SMARTWITNESS

CP1 Firmware History

CP1_1.6.1 (date : 2019.07.05)

Base Version : CP1_1.6.0

1 Changes/New

1.1 Send Media Error(Network common data)

DMS_RECORDER_STATUS -> ErrorMedia(byte, bitflag) : Add(0x04,0x08,0x40,0x80)

0x01 : Error in SD1 (Write error, Protected, Full, None)

0x02 : Error in SD2 (not use)

0x10 : Error in HDD1 (not use)

0x20 : Error in HDD2 (not use)

0x04 : SD Write error

0x08 : SD Protected (not use)

0x40 : SD Full

0x80 : SD None

2 Fixed

2.1 [DMS4] Fixed UploadDriveData (4/5Hz) ExtraDataSize value error

2.1.1 ExtraDataSize : 60(5Hz), 48(4Hz)

2.2 Fixed the SD oldest MDT Timestamp error

2.2.1 FirstMDTTime_LTCSec(DRV_HEADER Structure)

2.3 Network API : UploadGotoVideo

2.3.1 Fixed UploadGotoVideo transfer error

2.4 MANUALBACKUP2

2.4.1 At Dual Record Mode, Fixed normal file sending when there is no event file.

2.6 G-Sensor event detect

2.6.1 Fixed G-sensor event detect. (Couldn't detect a G-sensor event when didn't check the Auto adjust G-Sensor to Vehicle speed)

2.7 Network Module

2.7.1 Enhance Modem shutdown process

2.8 Disable the GPIO14(Power fail detect) pull-down

3 Others

3.1 SYSLOG specification change

3.1.1 Log file size and total log file number change: size per file (1024KB), file number (10)

3.1.2 Can change the file number by setting

3.1.2.1 [SYSLOG] SYSLOG_FILE_MAX=10, range(10~ 10000), default(10)

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CP1_1.6.1.RC4 (date : 2019.03.12)

2 Fixed

2.1 Network API : UploadGotoVideo

2.1.1 Debug Goto Video Error

2.2 Disable the GPIO14(Power fail detect) pull-down

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CP1_1.6.1.RC3 (date : 2018.11.23)

2 Fixed

2.1 FirstMDTTime_LTCSec(DRV_HEADER Structure) error

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CP1_1.6.1.RC2 (date : 2018.11.02)

1 Changes/New

1.1 SYSLOG specification change

1.1.1 Log file size and number change : file size (1024KB), file unmber(10)

1.1.2 Can change the file number by setting

1.1.2.1 [SYSLOG] SYSLOG_FILE_MAX=10, range(10~ 10000), default(10)

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CP1_1.6.1.RC1 (date : 2018.10.30)

Base Version : CP1_1.6.0

2 Fixed

2.1 [DMS4] UploadDriveData (4/5Hz) ExtraDataSize value change

2.1.1 ExtraDataSize : 60(5Hz), 48(4Hz)

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CP1_1.6.0(date : 2018.09.12)

1 Changes/New

1.1 Wakeup Function : register interval

1.1.1 Settings

1.1.1.1 [DEVICE]REGISTER_INTERVAL, range : 0(Off), 0 ~ 86400(24h), default : 60

1.2 [DMS4]UploadEvent : same event transmission prevention period(SEC)

1.2.1 Settings

1.2.1.1 [DMS4]NET_UPLOAD_EVENT_OFF_TIME, range : 0~600(sec), default 60

1.3 [DMS4]UploadEvent : Add transmit image at "Event Triggered by"

1.3.1 Settings [DMS4]

1.3.1.1 NET_UPLOAD_EVENT_IMAGE_ALARM, range : 0~3, default : 3

1.3.1.2 NET_UPLOAD_EVENT_IMAGE_PANIC, range : 0~1, default : 1

1.3.1.3 NET_UPLOAD_EVENT_IMAGE_GSENSOR, range : 0~31, default : 31

1.3.1.4 NET_UPLOAD_EVENT_IMAGE_OVERSPEED, range : 0~3, default : 3

2 Fixed

2.1 Time setting

2.1.1 RTC Battery run out => 1970 when there is no time offset setting in the SD.

2.2 Image Sensor clock issue

2.2.1 Change VCO Clock(384 ~ 768, MHz) : 1188 -> 594

2.3 [DMS4] upload file(UploadOfflineDriveData, UploadDriveData, UploadEventData)

2.3.1 When the file overwritten, cosider it as "upload fail"

2.4 [DMS4] UploadDriveData API

2.4.1 [Debug] DRV file last time = LastDrvUploadTime => UploadDriveData API

CP1_1.5.0(date : 2018.05.18)

Base Version : CP1_1.4.2

1 Changes/New

1.1 Wakeup Function (Have to use with DPWR-600)

1.1.1 Add Settings

1.1.1.1 [DEVICE]POWERTYPE, range : 0~4, 4(DPWR600S), default : 4

1.1.1.2 [DEVICE]WAKEUP_INTERVAL, range : 0(Off), 1800 ~ 86400(24h), default : 0

1.1.1.3 [EVENT]ALARMIN20_ WAKEUP, range : 0(Off)/1(on), default : 0

1.1.1.4 [EVENT]ALARMIN21_ WAKEUP, range : 0(Off)/1(on), default : 0

1.2 Support FASTSHDN

1.2.1 HE910 modem version higher than 228 => fastshdn

1.2.2 Add modem version on IMEI log

1.3 SD

1.3.1 MMC Host timeout value change: MMCTOR (1FFFFF -> 3FFFFFF)

1.3.2 Add SD I/O Error workaround: reboot(max 2 times)

1.4 UploadDrivingData : Support 4,5Hz driving data

1.4.1 Settings

1.4.1.1 [DMS4] NET_UPLOAD_DRV_WITH_GVALUE, UploadDRV G-Sensor/Gyro data (0,1,4,5,10,20,100Hz)

1.4.1.2 Add 4Hz and 5Hz

1.4.2 Add DMS4 DRV ExtraDataType (Need to upgrade DMS5 API server)

1.4.2.1 4Hz : DRV_EXTRA_G_TYPE_RAW_4, 0x100D

1.4.2.2 5Hz : DRV_EXTRA_G_TYPE_RAW_5, 0x100C

1.5 update

1.5.1 Record Speed update

1.5.1.1 During Buffering, increase SD writing speed to clear buffer quickly.

1.5.2 find overwrite files quickly just after booting (sorting time reduced)

1.6 ID Check

1.6.1 Add Board ID / Micom Version checking function

1.7 Get better GPS RX signal (2.1V -> 3.3V)

1.7.1 PUPDCTL0 : TI SYSTEM MODULE IO cell pull up/down control0 register changed

1.7.1.1 GIO17 pull down disable : 0xFFFFFFFF -> 0xFFFDFFFF(address 0x01C40078)

1.8 Add GPS Filter setting.

1.8.1 [SYSTEM]GPS_FILTER_ENABLE, 0,1, default 1

1.8.2 [SYSTEM]GPS_FILTER_SPEED, 100 ~ 1000, default 180 km/h

1.8.3 [SYSTEM]GPS_FILTER_START_DISTANCE, 1~ 1000, default 4 km

2 Fixed

2.1 ubifs patch

2.1.1 Add the unstable bits issue

2.2 Changed overwrite init fail when SD full

2.3 Harsh Turn Hz setting value was wrong. Changed it as like G-sensor table.

3 ETC

3.1 Modify Record Management

3.1.1 [SYSTEM]RECORD_CONTROL, range : 0(Off), 1(On), default : 1(On)

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CP1_1.4.2. release (date : 2017.09.12)

=> Changed CP1_1.4.2.RC3 as the CP1_1.4.1 official version.

CP1_1.4.2.RC3(date : 2017.08.31)

1 Changes/New

1.1 Change default value

1.1.1 AUTOFORMAT = 0

2 Fixed

2.1 Manual Backup(UploadMDT)

2.1.1 send I frame only => send Full Frames

2.2 [PRD#3] Manual Audio Volume setting name change

2.2.1 RECORD_AUD_VOLUME -> RECORD_AUD_VOL

3 Others

3.1 Add NAND driver : ESMT(0xC8, id: 0xD1)

3.2 DC Off => Network close

CP1_1.4.2.RC2 (date : 2017.06.20)

1 Changes/New

1.1 [PRD#2] Audio Chime (OFF/ON/SD Error Only) - except panic button, Alarm Out Beep, SD Error

1.1.1 [DEVICE] AUDIO_OUT_ENABLE=0, range(0~2)

1.1.2 Sound setting

0: Audio Chime OFF: Panic Button Buzzer, DMSCMD_ALARMOUTCTRL Buzzer still ON.

1: Audio Chime ON: all sound on.

2: Audio Chime SD Error Only: Panic Button Buzzer, DMSCMD_ALARMOUTCTRL Buzzer, SD Error Buzzer still ON.

1.1.3 Audio Chime SD Error Only: SD Error Buzzer on. To turn off SD error buzzer, press Panic button.

1.1.4 Panic Button Buzzer is related with 'RECBTN_BUZZERON' setting [Panic button Beep should be ON)

1.2 [PRD#3] Manual Audio Volume

1.2.1 [RECORD]RECORD_AUD_VOLUME=2, range (1~3), Audio Record volume setting

1.3 [PRD#4] Flash Blue LED when panic button, AI1, or AI2 is pressed (in continuous mode)

1.3.1 Panic Button, Alarm-In1, Alarm-In2 => Record LED will blink quickly during 3 seconds.

1.4 [PRD#5] Support Server COMMAND : DMSCMD_SERVERNOTIWAV

1.4.1 play WAV file. (1~10 wav file)

1.1 [PRD#6] Audio recording when panic button event occurs. (in continuous record mode)

1.1.1 [RECORD]RECORD_AUD_BYPANIC=0, range (0,1)

1.1.1.1 RECORD_AUD_PANIC Off : record audio.

1.1.1.2 RECORD_AUD_PANIC On : record autio 2minutes after pressed Panic Button.

1.2 [PRD#7] Add Parking Mode

1.2.1 [RECORD]PARKING_MODE_ENABLE=0, range(0,1)

1.3 [PRD#11] Support 3g only mode (AT&T, AT+WS46)

1.3.1 [3G/LTE]NET_3G_ATWS46=0, range(12,22,25)

1.3.2 only for HE910 Modem

1.4 [PRD#14] Auto Format

1.4.1 Format SD specification

1.4.1.1 Mount failure (Not VFAT, SD)

1.4.1.2 Read Only Mount(SD is not Locked.)

1.4.1.3 When cluster size of File System is not 32kb

1.4.1.4 When cannot create SD folder

1.4.1.5 When SD Write Failed

1.5 Support Server COMMAND : UploadMDT2

2 Fixed

2.1 DMS5

2.1.1 communication delay error: "Expect: NULL"

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CP1_1.4.2.RC1 (date : 2017.04.04)

Base Version : CP1_1.4.0

1 Changes/New

1.1 UploadEvent G-Value(G-Sensor, Gyro) setting

1.1.1 Add setting on (setting.ini)

1.1.1.1 [DMS4]NET_UPLOAD_EVENT_WITH_GVALUE=0

1.1.2 Send "UploadEvent Trigger Pre/Post time G-Value"

1.1.2.1 Data is same with MDT G-Value Frame

1.1.2.2 1second is 10 frame and 1 frame has 10 data.(100Hz)

1.2 Add LOG_FORMAT

1.2.1 write FORMAT Log

1.2.2 0x01:manual, 0x02:remote, 0x03:auto

1.3 Shutdown Process

1.3.1 No waiting the thread (no access to sd card)

1.3.2 Modify Network(DMS5) shutdown

1.4 Support ReduceSDCardUnmountTime

1.4.1 add exit mode : SYS_EXIT_MODE_REBOOT_POWEROFF

1.4.2 add ipc_terminate

2 Fixed

2.1 UploadEvent : G-Sensor Turn Event(0x0008)

2.1.1 G-Sensor Turn Right event error

2.1.2 Specification

2.1.2.1 Turn Right(0x4000)/Left(0x0008) event: TURN(0x0008) event

2.1.2.2 DMS5 Protocol: UploadEvent: there is no G-Sensor Turn Left or Turn Right, There is Only Turn event.

2.2 Rebooting issue : Remove alloca()

2.3 Temperature Control(3G)

2.3.1 3G On/Off temperature

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CP1_1.4.0 (date : 2016.12.19)

Release CP1_1.4.0.RC1 as CP1_1.4.0

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CP1_1.4.0.RC1(date : 2016.11.23)

SMARTWITNESS

CP1 Firmware History

1 Changes/New

1.1 Enable/Disable Z-Axis Data in g-sensor algorithm

1.1.1 No use z-axis data : [DEVICE] Z_AXIS_USE=0

1.1.2 Use z-axis data : [DEVICE] Z_AXIS_USE=1

1.2 Change G-Sensor Range : +/- 4G

1.3 Add ECall event

1.3.1 Add ECall Event

1.3.1.1 Event_ type : DEVENT_GS_ECALL(0x0080)

1.3.1.2 Event triggered by one of ECall G-Sensor X,Y,Z value

1.3.2 Add Ecall G-sensor value on (setting.ini)

1.3.2.1 [DEVICE]GSENSOR_T_ECALL_X=0, (0 ~ 4000)

1.3.2.2 [DEVICE]GSENSOR_T_ECALL_Y=0, (0 ~ 4000)

1.3.2.3 [DEVICE]GSENSOR_T_ECALL_Z=0, (0 ~ 4000)

1.4 [DMS4] add UploadNotify API

1.4.1 Add upload notify when ECall event triggered

1.4.1.1 TriggerTime : Notify Time

1.4.1.2 EventType : Event type, ECall 0x80

1.4.1.3 NotifyData : G-sensor value(x,y,z)

1.4.2 Add upload notify on (setting.ini)

1.4.2.1 [DMS4] NET_UPLOAD_NOTIFY_ECALL = 0, (0 or 1)

1.5 Log(error.log)

1.5.1 Remove "Network device error : NO_PHONE_NUMBER" log

1.6 Add Custom Setting(G-Sensor Event)

1.6.1 Add Custom Setting on (setting.ini)

1.6.1.1 [DEVICE]GSCUSTOM=0

1.6.1.2 [DEVICE]THRESHOLD_X=600

1.6.1.3 [DEVICE]THRESHOLD_X_HIGH=900

1.6.1.4 [DEVICE]THRESHOLD_Y=600

1.6.1.5 [DEVICE]THRESHOLD_Y_HIGH=900

1.6.1.6 [DEVICE]THRESHOLD_Z=700

1.6.1.7 [DEVICE]THRESHOLD_Z_HIGH=1000

1.6.1.8 [DEVICE]HZ_X=4

1.6.1.9 [DEVICE]HZ_Y=7

1.6.1.10 [DEVICE]HZ_Z=10

1.6.1.11 [DEVICE]HARSHACCBRK_THRESHOLD_X=190

1.6.1.12 [DEVICE]HARSHACCBRK_THRESHOLD_X_HIGH=490

1.6.1.13 [DEVICE]HARSHTURN_THRESHOLD_Y=190

1.6.1.14 [DEVICE]HARSHTURN_THRESHOLD_Y_HIGH=420

1.6.1.15 [DEVICE]HARSHACCBRK_HZ_X=10

1.6.1.16 [DEVICE]HARSHTURN_HZ_Y=15

1.6.1.17 [DEVICE]GS_HIGHIMPACT_ONLY=0

1.6.1.18 [DEVICE]GSENSOR_T_ECALL_X=0, (0 ~ 4000)

1.6.1.19 [DEVICE]GSENSOR_T_ECALL_Y=0, (0 ~ 4000)

1.6.1.20 [DEVICE]GSENSOR_T_ECALL_Z=0, (0 ~ 4000)

1.7 [DMS4] UploadDriveData API

1.7.1 Upload ExtraData: G-sensor & Gyro-sensor raw data

1.7.2 frequency per second : 0/1/10/20/100Hz

1.7.3 Add extradata frequency on (setting.ini)

1.7.3.1 [DMS4] NET_UPLOAD_DRV_WITH_GVLAUE=0 (0, 1,10,20,100)

1.8 Disable SD card Write Protect Pin

1.9 [DMS4] Add settings : NET_NETWORK_TIMEOUT_MDT

1.9.1 network timeout time for the /UploadMdt, /UploadEvent, FOTA API.

1.9.2 Range 1~3600 sec, other API follow the server network timeout.

1.9.3 When there is no NET_NETWORK_TIMEOUT_MDT, follow the server network timeout

1.9.4 Add network timeout MDT on (setting.ini)

1.9.4.1 [DMS4] NET_NETWORK_TIMEOUT_MDT =0 (0 ~ 3600)

2 Fixed

2.1 [DMS4] UploadDriveData

2.1.1 Upload offline driving data error

2.2 Audio thread

2.2.1 Add recovery when Audio Data Read error

2.3 dmi.ini

2.3.1 To add MEID for DE-910(Telit CDMA) model.

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CP1_1.3.1.RC1 (date : 2016.09.06)

1 Changes/New

None

2 Fixed

2.1 dmi.ini

2.1.1 Debug the DE-910(Telit CDMA) MEID write error

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CP1_1.3.0 (date : 2016.08.12)

Release CP1_1.3.0.RC4 as CP1_1.3.0

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CP1_1.3.0.RC4 (date : 2016.08.11)

1 Changes/New

None

2 Fixed

2.1 FOTA

2.1.1 Debug the Normal/Partial HTTP Transfer Mode Error

CP1_1.3.0.RC3 (date : 2016.08.02)

1 Changes/New

1.1 FOTA

1.1.1 Normal HTTP Transfer Mode download (support the ¡°Partial HTTP File Transfer¡±)

CP1_1.3.0.RC2 (date : 2016.08.02)

1 Changes/New

1.1 DMS4

1.1.1 SD error => Keep send Live track to server

1.2 dmi.ini

1.2.1 In case of DE-910(Telit CDMA), write MEID

CP1_1.3.0.RC1(date : 2016.06.24)

1 Changes/New

1.1 Add time stamp on the DRV header

Add FirstMDTTime_LTCSec(DRV_HEADER Structure)

1.2 Add record information on the DVR frame info

Add wSystemStatus(DRV_FRAMEINFO_EX Structure) Network

1.3 [DMS] Add GotoVideo: Send I frame to server

1.4 Add Verizon Activation

2 Fixed

DST_ENABLE error

CP1_1.2.1.RC3(date : 2016.05.23)

1 Changes/New

Button Specification

- Change G-Sensor Calibration Button from "Long Button" to "Short Button" like KP1/KP1S

2 Fixed

Network

DMS5 UploadMDT error because of Driver Model error

3 Support DE910

- [driver, app] apply DE910 power sequence

4 Support AT commands for DE910_DUAL

CP1_1.2.0.(date : 2016.04.19 12:00)

1 Changes/New

Change ACC ON/OFF specification

ACC OFF -> ON : no reboot

NO PHONE NUMBER : NO LED OFF, NO BUZZER ERROR sound

2. LED/Beep Specification change. Please refer to LED,Button Specification in the user guide

3. DMS4

Add LiveTrack3 protocol

4. Over Speed Algorithm change to avoid miss trigger (trigger over speed more than 5 seconds)

5. Add G-sensor Calibration Snapshot feature (upload snapshot API)

6. Snapshot picture quality control (3 steps)

7. Add Auto format

CP1_1.1.1(date : 2016.01.15 12:00)

1 Changes/New

Change ACC ON/OFF specification

ACC ON -> OFF : Record and 3G ON

ACC ON -> OFF : Start POWEROFF DELAY

ACC ON -> OFF : restart when ACC OFF -> ON during POWER OFF DELAY

Add Shutdown Log

2 Bug Fixed

CP1_1.1.1.RC1 (date : 2015.12.29 18:00)

SMARTWITNESS

CP1 Firmware History

1 Changes/New

None

2 Fixed

2.1 G-Sensor Event Detection

Debug event detect error (event error when speed mode changed)

2.2 DMS4

Live Stream size change from 320x240 to 480x270

2.3 System

Debug Event Notify Queue

CP1_1.1.0 (date : 2015.12.10 18:00)

1. Changes/New

- Support Audio Recording