

# RELEASE NOTES

Author: Product Manager  
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## 1 About this release

The 2020.2 stable release package for Xsens DOT is now available. Xsens DOT server and data exporter are included in this release. Section 3 lists out the major improvements and new features made after the previous version which was the beta release.

Android and iOS app will be available for downloading in Google Play Store and Apple Store respectively. SDK and data exporter can be downloaded from [Xsens DOT developer page<sup>1</sup>](#). [Xsens DOT server](#) is available on GitHub. Using the 'Device Firmware Upgrade' function in the new app, user can upgrade to the latest firmware through OTA.

Table 1: Release versions

Release component	Product applicability	New version	Comments
Xsens DOT Firmware	Xsens DOT Sensor	<b>1.4.0</b>	Stable release
Android APK and SDK	Xsens DOT Sensor	<b>2020.2</b>	Stable release
iOS App and SDK	Xsens DOT Sensor	<b>2020.2</b>	Stable release
Xsens DOT server	Xsens DOT Sensor	-	-
Xsens DOT data exporter	Xsens DOT Sensor	<b>2020.2.0</b>	-

## 2 Compatibility

Table 2: Supported platforms

Software	Supported platforms
Android APK and SDK	<ul style="list-style-type: none"><li>Android OS 8.0 and above</li><li>ARMv8 CPU architecture</li></ul>
iOS App and SDK	<ul style="list-style-type: none"><li>iOS 9.0 and above</li></ul>
Xsens DOT server	<ul style="list-style-type: none"><li>Window, MacOS and Linux</li></ul>
Xsens DOT data exporter	<ul style="list-style-type: none"><li>Window, MacOS</li></ul>
Bluetooth requirements	<ul style="list-style-type: none"><li>Best performance with BLE 5.0, DLE<sup>2</sup> supported</li><li>Compatible with Bluetooth 4.2</li></ul>

<sup>1</sup> By downloading the Xsens DOT apps and SDKs, you accept the Xsens DOT APP and SDK EULAs accessible on our developer page

<sup>2</sup> Data Length Extension.

Table 3: List of tested devices

Platform	Tested devices
Android	<ul style="list-style-type: none"><li>• Samsung Galaxy S9, Samsung Galaxy S10, Oppo Reno, Huawei Mate20 Pro, Huawei P30 and MI 9, Google pixel 3a.</li></ul>
iOS	<ul style="list-style-type: none"><li>• iPhone11 XS Max, iPhone X, iPhone XR, iPhone 8</li></ul>
Others	<ul style="list-style-type: none"><li>• Any<sup>3</sup></li></ul>

## 3 Major improvements and new features

Meanings of icons: +added, ^changed, !note, #fixed, -removed

### 3.1 Firmware

- + Added notification when entering power saving mode in connection mode.
- + Support 4 new payload modes with both sensor fusion and inertial data.
- + Added recording function to enable data recording and exporting with sensor internal storage.
- + Added synchronization function to have the time-synced data.
- + Added serial number support.
- ^ Battery shelf life has been improved.
- ^ Changed all the big endianness settings to little endianness.
- Removed the UUID in advertisement packet.

### 3.2 Android APK

- + Support power saving time adjustment.
- + Added OTA fail reasons.
- + Support 4 new payload modes with both sensor fusion and inertial data.
- + Support recording function.
- + Added reminder to back up the recording data before OTA.
- + Support synchronization function in real-time streaming and recording.
- + Display serial number in Settings.
- ^ Improved the screen adaption for MFM in 5.2 inches screen.
- ^ Improved the heading reset function.
- ^ Improved some text in app.
- Removed the reconnection attempt after sensor is powered off by button during connection.
- ^ Change "dQ", "dV" to "dq", "dv" in logging csv.
- Removed the limitation that only 5 sensor can be connected at the same time.
- Remove support for special characters in tag name.

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<sup>3</sup> Embedded software engineers and System architects can make use of the Xsens DOT BLE Service Specification document to connect to Xsens DOT with any device that supports BLE 5.0.

## RELEASE NOTES

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### 3.3 Android SDK

- + Support 4 new payload modes with both sensor fusion and inertial data.
- + Support recording function.
- + Support synchronization function.
- + Added serial number support.
- ^ Changed all the big endianness settings to little endianness.
- ^ Change "dQ", "dV" to "dq", "dv".
- Removed OTA and MFM functions.
- Removed DeviceService class.
- Remove support for special characters in tag name.

### 3.4 iOS App

- + Support power saving time adjustment.
- + Added heading reset function.
- + Added identify LED pattern after rename the sensor.
- + Support all the payload modes in real-time streaming.
- + Added crash information collection.
- + Support recording function.
- + Added reminder to back up the recording data before OTA.
- + Support synchronization function in real-time streaming and recording.
- + Display serial number in Settings.
- ^ Improved the axis scale flexibility in plotting charts.
- ^ Improved some text in app.
- ^ Change "dQ", "dV" to "dq", "dv" in logging csv.
- Removed the reconnection attempt after sensor is powered off by button during connection.
- Remove support for special characters in tag name.

### 3.5 iOS SDK

- + Added heading reset function.
- + Support all the payload modes in real-time streaming.
- + Added crash information collection.
- + Support recording function.
- + Support synchronization function.
- + Added serial number support.
- ^ Changed all the big endianness settings to little endianness.
- ^ Reduced the data loss rate in real-time streaming.
- ^ Change "dQ", "dV" to "dq", "dv".
- Remove OTA and MFM functions.
- Remove support for special characters in tag name.

# RELEASE NOTES

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## 4 Bug fixes

### 4.1 Firmware

- # Removed the 2nd notification when starting OTA in uncharged status.
- # Fixed the NaN value output after sensor disconnect and connect again in real-time streaming.
- # Fixed the wrong angular velocity and acceleration output in Delta quantities and Rate quantities modes.

### 4.2 Android APK

- # Cannot open CSV file with correct separator has been fixed.
- # Fixed the incorrect status bytes in high fidelity mode.
- # Fixed several crashes.

### 4.3 Android SDK

- # Fixed the incorrect status bytes in high fidelity mode.

### 4.4 iOS App

- # Fixed the wrong packet counter in logging csv after sensor reset.
- # Cannot open CSV file with correct separator has been fixed.
- # Logging csv files of the same real-time streaming measurement are stored in 2 folders has been fixed.
- # Fixed the copyright icon.
- # Fixed the orientation unit in Complete (Euler) mode.
- # Don't keep the last selection of measurement mode issues has been fixed.
- # Fixed the issue that red badge always display in Advanced button.
- # Fixed the incorrect status bytes in 3 measurement mode.
- # Cannot reconnect reboot sensors automatically after OTA has been fixed.
- # Fixed several crashes.

### 4.5 iOS SDK

- # Fixed the wrong packet counter in logging csv after sensor reset.
- # Fixed the NaN values in logging csv of 3 modes in real-time streaming.
- # Fixed the reconnection malfunction issue.
- # Fixed the incorrect status bytes in 3 measurement mode.

## RELEASE NOTES

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### 5 Known issues

1. Starting another real-time streaming with a different mode while sensor is still in streaming mode, the first few data packets in the logging csv would be wrong.