PPP HMI Disables Auto Save - Deactivation

The Update Inhbit Table function shall set Entry 1 in the Inhibit Table to 'FALSE' when the Profile Manager enables the Auto Save Feature in the profile on the vehicle, as indicated via the signal 'PPPHMIInhibit\_D\_Rq' set to 'No'.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | This is when PPP disables the Auto Save feature on the vehicle, which happens through PPP HMI. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Update Inhibit Table: Update Inhibit Change Notification

When the Update Inhibit Table function updates the stored value in the Inhibit Table, the Update Inhibit Table function shall set the value of 'Inhibit Change Notification' to 'TRUE'.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Need to set Inhibit Change to true. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Update Inhibit Table: Clear Inhibit Change Notification

When the value of 'Acknowledge Inhibit Change' changes to 'TRUE', the Update Inhibit Table function shall set the value of 'Inhibit Change Notification' to 'FALSE'.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Need to clear Inhibit Change Notification. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Update Inhibit Table: Inhibit Request 6 - Profile Manager Incomplete Recall

The Update Inhbit Table function shall set Entry 6 in the Inhibit Table to 'TRUE' when the Profile Manager is unable to complete a recall, as indicated by the value of the signals 'PersNo\_D\_Actl' and 'PersNoPos\_D\_Actl' being inequal.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | This is when an incomplete recall happens. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [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

No Non-Functional Requirements specified.

#### Functional Safety Requirements

No Functional Safety Requirements specified.

##### ASIL Decomposition of Functional Safety Requirements

No Functional Safety Requirements with ASIL Decompositions specified.

#### Other Requirements

##### Design Requirements

No Design Requirements specified.

## -1453874747.jpg U\_Func\_5120 Evaluate Activation Conditions

### Function Overview

#### Description

Function is allocated to:

* 1917595677.jpg Infotainment Controller <<Logical>>

SUBSYSTEM FUNCTION - This function checks the list of activation conditions necessary for Auto Save to function. If there are changes to the active state of Auto Save, it will request that the Send Activation Signal function send the Activation Status signal.

#### Variants

Not applicable

#### Input Requirements

Not applicable

#### Assumptions

Not applicable

#### References

##### Ford Documents

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

| **Reference** | **Title** | **Doc. ID** | **Document Location** | **Revision** |
| --- | --- | --- | --- | --- |
| VDOC080441 | Auto Save Feature Specification | VDOC080441 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=zNX5hzEYx3NrTDAAAAAAAAAAAAA&servername=Production_Server) | F |
| VDOC089611 | Auto Save Functional Specification | VDOC089611 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=zqsBkU6Cx3NrTDAAAAAAAAAAAAA&servername=Production_Server) | A |
| VDOC089612 | Auto Save Implementation Specification | VDOC089612 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=DDgBkU6Cx3NrTDAAAAAAAAAAAAA&servername=Production_Server) | A |
| VDOC075158 | PPP Feature Document | VDOC075158 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=iWYxEeXyx3NrTDAAAAAAAAAAAAA&servername=Production_Server) | B |
| VDOC085831 | PPP Functional Specifications | VDOC085831 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=h$b9Xjn8x3NrTDAAAAAAAAAAAAA&servername=Production_Server) | B |
| VDOC080627 | PPP Feature Implementation | VDOC080627 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=F0c5z4zQx3NrTDAAAAAAAAAAAAA&servername=Production_Server) | A |
| VDOC083702 | Classic Memory Feature Specification | VDOC083702 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=iaQ9AR4Cx3NrTDAAAAAAAAAAAAA&servername=Production_Server) | F |
| VDOC088610 | Classic Memory Functional Specification | VDOC088610 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=idlBBLxox3NrTDAAAAAAAAAAAAA&servername=Production_Server) | B |
| VDOC089667 | Classic Memory Implementation Spec | VDOC089667 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=SNhBkV85x3NrTDAAAAAAAAAAAAA&servername=Production_Server) | A |
| VDOC041625 | Enhanced Memory Feature Specification | VDOC041625 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=boRV6owSx3NrTDAAAAAAAAAAAAA&servername=Production_Server) | J |
| VDOC041626 | Enhance Memory Feature Implementation Guide (Feature Level) | VDOC041626 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=rkWV6owSx3NrTDAAAAAAAAAAAAA&servername=Production_Server) | H |

Table 23: Ford internal Documents *(not specified in model)*

##### External Documents and Publications

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

| **Reference** | **Document / Publication** |
| --- | --- |
|  |  |

Table 24: External documents and publications *(not specified in model)*

#### Glossary

See Appendix for Definitions and Abbreviations.

### Function Scope

The -1453874747.jpg **– “U\_Func\_5120 Evaluate Activation Conditions”** function is called by the following functions:

* 1321493006.jpg – “[S\_Func\_5100 Activate/Deactivate Automatic Saving Process](#_a2b24bb11f4f5e2c3f2fa74e5c6e0db1)”

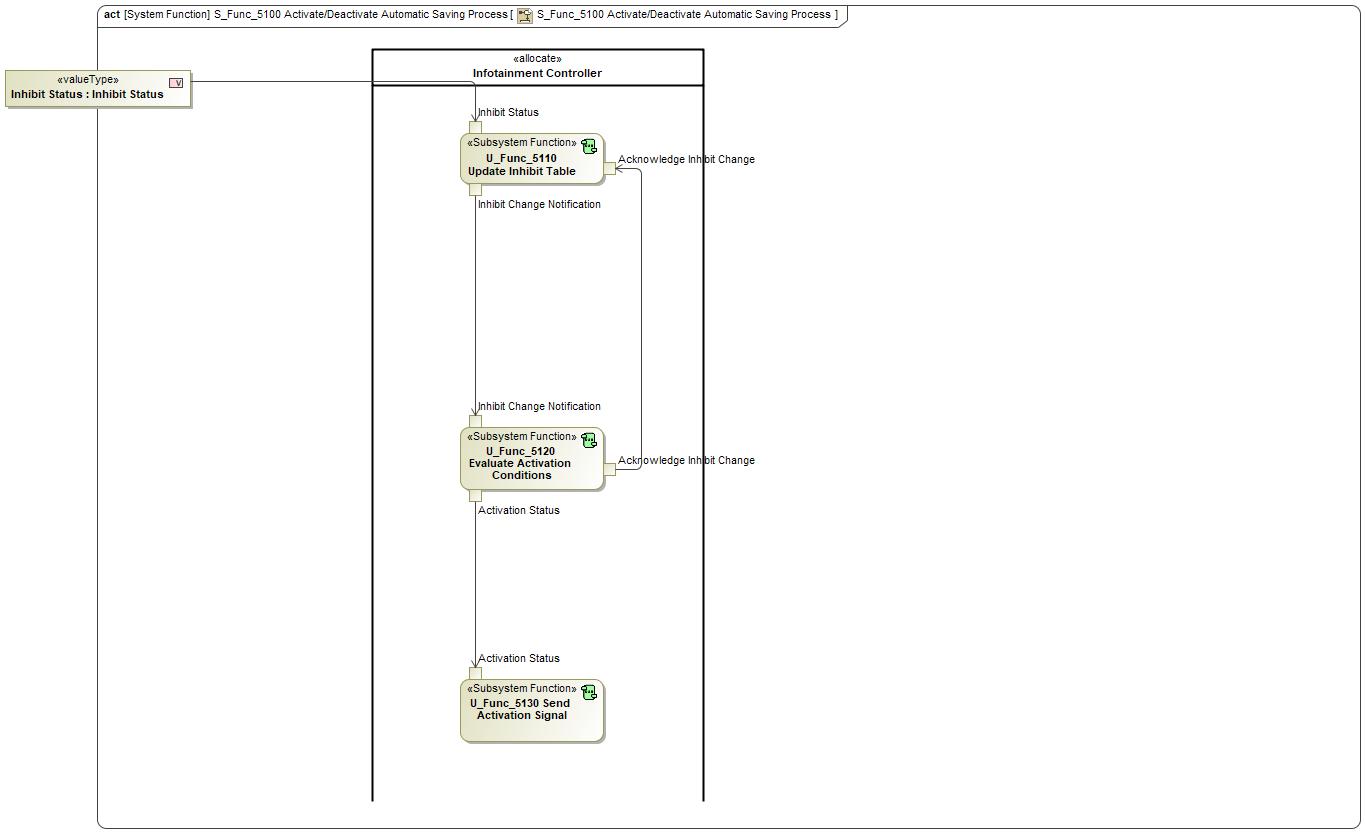


Figure 30: Activity Diagram of 1321493006.jpg “S\_Func\_5100 Activate/Deactivate Automatic Saving Process” calling -1453874747.jpg “U\_Func\_5120 Evaluate Activation Conditions”

### Function Interfaces

#### Logical Inputs

|  |  |
| --- | --- |
| **Signal Name** | **Description** |
| Inhibit Change Notification  Type:  1491936886.jpg [Inhibit Change Notification](#_21f006f86fe751b695620c59c7c27cb7) | Signal Description:  Indicates that a signal has arrived that may affect the active status of the feature.  ASIL: QM  Encoding Type: Boolean  Discrete Encoding Values:  0x0 FALSE  0x1 TRUE  Unit: Boolean  Received from:   * -1453874747.jpg [U\_Func\_5110 Update Inhibit Table](#_80aed59ae91688b663888b11b881c543) |

#### Logical Outputs

|  |  |
| --- | --- |
| **Signal Name** | **Description** |
| Acknowledge Inhibit Change  Type:  1491936886.jpg [Acknowledge Inhibit Change](#_54f2306f9964b1eba207ef79cbf2bfe1) | Signal Description:  Indicates that the examination of the active status of the feature has occurred.  ASIL: QM  Encoding Type: Boolean  Discrete Encoding Values:  0x0 FALSE  0x1 TRUE  Unit: Boolean  Sent to:   * -1453874747.jpg [U\_Func\_5110 Update Inhibit Table](#_80aed59ae91688b663888b11b881c543) |
| Activation Status  Type:  1491936886.jpg [Activation Status](#_b424eabf9a9d584546438c05fad5ad00) | Signal Description:  Indicates whether the feature should be active or inactive.  ASIL: QM  Encoding Type: Activation Status  Discrete Encoding Values:  0x0 Disabled  0x1 Enabled Inactive  0x2 Enabled Active  Unit: Enumeration  Sent to:   * -1453874747.jpg [U\_Func\_5130 Send Activation Signal](#_4066d3aba6d72a720a1f99a18eb40399) |

#### Logical Parameters

No Logical Parameters applicable for this function

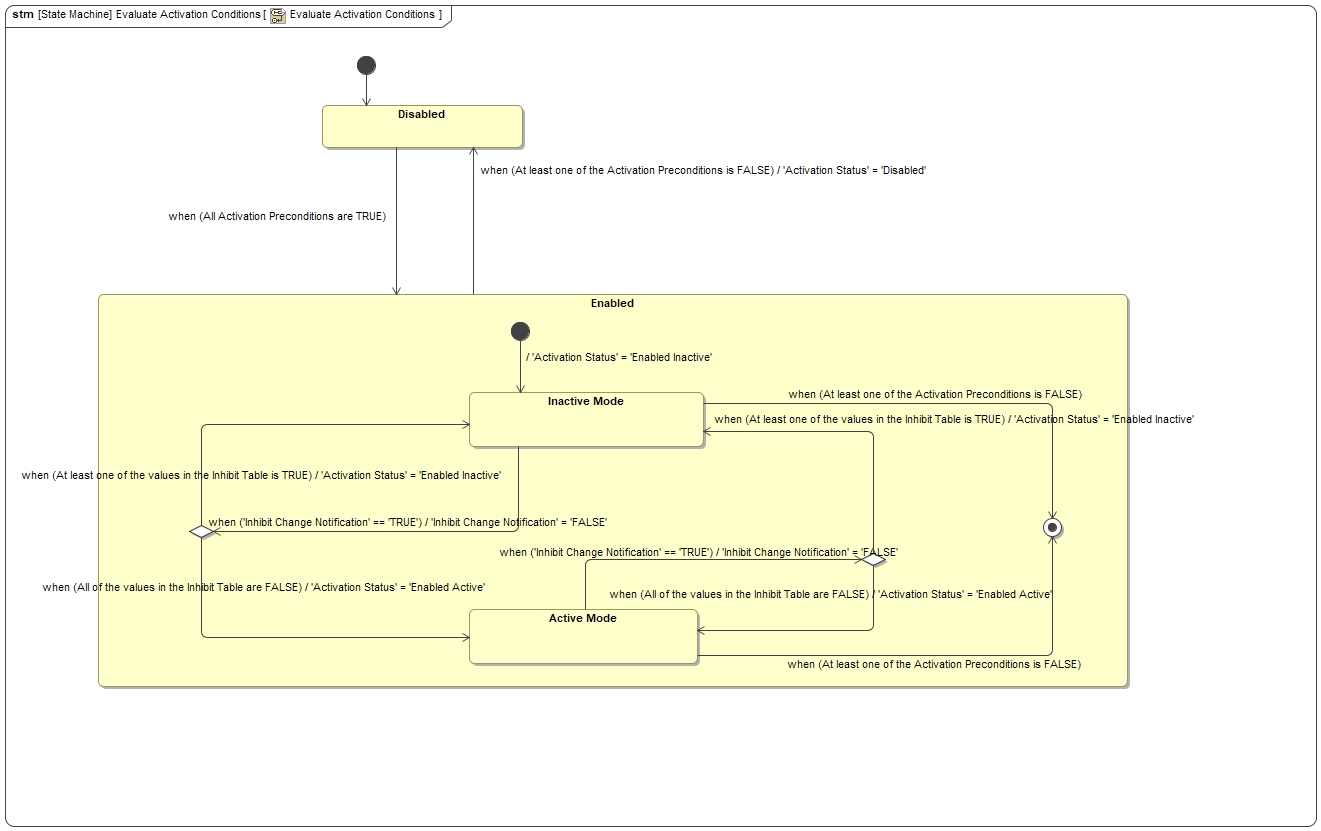
### Function Modeling

#### Use Cases

Not applicable

#### State Charts / Activity Diagrams / Sequence Diagrams / Decision Tables

No diagrams internal to function specified.



**Figure 31:** **Finite State Machine of Evaluate Activation Conditions**

### Function Requirements

#### Functional Requirements

##### Normal Operation

Evaluate Activation Conditions: Acknowledge Inhibit Change

When the Evaluate Activation Conditions function receives 'Inhibit Change' with the value of 'TRUE', the Evaluate Activation Conditions function shall set the value of 'Acknowledge Inhibit Change' to 'TRUE'.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Need to set Inhibit Change back to false. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Evaluate Activation Conditions: Clear Acknowledge Inhibit Change

When the Evaluate Activation Conditions function receives 'Inhibit Change' with the value of 'FALSE', the Evaluate Activation Conditions function shall set the value of 'Acknowledge Inhibit Change' to 'FALSE'.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Need to set Acknowledge Inhibit Change back to false. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Infotainment Controller: Acknowledge Inhibit Change Data Value

The Infotainment Controller shall allocate space for the 'Acknowledge Inhibit Change' data value.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Infotainment Controller needs to be able to clear the alert that inhibit status has changed. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Evaluate Activation Conditions: Auto Save Active Status Disabled due to Activation Preconditions

If any of the following Activation Preconditions are false, the Evaluate Activation Conditions function shall set 'Activation Status' to 'Disabled':

1. The vehicle has the Auto Save feature configured ON

2. The Vehicle Mode is Normal

3. The ignition status of the vehicle is Run, Start, or Accessory or the HMI status is Extended Play

4. A software update is not occurring on the vehicle

5. A technician has not placed the vehicle in diagnostics mode

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Need to define when Auto Save is disabled. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Evaluate Activation Conditions: Auto Save Active Status Enabled Active

When the Evaluate Activation Conditions function evaluates the Inhibit Table and no value is 'TRUE', the Evaluate Activation Conditions function shall set 'Activation Status' to 'Enabled Active'.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Need to determine when Auto Save is Enabled Active. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Evaluate Activation Conditions: Auto Save Active Status Enabled Inactive due to Inhibit Request

When the Evaluate Activation Conditions function evaluates the Inhibit Table and at least one value is 'TRUE', the Evaluate Activation Conditions function shall set 'Activation Status' to 'Enabled Inactive'.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Need to determine when Auto Save is Enabled Inactive. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Infotainment Controller: Evaluate Activation Conditions Function

The Infotainment Controller shall implement the Evaluate Activation Conditions function.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Infotainment Controller needs to execute the Evaluate Activation Conditions function to execute the Auto Save Feature. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Evaluate Activation Conditions: Evaluate Inhibit Table

If all Activation Preconditions are true and the Evaluate Activation Conditions function receives 'Inhibit Change' with the value of 'TRUE', the Evaluate Activation Conditions function shall evaluate the Inhibit Table.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Need to examine Inhibit Table. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Infotainment Controller: Activation Status Data Allocation

The Infotainment Controller shall allocate space for the 'Activation Status' data value.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Infotainment Controller needs to allocate space for the status of Auto Save. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [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

No Non-Functional Requirements specified.

#### Functional Safety Requirements

No Functional Safety Requirements specified.

##### ASIL Decomposition of Functional Safety Requirements

No Functional Safety Requirements with ASIL Decompositions specified.

#### Other Requirements

##### Design Requirements

No Design Requirements specified.

#### Uncategorized (HMI) Requirements

Profile Manager: Auto Save Turn Off

When 'Activation Status' is 'Enabled Active' and the user turns off Auto Save, then the Profile Manager shall set the value of 'PPPHMIInhibit\_D\_Rq' to 'Yes'.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Need to allow user to turn off Auto Save. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Profile Manager: Auto Save Settings Displayed when Enabled Active

When 'Activation Status' is 'Enabled Active', then the Profile Manager shall make the Auto Save On/Off settings visible and accessible by the user.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Need to allow Auto Save settings when Auto Save enabled active. Note that this should occur through the Profile Manager. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Profile Manager: Auto Save Turn Off Message

When the Profile Manager sets the value of 'PPPHMIInhibit\_D\_Rq' to 'Yes' and 'Activation Status' changes from 'Enabled Active' to 'Enabled Inactive', then the Profile Manager shall indicate to the user that Auto Save settings are now being protected.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Need to indicate that Auto Save is now off. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Profile Manager: Auto Save Turn On Message

When the Profile Manager sets the value of 'PPPHMIInhibit\_D\_Rq' to 'No' and 'Activation Status' changes from 'Enabled Inactive' to 'Enabled Active', then the Profile Manager shall indicate to the user that Auto Save is now assisting the user with retaining settings.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Need to indicate to the user that Auto Save is now on. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Profile Manager: Auto Save Settings Displayed when Enabled Inactive

When 'Activation Status' is 'Enabled Inactive', then the Profile Manager shall make the Auto Save On/Off settings visible and accessible by the user.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Do not need to lock out Auto Save settings when Auto Save enabled inactive. Note that this should occur through the Profile Manager. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Profile Manager: Auto Save Settings Not Displayed when Disabled

When 'Activation Status' is 'Disabled', then the Profile Manager shall hide the Auto Save On/Off settings in the active profile on the vehicle.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Need to hide Auto Save settings when Auto Save disabled. Note that this should occur through the Profile Manager. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Profile Manager: Auto Save Turn On

When 'Activation Status' is 'Enabled Inactive' and the user turns on Auto Save, then the Profile Manager shall set the value of 'PPPHMIInhibit\_D\_Rq' to 'No'.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Need to allow user to turn on Auto Save. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

## -1453874747.jpg U\_Func\_5130 Send Activation Signal

### Function Overview

#### Description

Function is allocated to:

* 1917595677.jpg Infotainment Controller <<Logical>>

SUBSYSTEM FUNCTION - This function sends a signal to all elements of the Auto Save feature that the feature is either activated or deactivated.

#### Variants

Not applicable

#### Input Requirements

Not applicable

#### Assumptions

Not applicable

#### References

##### Ford Documents

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

| **Reference** | **Title** | **Doc. ID** | **Document Location** | **Revision** |
| --- | --- | --- | --- | --- |
| VDOC080441 | Auto Save Feature Specification | VDOC080441 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=zNX5hzEYx3NrTDAAAAAAAAAAAAA&servername=Production_Server) | F |
| VDOC089611 | Auto Save Functional Specification | VDOC089611 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=zqsBkU6Cx3NrTDAAAAAAAAAAAAA&servername=Production_Server) | A |
| VDOC089612 | Auto Save Implementation Specification | VDOC089612 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=DDgBkU6Cx3NrTDAAAAAAAAAAAAA&servername=Production_Server) | A |
| VDOC075158 | PPP Feature Document | VDOC075158 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=iWYxEeXyx3NrTDAAAAAAAAAAAAA&servername=Production_Server) | B |
| VDOC085831 | PPP Functional Specifications | VDOC085831 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=h$b9Xjn8x3NrTDAAAAAAAAAAAAA&servername=Production_Server) | B |
| VDOC080627 | PPP Feature Implementation | VDOC080627 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=F0c5z4zQx3NrTDAAAAAAAAAAAAA&servername=Production_Server) | A |
| VDOC083702 | Classic Memory Feature Specification | VDOC083702 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=iaQ9AR4Cx3NrTDAAAAAAAAAAAAA&servername=Production_Server) | F |
| VDOC088610 | Classic Memory Functional Specification | VDOC088610 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=idlBBLxox3NrTDAAAAAAAAAAAAA&servername=Production_Server) | B |
| VDOC089667 | Classic Memory Implementation Spec | VDOC089667 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=SNhBkV85x3NrTDAAAAAAAAAAAAA&servername=Production_Server) | A |
| VDOC041625 | Enhanced Memory Feature Specification | VDOC041625 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=boRV6owSx3NrTDAAAAAAAAAAAAA&servername=Production_Server) | J |
| VDOC041626 | Enhance Memory Feature Implementation Guide (Feature Level) | VDOC041626 | [VSEM](https://www.vsemweb.ford.com/tc/launchapp?-attach=true&-s=226TCSession&-o=rkWV6owSx3NrTDAAAAAAAAAAAAA&servername=Production_Server) | H |

Table 25: Ford internal Documents *(not specified in model)*

##### External Documents and Publications

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

| **Reference** | **Document / Publication** |
| --- | --- |
|  |  |

Table 26: External documents and publications *(not specified in model)*

#### Glossary

See Appendix for Definitions and Abbreviations.

### Function Scope

The -1453874747.jpg **– “U\_Func\_5130 Send Activation Signal”** function is called by the following functions:

* 1321493006.jpg – “[S\_Func\_5100 Activate/Deactivate Automatic Saving Process](#_a2b24bb11f4f5e2c3f2fa74e5c6e0db1)”

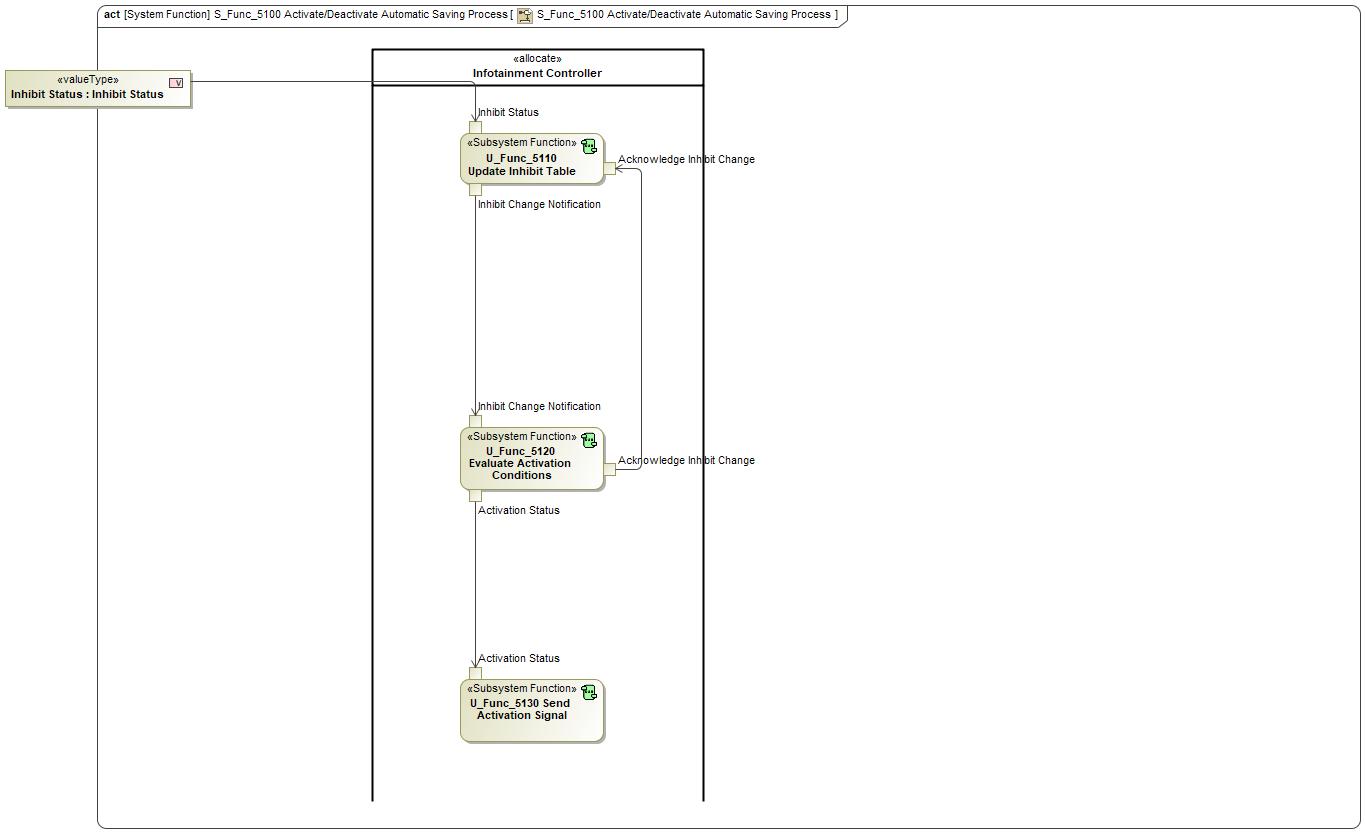


Figure 32: Activity Diagram of 1321493006.jpg “S\_Func\_5100 Activate/Deactivate Automatic Saving Process” calling -1453874747.jpg “U\_Func\_5130 Send Activation Signal”

### Function Interfaces

#### Logical Inputs

|  |  |
| --- | --- |
| **Signal Name** | **Description** |
| Activation Status  Type:  1491936886.jpg [Activation Status](#_b424eabf9a9d584546438c05fad5ad00) | Signal Description:  Indicates whether the feature should be active or inactive.  ASIL: QM  Encoding Type: Activation Status  Discrete Encoding Values:  0x0 Disabled  0x1 Enabled Inactive  0x2 Enabled Active  Unit: Enumeration  Received from:   * -1453874747.jpg [U\_Func\_5120 Evaluate Activation Conditions](#_103587e3e3c890004bbf68d061e65f6d) |

#### Logical Outputs

No Logical Outputs specified.

#### Logical Parameters

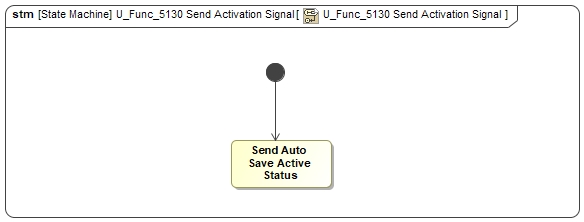
No Logical Parameters applicable for this function

### Function Modeling

#### Use Cases

Not applicable

#### State Charts / Activity Diagrams / Sequence Diagrams / Decision Tables



**Figure 33:** **Finite State Machine of Send Activation Signal**

### Function Requirements

#### Functional Requirements

##### Normal Operation

Infotainment Controller: Auto Save Active Status Broadcast

The Infotainment Controller shall make the 'Auto Save Active Status' data value available to other functions.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Infotainment Controller needs to broadcast the active status of Auto Save. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Send Activation Signal: Auto Save Active Status Set

The Send Activation Signal function shall set the value of 'Auto Save Active Status' to the value of 'Activation Status'.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Need to set Auto Save status. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Infotainment Controller: Auto Save Active Status Data Allocation

The Infotainment Controller shall allocate space for the 'Auto Save Active Status' data value, which is an enumeration comprised of the values 'Disabled', 'Enabled Inactive', and 'Enabled Active'.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Infotainment Controller needs to allocate space for the active status of Auto Save. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [Req. Template](http://wiki.ford.com/display/RequirementsEngineering/Requirements+Attributes) Version | | 6.0 | End of Requirement | | | | |

Infotainment Controller: Send Activation Signal Function

The Infotainment Controller shall implement the Send Activation Signal function.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Requirement ID: | | | | | | | |
| **Rationale** | Infotainment Controller needs to execute the Send Activation Signal function to execute the Auto Save Feature. | | | | | | |
| **Acceptance Criteria** |  | | | | | | |
| **Notes** |  | | | | | | |
| **Source** |  | | | | | **Owner** | Patrick Brown (pbrow243) |
| **Source Req.** |  | | | | | **V&V Method** |  |
| **Type** |  | | | **Priority** | 1 - High | **Status** |  |
| [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

No Non-Functional Requirements specified.

#### Functional Safety Requirements

No Functional Safety Requirements specified.

##### ASIL Decomposition of Functional Safety Requirements

No Functional Safety Requirements with ASIL Decompositions specified.

#### Other Requirements

##### Design Requirements

No Design Requirements specified.

# Open Concerns

**#Hint:** The following list presents open concerns, which have to be discussed or clarified over the course of the on-going requirements engineering.

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

Table 27: Open Concerns *(Not supported by MagicDraw report generation.)*

# Revision History

**#Hint:** A new version number is assigned to a document with a given revision each time it is checked in to Team Center (TCSE). After release of a revision, the document cannot be edited and no new versions can be created on that revision. When updating the document after that, a new revision has to be created and new versions on that revision will be created upon checking in.

|  |  |  |
| --- | --- | --- |
| Rev | Date Released | Release Notes |
| A | 2021/03/08 | Initial release; supplants older Auto Save Decide Functional Spec VDOC081329 after modeling effort |

## Template Revisions

*#Important: Do not change this section*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Version | Rev. | Date | Description | Responsible |
| *1* | *0* | *2016-02-26* | *Initial version, derived from FDS* | *Jbaden1* |
| *1* | *1* | *2016-02-26* | *Word properties corrected* | *Jbaden1* |
| *1* | *2* | *2016-03-10* | *Clean up of document meta data (Word properties)* | *Jbaden1* |
| *1* | *3* | *2016-03-22* | * *Footer formatting corrected (Issue 19)* * *“Constraints” chapter renamed to “Input Requirements” (Issue 20)* | *Jbaden1* |
| *1* | *4* | *2016-04-20* | * *Broken Wiki links repaired* | *Jbaden1* |
| *2* | *0* | *2016-06-10* | * *Document metadata adapted. Prepared for new macros* * *DTC table removed* * *HMI function added as a chapter (details still to be refined)* * *Signal / Parameter IDs column deleted interface tables* | *Jbaden1* |
| *2* | *1* | *2016-07-14* | * *Converted to SysML diagrams* * *HMI section further elaborated* * *Template version added to footer* * *Dedicated Startup / Shutdown sections removed (only hints added)* * *Data Dictionary reworked and Signal / Parameter IDs column re-introduced* | *Jbaden1* |
| *2* | *2* | *2016-12-07* | * *Minor formatting changes* | *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* | * *Some additional hints.* * *Hyperlinks highlighted in hints* | *Jbaden1* |
| *6* | *0* | *2017-04-28* | * *Editorial change. Hints added to chapter 4.1.4* * *Chapter “Traceability Matrix” removed* | *Jbaden1* |
| *6* | *0* | *2018-04-28* | * *CR69/63: New chapters added for Functional Safety (FTTI and Technical Safety Requirements)* * *CR53: New coversheet + additional meta-data* * *CR76: merge sections for configuration and for calibration parameters into one on Function Level* | *Jbaden1* |
| *6* | *0* | *2018-08-06* | * *CR66: Fix version numbering in footer of Function Spec* | *Jbaden1* |
| *6* | *0* | *2018-09-28* | * *Broken links to RE Wiki repaired* | *Jbaden1* |
| *6* | *0* | *2018-10-31* | * *Minor corrections on cover sheet and in footer to be more GIS compliant and VSEM aligned* * *“Overview” and “Description” exchanged in headings (following common sense)* | *Jbaden1* |
| *6* | *0* | *2018-11-12* | * *Explanatory text in Variants” section revised* * *Functional Safety modifications as agreed with FuSa core team (Baseline: November 2018 Dearborn On-Site)* | *Jbaden1* |
| *M* |  | *2019-04-02* | * *Initial version of SysML report template* | *snuesch* |
| *M* |  | *2019-04-05* | * *Improved dialog boxes to select function group* | *snuesch* |
| *M* |  | *2019-04-26* | * *Improved function interfaces (support of additional elements (e.g., send signal action, add structural feature action, merge node, decision node, activity parameter nodes, etc.) and pins)* | *snuesch* |
| *N* |  | *2019-08-19* | * *For each function now also requirements satisfied by activity parameter nodes and function outputs are populated.* | *snuesch* |
| *N* |  | *2019-08-21* | * *Improved glossary and acronym tables* | *snuesch* |
| *N* |  | *2019-09-20* | * *Updated Function Interfaces tables with better wording. Added a report template variable that allows to disable senders and receivers. Sorted requirements by ID.* | *snuesch* |
| *N* |  | *2019-09-27* | * *Green hints now only show up for first function.* * *labelTag variable can be used to filter revision history.* | *snuesch* |

# Appendix

## Data Dictionary

### Logical Signals

**#Macro:** [Add Ins -> Add Requirement macro](http://wiki.ford.com/display/RequirementsEngineering/Adding+a+Logical+Signal+or+Parameter) (select “Logical Signal” as type)

Acknowledge Inhibit Change

Indicates that the examination of the active status of the feature has occurred.

|  |  |  |
| --- | --- | --- |
| **ASIL** | | QM |
| **Encoding Type Name** | | Boolean |
| **Value**  (Discrete  Encoding) |  | 0x0 FALSE  0x1 TRUE |
| **Unit** | | Boolean |

Activation Status

Indicates whether the feature should be active or inactive.

|  |  |  |
| --- | --- | --- |
| **ASIL** | | QM |
| **Encoding Type Name** | | Activation Status |
| **Value**  (Discrete  Encoding) |  | 0x0 Disabled  0x1 Enabled Inactive  0x2 Enabled Active |
| **Unit** | | Enumeration |

Adjustment Classification

This signal contains the consolidated classification of a sub-domain of axes.

|  |  |  |
| --- | --- | --- |
| **ASIL** | | QM |
| **Encoding Type Name** | | Adjustment Classification |
| **Value**  (Discrete  Encoding) |  | 0x0 None  0x1 In Progress  0x2 Major  0x3 Minor |
| **Unit** | | Enumeration |

Adjustment Classification Acknowledge

Indicates that the update to the Classified Adjustments Repository has been acknowledged by the Evaluate Classified Adjustments function.

|  |  |  |
| --- | --- | --- |
| **ASIL** | | QM |
| **Encoding Type Name** | | Boolean |
| **Value**  (Discrete  Encoding) |  | 0x0 FALSE  0x1 TRUE |
| **Unit** | | Boolean |

Adjustment Classification Alert

Indicates that an update has occurred in the Classified Adjustments Repository and the Auto Save feature should evaluate it.

|  |  |  |
| --- | --- | --- |
| **ASIL** | | QM |
| **Encoding Type Name** | | Boolean |
| **Value**  (Discrete  Encoding) |  | 0x0 FALSE  0x1 TRUE |
| **Unit** | | Boolean |

Adjustment Notification

This signal contains the classification of the whole Auto Save Domain.

|  |  |  |
| --- | --- | --- |
| **ASIL** | | QM |
| **Encoding Type Name** | | Adjustment Classification |
| **Value**  (Discrete  Encoding) |  | 0x0 None  0x1 In Progress  0x2 Major  0x3 Minor |
| **Unit** | | Enumeration |

Adjustment Notification Acknowledge

Indicates that the update to the Classified Adjustments Repository has been acknowledged by the Evaluate Saving Strategy function.

|  |  |  |
| --- | --- | --- |
| **ASIL** | | QM |
| **Encoding Type Name** | | Boolean |
| **Value**  (Discrete  Encoding) |  | 0x0 FALSE  0x1 TRUE |
| **Unit** | | Boolean |

AutoSaveRet\_B\_Rq

Indicates that Auto Save is requesting the retention of positional settings and the Profile Update Manager of Positional Settings should retain the current positional settings.

Note: Based on discussions with NetCom, this signal will likely need to be assigned values of "No" and "Yes" instead of the preferred "FALSE" and "TRUE".

|  |  |  |
| --- | --- | --- |
| **ASIL** | | QM |
| **Encoding Type Name** | | Boolean |
| **Value**  (Discrete  Encoding) |  | 0x0 No  0x1 Yes |
| **Unit** | | Boolean |

Clear Adjustment Information Complete

This signal indicates when the clearing of the adjustment information is complete. It is true when the process is complete, false otherwise.

|  |  |  |
| --- | --- | --- |
| **ASIL** | | QM |
| **Encoding Type Name** | | Boolean |
| **Value**  (Discrete  Encoding) |  | 0x0 FALSE  0x1 TRUE |
| **Unit** | | Boolean |

Clear Repository

This signal indicates whether the Auto Save Decide Function should clear the information that has been retained in the Classified Adjustments Repository.

|  |  |  |
| --- | --- | --- |
| **ASIL** | | QM |
| **Encoding Type Name** | | Boolean |
| **Value**  (Discrete  Encoding) |  | 0x0 FALSE  0x1 TRUE |
| **Unit** | | Boolean |

Exit Without Saving

This signal indicates that the Auto Save feature has determined that it should stop operation for this key cycle without saving the adjustments.

Note: Based on discussions with NetCom, this signal will likely need to be assigned values of "No" and "Yes" instead of the preferred "FALSE" and "TRUE".

|  |  |  |
| --- | --- | --- |
| **ASIL** | | QM |
| **Encoding Type Name** | | Boolean |
| **Value**  (Discrete  Encoding) |  | 0x0 No  0x1 Yes |
| **Unit** | | Boolean |

Feedback Activation

This signal indicates that the Auto Save feature has determined that it should request the activation of feedback. This is an internal signal, not found on the network.

|  |  |  |
| --- | --- | --- |
| **ASIL** | | QM |
| **Encoding Type Name** | | Boolean |
| **Value**  (Discrete  Encoding) |  | 0x0 FALSE  0x1 TRUE |
| **Unit** | | Boolean |

Feedback Information

Infotainment HMI will send this signal to the Auto Save feature to indicate the user's response to the prompt.

|  |  |  |
| --- | --- | --- |
| **ASIL** | | QM |
| **Encoding Type Name** | | Feedback Information |
| **Value**  (Discrete  Encoding) |  | 0x0 = None  0x1 = No Save  0x2 = Save  0x3 = Change Profile  0x4 = Blocked  0x5 = Timeout  0x6 = Not Used  0x7 = Not Used |
| **Unit** | | Enumeration |

Feedback Request Active

Indicates that the Auto Save feature feedback from the user. The Host Vehicle HMI needs to open up a prompt to request feedback from the user regarding the positional settings that were adjusted.

|  |  |  |
| --- | --- | --- |
| **ASIL** | | QM |
| **Encoding Type Name** | | Request Feedback |
| **Value**  (Discrete  Encoding) |  | 0x0 No  0x1 Yes |
| **Unit** | | Boolean |

Inhibit Change Notification

Indicates that a signal has arrived that may affect the active status of the feature.

|  |  |  |
| --- | --- | --- |
| **ASIL** | | QM |
| **Encoding Type Name** | | Boolean |
| **Value**  (Discrete  Encoding) |  | 0x0 FALSE  0x1 TRUE |
| **Unit** | | Boolean |

Inhibit Status

Indicates that a Profile Inhibitor Manager has changed the inhibition status and Auto Save should respond by activating or deactivating the feature.

|  |  |  |
| --- | --- | --- |
| **ASIL** | | QM |
| **Value**  (Continuous Encoding) | Min Value | 0 |
| Max Value | 1023 |
| Resolution | 1 |
| Offset | 0 |
| **Unit** | | Integer |

Manual Save

Indicates that the user has manually saved the current position settings and Auto Save should respond by returning to idle.

This signal is the same as the existing Memory\_Cmd signal.

|  |  |  |
| --- | --- | --- |
| **ASIL** | | QM |
| **Encoding Type Name** | | Memory\_Cmd |
| **Value**  (Discrete  Encoding) |  | 0x0 Null  0x1 Store\_1  0x2 Store\_2  0x3 Store\_3  0x4 Store\_4  0x5 Recall\_1  0x6 Recall\_2  0x7 Recall\_3  0x8 Recall\_4 |
| **Unit** | | Enumeration |

Notification Change

Indicates that a change of profile has occurred and Auto Save should respond by returning to an idle state.

This signal is the same as the existing Memory\_Cmd signal.

|  |  |  |
| --- | --- | --- |
| **ASIL** | | QM |
| **Encoding Type Name** | | Memory\_Cmd |
| **Value**  (Discrete  Encoding) |  | 0x0 Null  0x1 Store\_1  0x2 Store\_2  0x3 Store\_3  0x4 Store\_4  0x5 Recall\_1  0x6 Recall\_2  0x7 Recall\_3  0x8 Recall\_4 |
| **Unit** | | Enumeration |

Profile Change

Indicates that a change of profile has occurred and Auto Save should respond by returning to an idle state.

This signal is the same as the existing Memory\_Cmd signal.

|  |  |  |
| --- | --- | --- |
| **ASIL** | | QM |
| **Encoding Type Name** | | Memory\_Cmd |
| **Value**  (Discrete  Encoding) |  | 0x0 Null  0x1 Store\_1  0x2 Store\_2  0x3 Store\_3  0x4 Store\_4  0x5 Recall\_1  0x6 Recall\_2  0x7 Recall\_3  0x8 Recall\_4 |
| **Unit** | | Enumeration |

Repository Clear Complete

This signal indicates when the clearing of the information that has been retained in the Classified Adjustments Repository is complete. It is true when the process is complete, false otherwise.

|  |  |  |
| --- | --- | --- |
| **ASIL** | | QM |
| **Encoding Type Name** | | Boolean |
| **Value**  (Discrete  Encoding) |  | 0x0 FALSE  0x1 TRUE |
| **Unit** | | Boolean |

Request Feedback

Indicates the type of feedback the Auto Save feature wants from the user. The Host Vehicle HMI needs to open up a prompt to request feedback from the user regarding the positional settings that were adjusted.

|  |  |  |
| --- | --- | --- |
| **ASIL** | | QM |
| **Encoding Type Name** | | Request Feedback |
| **Value**  (Discrete  Encoding) |  | 0x0 Seat  0x1 Mirrors  0x2 Pedals  0x3 Steering Wheel  0x4 HUD  0x5 Multiple  0x6 Save Confirm  0x7 Ignore Confirm |
| **Unit** | | Enumeration |

Request Profile Change

This signal indicates that the Auto Save feature has determined that a profile change should occur. It is different from the signal sent to the profile manager.

|  |  |  |
| --- | --- | --- |
| **ASIL** | | QM |
| **Encoding Type Name** | | Boolean |
| **Value**  (Discrete  Encoding) |  | 0x0 FALSE  0x1 TRUE |
| **Unit** | | Boolean |

Request Profile Change

Indicates that the Auto Save feature wants the Profile Manager to open a change profile screen so that the user can change profile.

Note: Based on discussions with NetCom, this signal will likely need to be assigned values of "No" and "Yes".

|  |  |  |
| --- | --- | --- |
| **ASIL** | | QM |
| **Encoding Type Name** | | Request Profile Change |
| **Value**  (Discrete  Encoding) |  | 0x0 No  0x1 Yes |
| **Unit** | | Enumeration |

Request Save

This signal indicates that the Auto Save feature has determined that the retention of positional settings should occur. It is different from the signal sent to the Profile Update Manager of Positional Settings.

|  |  |  |
| --- | --- | --- |
| **ASIL** | | QM |
| **Encoding Type Name** | | Boolean |
| **Value**  (Discrete  Encoding) |  | 0x0 FALSE  0x1 TRUE |
| **Unit** | | Boolean |

Request to Clear

Indicates that a successful save of positional settings has occurred and Auto Save should respond by clearing any saved adjustment information.

This signal is the same as the existing Memory\_Cmd signal.

|  |  |  |
| --- | --- | --- |
| **ASIL** | | QM |
| **Encoding Type Name** | | Memory\_Cmd |
| **Value**  (Discrete  Encoding) |  | 0x0 Null  0x1 Store\_1  0x2 Store\_2  0x3 Store\_3  0x4 Store\_4  0x5 Recall\_1  0x6 Recall\_2  0x7 Recall\_3  0x8 Recall\_4 |
| **Unit** | | Enumeration |

Retain Settings

This signal indicates that the Auto Save feature has determined what retention action should occur. It is different from the signal sent to the Profile Update Manager of Positional Settings.

|  |  |  |
| --- | --- | --- |
| **ASIL** | | QM |
| **Encoding Type Name** | | Retain Settings |
| **Value**  (Discrete  Encoding) |  | 0x0 None  0x1 Save  0x2 Feedback  0x3 Exit |
| **Unit** | | Enumeration |

Retention Action State

The Retention Action State signal indicates the current state of the Analyze Retention Action function. It is used to inform the Evaluate Saving Strategy function of how the Analyze Retention Action Function is responding to the requested retention strategy.

|  |  |  |
| --- | --- | --- |
| **ASIL** | | QM |
| **Encoding Type Name** | | Retention Action Status |
| **Value**  (Discrete  Encoding) |  | 0x0 Off  0x1 Idle  0x2 Prompt Wait  0x3 Timeout Prompt  0x4 Trap  0x5 Not Used  0x6 Not Used  0x7 Not Used |
| **Unit** | | Enumeration |

### Logical Parameters

**#Macro:** [Add Ins -> Add Requirement macro](http://wiki.ford.com/display/RequirementsEngineering/Adding+a+Logical+Signal+or+Parameter) (select “Logical Parameter” as type)

###LPR\_Auto Save\_00001### Adjustment Time Constant

Configurable parameter that indicates how long the Auto Save function will wait for adjustments.

|  |  |  |
| --- | --- | --- |
| **Encoding Type Name** | | Integer (6-bit Unsigned) |
| **Value**  (Continuous Encoding) | Min Value | 0 |
| Max Value | 63 |
| Resolution | 1 |
| Offset | 0 |
| **Unit** | | Seconds |

###LPR\_Auto Save\_00002### Prompt Time Constant

Configurable parameter that indicates how long it will take for a prompt to time out.

|  |  |  |
| --- | --- | --- |
| **Encoding Type Name** | | Integer (6-bit Unsigned) |
| **Value**  (Continuous Encoding) | Min Value | 0 |
| Max Value | 63 |
| Resolution | 1 |
| Offset | 0 |
| **Unit** | | Seconds |

###LPR\_Auto Save\_00003### Save Time Constant

Configurable parameter that indicates how long the Auto Save function will show a message indicating that the save was successful.

|  |  |  |
| --- | --- | --- |
| **Encoding Type Name** | | Integer (6-bit Unsigned) |
| **Value**  (Continuous Encoding) | Min Value | 0 |
| Max Value | 63 |
| Resolution | 1 |
| Offset | 0 |
| **Unit** | | Seconds |

###LPR\_Auto Save\_00004### Ignore Time Constant

Configurable parameter that indicates how long the Auto Save function will show a message indicating that the user’s adjustments will not be saved.

|  |  |  |
| --- | --- | --- |
| **Encoding Type Name** | | Integer (6-bit Unsigned) |
| **Value**  (Continuous Encoding) | Min Value | 0 |
| Max Value | 63 |
| Resolution | 1 |
| Offset | 0 |
| **Unit** | | Seconds |

###LPR\_Auto Save\_00005### Save Wait Time Constant

Configurable parameter that indicates how long the Auto Save function will wait to show a message indicating that the save was successful.

|  |  |  |
| --- | --- | --- |
| **Encoding Type Name** | | Integer (6-bit Unsigned) |
| **Value**  (Continuous Encoding) | Min Value | 0 |
| Max Value | 63 |
| Resolution | 1 |
| Offset | 0 |
| **Unit** | | Seconds |

### Encoding Types

**#Macro:** [Add Ins -> Add Requirement macro](http://wiki.ford.com/display/RequirementsEngineering/Adding+an+Encoding+Type) (select “Encoding Type” as type)

## Glossary

**#Hint**: Terms, concepts and abbreviations used in the document shall be defined and illustrated here. Note that changes to terms and/or concepts described in this section tend to cause major updates to this document.

The tables below have feature specific definitions and abbreviations. For additional, non-feature specific terms please refer to the [RE Glossary](http://wiki.ford.com/display/RequirementsEngineering/Glossary?src=contextnavpagetreemode)

### Definitions

**#Hint:** The table below has definitions and abbreviations relevant for the functions in this document. For additional terms please refer to the [RE Glossary](http://wiki.ford.com/display/RequirementsEngineering/Glossary?src=contextnavpagetreemode)

| **Definition** | **Description** |
| --- | --- |
| Action State | An Action State refers to one of the states of the Auto Save algorithm. |
| Activation Preconditions | The preconditions for Auto Save activation are (Feature\_Precondition\_Status):  1. The vehicle has the Auto Save feature configured ON  2. The Vehicle Mode is Normal  3. The ignition status of the vehicle is Run, Start, or Accessory or the HMI status is Extended Play  4. A software update is not occurring on the vehicle  5. A technician has not placed the vehicle in diagnostics mode |
| Adjustment Repository | An Adjustment Repository is a storage area for adjustment classifications within each Auto Save Subdomain. The Adjustment Repository consists of a table that includes each axis in the subdomain, indexed by 'Axis ID', and the classification of the adjustment for that axis. |
| Adjustment Time Constant | Configurable parameter that indicates how long the Auto Save algorithm will wait for a position adjustment when in a gear other than reverse.  Currently defined as 10 seconds. |
| Classified Adjustments Repository | The Classified Adjustments Repository is a special Adjustment Repository on the Infotainment Controller. It keeps track of the combined adjustments from every Auto Save Domain. It supplies the Auto Save algorithm with the current state of adjustments. |
| Conditions for Clearing | The Auto Save feature will clear information from its repositories when any of the following conditions are TRUE:  1. The value of 'Auto Save Active Status' transitions from 'Enabled Active' to 'Enabled Inactive' or 'Disabled'  2. The Profile Update Manager of Positional Settings sets the value of 'Clear Request' to 'Store\_1', 'Store\_2', 'Store\_3', or 'Store\_4'  3. The Profile Manager changes the value of 'Notification Change' to 'Recall\_1', 'Recall\_2', 'Recall\_3', or 'Recall\_4'  4. The value of 'Exit Without Saving' is 'Yes' |
| Disabled | One of the states of Auto Save Active Status. Indicates that the feature is not in operation on the vehicle. Auto Save settings will not be visible to the user when in this state. |
| Easy Entry Easy Exit | The Easy Entry Easy Exit system modifies the position of the seat and steering wheel to enable easy ingress to and egress from the vehicle |
| Enabled Active | One of the states of Auto Save Active Status. Indicates that the feature is in full operation on the vehicle. Auto Save settings are visible to the user when in this state. |
| Enabled Inactive | One of the states of Auto Save Active Status. Indicates that the feature is in operation on the vehicle, but is temporarily off due to inhibition. Auto Save settings will be visible to the user when in this state. |
| FTTI | Fault Tolerance Time Interval |
| HMI | Human Machine Interface |
| HUD | Head-Up Display |
| HUD Adjustment Repository | An Adjustment Repository for holding adjustments in the HUD Sub-Domain. |
| HUD Repository Controller | The HUD Repository Controller is the abstraction that controls the HUD Adjustment Repository.  Owner: Farhan Sethi |
| HUD System | The HUD System is the abstraction that encompasses the system and features that are responsible for executing the Automatic Saving functionality relating to the HUD.  Owner: Farhan Sethi |
| Idle | The Idle action state is a special waiting state where the Auto Save feature waits for a position adjustment to occur. One a position adjustment occurs, the Auto Save algorithm will determine what to do to respond. |
| Ignore Time Constant | Configurable parameter that indicates how long Auto Save will inform the user that their changes will not be retained. |
| Infotainment Controller | The Infotainment Controller is the entity responsible for executing the Decide Functional Group of the Auto Save feature. It receives consolidated adjustments from each Auto Save Sub-Domain and decides what retention action to take. It is assumed that the Infotainment Controller will be allocated to the ECG. |
| Infotainment HMI System | The Vehicle HMI System is responsible for interacting with the user. It requests input from the user and provides the user’s response to the Auto Save Decide System. |
| Infotainment System | The Infotainment System is the abstraction that encompasses the system and features that are responsible for executing the Automatic Saving functionality relating to driver information, as well as the bulk of the Auto Save algorithm.  Owner: Unknown |
| Inhibit Request | There are active inhibit requests (Inhibit\_Request) when one or more of the following conditions are true:  1. The Profile Positional Settings Manager (Enhanced Memory) disables the Auto Save Feature in the profile on the vehicle  2. An Easy Entry Easy Exit event is active on the vehicle  3. The profile active on the vehicle is not a user profile  4. A profile resume event is occurring on the vehicle |
| Inhibit Table | The Inhibit Table keeps track of the status of every Inhibit Request. When an Inhibit Request occurs, the Inhibit Table is updated. |
| Left Side Mirror Adjustment Repository | A version of the Side Mirror Adjustment Repository for holding adjustments in the Left Side Mirror Sub-Domain. |
| Multicontour Adjustment Repository | An Adjustment Repository for holding adjustments in the Multicontour Sub-Domain. |
| Pedal Adjustment Repository | An Adjustment Repository for holding adjustments in the Pedal Sub-Domain. |
| Pedal Repository Controller | The Pedal Repository Controller is the abstraction that controls the Pedal Adjustment Repository.  Owner: Jonathan Iaquinto |
| Pedal System | The Pedal System is the abstraction that encompasses the system and features that are responsible for executing the Automatic Saving functionality relating to the pedals.  Owner: Jonathan Iaquinto |
| Profile | The profile represents the set of customizable preferences that gets applied by a vehicle preferences owner using one of the applicable features. |
| Profile Manager | Profile Manager manages the status of the profile intended to be used on a host vehicle by one of the applicable features. It is planned to be fulfilled by Enhanced Memory. |
| Prompt Time Constant | Configurable parameter that indicates how long it will take for a prompt to time out.  Currently defined as 30 seconds. |
| Repository Controller | A repository controller is an ECU that holds and manages an adjustment repository for a particular sub-domain. |
| Right Side Mirror Adjustment Repository | A version of the Side Mirror Adjustment Repository for holding adjustments in the Right Side Mirror Sub-Domain. |
| Save Time Constant | Configurable parameter that indicates how long Auto Save will show the user that adjustments have been saved. |
| Save Wait Time Constant | Configurable parameter that indicates how long Auto Save will wait for confirmation that the adjustments have been saved. |
| Seat Adjustment Repository | An Adjustment Repository for holding adjustments in the Seat Sub-Domain. |
| Seat Repository Controller | The Seat Repository Controller is the abstraction that controls the Seat Adjustment Repository or Multicontour Adjustment Repository, depending on configuration.  Owner: Jonathan Iaquinto |
| Seat System | The Seat System is the abstraction that encompasses the system and features that are responsible for executing the Automatic Saving functionality relating to a seat, whether it is a driver seat, passenger seat, or other seat.  Owner: Jonathan Iaquinto |
| Side Mirror Adjustment Repository | An Adjustment Repository for holding adjustments in the Side Mirror Sub-Domain. |
| Side Mirror Repository Controller | The Side Mirror Repository Controller is the abstraction that controls the Left Side Mirror Adjustment Repository or Right Side Mirror Adjustment Repository, depending on configuration.  Owner: Newton Filho, Ibaa Al-Hayek |
| Side Mirror System | The Side Mirror System is the abstraction that encompasses the system and features that are responsible for executing the Automatic Saving functionality relating to a mirror, whether it is a driver or passenger mirror.  Owner: Newton Filho, Ibaa Al-Hayek |
| Steering Wheel Adjustment Repository | An Adjustment Repository for holding adjustments in the Steering Wheel Sub-Domain. |
| Steering Wheel Repository Controller | The Steering Wheel Repository Controller is the abstraction that controls the Steering Wheel Adjustment Repository.  Owner: Jonathan Iaquinto |
| Steering Wheel System | The Steering Wheel System is the abstraction that encompasses the system and features that are responsible for executing the Automatic Saving functionality relating to the steering column.  Owner: Jonathan Iaquinto |
| Trap State | The Trap State is a state of the Auto Save Decide Function in which Auto Save has suspended retention actions for the rest of this key cycle. |
| User Profile | The User Profile is a type of Profile that is active when an authenticated user is in the vehicle. |
| Vehicle Body System | The Vehicle Body System is the abstraction that encompasses the system and features that are responsible for executing the Automatic Saving functionality relating to cabin comfort.  Owner: Unknown |
| Vehicle Mode | Vehicle Mode refers to the current operating mode of the vehicle. This mode can be Normal, Factory, or Transport. |
| Vehicle Status System | The Vehicle Status System provides the current status of the vehicle in terms of the vehicle mode, ignition status, and system time. |
| Vehicle System | The vehicle is the abstraction that encompasses the system and features that are responsible for executing the Automatic Saving functionality.  Owner: Unknown |

Table 28: Definitions used in this document

### Abbreviations

No acronyms specified.

Document ends here.