

# CrossFire IX - Freely Programmable SDK- Release Notes

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## 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