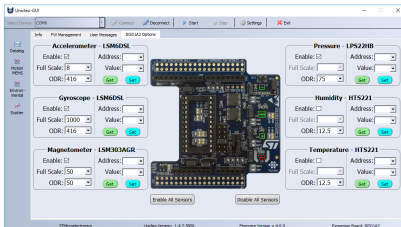


## GUI for X-CUBE-MEMS1, motion MEMS and environmental sensor software expansion for STM32Cube



### Features

- Displays data from connected sensors in various views (time plot, scatter plot, 3D plot)
- Saves data to tab separated (TSV) or comma separated (CSV) files
- Configurable output data rate and full scale
- Directly reads from and writes to sensor registers
- Demonstrate sensor Finite State Machine (FSM) and Machine Learning Core (MLC) embedded features
- Works with **X-CUBE-MEMS1** and **X-CUBE-MEMS-XT1** sensor sample applications (Datalog, DatalogExtended, FFT Demo, DatalogLite)
- Works with sample applications for algorithms (Activity Recognition, Carry Position, Gesture Recognition, Sensor Fusion, Pedometer, Magnetometer Calibration, Accelerometer Calibration, Gyroscope Calibration, Activity Recognition for Wrist, Pose Estimation, Motion Intensity Detection, Fitness Activity, eCompass, Active Time, Fall Detection, Pedometer for Wrist, Standing vs Sitting Desk Detection, Tilt Sensing, Vertical Context)
- Works with firmware created by **AlgoBuilder**
- Windows®-based application

### Description

Unicleo-GUI is a graphical user interface (GUI) for the **X-CUBE-MEMS1** and **X-CUBE-MEMS-XT1** software expansions and **STM32 Nucleo** expansion boards (**X-NUCLEO-IKS01A1**, **X-NUCLEO-IKS01A2** and **X-NUCLEO-IKS01A3**).

The main objective of this application is to demonstrate the functionality of ST sensors and algorithms.

Unicleo-GUI is able to cooperate with firmware created by **AlgoBuilder** application and display data coming from the running firmware.

The application is also able to establish Bluetooth connection with BLE connectivity-equipped devices such as SensorTile (**STEWAL-STLKT01V1**), BlueCoin (**STEWAL-BCNKT01V1**), and STM32 Nucleo with **X-NUCLEO-IDB05A1** expansion board, BlueTile (**STEWAL-BCN002V1B**) or WESU1 (**STEWAL-WESU1**) and read data from various device characteristics.

The supported firmware for these devices can be found at **FP-SNS-ALLMEMS1**, **FP-SNS-MOTENV1**, **STSW-BLUETILE-DK** and **STSW-WESU1**.

Product summary	
GUI for X-CUBE-MEMS1, motion MEMS and environmental sensor software expansion for STM32Cube	Unicleo-GUI
Sensor and motion algorithm software expansion for STM32Cube	X-CUBE-MEMS1
Sensor and DSP algorithm software expansion for STM32Cube	X-CUBE-MEMS-XT1
Motion MEMS and environmental sensor expansion board for STM32 Nucleo	X-NUCLEO-IKS01A1 X-NUCLEO-IKS01A2 X-NUCLEO-IKS01A3

## Revision history

**Table 1. Document revision history**

Date	Version	Changes
18-Oct-2016	1	Initial release.
02-May-2017	2	Updated features and description on the cover page.
02-May-2018	3	Updated cover page features and description.
14-May-2019	4	Updated cover page features. Added X-NUCLEO-IKS01A3, STEVAL-BCN002V1B and STSW-BLUETILE-DK compatibility information.

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