SmartMotion ICM-42605 2.0.1

Software Release Note

November 27, 2019
Version 1.0

TDK InvenSense

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Overview

This release note document explains all the relevant information regarding the SmartMotion ICM-42605 **2.0.1** software release.

Software Modules included

- **Embedded Driver for ICM-42605**
  @ sources\Invn\Drivers\Icm426xx

- **Sample code** for atmel board to demonstrate usage of the driver in an embedded context
  @ sources\examples\example-algo
  @ sources\examples\example-pedometer
  @ sources\examples\example-raise-to-wake
  @ sources\examples\example-raw-ag
  @ sources\examples\example-raw-data-registers
  @ sources\examples\example-selftest
  @ sources\examples\example-smd
  @ sources\examples\example-tap
  @ sources\examples\example-tilt
  @ sources\examples\example-wom

- **Atmel project** to build and debug each sample code

- **Prebuilt firmware binaries**: for each sample code.
  @ release\bin

- **Documentation** covering Software guide as well as API definition
  @ doc

Supported Features

- Hardware features:
  - Accel raw data
  - Gyro raw data
  - Mag raw data (with AK09915)
  - Temperature raw data
  - Pedometer
  - Raise to wake
  - Self-Test
  - SMD
  - Tap
  - Tilt
  - Wake-up On Motion

- Software features:
  - Calibrated Accelerometer
  - Calibrated Magnetometer
  - Calibrated Gyroscope
  - Game Rotation Vector: 6-axis AG fusion
  - Rotation Vector (with AK09915): 9-axis AGM fusion
  - Gravity
  - Linear Acceleration

Changelog

- Update to latest algorithm with new, easier to use, API
- Add sanity example to facilitate algorithm integration
- Implement gyroscope power off to power on transition as described in AN-000166.
- Add ‘inv_icm426xx_get_version’ API to retrieve driver version

Known Issues

This section describes the known issues for all versions, including but not limited to design limitations, postponed items etc.

- None

Compliance Declaration Disclaimer

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