Research & Vehicle Technology
"Infotainment Systems Product Development"

Feature – Lifetime Summary Reset Control

Infotainment Subsystem Part Specific Specification (SPSS)

Version 1.0

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Version Date: May 18, 2020

FORD CONFIDENTIAL

Revision History

Date	Version	Notes	
May 18, 2020	1.0	Initial Release	

Table of Contents

1 Architectural Design

1.1 LTSR-CLD-REQ-387834/A-LSRC Server

The Lifetime Summary Reset Control(LSRC) Server is responsible for the tasks listed below

- Receive command from the LSRC Client to reset the vehicle driving history data.

1.2 LTSR-CLD-REQ-387835/A-LSRC Client

The Lifetime Summary Reset Control(LSRC) Client is responsible for the tasks listed below:

- Request LSRC Server to reset the vehicle driving history data and update the user display accordingly.
- Support Diagnostics configuration to configure different vehicle powertrain configuration.

1.3 Physical Mapping of Classes

The table below shows an example of how the logical classes that make up the Evasive Steering Assist Control feature may be mapped into physical modules. This mapping example is specific to the FNV2.5 architecture and does not necessarily carryover to other carlines or vehicle architectures.

Logical Class	Physical Module (ECU)
LSRC Server	HPCM
LSRC Client	SYNC 4.2 CCPU

1.4 Logical Signal Mapping

The CAN signals mentioned throughout this document shall refer to the CAN signal's logical name. The logical names shall be mapped to their actual CAN signal names. Please use the table below to perform the mapping. The InfoCAN database file is the master file for the actual CAN signal names.

Logical Name	CAN Signal Name
Vehicle_Ignition_St	Ignition_Status
Drive_History_Reset_Rq	LongTermReset_B_Rq

Table: Logical name/CAN signal mapping

1.5 LTSR-IIR-REQ-387836/A-Lifetime Summary Reset Control Client_Rx

1.5.1 MD-REQ-386520/A-Vehicle_Ignition_St

Message Type: Status

This signal is used to indicate the processed value for current Ignition state.

Name	Literals	Value	Description
Type	-	-	Current Vehicle Ignition Status
	Unknown	0x0	
	Off	0x1	
	Accessory	0x2	
	Run	0x4	
	Start	0x8	
	Invalid	0xF	

1.6 LTSR-IIR-REQ-387839/A-Lifetime Summary Reset Control Client_Tx

1.6.1 MD-REQ-387840/A-Drive_History_Reset_Rq

Message Type: Request

The signal is used to request the server to reset the vehicle history data.

Name	Literals	Value	Description
Type	-	-	Request to reset the vehicle history
	OFF	0x0	No request
	ON	0x1	Request to reset

2 General Requirements

2.1 LTSR-REQ-387828/A-Feature_Configuration

The LSRC Client shall support to have a configurable DID to allow the user to configure the vehicle powertrain.

Power Train type	Value
BEV	0x1
HEV	0x2
PHEV	0x3

Refer to the Infotainment Diagnostic Specification for the details of DID.

2.2 LTSR-REQ-387829/A-Feature_Availability

The LSRC Client shall allow the user to reset the vehicle history data through user display only when

- Vehicle Ignition status is RUN (or)
- Vehicle Ignition status is Start.

2.3 LTSR-REQ-387830/A-LSRC_Client_Wait Time for_Response

The LSRC Client shall wait for the LSRC Server module to respond for any of the request placed by it. The wait time on the LSRC Client shall follow applicable Ford design standards and best practices (ex. 5 sec). In case no response from the LSRC Server module the LSRC client shall remain in the last known state.

2.4 LTSR-REQ-387831/A-LSRC_Client_HMI_content_references

The references to HMI screen layouts and other related HMI content are for reference only and not intended to depict the actual text, graphical, or layout content. Refer to the released HMI specifications for further detail on this type of content.

2.5 LTSR-REQ-387832/A-LSRC_Client_system Accuracy

Within 100ms of receiving the data result or signal state change from the vehicle network, the LSRC Client shall be able to update the display with appropriate status or graphics.

3 Functional Definition

3.1 LTSR-FUN-REQ-387841/A-LifeTime Summary Reset Control Operation

3.1.1 Requirements

3.1.1.1 LTSR-REQ-387824/A-LSRC Client Initialization

The LSRC Client shall set the below signal to default state

- Drive_History_Reset_Rq == OFF (0x0).

3.1.1.2 LTSR-REQ-387825/A-Vehicle History Reset user Selection

The LSRC Client shall support to allow the user to reset the vehicle history data only the vehicle power train is configured in the Diagnostics as

1. BEV or
2. PHEV.

When the user selects to reset the vehicle history,

1. The LSRC Client shall set the signal 'Drive_History_Reset_Rq=ON (0x1)' signal to request the LSRC Server to reset the vehicle history. The State of the Signal shall remain 'ON' for a minimum of 2 sec.
2. Once set, the LSRC Client shall set the 'Drive_History_Reset_Rq' signal back to 'OFF'.

3.1.2 Use Cases

3.1.2.1 LTSR-UC-REQ-387842/A-Vehicle History data reset by User

Actors	LSRC User
Pre-conditions	1. Vehicle Power Train is configured as BEV or PHEV. 2. Vehicle Ignition status is RUN or Start.
Scenario Description	1. User resets the vehicle history from the user display menu.
Post-conditions	1. Vehicle History data is cleared.
List of Exception Use Cases	
Interfaces	LSRC Server, LSRC Client

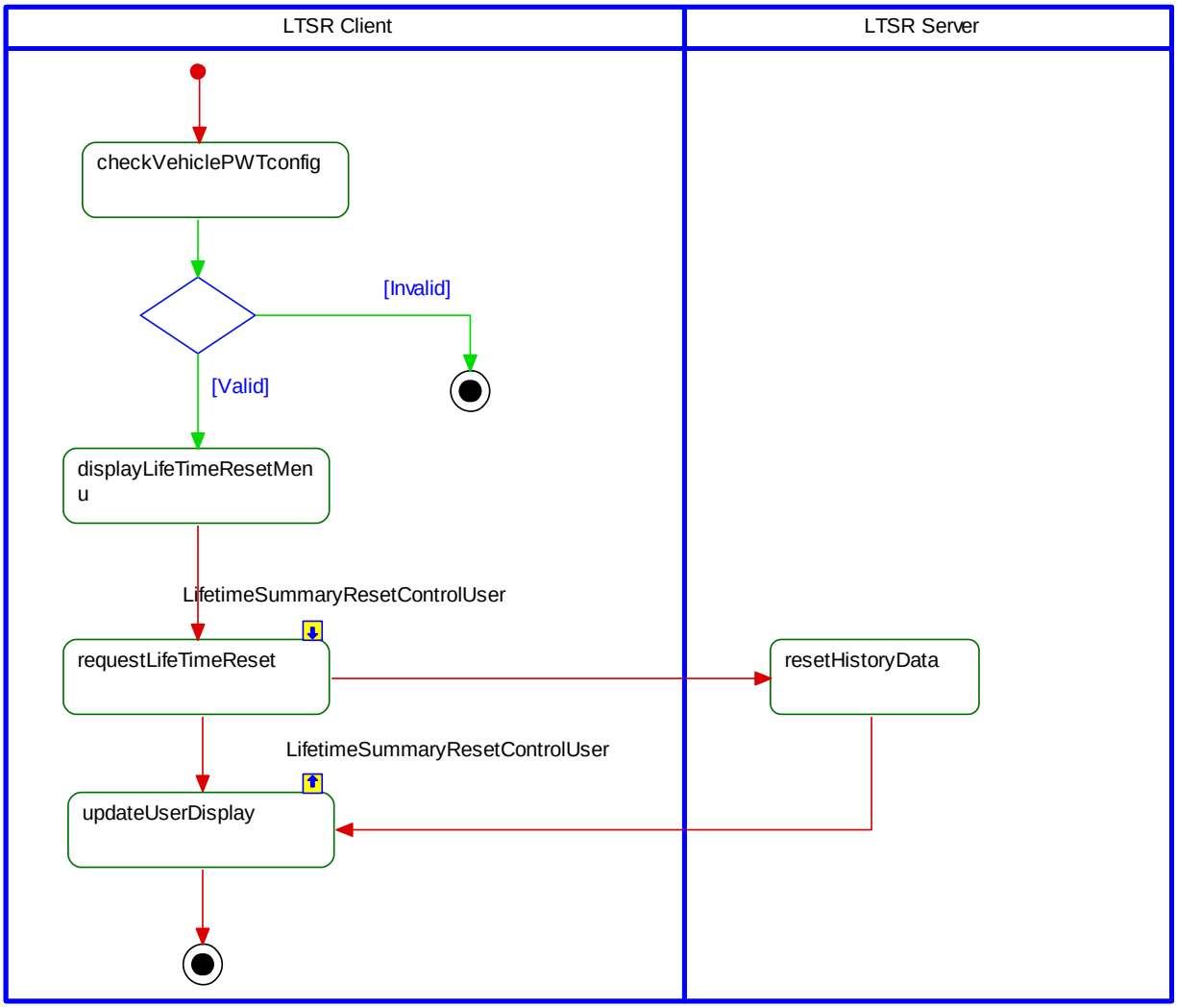
3.1.2.2 LTSR-UC-REQ-387843/A-Vehicle powetrain is not BEV or PHEV

Actors	LSRC User
Pre-conditions	1. Vehicle Power Train is configured as HEV. 2. Vehicle Ignition status is RUN or Start.
Scenario Description	1. User enters the menu to reset the vehicle history.
Post-conditions	1. Menu is not accessible for the user to reset the Vehicle History data.
List of Exception Use Cases	
Interfaces	LSRC Server, LSRC Client

3.1.3 White Box View

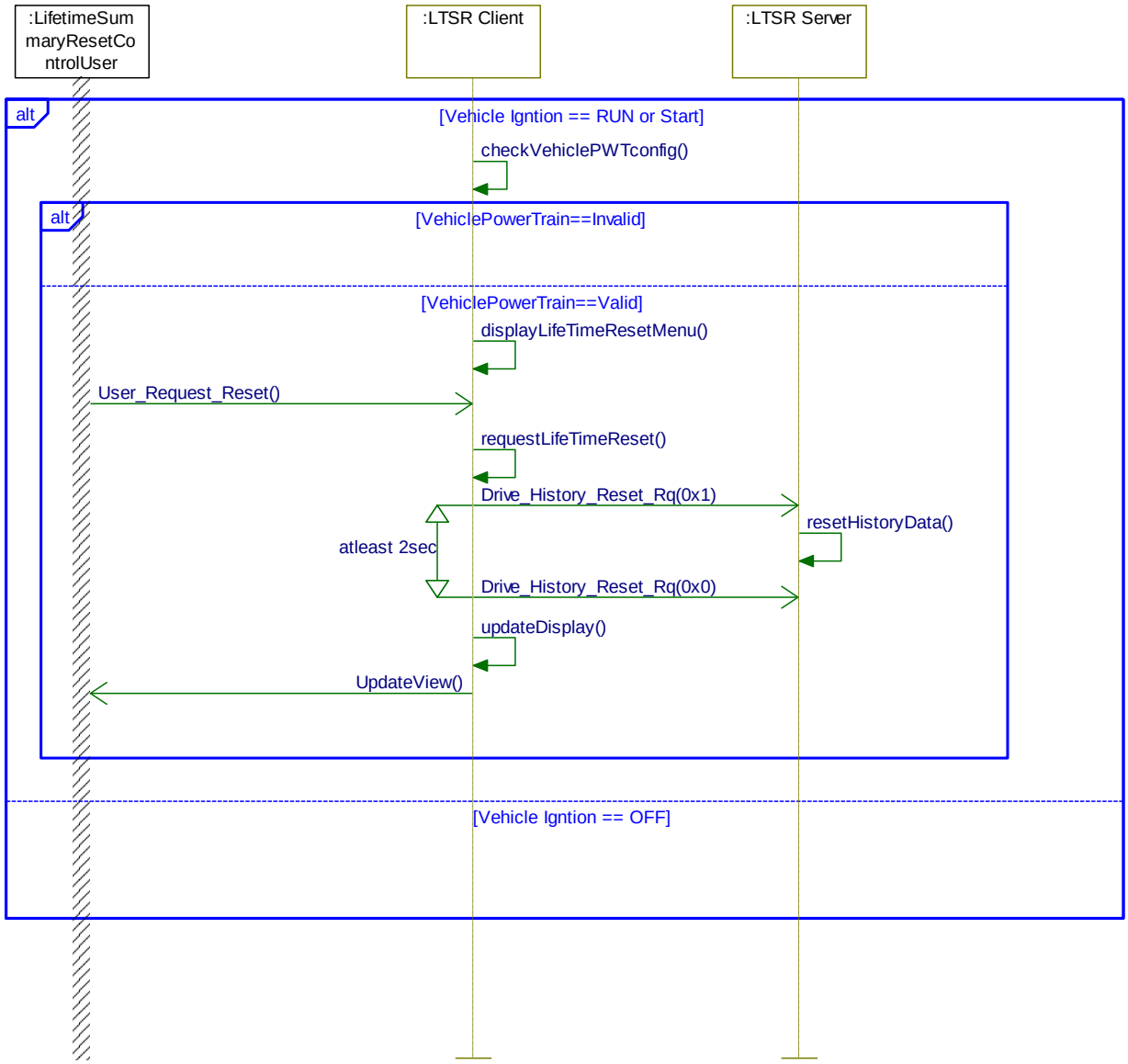
3.1.3.1 Activity Diagrams

3.1.3.1.1 LTSR-ACT-REQ-387823/A-LifeTimeSummaryReset_UserRequest_AD



3.1.3.2 Sequence Diagrams

3.1.3.2.1 LTSR-SD-REQ-387844/A-LifeTimeSummaryReset_UserRequest_SD



4 Appendix: Reference Documents

Reference #	Document Title
1	Lifetime Summary Reset Control Function - CGEA1.3
2	Infotainment Diagnostics Specification
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