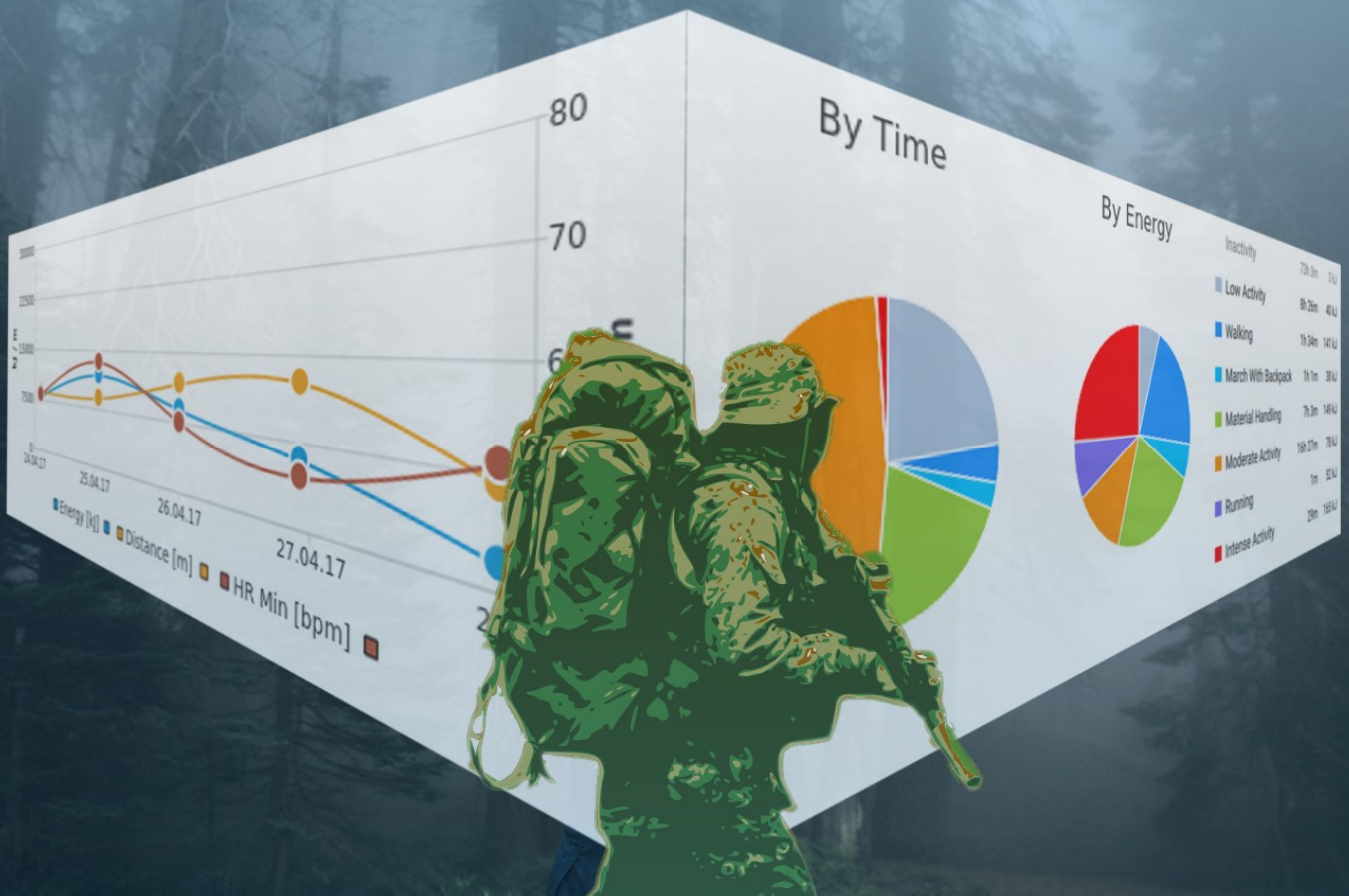


Axiamo PADIS

Long Term Activity Monitoring for Soldiers



Operator's Guide

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1 Welcome

Congratulations on your purchase of the Axiomo PADIS Long Term Activity Monitoring for Soldiers tracking system. Axiomo PADIS is the next generation of long term soldier activity monitoring. The system is designed to monitor large squads of soldiers over a long term period of time. One Kit consists of two motion sensors and a heart rate sensor. One of the motion sensors is worn at the hip and the other is attached to a backpack. Numerous heart rate sensors are supported. Dependent on your application, your Kits can be equipped with chest worn (Polar H7) or wrist / arm worn (Polar OH1, Scosche Rhythm 24 etc.) heart rate sensors.

The system is designed for easy use. It requires minimal user interaction for setup and data evaluation.

Axiomo PADIS features activity monitoring over a period of 7 days without user intervention. After the measurement period, the Axiomo PADIS sensors are connected to the sensor hub for automatic data extraction.

Fully automatic data processing and comprehensive visualization reveals the group's physical activity and energy expenditure with minimal effort for the operator.

Have any questions about your Axiomo PADIS product?

We're ready to help! Your complete satisfaction is our goal, so your feedback is crucial. If you have any thoughts, questions, or concerns, just contact our knowledgeable support team at:



axiomo.com/contact



facebook.com/axiomo



support@axiomo.com



twitter.com/getaxiomo

1.1 What's Included

Axiama PADIS Carrying Case

The carrying case (Peli Storm Case) consists of 10 complete Kits. It is pluggable to the PC with 2 USB 2.0 Type A cables. Data connection works without connecting the power cable. For quicker charging, connect the power cable and allow 4 to 6 hours for charging the sensors completely.



A soldier's Kit consist of the following:

- 1 Axiama PADIS sensor for wearing at the hip (eg. 01H)
- 1 Axiama PADIS sensor for wearing at the backpack (eg. 01B)
- 1 Heart rate sensor (eg. 01 for Polar H7 chest belt, Polar OH1 arm band, or Scosche Rhythm 24 arm band)
- 2 Silicone cases for attaching the Axiama PADIS sensors to hip and backpack
- Warranty 365 days

The label on the sensors and heart rate monitor (eg. 01H) has the following meaning:

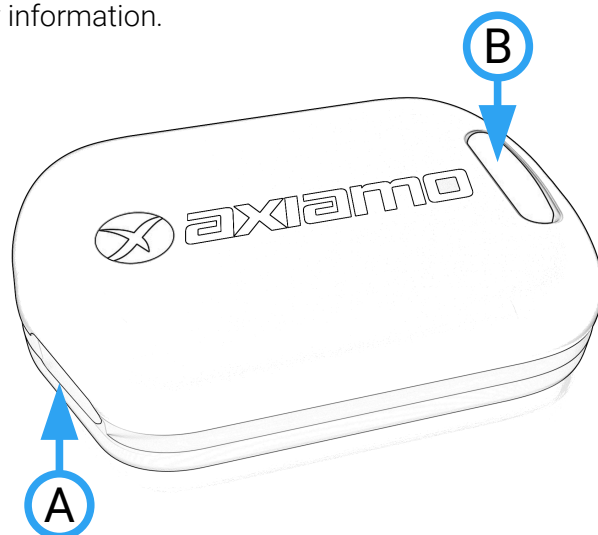
- First two digits 01 The Kit number
- The letter at the end H = Hip, B = Backpack

1.2 Safety Information

See **Battery Care** for important battery care and battery safety information.

1.3 Axiama PADIS Sensor Overview

- A Micro USB Connector
- ▶ Charging of the Axiama PADIS sensors
 - ▶ Wired communication
- B Status LED (**Do not push! No button**)
- ▶ LED status indication
 - ▶ Device reset (not used normally)



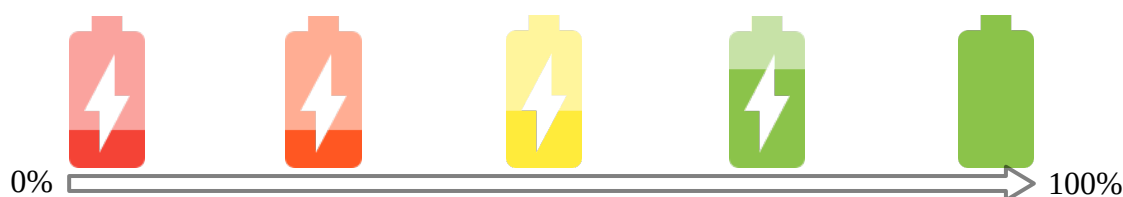
For a device reset, use provided needle and push through the small hole and hold for 10 seconds

1.4 Charging

The Axiama PADIS sensors have an internal rechargeable lithium battery. Connect the sensors to the powered Axiama PADIS carrying case for charging.

The LEDs will indicate the charging process with a color transition from **Red** to **Green**. When the battery is fully charged, this animation will stop and a periodic white blink will indicate the successful charging.

You can always check the current battery level by connecting the device to the computer and have a look on the battery icon in the *Kits Tab*.



A full charging process from empty to full needs about 6 hours. It is recommended to charge the sensors overnight before a measurement.

1.5 Battery

The Axiama PADIS sensors have a built-in high performance 240mAh lithium battery. Dependent on the measurement configuration, the system is able to record continuously up to 7 days with one battery charge. Before starting a measurement, be sure that all sensors are fully charged. It is recommended to charge the sensors overnight.

1.6 Power on / off

The devices will automatically power off after 10 minutes of inactivity when not plugged to a PC and not charging. To turn on all sensors in a carrying case unplug both the power and USB cables, wait for 10 seconds and replug first the power and then the USB cables. Now all devices will turn on and become available in the Axiama PADIS software.

1.7 Color LED

The LED indicates the current device status:



Periodical white blink

Device is in idle mode and ready to use. After 10 minutes of inactivity the Axiomo PADIS sensors will power off themselves. Just plug the sensors to a powered USB port to restart them.



Periodical blue blink

Device is configured as **hip sensor** and is waiting for the programmed measurement to start or the record period has just ended.



Periodical orange blink

Device is configured as **backpack sensor** and is waiting for the programmed measurement to start or the record period has just ended.



Red continuous light

Device is clearing its memory before starting to measure. This takes about 10 seconds.

No LED activity

This is the normal operating state of the Axiomo PADIS sensors. During the measurement periods, power consumption is reduced by not using the LED at all.

2 Software Installation

Axiomo PADIS supports Windows (Windows 10, 64bit) and Linux (Debian based) operating systems.

The most current software release can be obtained at <http://www.axiomo.com/padis>.

Your application data like measurements and settings are stored at a different location than the application itself, so when installing newer versions of Axiomo PADIS, you still have all your application data accessible without any need of transferring them.

2.1 Windows

1. Download the current Axiomo PADIS release provided at <http://www.axiomo.com/padis>.
2. Double click the installer and go through its setup. Note that you will need administrative permissions to install the Axiomo PADIS sensor's USB driver.
3. When the installer has finished, you directly can start the application.

2.2 Linux

1. Download the current Axiomo PADIS release linked at <http://www.axiomo.com/padis>.
2. Give the installer executive rights:

```
$ chmod +x AxiomoPADISInstaller_XXXX.XX.XX.XX.XX.XX.run
```
3. Start installer

```
$ ./AxiomoPADISInstaller_XXXX.XX.XX.XX.XX.XX.run
```
4. When the installer has finished, you directly can start the application.
5. Verify your currently logged in user is in the groups *plugdev* and *dialout*

```
$ sudo usermod -a -G plugdev user  
$ sudo usermod -a -G dialout user
```
6. In case the sensors are not accessible immediately after plugging them to the PC, it may be necessary to uninstall the installed package *modemmanager*. This package is used to communicate to analog modems and may interfere with the Axiomo PADIS USB communication. Uninstall this unneeded package with:

```
$ sudo apt-get purge modemmanager
```

3 Software Setup

After installing Axiama PADIS, you will need to request the following files from Axiama:

- License file for product activation
- Kit Definition files for your Axiama sensors

The procedure is described in the following sections.


3.1 Licensing

Axiama PADIS uses license files for product activation. There are credit based and timed licenses available.

Without an activated product with credits available, no measurements can be processed, visualized nor exported.

Any obtained license is bound to one computer and can not be transferred.

To obtain your license, please follow these steps:

1. Open the Profile dialog in Axiama PADIS by clicking on the profile icon 
2. In the Profile dialog, your current balance is shown. Now open the Credits Manager by clicking on "Manage..."

Credits Balance

Balance: 0

MANAGE...




3. In the Credits Manager, copy the displayed UID and send it to Axiama for creating your license file.

Note: this UID is unique per computer. The obtained license will only be valid on the computer the UID is generated on.

UID 8316801456345109661

4. After receiving your license file, click on "Add Credits" in the Credits Manager and select the obtained license file.
5. Now Axiama PADIS is activated and can be used productively.

3.2 Data location

In the Profile Dialog  you can define the measurements and settings location.

3.3 Kit definitions

When receiving your initial license, Axiama will provide you with a Kit Definition file to be imported in the Axiama PADIS application.

In the Kits tab of Axiama PADIS, on the bottom left there are buttons for Kit Definition import and export. When clicking on "Import" and selecting the obtained Kits Definition file (.zip), your Kits are being imported and can be used for new measurements.

4 Getting Started

4.1 Axiomo PADIS Software Overview

Axiomo provides a modern and intuitive Software to manage your measurements.



- Cloud synchronization
 - User credentials and data storage location
- It is best to create first your own session data path

The image shows a 'Profile' dialog box with the following fields and options:

- Credentials**
 - User name: USER-PADIS
 - Password:
 - Status: Cloud idle
- Data location**
 - Finland
- Storage location**
 - C:/local_data

At the bottom of the dialog box are three buttons: 'CREATE SESSION', 'CANCEL', and 'OK'.

- Settings
- Software Version Details
- Software and Sensor Firmware update

The **Axiomo PADIS** Software is organized in **three main tabs**:

- Measurement Tab
- Kits Tab
- Heart Rate Belts Tab

4.2 Measurement Tab

The screenshot shows the Axiamo PADIS 2.0 application window. The title bar indicates 'Axiamo PADIS 2.0'. The main header features the Axiamo logo and the text 'Axiamo PADIS 2.0'. Below the header, there are three tabs: 'MEASUREMENTS' (selected), 'KITS', and 'HEART RATE BELTS'. The 'MEASUREMENTS' tab is active, showing a yellow bar for 'Active (0)' with a message 'No active measurements.' and an information icon. Below this, there are two sections: 'Pending (1)' and 'Finished (1)'. The 'Pending (1)' section contains a measurement card titled 'One week measurement' with details: '5 Subjects', '4d 17h', and a time range from '13.08.18 06:00:00' to '17.08.18 23:00:00'. The 'Finished (1)' section contains a measurement card titled 'TestMeasurement' with details: '5 Subjects', '14m', and a time range from '02.08.18 12:08:57' to '02.08.18 12:23:55'. Both cards have a trash icon. A large green circular button with a white plus sign is located at the bottom right of the measurement list.

| Measurement Status | Measurement Name | Subjects | Duration | Start Time | End Time |
|--------------------|-------------------------|------------|----------|-------------------|-------------------|
| Active (0) | No active measurements. | | | | |
| Pending (1) | One week measurement | 5 Subjects | 4d 17h | 13.08.18 06:00:00 | 17.08.18 23:00:00 |
| Finished (1) | TestMeasurement | 5 Subjects | 14m | 02.08.18 12:08:57 | 02.08.18 12:23:55 |

The measurement tab lists all your measurements with some additional information about them. All the measurements are listed either as “Pending”, “Active” or “Finished”. To create a new measurement, just click on the *Plus* icon on the bottom right to start configuring.

Creating New Measurement

The setup screen for creating a new measurement allows to set the following parameters:

New Measurement

One week measurement

Start Date 02.08.18 Start Time 06:00:00 Stop Date 09.08.18 Stop Time 23:00:00

Kits selection (5 selected) SELECT ALL SELECT ONLINE SELECT NONE

| | | | | | | | |
|-------------------------------------|--|--------|--|--|--|--------------------|--|
| <input checked="" type="checkbox"/> | | Kit 01 | | | | Polar OH1 21BDD325 | |
| <input checked="" type="checkbox"/> | | Kit 02 | | | | Polar OH1 26CAA422 | |
| <input checked="" type="checkbox"/> | | Kit 03 | | | | Rhythm 24 3278 | |
| <input checked="" type="checkbox"/> | | Kit 04 | | | | Rhythm 24 3162 | |

SAVE

Measurement Name

The measurement shows up in the list with this label. A meaningful name helps to quickly locate the measurement in the list at a later time.

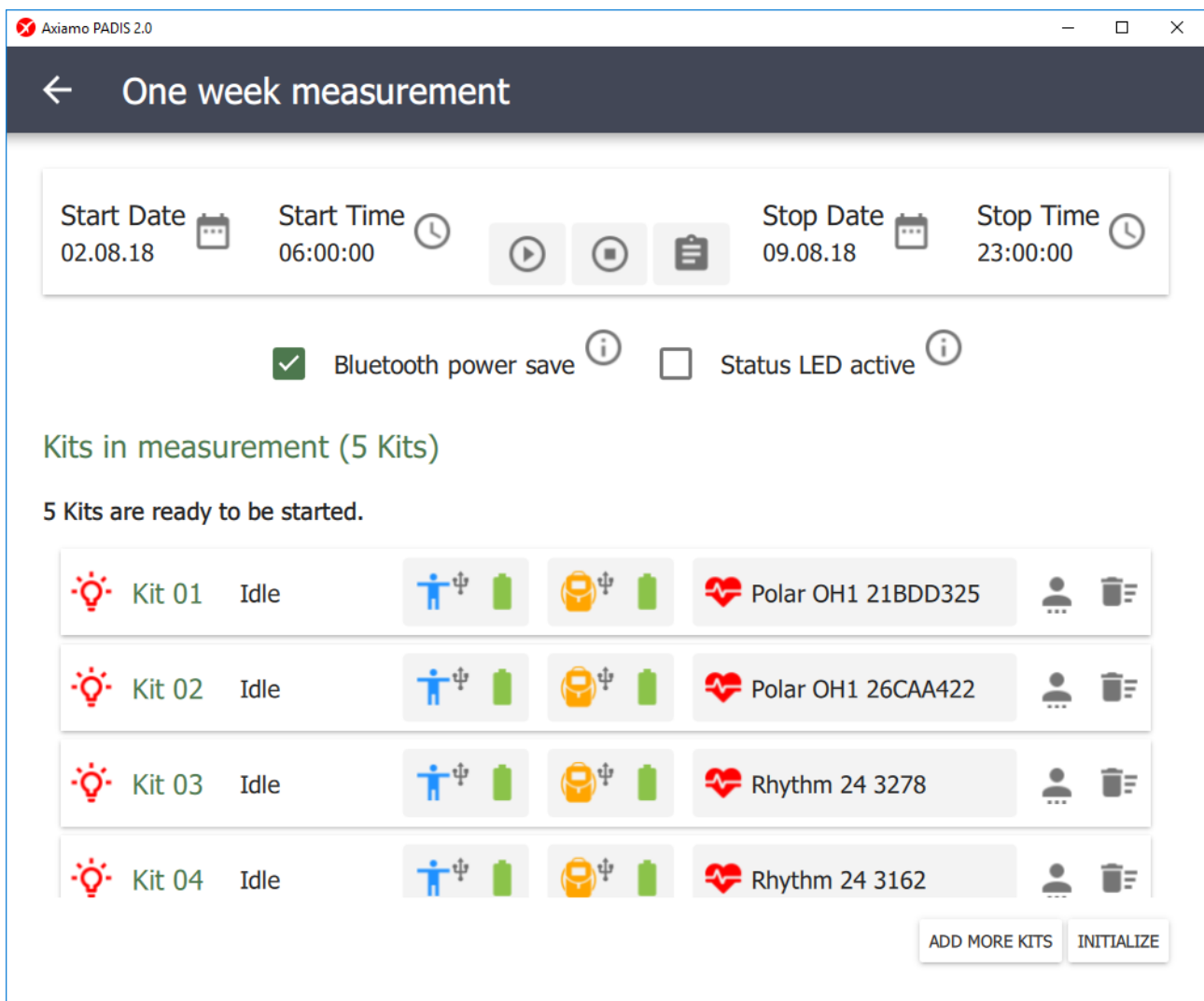
Time and date for measurement start and stop

Carefully set the desired measurement start and stop time and date. Normally the measurement start is set to a time in the future (eg. next morning). It is however possible to set up a start time in the past, in this case the measurement will immediately start and adding more Kits afterwards is not possible.

Kits to include in measurement

In the list, all *configured* and *online* Kits are listed. Kits can individually be unchecked if they should not be added to the measurement. If some Kits are not displayed in the *scrollable list*, be sure that all sensors configured to the Kit are connected through USB. Only Kits with all defined sensors being online are displayed in the list (check USB icon).

After clicking the SAVE button the basic parameters as *Measurement Name*, *Start / Stop time* can not be altered anymore. However, as long as the measurement start time is not reached, additional Kits can be added to the measurement. Just connect more Kits via USB and click on the button labeled *Add more Kits* to select them. They will be initialized with the identical measurement setup as the previously set up sensors.



Bluetooth power save

To allow long term measurements of up to one week, this feature reduces Bluetooth power consumption with a less aggressive reconnect behavior when the connection to the heart rate sensor has been lost. When unable to connect (eg. when the heart rate sensor is not worn for sleeping, reconnecting will be triggered by motion measured by the Axiomo PADIS sensors. When unchecked, the sensors will repeatedly try to connect to the heart rate sensors even during long periods with the cost of increased power consumption.

Status LED active

When unchecked, the Axiomo PADIS sensors just blink in their role dependent color (blue for hip sensor, orange for backpack sensor) before the measurement start. During the measurement the LED will be switched off for minimum power consumption. However, for short measurements (up to one day), this feature can be checked and is used to illustrate the current status of the device. For a detailed description of the blink codes please consult the chapter *Color LED* in this document.

The measurement will be initialized with the measurement set up when clicked *INITIALIZE*.

4.3 Kits Tab

Overview

Here all defined Kit assignments are displayed. After installing the Axiama PADIS software there are no entries in this list. Axiama provides each customer with its individual Kit assignments for easy importing:

- Click on the *Import Kits* button
- Select the provided Kit assignment file received from Axiama
- Now all Kit assignments are imported and stored to the Computer

If it is required to have the Kit assignments on multiple PCs, just repeat these steps on every computer needed for Axiama PADIS.

If the Kit assignment is modified at a later time, it is advisable to export the modified Kit assignment to a zip file as backup.

The screenshot shows the Axiama PADIS 2.0 software interface. The top navigation bar includes 'MEASUREMENTS', 'KITS', and 'HEART RATE BELTS'. The 'KITS' tab is active, displaying a list of five kit assignments. Each kit entry consists of a kit name (e.g., Kit 01, Kit 02, Kit 03, Kit 04, Kit 05), a list of sensors (Hip sensor, Backpack sensor, Heart rate sensor), and a delete button. Annotations with arrows point to various UI elements: 'Kit Name' points to 'Kit 05', 'Identify Kit' points to the kit name field, 'Import Kit assignments from zip' points to the 'IMPORT KITS' button, 'Export Kit assignments to zip' points to the 'EXPORT KITS' button, 'Delete Kit Kit Assignment' points to the delete button for Kit 05, and 'Create New Kit assignment' points to a green plus button at the bottom right.

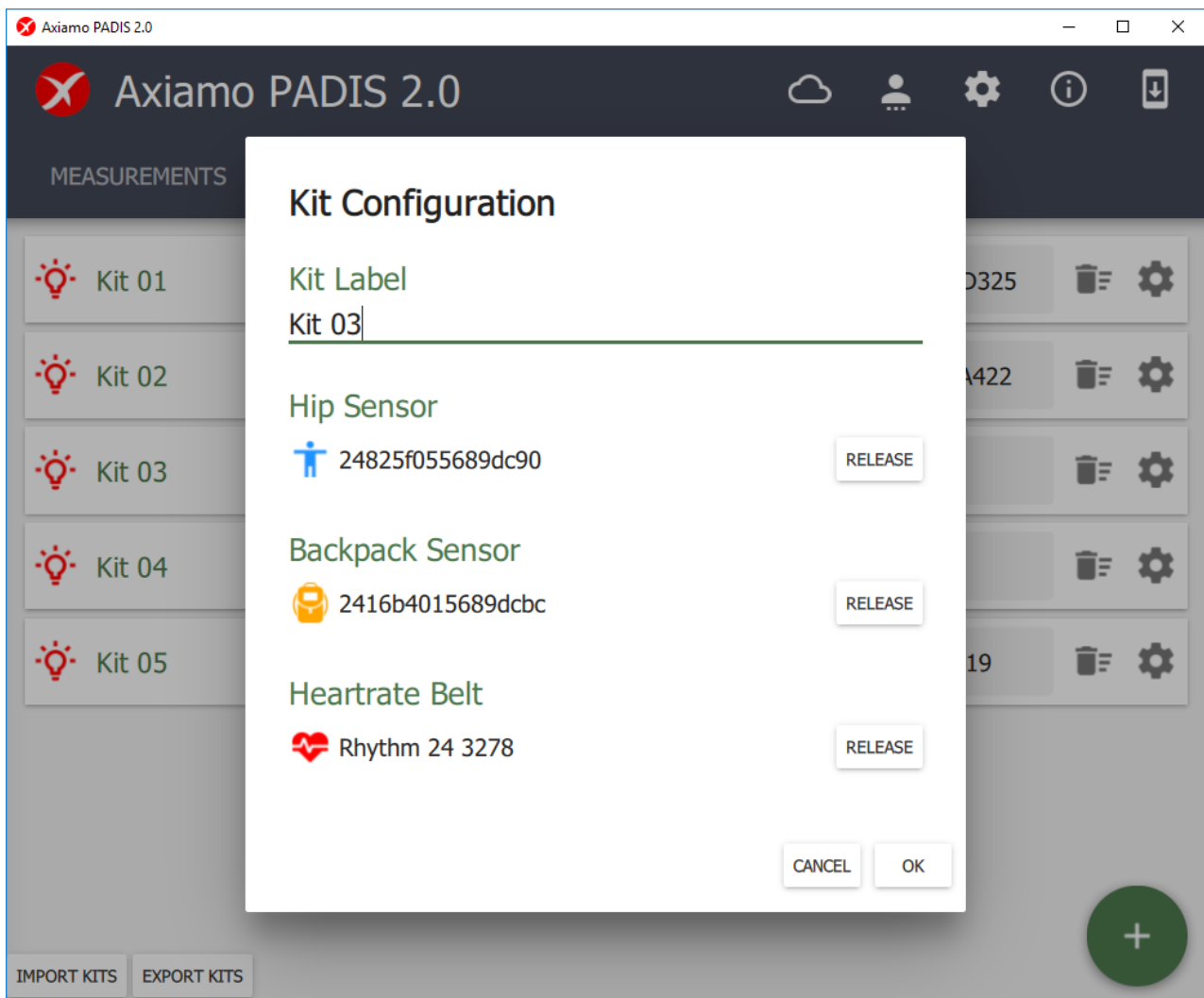
In normal use, it is not necessary to modify the Kit assignments.

Kits Assignments

When clicking on the *Kit assignments* icon in the *Kits Tab* a pop-up dialog appears showing the sensors used in the selected Kit. This is helpful in the following situations:

- Changing the sensors to use in a Kit
- Verify the correct sensors are used in a Kit

It is required that the Kit's sensors are connected to the PC to use all functions of this dialog.



As soon the dialog opens, both the hip sensor and the backpack sensor light up in their role color (Hip = Blue, Backpack = Orange). The sensors will stop identifying themselves when the dialog is closed again. Renaming Kit

To rename the Kit, just modify the text in the *Kit Label* text field and click on *OK*.

Change Kit Assignment

Both the sensors and the heart rate monitor of the Kit can be changed by clicking on *Release* and selecting a new unassigned sensor.

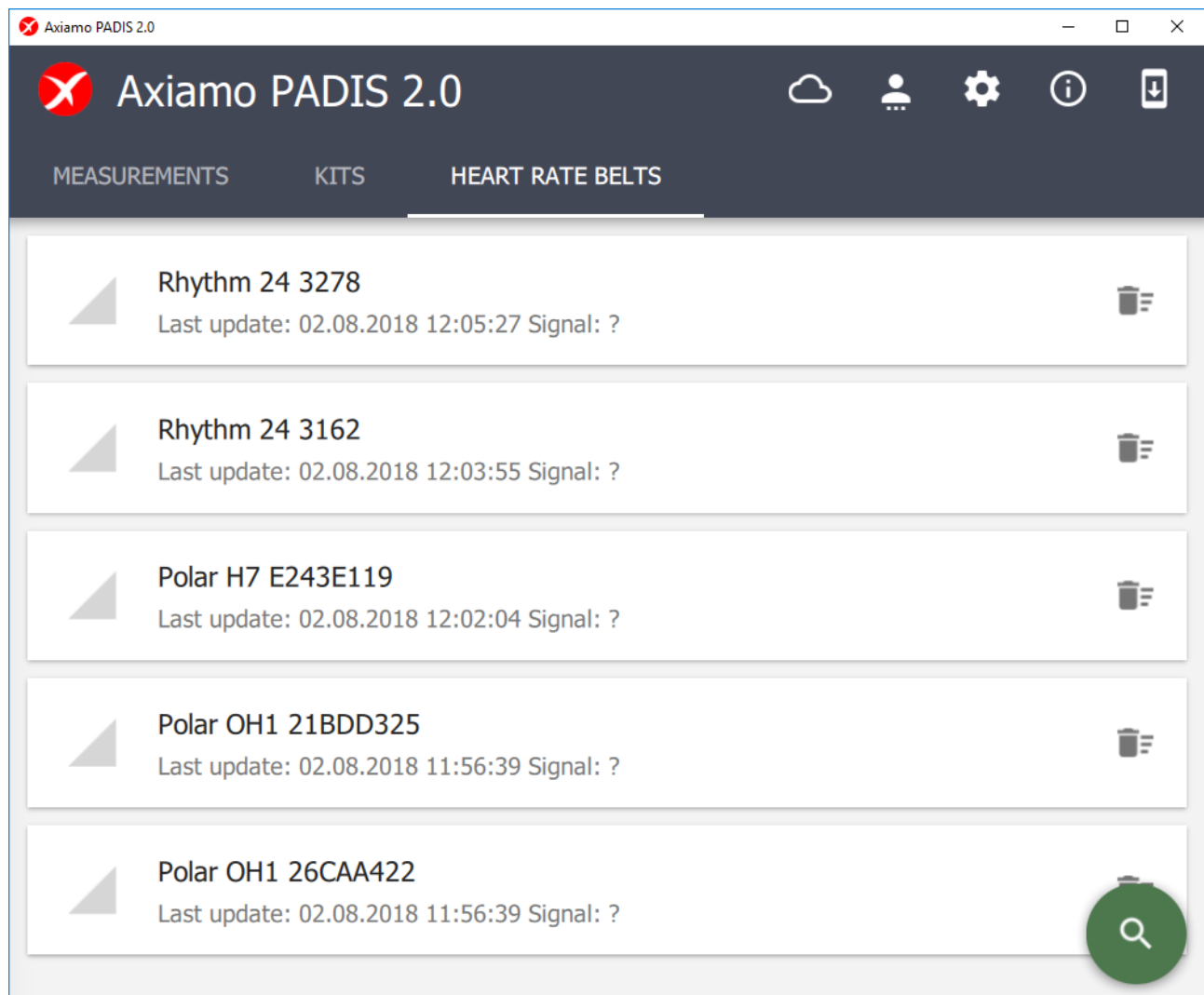
One sensor can only be used in one Kit at a time.

4.4 Heart Rate Belts Tab

This tab lists all found Bluetooth 4.0 heart rate belts. If a heart rate belt is added to Axiomo PADIS at a later time, please follow these steps:

- Be sure the heart rate belt is transmitting by moisturizing the electrodes and wearing it tightly on the chest
- Connect at least one Axiomo PADIS sensor (hip or backpack)
- Press on the *Search* Icon and wait 20 seconds for the scan to be completed
- The new heart rate belt should be found and listed
- To add it to a Kit, please open its Kit assignment dialog and select the newly added heart rate belt

In normal use, it is not necessary to use this tab.



5 Operate Measurement

5.1 Preparing measurement

For a successful measurement, a correct preparation and initialization is very important. Before the measurement period, the following requirements have to be met:

- Verify the correct assignments of all Kits to be used in the measurement
- Leave the sensors connected to a powered USB plug for a night to assure they are fully charged
- Create a new measurement and set up the name, start and stop time / date. Be sure to double check the entered start and stop time and date
- Connect the Axiomo PADIS carrying case to the PC (using the USB cable and do not forget to also use the power plug) and see the Kits appearing in the measurement's Kit list
- Press on *SAVE* and *INITIALIZE* to initialize the sensors with the given setup

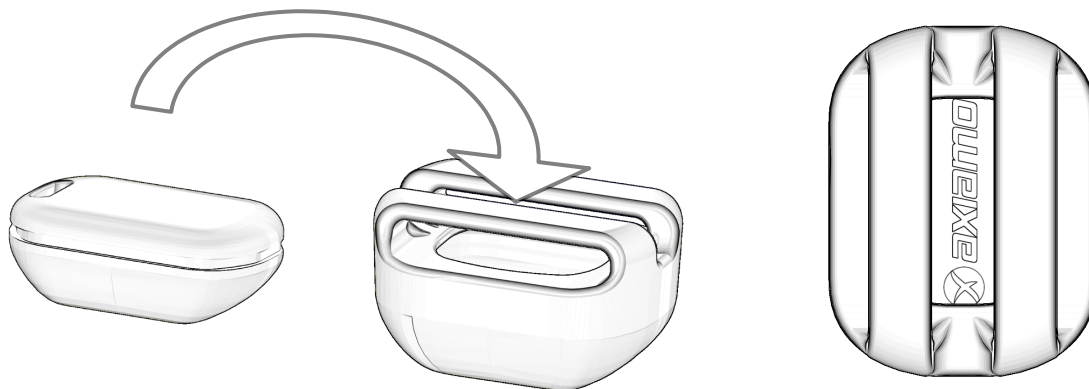
As soon as the measurement has been started, the *Measurement State* will be in the *Running* state as illustrated below.



- If the measurement start time is in the future, you can add more Kits by connecting them to the PC and pressing on *ADD MORE KITS*. After selecting the new Kits, press on *INITIALIZE* to initialize this batch of Kits. This procedure can be repeated as required and as long as the start time is in the future.

5.2 Starting measurement

- Unplug started Kits from USB and put them in the PADIS 2.0 silicone case



- Be sure to put the sensors in the silicone case the correct way as illustrated above. This ensures best protection against dirt and moisture. The sensor's LED should be completely covered by the silicone case

- Started Axiomo PADIS sensors show their role with a blink color (Hip = Blue / Backpack = Orange). The hip sensor (blinking Blue) has to be attached to the subject's belt and positioned at the outer right side of the hip. The backpack sensor (blinking orange) is attached to the backpack preferably also at the right side

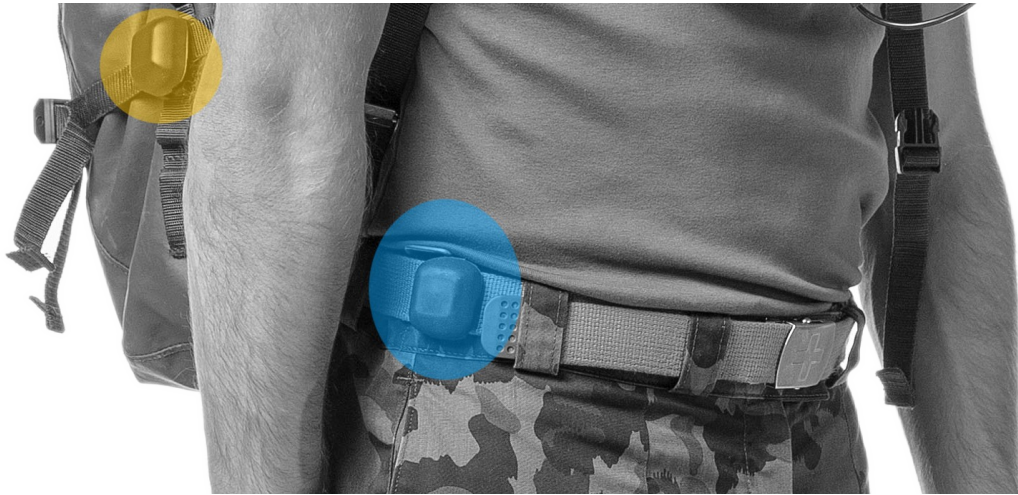


Photo: Ueli Känzig, SFISM

- When the start time is reached, the sensors stop to blink in their role color and start recording. The heart rate belt should be worn by the subject at that time to get complete heart rate data

5.3 During the measurement

During the measurement, no intervention is needed at any time. The Axiomo PADIS system continuously records motion and heart rate data of the subjects.

5.4 Finishing measurement

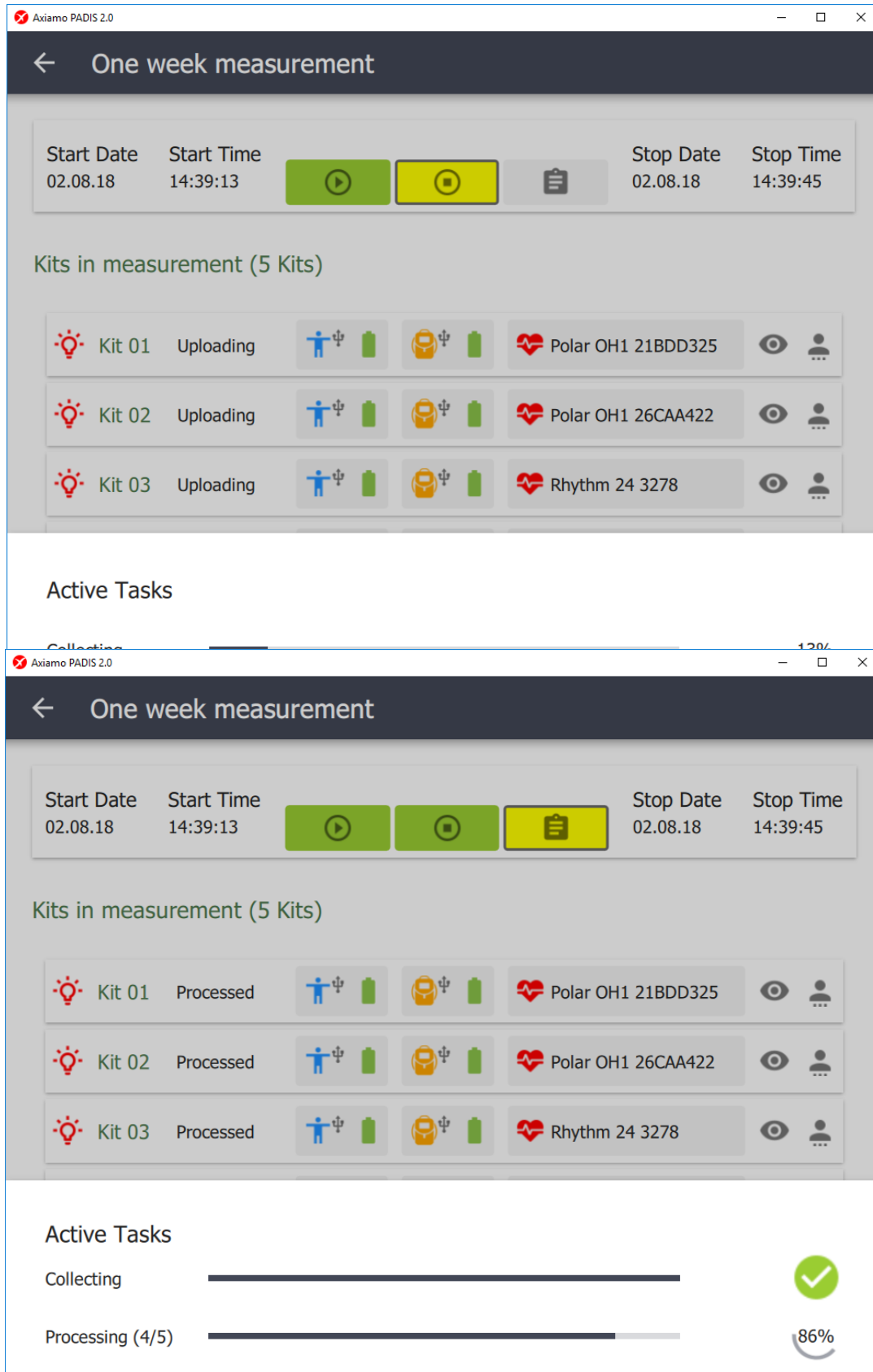
After the measurement period, reconnect all Kits to the Axiomo PADIS carrying case, connect the grey USB cables to your computer and open the measurement in the Axiomo PADIS software.

Stopping, Uploading and Processing measurement

To stop the sensors and upload the data from the sensors to the PC press on the *Stop* icon in the *Measurement State* box. The data will then be automatically processed. If all the sensors are stopped, uploaded and processed the *Stop* icon will be colored in green.



- You can verify the *upload* and *processing* process in the bottom bar



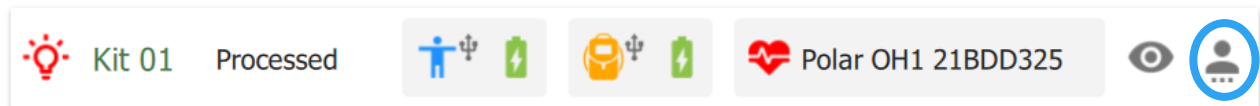
the case, not all Kits are connected to the Computer when uploading and processing, the *Measurement State* will illustrate *partly uploaded* with yellow color. In this case it is nevertheless possible to export the incomplete data. As soon all Kits are completely stopped, uploaded and processed, the *Measurement State* will turn green.



Entering soldier details

- You always can adjust the soldier details, before or after data uploading and processing by clicking on the *Soldier Icon*. The resting metabolic rate for each soldier / kit is calculated based on this information. Please note that after adjusting the soldier details data you have to re-export your data if you wish to post-process it.

Kits in measurement (5 Kits)



Edit the soldier details by pressing on the soldier icon

Soldier Details

Gender ☒ Male ☐ Female

Age years
default value

Weight kg
default value

Size cm
default value

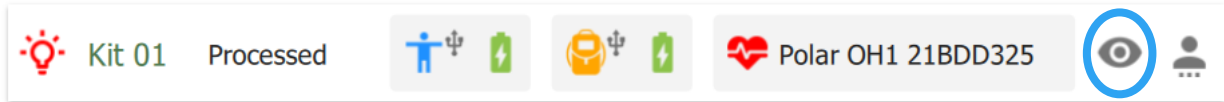
Resting Heart Rate bpm
system value

Maximum Heart Rate bpm
default value

5.5 Visualize measurement

After processing a measurement, a eye icon appears for every processed Kit. Clicking on this icon will open the Kit Visualization screen.

Kits in measurement (5 Kits)



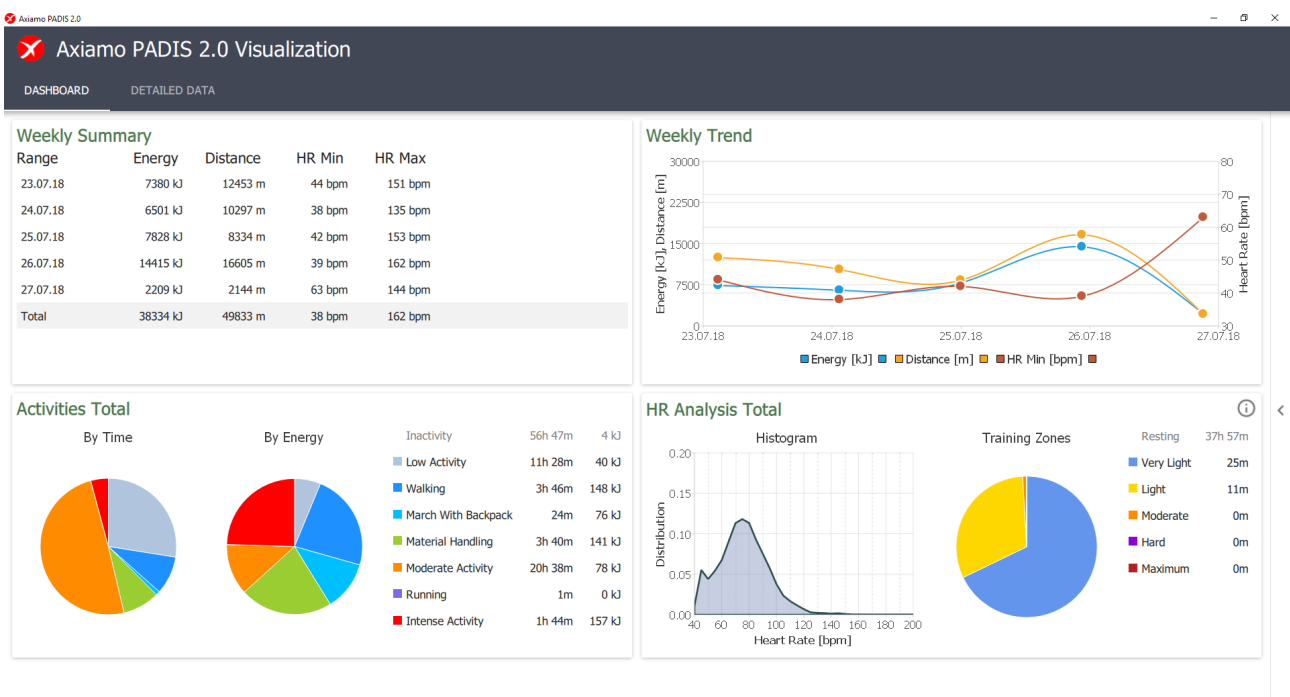
In the Axiomo PADIS Visualization screen, each Kit can be analyzed separately.

All plots provide you with the bottom bar showing a small overview of the whole measurement's data.

The bottom bar enables you to quickly navigate through the whole measurement. For slow scrolling hover over the bottom bar and use the *Mousewheel*.

You can change the zoom level of the corresponding plot by hovering over the bottom bar and adjusting with *Control (Ctrl) + Mousewheel*.

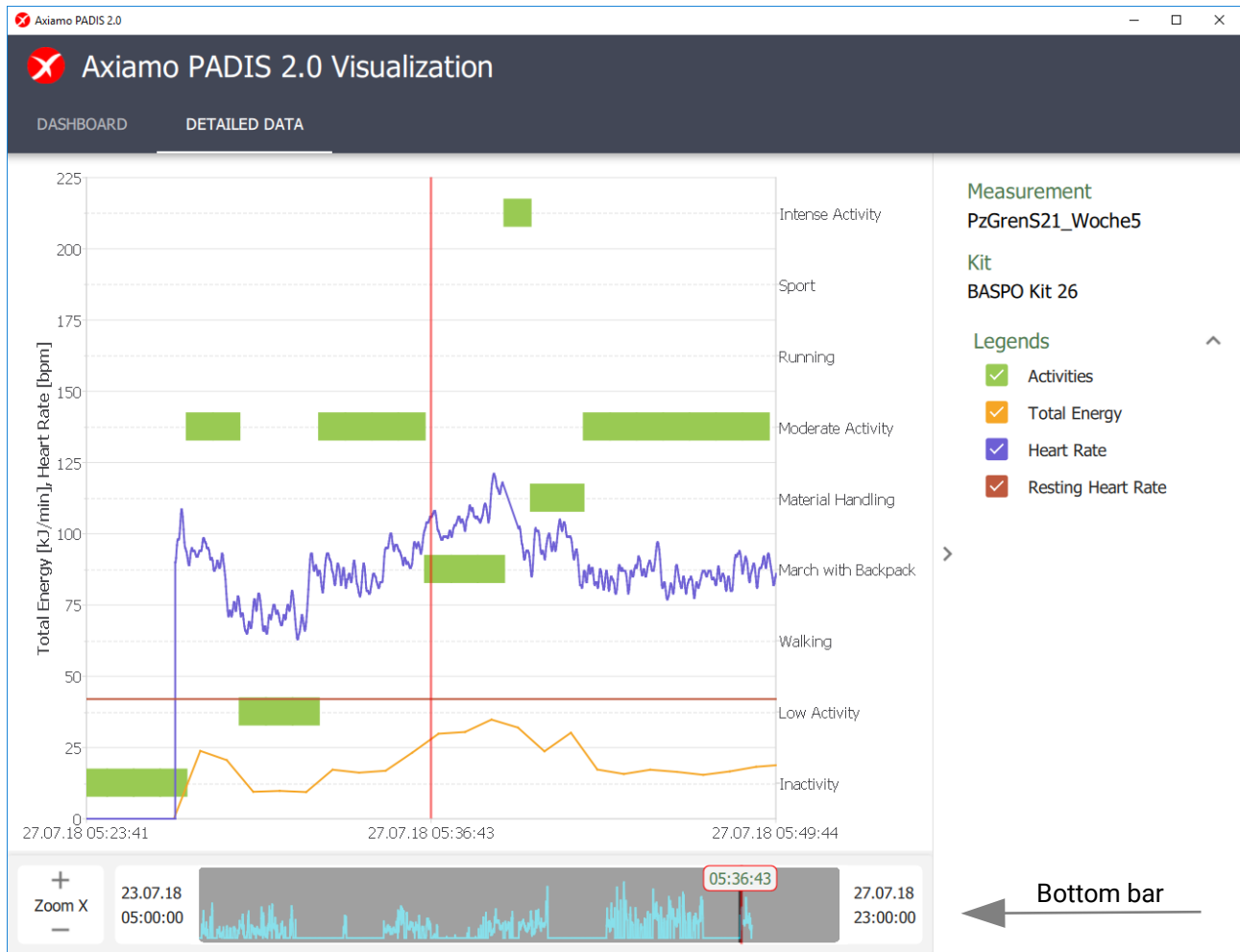
Dashboard



In the Dashboard you can see an overview of a soldier's data. At the moment there are the following elements available:

- **Weekly Summary** of Energy, Distance and minimum and maximum Heart Rate. By clicking on a specific day (date) you see the data summary of this day.
- **Weekly Trend** of Energy, Distance, minimum and maximum Heart Rate.
- **Activities Total** by Time and by Energy.
- **HR Analysis Total**, showing the Heart Rate Histogram and Training Zones.

Detailed Data Tab



The processed data is been classified in several different activities and the subject's energy expenditure is estimated.

The shown signals are:

- **Activites**

The activity classification for the whole measurement period is calculated based on scientifically validated Axiamo PADIS algorithms developed in cooperation with the Swiss Federal Institute of Sport Magglingen SFISM.

- **Total Energy**

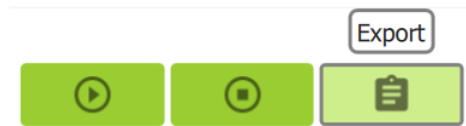
The total energy expenditure shows the sum of the PAEE AC. DEP energy and the resting metabolic rate in [kJ/min].

- **Heart Rate and Resting Heart Rate**

The Resting Heart Rate is detected from the system, but can be changed in the soldier details.

5.6 Exporting measurement

The whole measurement can be exported for further visualization in other programs and for custom post – processing.



To export a measurement just click on the *Export* icon in the *Measurement State*.

You can select the following data for exporting:

- **Raw Data (64Hz)**

The raw motion data (*Acceleration 3D*) of both the hip and the backpack sensor sampled at the full 64Hz.

Note: raw motion data files have the complete motion data stored and therefore take some time to export.

- **Processed Data (2s)**

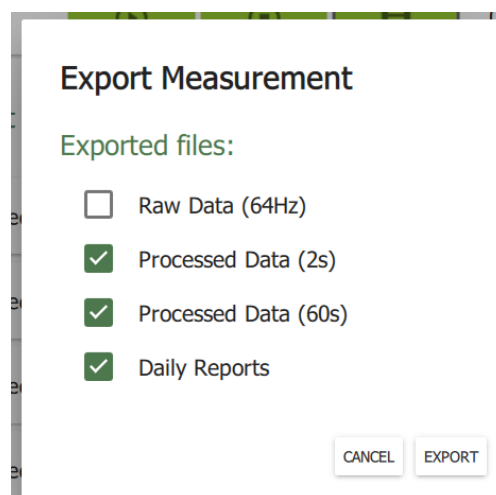
Based on the raw motion data, steps and counts are calculated. Also average 2s values of heart rate, speed and distance are exported in these files.

- **Processed Data (60s)**

A minute based export of the 2s processed data.

- **Daily Reports**

Summaries of all previous data as daily representation.

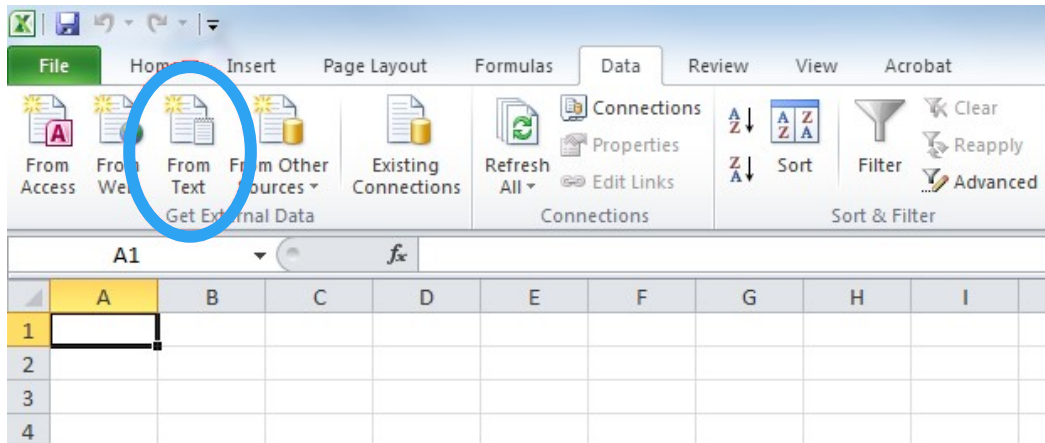


Multiple standard CSV files will be saved into the Axiomo PADIS default folder: "Storage/Exports/[MeasurementStart][Measurement-Name]" or in your own **pre defined session path**.

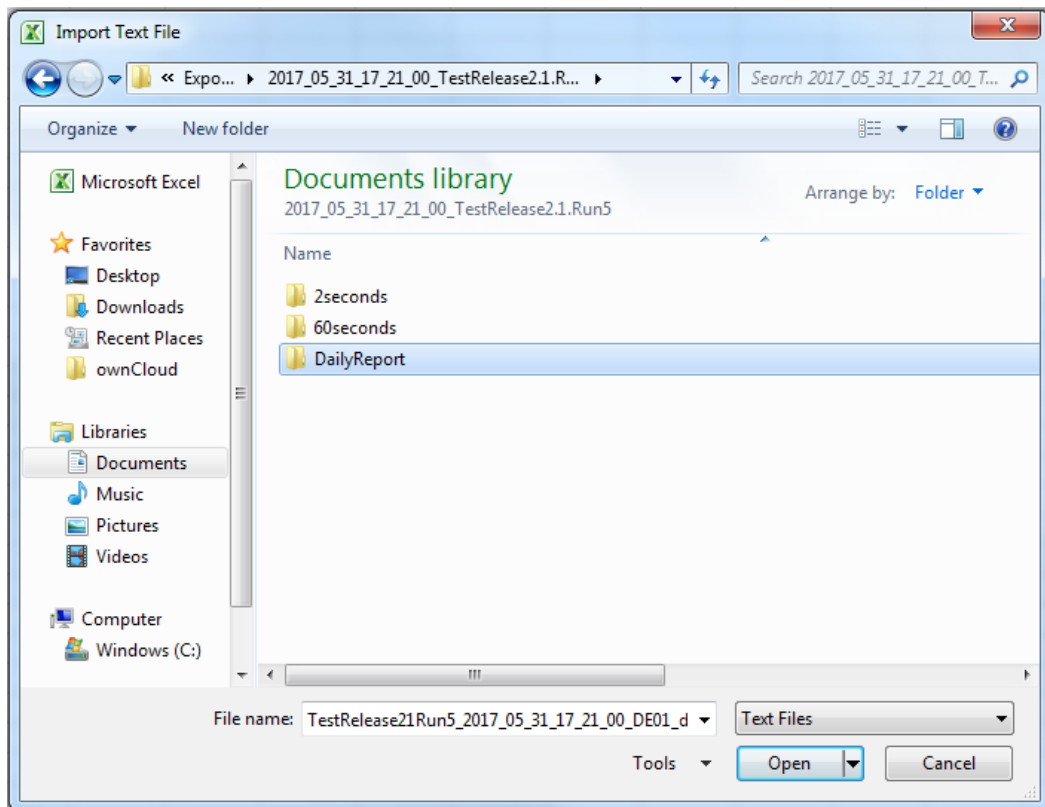
5.7 Importing data (CSV files) in Microsoft Excel

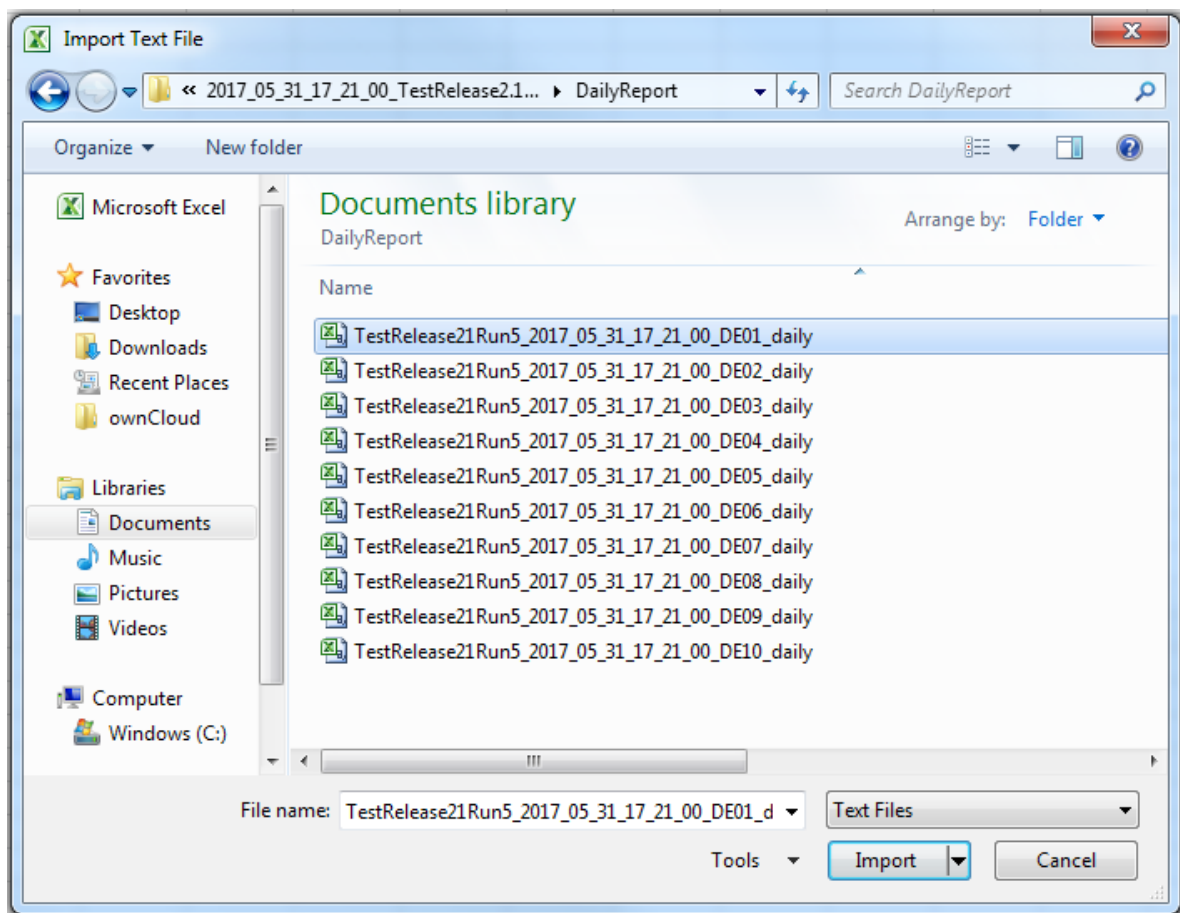
For importing the previously exported measurements (CSV files) in Microsoft Excel follow these steps:

1. With your Microsoft Excel open, head over to the “Data” tab and click on “From Text”.

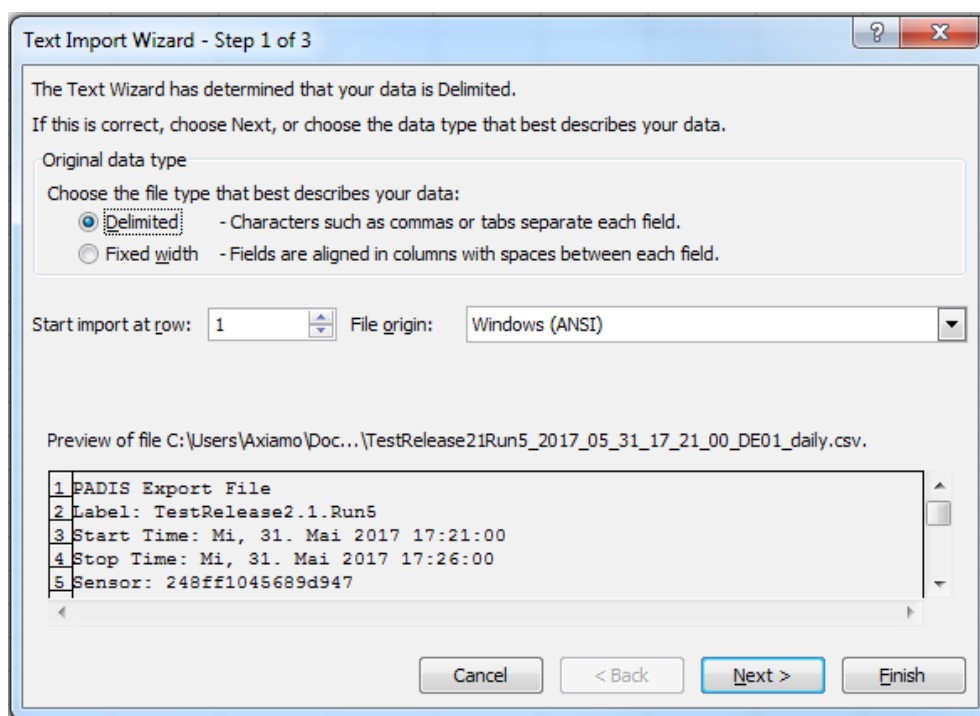


2. The exported measurement files are found in the folder “Storage/Exports/[MeasurementStart][MeasurementName]”. Choose the csv file which you want to import and analyze in Excel.

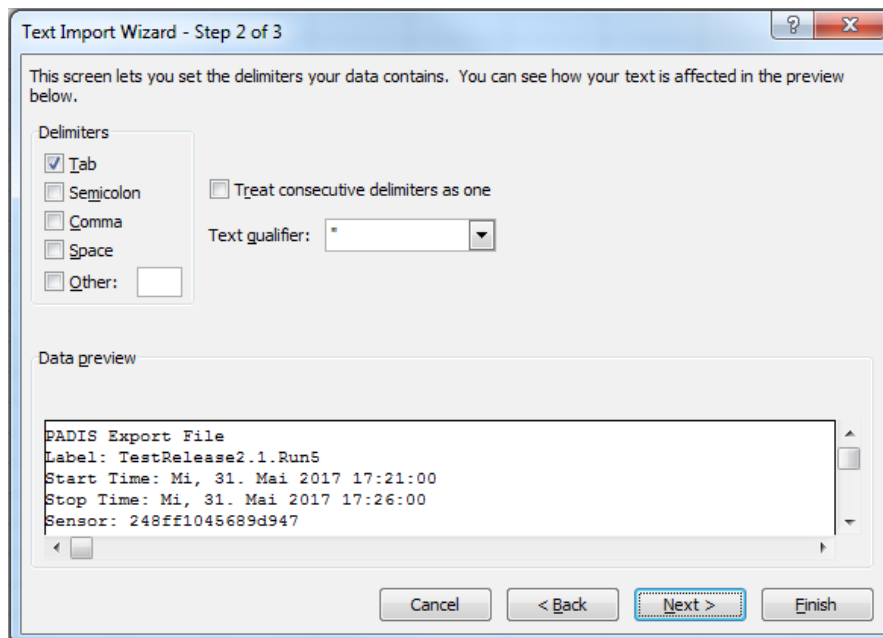




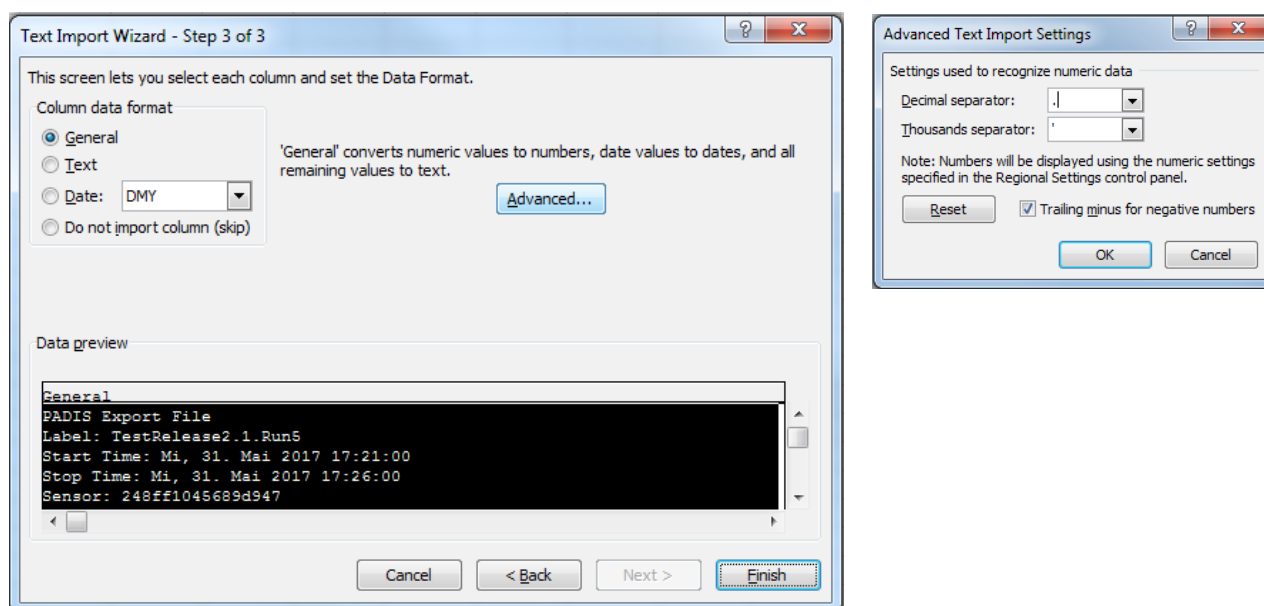
3. After clicking on "Import" the "Text Import Wizard" starts. Choose "Delimited" and click on "Next".



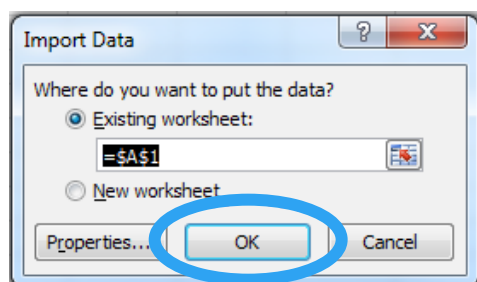
- Choose *Tab* as Delimiter and " as Text qualifier and click "Next".



- Click on Advanced and select the *Decimal (.)* and *Thousands (')* separator:




- Finally click on "Finish" and "OK"



| A1 | | | | | |
|----|---------------------------------------|--------------|----------|--------|------------------|
| | A | B | C | D | E |
| 1 | PADIS Export File | | | | |
| 2 | Label: TestRelease2.1.Run5 | | | | |
| 3 | Start Time: Mi, 31. Mai 2017 17:21:00 | | | | |
| 4 | Stop Time: Mi, 31. Mai 2017 17:26:00 | | | | |
| 5 | Sensor: 248ff1045689d947 | | | | |
| 6 | Sampling rate: 64 | | | | |
| 7 | Resting Heart Rate System: 0 | | | | |
| 8 | Resting Heart Rate User: 0 | | | | |
| 9 | | | | | |
| 10 | Measurement Name | Subject Name | SampleNr | Second | Date |
| 11 | TestRelease2.1.Run5 | DE01 | 10172 | 158 | 31.05.2017 17:23 |
| 12 | | | | | |

6 Axiomo PADIS Settings

Clicking the top right of the application window on the *Settings* icon  opens the global Settings dialog.

In this dialog, various configuration can be set up:

- **Language**

Choose between German and English of the whole application.


Please note that this setting is applied on next application start.

- **Date and time format**

Choose between central European (24h clock, DD.MM.YY date format) and US English (12h clock with AM/PM, YY/MM/DD date format).

Please note that this setting is applied on next application start.

- **Show Explanations**

Some actions or states of the Axiomo PADIS software provide further information about the reason of a state or possible actions in this state. Those information can be shown when clicking on the info icon . To suppress showing these info icons, disable this setting.

- **Enable Cloud Storage**

- **Use Secure Connection**

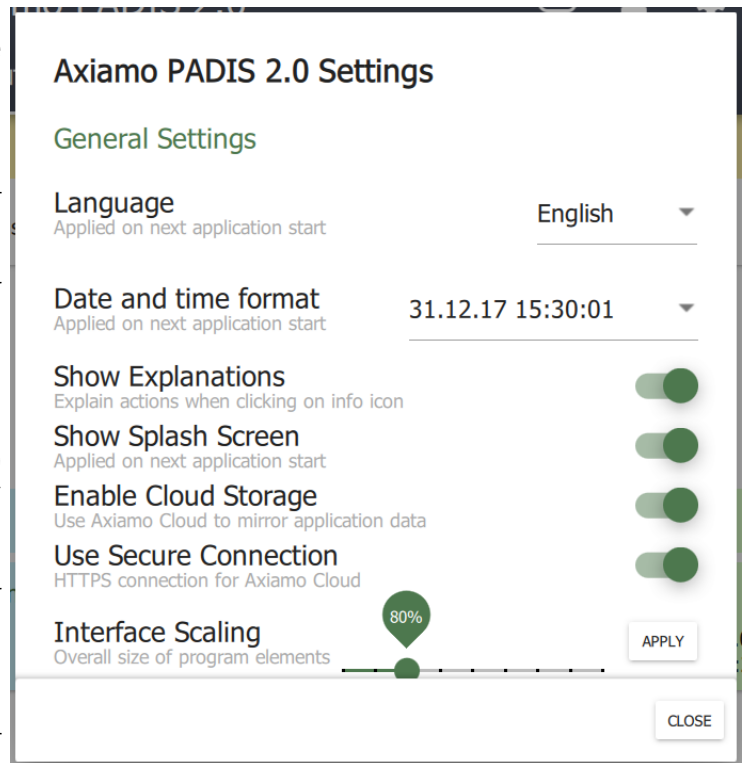
- **Show Splash Screen**

On Application start, the Axiomo PADIS Splash Screen is shown as default setting. If you like to disable this, just switch the setting here and no more splash screen is shown.

Please note that this setting is applied on next application start.

- **Interface Scaling**

Adjusting this setting will influence the size of all displayed elements of the Axiomo PADIS application. You can select from 60% scaling (small) up to 140% scaling (big). On high resolution displays, it is advisable to increase the *Interface Scaling* to 120% or 140% for better usability.



7 Maintaining Axiamo PADIS

7.1 Battery Care

Axiamo PADIS sensors contain rechargeable lithium polymer batteries. Follow these instructions and guidelines to maintain the battery lifespan.

Warning: If you do not follow these guidelines, the battery life could be shortened and there is risk of damage to your Axiamo sensors, risk of fire, risk of electrolyte leaks and chemical burns or even risk of injury.

Battery Care Guidelines

- Recharge the battery at least once every 6 months
- Do not expose Axiamo sensors to high temperatures (> 60°C) or high humidity (> 90% RH)
- Do not disassemble, puncture or incinerate the Axiamo sensors.

If the casing of the device breaks and the battery is exposed, keep the battery away from children. Contact your local recycling authority to properly dispose of the sensor and battery.

Battery Lifespan

- The battery lasts for approximately 300 charge cycles. If charged on a weekly basis, the battery should last for 5 years.
- The battery is non-replaceable. If the battery charge length is noticeably much shorter than before, your Axiamo product may have reached its end of life. Contact your local recycling authority to properly dispose of the device and battery.

7.2 Water Damage

The Axiamo sensor is **not waterproof!** Do not use under water or it will be irreparably damaged. Water damage is not part of the warranty and will not be replaced.

When worn in the Axiamo PADIS silicone cases, the sensors can be used in harsh conditions and are splash-water protected.

7.3 Cleaning

To clean the sensor, use a moist tissue. Be sure to not put any water into the sensor.

8 Axiamo PADIS Specifications

8.1 Heart Rate Sensor Polar H7

| | |
|----------------------------|-------------------------|
| Type: | Chest worn |
| Battery type: | CR 2025 |
| Expected battery lifetime: | 200h |
| Radio Frequency/Protocol: | 2.4 GHz Bluetooth Smart |

8.2 Heart Rate Sensor Polar OH1

| | |
|----------------------------|-------------------------|
| Type: | Arm band |
| Battery type: | Rechargeable battery |
| Expected battery lifetime: | 8h |
| Radio Frequency/Protocol: | 2.4 GHz Bluetooth Smart |

8.3 Heart Rate Sensor Scosche Rhythm 24

| | |
|----------------------------|-------------------------|
| Type: | Arm band |
| Battery type: | Rechargeable battery |
| Expected battery lifetime: | 24h |
| Radio Frequency/Protocol: | 2.4 GHz Bluetooth Smart |

8.4 Activity Sensors

| | |
|------------------------------|-------------------------|
| Operating temperature: | 5°C to 55°C |
| Sensor case: | ABS |
| Water resistance: | No IP certification |
| Splash-water resistance: | Yes |
| Battery: | 240mAh lithium |
| Battery run time one charge: | Up to 7 days continuous |
| Expected battery life: | Up to 5 years |
| Radio Frequency/Protocol: | 2.4 GHz Bluetooth Smart |

8.5 Sensor Attachment

Material: Silicone Silpuran 6700

Water resistance: Yes

8.6 Carrying Case

Power supply: 2x 230V AC

Data Connection: 1x USB 2.0 Type A plug

Number of Kits: 5 complete Kits per carrying case

9 Warranty & Service

Be sure to visit our support pages to find online help, FAQs and manuals for your product.

9.1 Axiama Limited Warranty Information

This product is warranted to the original purchaser to be free from defects of quality, materials or workmanship at the time of delivery for the Limited Warranty Period (see below). During the Limited Warranty Period, Axiama GmbH will, at its sole discretion, remedy such defects free of charge either by a) repairing, or b) replacing, or c) refunding the original purchase price (excluding taxes, shipping, handling, duties, and similar amounts), subject to the terms and conditions of this Limited Warranty.

9.2 Warranty Period

The Limited Warranty Period will automatically expire without notice, and this Limited Warranty is not enforceable, if:

1. the product has been opened or otherwise tampered with
2. the product has been serviced by a person other than Axiama GmbH
3. the serial number has been removed, altered or made illegible in any way
4. the product was not purchased from Axiama GmbH or any authorized resellers

9.3 Exclusions and Limitations

This Limited Warranty does not cover, and customers will not be entitled to any claim under this Limited Warranty or otherwise for:

- problems arising from abuse or rough, careless, or improper handling (and without limiting the foregoing, damage resulting from bending or dropping the product will be deemed the result of abuse or improper use)
- problems arising from misuse contrary to intended or recommended use
- problems arising from alteration of the Axiama product, such as moisture or water damage sufficient to affect the proper function of the product, and damage to the product case or visible cracking of the face

10 EU Declaration of Conformity

We hereby declare that the product described below, in its design and construction as well as in the version that we have placed on the market, meets the essential health and safety requirements of the EC Directives listed below. If a change is made to the device, this declaration will lose its validity.

Manufacturer

Axiamo GmbH
Switzerland Innovation Park Biel/Bienne
Aarbergstrasse 5
2560 Nidau
Switzerland

Product

Description and identification of the device

| | |
|----------------------|---|
| General Name | Activity sensor for long-term measurements |
| Function | Detection, recording and visualization of activity level and heart rate |
| Type / Model | Axiamo PADIS |
| Year of construction | 2016 / 2017/ 2018 / 2019 |

Standards

This declaration is based on the full compliance of the products with the following European standards:

Electromagnetic compatibility Directive (EMC) 2014/30/EU
Low Voltage Directive 2014/35 / EU
Telecommunications Directive (2014/53 / EU)
Restriction of Hazardous Substances RoHS 2011/65/EU

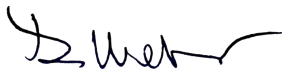
Documentation

Authorized representative for the technical documentation:

Benjamin Habegger, Director, Axiamo GmbH

Signature

Biel, 2018/06/23



Damian Weber
Director
Axiamo GmbH

