

COINES v2.1

Updates

- * Fixed SPI communication issue with APP2.0 MCU target
 - * Linux and macOS users can now update APP2.0/BNO USB stick firmware with 'app20-flash' tool
 - * Fixed APP2.0 flash memory lockout issue (avoid using DD2.0 firmware v3.1-v3.3)
 - Use "update_bootloader" script in firmware/app2.0/coins_bootloader
 - Use 'app20-flash' tool to update to the latest firmware (v3.4)
 - * Disabled interrupt during I2C transaction to fix periodic data corruption issue
 - * Fixed trouble with opening USB serial port of Application Board in Ubuntu 18.04 and latest Debian distros.
 - Changed USB CDC ACM protocol from V.25TER mode to None
 - It is not required to stop "ModemManager" service anymore
 - * Added coins_delay_usec() to use with new sensorAPI like BMI270
 - * Updated 'examples.mk' so that examples can make use of C++ code (see 'examples/template' for more information)
 - * BSEC Library updated to 1.4.7.4 (No support for PC targets - Linux and macOS.Run on MCU instead)
 - * Included support for unofficial boards - Zeus, Nüwa
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COINES v2.0

Updates

- * COINES examples can be cross-compiled to run on APP2.0 microcontroller !!
 - Upgrade to latest DD2.0 firmware v3.1 to run examples on MCU (Use Development Desktop software)
 - Supports RAM and Flash download
- * Added 3 new APIs
 - coins_get_millis() - Returns the number of milliseconds passed since the program started (PC and MCU)
 - coins_attach_interrupt() - Attaches a interrupt to a Multi-IO pin (MCU only)
 - coins_detach_interrupt() - Detaches a interrupt from a Multi-IO pin (MCU only)
- * Usage
 - Install GNU Embedded Toolchain for ARM
 - Go to any example and run
 - # mingw32-make TARGET=MCU_APP20 download
 - Open Serial terminal like PuTTY or Hterm . Connect to the serial port and view the output.

Known Limitations

- * Support for MCU target is experimental.
 - * The below APIs work only with PC Target
 - coins_config_streaming()
 - coins_start_stop_streaming()
 - coins_read_stream_sensor_data()
 - coins_trigger_timer()
- Hence polling and interrupt streaming examples work with PC target only.
Make use of coins_attach_interrupt() API for MCU target.

- * BHY2 examples are supported only on PC target.
- * BSEC examples are not supported for PC target on macOS (Use MCU target)
- * Autoreconnect of USB devices is required for MCU code download to work correctly.
(USB Device switching during code download - Normal --> USB DFU <---> USB CDC)
Hence additional settings needs to configured for use with Virtual Machines
 - # Oracle VM VirtualBox - Add devices to USB filter
 - # VMWare Workstation - Not required

For online support,visit https://community.bosch-sensortec.com/t5/Bosch-Sensortec-Community/ct-p/bst_community

COINES v1.2

- * Includes
 - sensorAPI and examples for,
 - * BMA423 - <https://github.com/BoschSensortec/BMA423-Sensor-API>
 - * BMA456 - <https://github.com/BoschSensortec/BMA456-Sensor-API>
 - COINES Code Editor v1.1
 - Installer for MacOS
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COINES v1.1

- * Includes coinesAPI,sensorAPI and examples
 - coinesAPI v1.1
 - sensorAPI (sourced from <https://github.com/BoschSensortec>)
 - * BHY1 - v1.0.4 - https://github.com/BoschSensortec/BHy1_driver_and_MCU_solution
 - * BMA400 - v1.4.0 - <https://github.com/BoschSensortec/BMA400-API>
 - * BME280 - v3.3.4 - https://github.com/BoschSensortec/BME280_driver
 - * BME680 - v3.5.9 - https://github.com/BoschSensortec/BME680_driver
 - BSEC - v1.4.6.0 - https://www.bosch-sensortec.com/bst/products/all_products/bsec
 - * BMI08x - v1.2.0 - <https://github.com/BoschSensortec/BMI08x-Sensor-API>
 - * BMI160 - v3.7.5 - https://github.com/BoschSensortec/BMI160_driver
 - * BMP3 - v1.1.0 - <https://github.com/BoschSensortec/BMP3-Sensor-API>
 - * BHY2 - v1.0
 - C examples for BHY1,BMA400,BME280,BME680,BMI08x,BMI160,BMP3,BHy2
 - COINES Code Editor v1.0
 - USB driver for Bosch Sensortec Application Board 2.0
- * C examples can be compiled on Windows and Linux with GCC v4.8 or later
- * Requires Development Desktop 2.0 firmware in the Bosch Sensortec Application Board 2.0
(To upgrade Application Board 2.0 firmware,use the Development Desktop 2.0 software)