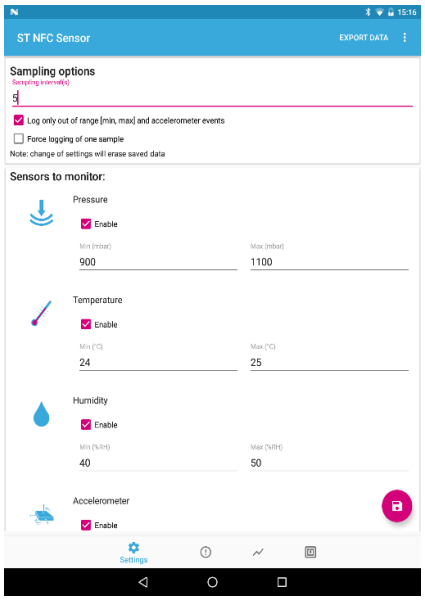
STNFCSensor

Data brief

NFC Sensor TAG mobile application



Features

- Sensor data reception and command transmission over NFC (near field communication)
- Support for multiple STM32 ODE function packs and evaluation boards
- Available on Android and iOS stores
- Data logging support
- Data plotting support

Description

The STNFCSensor application, available for iOS and Android, shows the data exported by sensor nodes via the NFC protocol.

It allows you to configure and read data from any system running the FP-SNS-SMARTAG1 function pack (for example, the STEVAL-SMARTAG1 evaluation board).

You can configure the app by choosing the sampling intervals, the sensor data logged and the conditions to trigger data logging.

After configuration, the app shows data in informative plots, identifies significant events, such as high acceleration and changes in orientation, and exports data to a csv file.

The embedded ST25DV series Dynamic NFC Tag energy harvesting feature allows using the STEVAL-SMARTAG1 without a battery and reading sensor data in one shot mode.

Product summary	
NFC Sensor TAG mobile application	STNFCSensor
NFC Dynamic Tag sensor node evaluation board	STEVAL-SMARTAG1
STM32Cube function pack for IoT node with Dynamic NFC Tag, environmental and motion sensors	FP-SNS-SMARTAG1

1 Detailed description

The app gives the possibility of setting the duty data sampling time and the sensors to monitor and store, using a threshold mechanism.

The app available panels are:

- Setup panel (for Android only) to:
  - define the duty cycle time for sensor timing acquisition in seconds
  - select the sensors to be monitored and store them in the NFC EEPROM
  - enable logging only for values out of the user defined threshold
- One shot panel (for Android only) to:
  - show the sensor data in real-time (humidity, temperature, pressure and accelerometer)

Note: This value can be read by the NFC reader even if the NFC Sensor TAG is without battery

- Extreme panel to:
  - show the maximum and minimum value recorded by the NFC Sensor TAG
- Historical data graph to:
  - show historical data in a graph (data collected during the last acquisition within a specific duty cycle)
  - log all the data received in CVS files and export them by e-mail

Revision history

Table 1. **Document revision history**

Date	Version	Changes
05-Jul-2018	1	Initial release.