FORD LDM Localization - 功能 #2563

功能 # 2519 (已关闭): Ford_SYSR: System Requirement

Ford_SYSR：FS_REQ0043_V2 Bin Class Current Setting

2024-10-24 18:40 - 玉洁 金

状态:	已关闭	**开始日期:**	2024-10-29
优先级:	普通	**计划完成日期:**	2024-11-07
指派给:	涛 陆	**% 完成:**	100%
类别:		**预期时间:**	0.00 小时
目标版本:	H005_SW0007169.A003.2	**耗时:**	0.00 小时

描述

BIN current can be set for BIN0 to BIN7 of each channel in the configuration parameter file, the current range should be 100mA to 1500mA. The picture below for reference.
EX:
If the BIN resistor is 2500hm, the BIN class is BIN2 and BIN current is 600mA.

Binning_LED CH1_Cfg	Source	Analog input 2		
	Bin_Param_Cfg	Min Resistance	Max Resistance	Bin Current(mA)
BIN0	1		590 Ohm	
BIN1	1	590 Ohm	1600 Ohm	500
BIN2	1	2000 Ohm	2800 Ohm	600
BIN3	1	3360 Ohm	4160 Ohm	700
BIN4	1	5070 Ohm	5970 Ohm	800
BIN5	1	7150 Ohm	8650 Ohm	900
BIN6	1	9860 Ohm	11460 Ohm	NU
BIN7	1	13300 Ohm	16900 Ohm	NU

Table 16: Binning Resistor and Current Setting
BIN resistor should be read and detect the error when the LDM is powered up each time.

Power up at first time or No BIN current stored in NVM:
- If the BIN resistor is in one of the BIN range and valid, BIN current should be stored in NVM and use it as output current.
- If the BIN resistor is out of all the BIN range or invalid, LDM should use the minimum current of the channel. And set BIN error via LIN.

Each power cycle after first power up:
- Use the current which is stored in NVM as the output current at current power cycle.
- Continuously sample the BIN resistor:

i. If it is valid and same with NVM value, no operation needed.
ii. If it is valid and mismatch with NVM value, use the new value to replace the NVM value, and it will be used from next main power cycle.
iii. If it is out of all the BIN range or invalid, set the BIN error via LIN.
Note:
BIN resistor sampling should continue at least 3 cycles after power on, valid means the sampled values are same in the 3 cycles, or it is invalid.

子任务:

功能 # 2761: Ford_SWER_0043_0001：Bin Class Current Setting For D...	**已关闭**
功能 # 2762: Ford_SWER_0043_0002：Bin Resistor Sample For App	**已关闭**

历史记录

#1 - 2024-10-25 09:57 - 涛 陆

完成

#2 - 2024-10-25 10:57 - 玉洁 金

- 文件 clipboard-202410251056-jl76r.png 已添加

Updated REQ0043 BIN class setting
BIN current can be set for BIN0 to BIN7 of each channel in the configuration parameter file, the current range should be 0.5A-1.5A for channel 1&2, 0.15A-1.5A for

channel 3&4. The picture below for reference.
EX:
If the BIN resistor is 2500hm, the BIN class is BIN2 and BIN current is 600mA.

Binning_LED CH1_Cfg	Source	Analog input 2		
	Bin_Param_Cfg	Min Resistance	Max Resistance	Bin Current(mA)
BIN0	1		590 Ohm	
BIN1	1	590 Ohm	1600 Ohm	500
BIN2	1	2000 Ohm	2800 Ohm	600
BIN3	1	3360 Ohm	4160 Ohm	700
BIN4	1	5070 Ohm	5970 Ohm	800
BIN5	1	7150 Ohm	8650 Ohm	900
BIN6	1	9860 Ohm	11460 Ohm	NU
BIN7	1	13300 Ohm	16900 Ohm	NU

Table 16: Binning Resistor and Current Setting

BIN resistor should be read and detect the error when the LDM is powered up each time.

Power up at first time or No BIN current stored in NVM:
- If the BIN resistor is in one of the BIN range and valid, BIN current should be stored in NVM and use it as output current.
- If the BIN resistor is out of all the BIN range or invalid, LDM should use the minimum current of the channel. And set BIN error via LIN.

Each power cycle after first power up:
- Use the current which is stored in NVM as the output current at current power cycle.
- Continuously sample the BIN resistor:

i. If it is valid and same with NVM value, no operation needed.
ii. If it is valid and mismatch with NVM value, use the new value to replace the NVM value, and it will be used from next main power cycle.
iii. If it is out of all the BIN range or invalid, set the BIN error via LIN.
Note:
BIN resistor sampling should continue at least 3 cycles after power on, valid means the sampled values are same in the 3 cycles, or it is invalid.

#3 - 2024-11-12 09:48 - 玉洁 金

- 文件 clipboard-202411120948-5cxzx.png 已添加

- 描述 已更新。

- 状态 从 新建 变更为 进行中

#4 - 2024-11-19 10:39 - 斌 徐

- 状态 从 进行中 变更为 已关闭

#5 - 2025-03-17 13:40 - 传鹏 胡

- 文件 clipboard-202503171340-0csom.png 已添加

- 目标版本 从 H003_SW0007169.A001.8 变更为 H005_SW0007169.A003.2

Open Issue list 162
Dataset在设定RBIN电流下拉条中给出NULL-0的选项
APP需要解析出Dataset中设定的无效电流,如果RBIN电阻阻值落在NULL选项的电阻范围,则需要报RBIN故障
CANOE上位机对于Dataset解析RBIN电流功能,需要能识别出NULL选项并显示

CHN1_BIN_CFG	BIN_Source	1	0	3	Enum	BIN_SOURCE_CHN1 = 0x00, BIN_SOURCE_CHN2 = 0x01, BIN_SOURCE_CHN3 = 0x02, BIN_SOURCE_CHN4 = 0x03,
	BIN_Para	1	0	255	Bitmap	HEX
	BIN1_Current	2	100	1500	mA	Dataset中的数据: 0-null 1-100mA ... 141-1500mA CANOE中的数据: 要针对0值做无效数据转义
	BIN2_Current	2	100	1500	mA	
	BIN3_Current	2	100	1500	mA	
	BIN4_Current	2	100	1500	mA	
	BIN5_Current	2	100	1500	mA	
	BIN6_Current	2	100	1500	mA	
	BIN7_Current	2	100	1500	mA	

4个通道均需实施该改动

文件

clipboard-202410241839-brll8.png	20 KB	2024-10-24	玉洁 金
clipboard-202410251056-jl76r.png	20 KB	2024-10-25	玉洁 金
clipboard-202411120948-5cxzx.png	20 KB	2024-11-12	玉洁 金
clipboard-202503171340-0csom.png	114 KB	2025-03-17	传鹏 胡