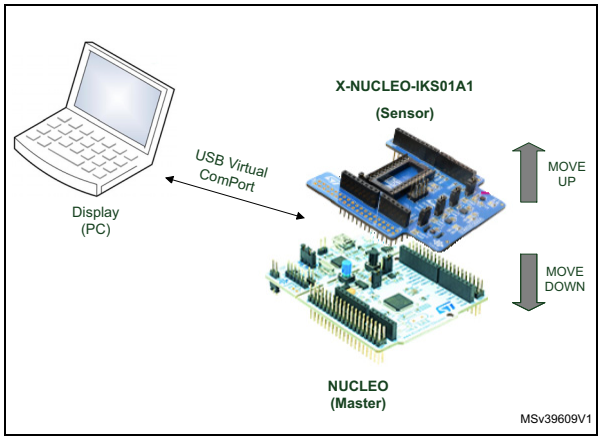
X-CUBE-BAM

Maximizing power efficiency using batch acquisition mode (BAM), software expansion for STM32Cube

Data brief

Features

- Batch acquisition mode (BAM)
- Sleep, Stop and Standby modes
- Executing code from RAM
- Low-power application case
- Current consumption measurement



Description

The X-CUBE-BAM embedded software describes an example of a BAM (batch acquisition mode) use case via a communication between an accelerometer and the STM32 microcontrollers.

Once the user moves the accelerometer, the direction (UP or DOWN) is displayed via the PC.

In this use case the accelerometer exchanges data with the STM32 microcontroller via the I2C. During the data transfer, the MCU power consumption is reduced thanks to the use of the batch acquisition mode (BAM) feature offered by the STM32 microcontrollers.

This application case is monitored by a terminal display through the USB virtual comport communication between the MCU and the PC.

The embedded software package includes one project:

- X-NUCLEO-IKS01A1: this project is based on a STM32 microcontroller (embedded in a STM32 Nucleo board) and an accelerometer (embedded in the STM32 Nucleo expansion board X-NUCLEO-IKS01A1).

The embedded software example is developed with the STM32Cube embedded software. It uses the EWARM, MDK-ARM™ and SW4STM32 toolchains and can be easily tailored for any other toolchain.

For more details refer to the application note AN4515.

For further information contact your local STMicroelectronics sales office. www.st.com

1 Ordering information

X-CUBE-BAM is available for free download from the *www.st.com* website.

2 Revision history

Table 1. Document revision history

Date	Revision	Changes
25-Aug-2015	1	Initial release.
31-Aug-2015	2	Updated description format in the cover page.
07-Nov-2016	3	Updated *Description* section in the cover page.

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