

API Spec Review

- IC-ServiceAPI
-



IC-Service_API_rev0.1.docx

- /ConfluenceAdd Inline Commnet

2020/8/7



IC-Service_API_rev0.3.docx

- 7/24()

IC-Service API

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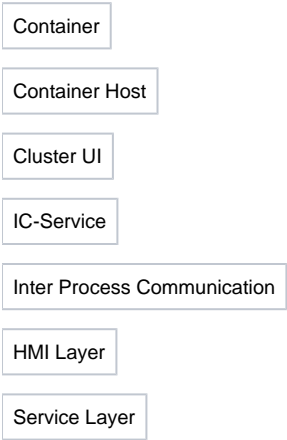
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1

HMI LayerCluster UIIC-ServiceAPI

2

HMI LayerCluster UIService LayerIC-ServiceAPI



2.1 HMI Layer

HMI LayerCluster UIService LayerIC-ServiceInter Process Communication
PollingEvent

Polling

IC-ServicesetData

Cluster UIgetData

2.2 Polling

Event

Cluster UIIC-ServiceIC-ServicesetDataCluster UINotifyCluster UI
NotifyClusterUICluster UI

2.3 Event

3 API

API

Enum14

1API

2API

3

4

Macro14

1API

2API

3

4

API16

1

2API

3

4

5

6

3-1 Enum Definition

3-1-1 IC_HMI_ON_OFF

1:API

IC_HMI_ON_OFF

2:API

TelltaleON/OFF

3:

0IC_HMI_OFF OFF

1IC_HMI_ON ON

4:

3-1-2 IC_HMI_GEAR_AT_VAL

1: API

IC_HMI_GEAR_AT_VAL

2:API

(AT)

3:

0IC_HMI_AT_OFF	
1IC_HMI_AT_PARKING	Parking
2IC_HMI_AT_REVERSE	Reverse
3IC_HMI_AT_NEUTRAL	Neutral
4IC_HMI_AT_DRIVE	Drive
5IC_HMI_AT_SECOND	Second
6IC_HMI_AT_LOW_GEAR	LowGear
7IC_HMI_AT_FIRST	First
8IC_HMI_AT_MANUAL	Manual
9IC_HMI_AT_BRAKE	Brake
10IC_HMI_AT_ALL_ON	
11IC_HMI_AT_ALL_OFF	
12IC_HMI_AT_UNUSED	

4:

3-1-3 IC_HMI_GEAR_MT_VAL

1: API

IC_HMI_GEAR_MT_VAL

2:API

(MT)

3:

0IC_HMI_MT_OFF	
1IC_HMI_MT_FIRST	1
2IC_HMI_MT_SECOND	2
3IC_HMI_MT_THIRD	3
4IC_HMI_MT_FOURTH	4
5IC_HMI_MT_FIFTH	5
6IC_HMI_MT_SIXTH	6
7IC_HMI_MT_SEVENTH	7

8IC_HMI_MT_EIGHTTH 8

4:

3-1-4 IC_HMI_SP_UNIT_VAL

1: API
IC_HMI_SP_UNIT_VAL

2:API

3:
0IC_HMI_SP_KM_H km/h
1IC_HMI_SP_MPH mph

4:

3-1-5 IC_HMI_TRCOM_UNIT_VAL

1: API
IC_HMI_TRCOM_UNIT_VAL

2:API

3:
0IC_HMI_TRCOM_KM km
1IC_HMI_TRCOM_MILE mile

4:

3-1-6 IC_HMI_FUEL_ECONOMY_UNIT_VAL

1:API
IC_HMI_FUEL_ECONOMY_UNIT_VAL

2:API

A/B

A/B

3:

0IC_HMI_FUEL_KM_L	km/L
1IC_HMI_FUEL_MPG_US	MPG(U.S gallon)
2IC_HMI_FUEL_MPG_IG	MPG(imperial gallon)
3IC_HMI_FUEL_L_100KM	L/100km
4IC_HMI_FUEL_MILE_KWH	mile/kwh
5IC_HMI_FUEL_KM_KWH	km/kwh
6IC_HMI_FUEL_MILE_KG	mile/kg
7IC_HMI_FUEL_KM_KG	km/kg
8IC_HMI_FUEL_KWH_100KM	kwh/100km

4:

3-2 Macro Definition

3-2-1 TellTale

3-2-1-1 IC_HMI_TT_TURN_R

1: API

IC_HMI_TT_TURN_R

2:API

3:

0x0000000000000001

4:

3-2-1-2 IC_HMI_TT_TURN_L

1: API

IC_HMI_TT_TURN_L

2:API

3:

0x0000000000000002

4:

3-2-1-3 IC_HMI_TT_BRAKE

1: API

IC_HMI_TT_BRAKE

2:API

3:

0x0000000000000004

4:

3-2-1-4 IC_HMI_TT_SEATBELT

1: API

IC_HMI_TT_SEATBELT

2:API

3:

0x0000000000000008

4:

3-2-1-5 IC_HMI_TT_HIGHBEAM

1: API

IC_HMI_HIGHBEAM

2:API

3:

0x00000000000000010

4:

3-2-1-6 IC_HMI_TT_DOOR

1: API

2:API

3:

0x00000000000000020

4:

3-2-1-7 IC_HMI_TT_EPS

1: API

IC_HMI_EPS

2:API

EPS

3:

0x00000000000000040

4:

3-2-1-8 IC_HMI_TT_SRS_AIRBAG

1: API

IC_HMI_SRS_AIRBAG

2:API

SRS

3:

0x0000000000000080

4:

3-2-1-9 IC_HMI_TT_ABS

1: API

IC_HMI_ABS

2:API

ABS

3:

0x0000000000000100

4:

3-2-1-10 IC_HMI_TT_LOW_BATTERY

1: API

IC_HMI_LOW_BATTERY

2:API

3:

0x0000000000000200

4:

3-2-1-11 IC_HMI_TT_OIL_PRESS

1: API

IC_HMI_OIL_PRESS

2:API

3:

0x00000000000000400

4:

3-2-1-12 IC_HMI_TT_ENGINE

1: API

IC_HMI_ENGINE

2:API

3:

0x00000000000000800

4:

3-2-1-13 IC_HMI_TT_FUEL

1: API

IC_HMI_FUEL

2:API

3:

0x00000000000001000

4:

3-2-1-14 IC_HMI_TT_IMMOBI

1: API

IC_HMI_IMMOBI

2:API

Immobilizer

3:

0x00000000000002000

4:

3-2-1-15 IC_HMI_TT_TM_FAIL

1: API

IC_HMI_TM_FAIL

2:API

TM Failure

3:

0x00000000000004000

4:

3-2-1-16 IC_HMI_TT_ESP_ACT

1: API

IC_HMI_ESP_ACT

2:API

ESP-ACT

3:

0x00000000000008000

4:

3-2-1-17 IC_HMI_TT_ESP_OFF

1: API

IC_HMI_ESP_OFF

2:API

ESP-OFF

3:

0x00000000000010000

4:

3-2-1-18 IC_HMI_TT_ADAPTING_LIGHTING

1: API

IC_HMI_ADAPTING_LIGHTING

2:API

Adapting Lightig

3:

0x00000000000020000

4:

3-2-1-19 IC_HMI_TT_AUTO_STOP

1: API

IC_HMI_AUTO_STOP

2:API

Auto Stop

3:

0x00000000000040000

4:

3-2-1-20 IC_HMI_TT_AUTO_STOP_FAIL

1: API

Auto Stop Fail

2:API

3:

0x00000000000080000

4:

3-2-1-21 IC_HMI_TT_PARKING_LIGHTS

1: API

IC_HMI_PARKING_LIGHTS

2:API

Parking Lights

3:

0x0000000000100000

4:

3-2-1-22 IC_HMI_TT_FRONT_FOG

1: API

IC_HMI_FRONT_FOG

2:API

FrontFog

3:

0x0000000000200000

4:

3-2-1-23 IC_HMI_TT_EXTERIOR_LIGHT_FAULT

1: API

IC_HMI_EXTERIOR_LIGHT_FAULT

2:API

ExteriorLightFault

3:

0x0000000000400000

4:

3-2-1-24 IC_HMI_TT_ACC_FAIL

1: API

IC_HMI_ACC_FAIL

2:API

ACC-Failure

3:

0x0000000000800000

4:

3-2-1-25 IC_HMI_TT_LDW_OFF

1: API

IC_HMI_LDW_OFF

2:API

Lane Departure Warning OFF

3:

0x0000000001000000

4:

3-2-1-26 IC_HMI_TT_HILL_DESCENT

1: API

IC_HMI_HILL_DESCENT

2:API

Hill-Descent

3:

0x0000000002000000

4:

3-2-1-27 IC_HMI_TT_AUTO_HI_BEAM_GREEN

1: API

IC_HMI_AUTO_HI_BEAM_GREEN

2:API

AutoHiBeamGreen

3:

0x0000000004000000

4:

3-2-1-28 IC_HMI_TT_AUTO_HI_BEAM_AMBER

1: API

IC_HMI_AUTO_HI_BEAM_AMBER

2:API

AutoHiBeamAmber

3:

0x0000000008000000

4:

3-2-1-29 IC_HMI_TT_LDW_OPERATE

1: API

IC_HMI_LDW_OPERATE

2:API

Lane Departure Warning Operate

3:

0x0000000010000000

4:

3-2-1-30 IC_HMI_TT_GENERAL_WARN

1: API

IC_HMI_GENERAL_WARN

2:API

General Warn

3:

0x0000000020000000

4:

3-2-1-31 IC_HMI_TT_SPORTS_MODE

1: API

IC_HMI_SPORTS_MODE

2:API

Sports Mode

3:

0x0000000040000000

4:

3-2-1-32 IC_HMI_TT_DRIVING_POWER_MODE

1: API

IC_HMI_DRIVING_POWER_MODE

2:API

Driver Power Mode

3:

0x0000000080000000

4:

3-2-1-33 IC_HMI_TT_HOT_TEMP

1: API

IC_HMI_HOT_TEMP

2:API

Hot Temp

3:

0x0000000100000000

4:

3-2-1-34 IC_HMI_TT_LOW_TEMP

1: API

IC_HMI_TT_LOW_TEMP

2:API

Low Temp

3:

0x0000000200000000

4:

3-2-1-35 IC_HMI_TT_ALL

1: API

IC_HMI_TT_ALL

2:API

ON

3:

0xFFFFFFFFFFFFFFFF

4:

3-3 Callback Function

3-3-1 IC_HMI_FUNC_NOTIFY_IC_HMI

1:API

typedef void(* IC_HMI_FUNC_NOTIFY_IC_HMI)(unsigned long long arg_1,
IC_HMI_ON_OFF arg_2)

2:API

EventregisterIcHmi

3:

void

4:

None

5:

unsigned long long arg_1

[3-2-1](#)

IC_HMI_ON_OFF arg_2

[3-1-1](#)

6:

3-4 Telltale

3-4-1 getTurnR

1:

IC_HMI_ON_OFF getTurnR(void)

2:API

3:

IC_HMI_ON_OFF

4:

IC_HMI_OFF

IC_HMI_ON

5:

None

6:

IC-Service

3-4-2 getTurnL

1:

IC_HMI_ON_OFF getTurnL(void)

2:API

3:

IC_HMI_ON_OFF

4:

IC_HMI_OFF

IC_HMI_ON

5:

None

6:

IC-Service

3-4-3 getBrake

1:

IC_HMI_ON_OFF getBrake(void)

2:API

3:

IC_HMI_ON_OFF

4:

IC_HMI_OFF

IC_HMI_ON

5:

None

6:

3-4-4 getSeatbelt

1:

IC_HMI_ON_OFF getSeatbelt(void)

2:API

3:

IC_HMI_ON_OFF

4:

IC_HMI_OFF

IC_HMI_ON

5:

None

6:

3-4-5 getHighbeam

1:

IC_HMI_ON_OFF getHighbeam(void)

2:API

3:

IC_HMI_ON_OFF

4:

IC_HMI_OFF

IC_HMI_ON

5:

None

6:

3-4-6 getDoor

1:

IC_HMI_ON_OFF getDoor(void)

2:API

3:

IC_HMI_ON_OFF

4:

IC_HMI_OFF

IC_HMI_ON

5:

None

6:

3-4-7 getEps

1:

IC_HMI_ON_OFF getEps(void)

2:API

EPS

3:

IC_HMI_ON_OFF

4:

IC_HMI_OFF

IC_HMI_ON

5:

None

6:

3-4-8 getSrsAirbag

1:

IC_HMI_ON_OFF getSrsAirbag(void)

2:API

SRS

3:

IC_HMI_ON_OFF

4:

IC_HMI_OFF

IC_HMI_ON

5:

None

6:

3-4-9 getAbs

1:

IC_HMI_ON_OFF getAbs(void)

2:API

ABS

3:

IC_HMI_ON_OFF

4:

IC_HMI_OFF

IC_HMI_ON

5:

None

6:

3-4-10 getLowBattery

1:

IC_HMI_ON_OFF getLowBattery(void)

2:API

3:

IC_HMI_ON_OFF

4:

IC_HMI_OFF

IC_HMI_ON

5:

None

6:

3-4-11 getOilPress

1:

IC_HMI_ON_OFF getOilPress(void)

2:API

3:

IC_HMI_ON_OFF

4:

IC_HMI_OFF

IC_HMI_ON

5:

None

6:

3-4-12 getEngine

1:

IC_HMI_ON_OFF getEngine(void)

2:API

3:

IC_HMI_ON_OFF

4:

IC_HMI_OFF

IC_HMI_ON

5:

None

6:

3-4-13 getFuel

1:

IC_HMI_ON_OFF getFuel(void)

2:API

3:

IC_HMI_ON_OFF

4:

IC_HMI_OFF

IC_HMI_ON

5:

None

6:

3-4-14 getImmobi

1:

IC_HMI_ON_OFF getImmobi(void)

2:API

Immobilizer

3:

IC_HMI_ON_OFF

4:

IC_HMI_OFF

IC_HMI_ON

5:

None

6:

3-4-15 getTMFail

1:

IC_HMI_ON_OFF getTMFail(void)

2:API

TM Failure

3:

IC_HMI_ON_OFF

4:

IC_HMI_OFF

IC_HMI_ON

5:

None

6:

3-4-16 getEspAct

1:

IC_HMI_ON_OFF getEspAct(void)

2:API

ESP-ACT

3:

IC_HMI_ON_OFF

4:

IC_HMI_OFF

IC_HMI_ON

5:

None

6:

3-4-17 getEspOff

1:

IC_HMI_ON_OFF getEspOff(void)

2:API

ESP-OFF

3:

IC_HMI_ON_OFF

4:

IC_HMI_OFF

IC_HMI_ON

5:

None

6:

3-4-18 getAdaptingLighting

1:

IC_HMI_ON_OFF getAdaptingLighting(void)

2:API

Adapting Lightig

3:

IC_HMI_ON_OFF

4:

IC_HMI_OFF

IC_HMI_ON

5:

None

6:

3-4-19 getAutoStop

1:

IC_HMI_ON_OFF getAutoStop(void)

2:API

Auto Stop

3:

IC_HMI_ON_OFF

4:

IC_HMI_OFF

IC_HMI_ON

5:

None

6:

3-4-20 getAutoStopFail

1:

IC_HMI_ON_OFF getAutoStopFail(void)

2:API

Auto Stop Fail

3:

IC_HMI_ON_OFF

4:

IC_HMI_OFF

IC_HMI_ON

5:

None

6:

3-4-21 getParkingLights

1:

IC_HMI_ON_OFF getParkingLights(void)

2:API

Parking Lights

3:

IC_HMI_ON_OFF

4:

IC_HMI_OFF

IC_HMI_ON

5:

None

6:

3-4-22 getFrontFog

1:

IC_HMI_ON_OFF getFrontFog(void)

2:API

FrontFog

3:

IC_HMI_OFF

IC_HMI_ON

4:

IC_HMI_ON_OFF

5:

None

6:

3-4-23 getExteriorLightFault

1:

IC_HMI_ON_OFF getExteriorLightFault(void)

2:API

ExteriorLightFault

3:

IC_HMI_ON_OFF

4:

IC_HMI_OFF

IC_HMI_ON

5:

None

6:

3-4-24 getAccFail

1:

IC_HMI_ON_OFF getAccFail(void)

2:API

ACC-Failure

3:

IC_HMI_ON_OFF

4:

IC_HMI_OFF

IC_HMI_ON

5:

None

6:

3-4-25 getLdwOff

1:

IC_HMI_ON_OFF getLdwOff(void)

2:API

Lane Departure Warning OFF

3:

IC_HMI_ON_OFF

4:

IC_HMI_OFF

IC_HMI_ON

5:

None

6:

3-4-26 getHillDescent

1:

IC_HMI_ON_OFF getHillDescent(void)

2:API

Hill-Descent

3:

IC_HMI_ON_OFF

4:

IC_HMI_OFF

IC_HMI_ON

5:

None

6:

3-4-27 getAutoHiBeamGreen

1:

IC_HMI_ON_OFF getAutoHiBeamGreen(void)

2:API

AutoHiBeamGreen

3:

IC_HMI_ON_OFF

4:

IC_HMI_OFF

IC_HMI_ON

5:

None

6:

3-4-28 getAutoHiBeamAmber

1:

IC_HMI_ON_OFF getAutoHiBeamAmber(void)

2:API

AutoHiBeamAmber

3:

IC_HMI_ON_OFF

4:

IC_HMI_OFF

IC_HMI_ON

5:

None

6:

3-4-29 getSportsMode

1:

IC_HMI_ON_OFF getSportsMode(void)

2:API

Sports Mode

3:

IC_HMI_ON_OFF

4:

IC_HMI_OFF

IC_HMI_ON

5:

None

6:

3-4-30 getLdwOperate

1:

IC_HMI_ON_OFF getLdwOperate(void)

2:API

Lane Departure Warning Operate

3:

IC_HMI_ON_OFF

4:

IC_HMI_OFF

IC_HMI_ON

5:

None

6:

3-4-31 getGeneralWarn

1:

IC_HMI_ON_OFF getGeneralWarn(void)

2:API

General Warn

3:

IC_HMI_ON_OFF

4:

IC_HMI_OFF

IC_HMI_ON

5:

None

6:

3-4-32 getDrivingPowerMode

1:

IC_HMI_ON_OFF getDriverPowerMode(void)

2:API

Driver Power Mode

3:

IC_HMI_ON_OFF

4:

IC_HMI_OFF

IC_HMI_ON

5:

None

6:

3-4-33 getHotTemp

1:

IC_HMI_ON_OFF getHotTemp(void)

2:API

Hot Temp

3:

IC_HMI_ON_OFF

4:

IC_HMI_OFF

IC_HMI_ON

5:

None

6:

3-4-34 getLowTemp

1:

IC_HMI_ON_OFF getLowTemp(void)

2:API

Low Temp

3:

IC_HMI_ON_OFF

4:
IC_HMI_OFF
IC_HMI_ON

5:
None

6:

3-5 ShiftPosition

3-5-1 getGearAtVal

1:
IC_HMI_GEAR_AT_VAL getGearAtVal(void)

2:API

3:
IC_HMI_GEAR_AT_VAL

4:
0IC_HMI_AT_OFF
1IC_HMI_AT_PARKING Parking
2IC_HMI_AT_REVERSE Reverse
3IC_HMI_AT_NEUTRAL Neutral
4IC_HMI_AT_DRIVE Drive
5IC_HMI_AT_SECOND Second
6IC_HMI_AT_LOW_GEAR LowGear
7IC_HMI_AT_FIRST First
8IC_HMI_AT_MANUAL Manual
9IC_HMI_AT_BRAKE Brake
10IC_HMI_AT_ALL_ON
11IC_HMI_AT_ALL_OFF
12IC_HMI_AT_UNUSED

5:
None

6:

3-5-2 getGearMtVal

1:

IC_HMI_GEAR_MT_VAL getGearMtVal(void)

2:API

3:

IC_HMI_GEAR_MT_VAL

4:

0IC_HMI_MT_OFF	
1IC_HMI_MT_FIRST	1
2IC_HMI_MT_SECOND	2
3IC_HMI_MT_THIRD	3
4IC_HMI_MT_FOURTH	4
5IC_HMI_MT_FIFTH	5
6IC_HMI_MT_SIXTH	6
7IC_HMI_MT_SEVENTH	7
8IC_HMI_MT_EIGHTH	8

5:

None

6:

3-6 Speed

3-6-1 getSpAnalogVal

1:

unsigned long getSpAnalogVal(void)

2:API

(0.01)

3:
unsigned long

4:
0x00000000 Min Speed (0.00)
0x00007530 Max Speed (300.00)
0x00007531~0xFFFFFFFF (300.01~42949672.95)

5:
None

6:

3-6-2 getSpAnaDigUnitVal

1:
IC_HMI_SP_UNIT_VAL getSpAnaDigUnitVal(void)

2:API

3:
IC_HMI_SP_UNIT_VAL

4:
0IC_HMI_SP_KM_H km/h
1IC_HMI_SP_MPH mph

5:
None

6:

3-7 Tacho

3-7-1 getTaAnalogVal

1:

unsigned long getTaAnalogVal(void)

2:API

Tacho(1)rpm

3:

unsigned long

4:

0x00000000	Min rpm	(0)
0x00004E20	Max rpm	(20000)
0x000007531~0xFFFFFFFF		(20001~4294967295)

5:

None

6:

3-8 TripComputer

3-8-1 getTrcomTripAVal

1:

unsigned long getTrcomTripAVal(void)

2:API

TripA(0.1)

3:

unsigned long

4:

0x00000000	TripA Min	(0.0)
0x0001869F	TripA Max	(9999.9)
0x00018670 ~0xFFFFFFFF		(1000.0~429496729.5)
0xFFFFFFFF	”_”	
0xFFFFFFFF		

5:

None

6:

3-8-2 getTrcomTripBVal

1:

unsigned long getTrcomTripBVal(void)

2:API

TripB(0.1)

3:

unsigned long

4:

0x00000000	TripB Min	(0.0)
0x0001869F	TripB Max	(9999.9)
0x00018670 ~0xFFFFFFFFD		(1000.0~429496729.5)
0xFFFFFFFFE	"_"	
0xFFFFFFFFF		

5:

None

6:

3-8-3 getTrcomOdoVal

1:

unsigned long getTrcomOdoVal(void)

2:API

ODO(1)

3:

unsigned long

4:

0x00000000	ODO Min	(0)
------------	---------	-----

0x000F423F	ODO Max	(999999)
0x000F4240 ~0xFFFFFFFFD		(1000000~4294967295)
0xFFFFFFFFE	"_"	
0xFFFFFFFFF		

5:
None

6:

3-8-4 getTrcomUnitVal

1:
IC_HMI_TRCOM_UNIT_VAL getTrcomUnitVal(void)

2:API

3:
IC_HMI_TRCOM_UNIT_VAL

4:
0IC_HMI_TRCOM_KM km
1IC_HMI_TRCOM_MILE mile

5:
TripA/BODO

3-8-4 getAvgSpeedAVal

1:
unsigned char getAveSpeedAVal(void)

2:API
TripA(1)

3:
unsigned char

4:

0x00 Average Speed A Min (0)
0xFD Average Speed A Max (253)
0xFE "—"
0xFF

5:
None

6:

3-8-5 getAvgSpeedBVal

1:
unsigned char getAveSpeedBVal(void)

2:API
TripB(1)

3:
unsigned char

4:
0x00 Average Speed B Min (0)
0xFD Average Speed B Max (253)
0xFE "—"
0xFF

5:
None

6:

3-8-6 getHourAVal

1:
unsigned short getHourAVal(void)

2:API
TripA() (1)

3:

unsigned short

4:

0x0000	Hour A Min	(0)
0x03E7	Hour A Max	(999)
0x03E8~0xFFFD		(1000~65533)
0xFFFE	"—"	
0xFFFF		

5:

None

6:

3-8-7 getHourBVal

1:

unsigned short getHourBVal(void)

2:API

TripB() (1)

3:

unsigned short

4:

0x0000	Hour B Min	(0)
0x03E7	Hour B Max	(999)
0x03E8~0xFFFD		(1000~65533)
0xFFFE	"—"	
0xFFFF		

5:

None

6:

3-8-8 getMinuteAVal

1:
unsigned char getMinuteAVal(void)

2:API
TripA() (1)

3:
unsigned char

4:
0x00 Minute A Min (0)
0x3B Minute A Max (59)
0x3C ~ 0xFD (60~253)
0xFE "—"
0xFF

5:
None

6:

3-8-9 getMinuteBVal

1:
unsigned char getMinuteBVal(void)

2:API
TripB() (1)

3:
unsigned char

4:
0x00 Minute B Min (0)
0x3B Minute B Max (59)
0x3C ~ 0xFD (60~253)
0xFE "—"
0xFF

5:
None

6:

3-8-10 getSecondAVal

1:
unsigned char getSecondAVal(void)

2:API
TripA() (1)

3:
unsigned char

4:
0x00 Second A Min (0)
0x3B Second A Max (59)
0x3C ~ 0xFD (60~253)
0xFE "—"
0xFF

5:
None

6:

3-8-11 getSecondBVal

1:
unsigned char getSecondBVal(void)

2:API
TripB() (1)

3:
unsigned char

4:

0x00 Second B Min (0)

0x3B Second B Max (59)

0x3C ~ 0xFD (60~253)

0xFE "—"

0xFF

5:

None

6:

3-8-12 getOTempVal

1:

signed short getOTempVal(void)

2:API

(1)

3:

Signed short

4:

0x8001~~0xFFD7 (-32767 ~ -41)

0xFFD8 Outside Temp Min (-40)

0x0083 Outside Temp Max (131)

0x0084 ~0x7FFE (132~32765)

0x7FFE "—" (32766)

0x7FFF (32767)

5:

None

6:

3-8-13 getCruRangeVal

1:

unsigned short getCruRangeVal(void)

2:API

(1)

3:

unsigned short

4:

0x0000	Cruise Range Min	(0)
0x064A	Cruise Range Max	(1610)
0x064B ~ 0xFFFFD		(1611~65533)
0xFFFFE	”_“	
0xFFFFF		

5:

None

6:

3-8-14 getAvgFuelAVal

1:

unsigned short getAvgFuelAVal(void)

2:API

TripA(0.1)

3:

unsigned short

4:

0x0000	Average Fuel TripA Min	(0.0)
0x07CF	Average Fuel TripA Max	(199.9)
0x07D0 ~ 0xFFFFD		(200.0~6553.3)
0xFFFFE	”_“	
0xFFFFF		

5:

None

6:

3-8-15 getAvgFuelBVal

1:

unsigned short getAvgFuelBVal(void)

2:API

TripB(0.1)

3:

unsigned short

4:

0x0000	Average Fuel TripB Min	(0.0)
0x07CF	Average Fuel TripB Max	(199.9)
0x07D0 ~ 0xFFFFD		(200.0~6553.3)
0xFFFFE	"_"	
0xFFFFF		

5:

None

6:

3-8-16 getInsFuelAVal

1:

unsigned short getInsAVal(void)

2:API

TripA(0.1)

3:

unsigned short

4:

0x0000	Instant Fuel TripA Min	(0.0)
--------	------------------------	-------

0x07CF	Instant Fuel TripA Max	(199.9)
0x07D0 ~ 0xFFFD		(200.0~6553.3)
0xFFFE	"__"	
0xFFFF		

5:
None

6:

3-8-17 getInsFuelBVal

1:
unsigned short getInsBVal(void)

2:API
TripB(0.1)

3:
unsigned short

4:

0x0000	Instant Fuel TripA Min	(0.0)
0x07CF	Instant Fuel TripA Max	(199.9)
0x07D0 ~ 0xFFFD		(200.0~6553.3)
0xFFFE	"__"	
0xFFFF		

5:
None

6:

3-8-18 getFuelEconomyUnitVal

1:
IC_HMI_FUEL_ECONOMY_UNIT_VAL getFuelEconomyUnitVal(void)

2:API

3:

IC_HMI_FUEL_ECONOMY_UNIT_VAL

4:

0IC_HMI_FUEL_KM_L	km/L
1IC_HMI_FUEL_MPG_US	MPG(U.S gallon)
2IC_HMI_FUEL_MPG_IG	MPG(imperial gallon)
3IC_HMI_FUEL_L_100KM	L/100km
4IC_HMI_FUEL_MILE_KWH	mile/kwh
5IC_HMI_FUEL_KM_KWH	km/kwh
6IC_HMI_FUEL_MILE_KG	mile/kg
7IC_HMI_FUEL_KM_KG	km/kg
8IC_HMI_FUEL_KWH_100KM	kwh/100km

5:

6:

3-9 Register/Notify

3-9-1 registerIcHmi

1:

bool registerIcHmi(unsigned long long arg_1,
IC_HMI_FUNC_NOTIFY_IC_HMI addr)

2:API

EventCluster UI2

12

3:

bool

4:

true

false

5:

unsigned long long arg_1

[3-2-1](#)

IC_HMI_FUNC_NOTIFY_IC_HMI addr

[3-3-1](#)

addrnull

6:

TurnRTurnL

registerIcHmi((IC_HMI_TT_TURN_R||IC_HMI_TT_TURN_L),

IC_HMI_FUNC_NOTIFY_IC_HMI addr)

addr

3-9-2 notifyIcHmi

1:

void notifyIcHmi(unsigned long long arg_1, IC_HMI_ON_OFF arg_2)

2:API

IC-ServiceCluster UI12

3:

void

4:

None

5:

unsigned long long arg_1

[3-2-1](#)

IC_HMI_ON_OFF arg_2

[3-1-1](#)

6:

3-9-1

```
void notifyHmi(unsigned long long arg_1, IC_HMI_ON_OFF arg_2)
```

```
{
```

```
if(arg_1 == TRUN_R){
```

```
//TurnR
```

```
if(arg_2 == IC_HMI_ON){
```

```
//ON
```

```
}else{
```

```
//OFF
```

```
}
```

```
}
```

```
}
```