CrossFire IX - Freely Programmable SDK- Release Notes

Release 1.3

2022-04-21 CMM

Improvements

Bug Fixes

Improved CAN driver. In some cases, the TX FIFO introduced in SDK 1.23 could send messages out of order and loose messages.

Limitations

Async mode for EXT_FLASH is experimental

There are no installers for the tools

The RTC is not used in the CAN logger example

Release 1.23

2022-04-04 CMM

Improvements

New version of core API (1.2.3.0)

- Improvements in possibility to switch off over current protection. New function added (OutputManager_DisablePWMFastShutOff())
- CAN driver do now use a TX FIFO. CAN driver modified to send messages in FIFO order, previously priority order. Old CAN driver without FIFO available in legacy folder reference and backward compatibility.
- New function in output manager to set measurement period length (OutputManager_SetMeasurementPeriod())
- Possible to adjust filtering time for errors from PWM 1-4 (OutputManager_SetPwmErrorDetectionFilterTime())
- Minor input parameter validation fix

Errors for outputs 5-8 are now polled at a 10ms rate instead of previously 100ms

Limitations

Async mode for EXT_FLASH is experimental

There are no installers for the tools

The RTC is not used in the CAN logger example

Release 1.22

2021-01-26 CMM

This is a customer driven release. Version on support site not updated.

Improvements

New version of core API (1.2.1.0)

- Changed names for sensor supply functions to support other sensor supply voltages
- Util_Set12vPower changed name to Util_SetSensorSupply
- BOARDVOLTAGE_12V is renamed BOARDVOLTAGE_SENSOR_SUPPLY

Limitations

Examples not updated to use latest version of core api.

Async mode for EXT_FLASH is experimental

There are no installers for the tools

The RTC is not used in the CAN logger example

Release 1.21

2020-03-18 CMM

Improvements

All examples now uses coreapi 1.2.0.0

Removed some code that was really customer specific (FRAM_ReadUserAppParamDataBytes and FRAM_WriteUserAppParamDataBytes - fixed in coreapi 1.1.1.0)

Removed some old core api libs and deleted some out commented and unused code

Bug Fixes

Fixed bug in FOTA update where erasing large files could cause timeout (fixed in coreapi 1.1.0.0)

OutputManager_GetOutputCurrent and OutputManager_GetAverageOutputCurrent now takes channel number 0-7 as stated in documentation. (fixed in coreapi 1.1.0.0)

Fixes in Doxygen comments in outputmanager.h

BSP_ResetMCU now stops in a forever while loop after reset has been performed as processor otherwise might execute some additional instructions after BSP_ResetMCU() is called

Limitations

Async mode for EXT_FLASH is experimental

There are no installers for the tools

The RTC is not used in the CAN logger example

Release 1.2

2020-01-21 CMM

Bug Fixes

Updating the boot loader itself oven CAN or FOTA might fail and can in the worst case brick the unit (updated bootloader to 2.0.5.0)

If over current is detected on an analog input and the input is shut down, it might not recover properly (fixed in coreapi 1.0.8.0)

It is not possible to set sampling frequency for analog inputs to its documented max frequency (fixed in sdadc.c)

Analog input samples was put into the buffer twice (fixed in sdadc.c)

Limitations

Async mode for EXT_FLASH is experimental

There are no installers for the tools

The RTC is not used in the CAN logger example

OutputManager_GetOutputCurrent and OutputManager_GetAverageOutputCurrent takes channel 0-3 as argument even though documentation states channel should be 0-7.

Release 1.11

2019-09-09 CMM

Improvements

The FOTA example now sets up an access point with the name IX_ + MAC address of the IX. This makes it easier if using several CrossFire IX at the same time.

Limitations

Async mode for EXT_FLASH is experimental

There are no installers for the tools

The RTC is not used in the CAN logger example

If over current is detected on an analog input, it might not recover properly

It is not possible to set sampling frequency for analog inputs to its max frequency

Analog input samples are put into the buffer twice

Updating the boot loader itself might fail

OutputManager_GetOutputCurrent and OutputManager_GetAverageOutputCurrent takes channel 0-3 as argument even though documentation states channel should be 0-7.

Release 1.1

2019-01-22 CMM

Improvements

Improved USART driver
Added test code for Wi-Fi/USART

Limitations

Async mode for EXT_FLASH is experimental

There are no installers for the tools

The RTC is not used in the CAN logger example

If over current is detected on an analog input, it might not recover properly

It is not possible to set sampling frequency for analog inputs to its max frequency

Analog input samples are put into the buffer twice

Updating the boot loader itself might fail

Release 1.01

2019-01-17 CMM

Improvements

Change function name from CAN_ConfigIX to CAN_Config and from CAN_ReceiveIX to CAN_Recv.

Fixed some issues in manual and doxygen doc mainly regarding watchdog.

Added CAN receive unit test.

Minor code clean up

EXTFLASH_CheckBusy returns true if DMA transfer is in progress in DMA mode

Clean up of input API

Bug Fixes

Added define of USEBASICCANDRIVER to basic I/O example

Release 1.0

2018-12-21 CMM

Improvements

Added unit test for RTC

IX Wi-Fi Tool GUI is now scalable

Review of manuals

Added doxygen main pages

Added missing config-file for IX Tool DLE

General code clean up

Interrupt prio for input filtering changed from 0 to 3

Interrupt prio for BSP_DMA changed from 1 to 2

Lib is not any more a project specific folder

Added example how to handle I/O

Added Util_IsTimeout() and Util_GetTimeMS() functions

Adjusted I2C timing for debug/release using Atollic 9.1.0

WDT is not any more part of CoreAPI but drivers

Removed delay loops and replaced by BSP_Sleep (still used in I2c driver)

Changed stack size to 0x1000 for all example projects

Bug Fixes

Fixed bug in bootloaderDLE where upgrading bootloader itself over FOTA did not work

Fixed SPI and I2C bug when building in release mode with optimization

Util_Set12vPower did not work

Fixed return codes for HAL_FRAM_WriteBytes

OEM_MsTick is not called before OEM_Init is called

Limitations

FOTA example does not work with outputs activated

USART driver does disable interrupts also for receive when sending

Async mode for EXT_FLASH is experimental

There are no installers for the tools

The RTC is not used in the CAN logger example

Release 0.9

2018-11-29 CMM

This is the first version of Freely Programmable SDK supporting the Data Logger API

Improvements

Known issues

IX tool will crash if not supplying a version when creating a firmware package

Boot loader will not indicate on LED when upgrading bootloader itself over FOTA

Function names in CoreAPI for input configuration are not totally consistent and not all functions are documented in DoxyGen

IX_version.h file should be project specific

There is no protection against writing to reserved addresses in FRAM

Some functions in spi.c does start with BSP_ instead of SPI_

Code for CrossFire IX WIFI Tool will get a clean up

There are some hardware dependencies in CoreAPI

The CANopen SADD is not up to date

Limitations

Async mode for EXT_FLASH is experimental

There are no installers for the tools

The RTC is not used in the CAN logger example