



Movesense Simulator

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Movesense Sensor Simulator

- "Movesense sensor software on Windows & Visual Studio"
- Easier debugging and faster development cycle
- Simulated sensors with data import (CSV-files)
- Whiteboard communication using *wbcmd.exe*

- Limitations:
 - No BLE
 - No Mobile communication
 - Not 100% accurate
- Documentation: <https://bitbucket.org/suunto/movesense-docs/wiki/EmbeddedSoftware/PC%20Simulator>

Preparing data for simulator

- Edit CSV so that the data is in correct format:
 - Comma (,) separator
 - Period (.) as decimal
 - Header row with *LoopingTimestamp* (optional)
 - 1st column is "Timestamp" (ms since start of the sensor)
 - Rest of columns with data. ColumnHeader from simulator debug output
- Confirm that simulator reads the file correctly
- Confirm that data comes out correctly (use wbcmd)
- Files (confirm filename & columns from debug output):
 - accelerometer.csv (Acc,Gyro,Magn,IMU's)
 - hr.csv (/Meas/HR, RR signal)
 - ecg.csv (ECG signal)
 - temp.csv (Temperature measurement)

Sensor Simulator: DEMO

- Sample: *blinky_app*

- Create build folder for simulator build

```
cmake -G "Visual Studio 14 2015" -DMOVESENSE_CORE_LIBRARY=../movesense-device-lib/MovesenseCoreLib/ ../movesense-device-lib/samples/blinky_app
```

- Open Project.sln in VisualStudio (needs C++ support!)

- Build & Run

- Access services on simulated sensor with wbcmd:

```
wbcmd --port TCP127.0.0.1:7044 --path /Info
```

- DataImport with CSV files

Questions?