# User guide for horse MoCap
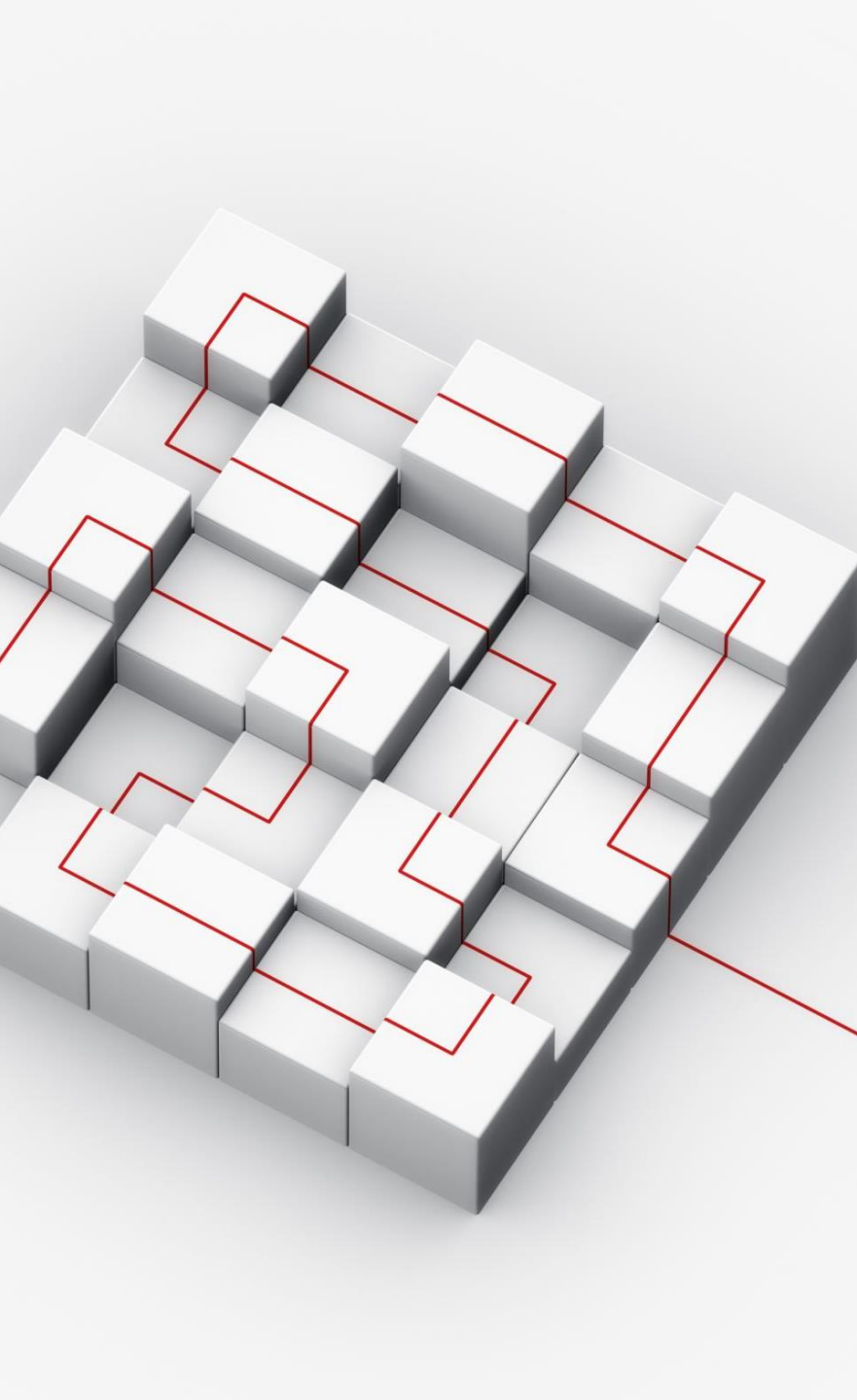
Summary

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Requirement

- Bat-horse project : https://github.com/maxsans/bat-horse

Step 1 : Data collection : set up Raspberry

1. Plug MTU USB key, and 5 WiFi dongles

2. Power up Raspberry

3. Connect your smartphone to « bathorse_user » Wi-Fi
   a. Go on internet to « 192.168.6.1:8080 »
   b. Here you can see which sensors are connected to the Raspberry, start/stop saving data, and direct link visualization

WiFi dongle

Start/stop data record

Direct link

List of sensors, with state
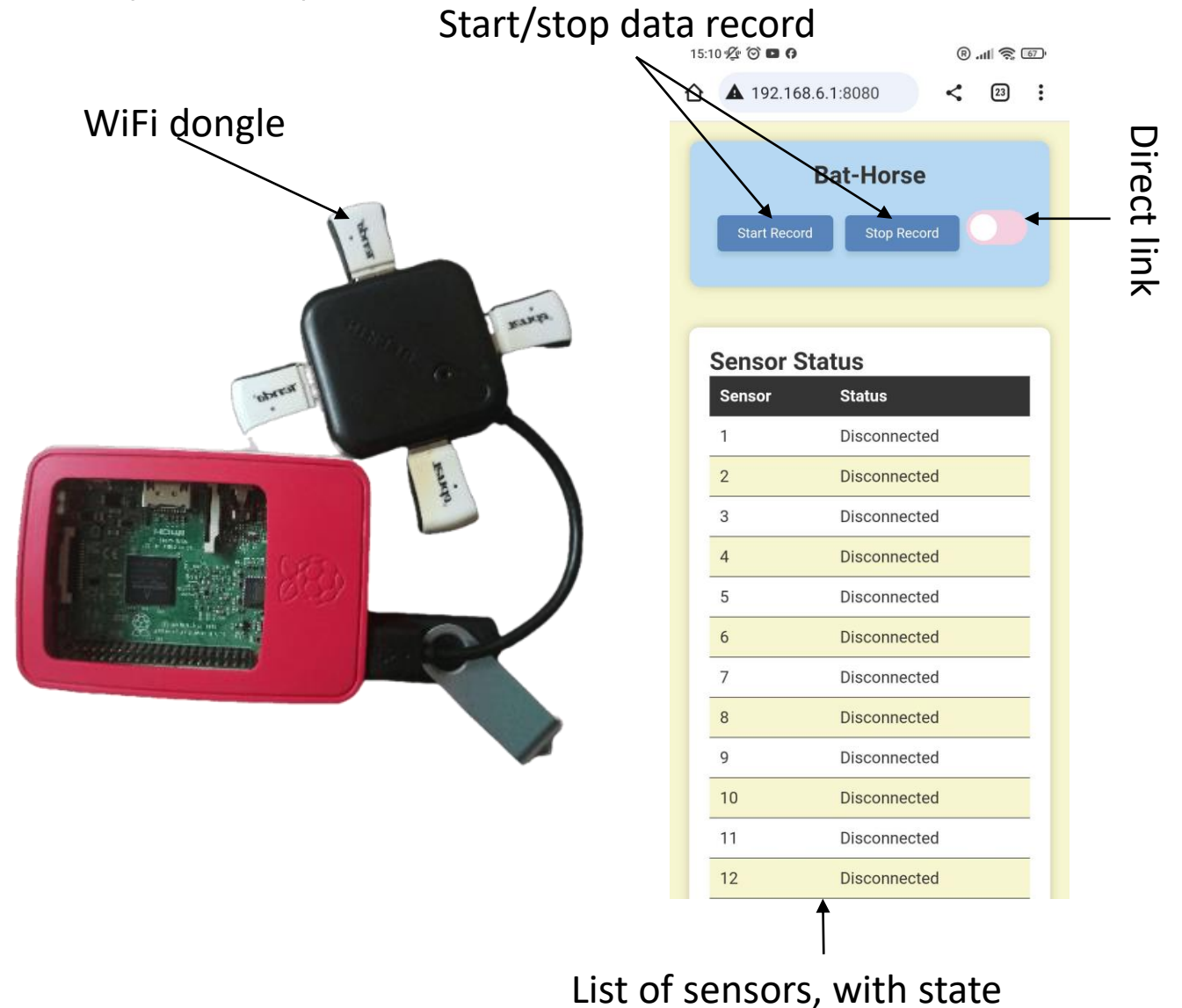
Step 2 : Data collection : set up sensors

1. Turn on every sensors you need, by plug in batteries
   a. You will see in web interface which sensors are connected to the Raspberry

2. You can place the sensors in different locations, with velcros
   a. !! Sensors must be placed vertically, the plug must be placed at the top
   b. Remember where the sensors are placed with their ID for the visualization

3. The position of horse to start saving data, must be the same as model visualization, with the sensor vertically and the plug at the top
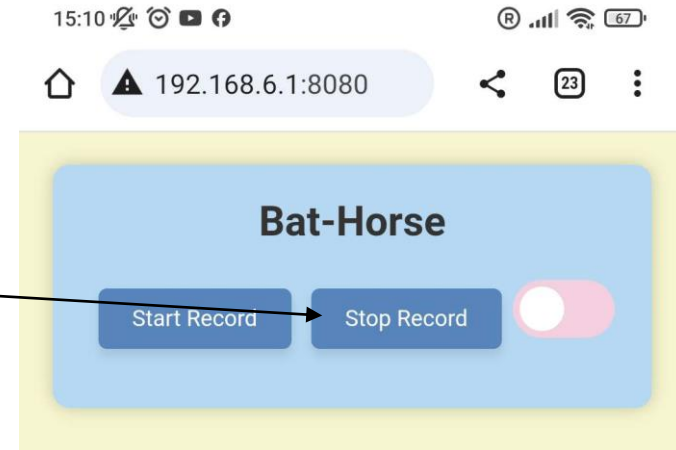
Step 3 : Data collection : Start saving data

1. Connect your smartphone to "bathorse_user" Wi-Fi

2. Go to http://192.168.6.1:8080

3. Use "Start record" button
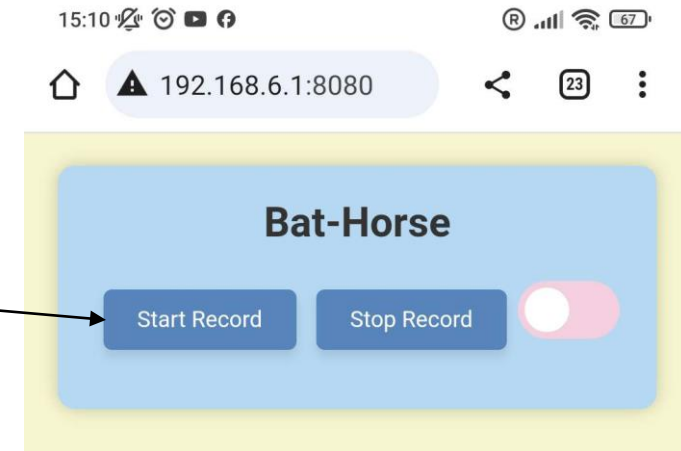
Step 4 : Data collection : Stop saving data

1. Connect your smartphone to "bathorse_user" Wi-Fi

2. Go to http://192.168.6.1:8080

3. Use "Stop record" button

    a. A file will be created, with all data, and paste on the USB key

Disclaimer : The Raspberry's date updates when it is connected to the Internet and stops when the Raspberry is switched off. It is therefore possible that the name of new files created does not correspond to the date of registration.

Step 5 : Transfert data for vizualisation

1. Take USB stick on the Raspberry

2. Plug in your computer

3. Copy and paste files from the usb key :/Mocap/data/
to /bat-horse/User-script/datas/

ws-SSD (C:) > MTU_Intership > bat-horse > User-script > datas

| Nom	Modifié le
2023-10-10_12-05_name	10/10/2023 12:05
2023-10-10_13-49_name	10/10/2023 13:50
2023-10-10_13-50_name	10/10/2023 13:50
sample	10/11/2023 11:29

# Step 6 : First start application

1. Open visualization app as administrator, at : bat-horse/User-script/bewegungsfelder-app/Bewegungsfelder.exe

   a. During the first launch, you have to allow access to firewall
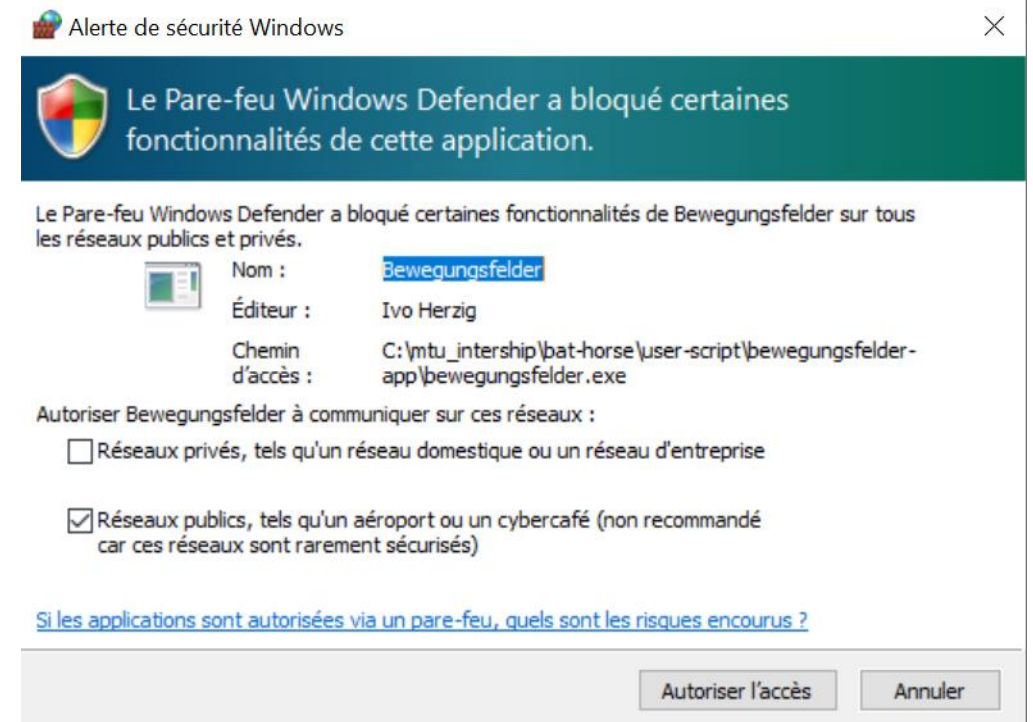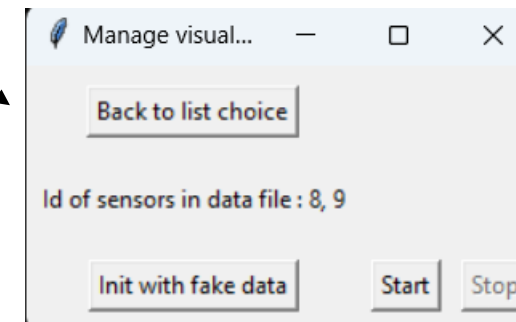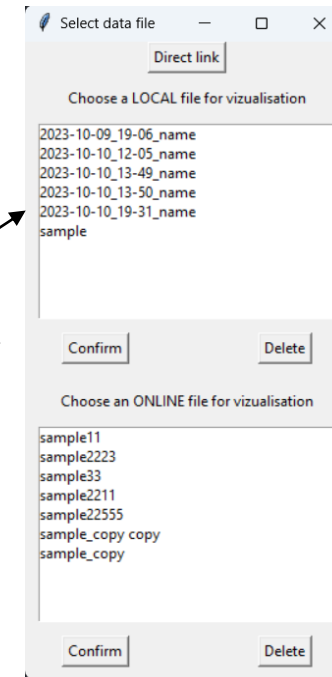
Step 7 : Init visualization app

1. Load horse or human skeleton file, with the application, at :
   bat-horse/User-script/bewegungsfelder-app/Models/

2. **OR** Create your own skeleton
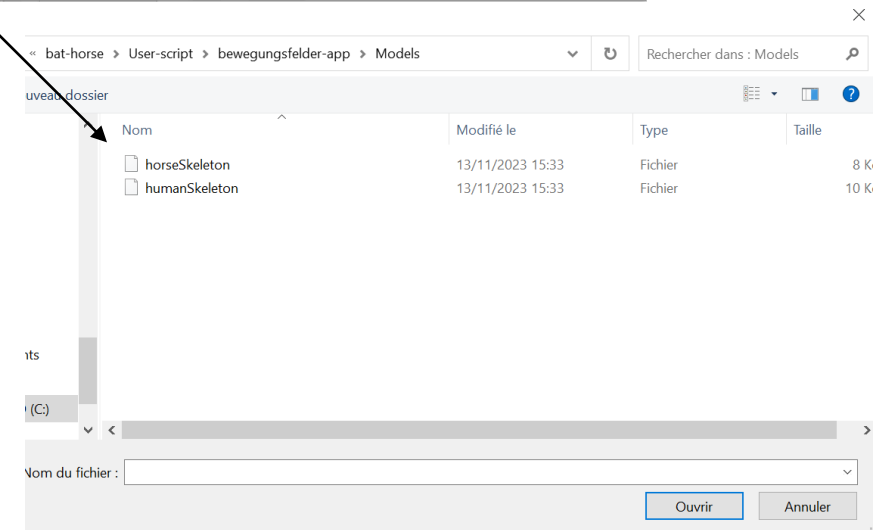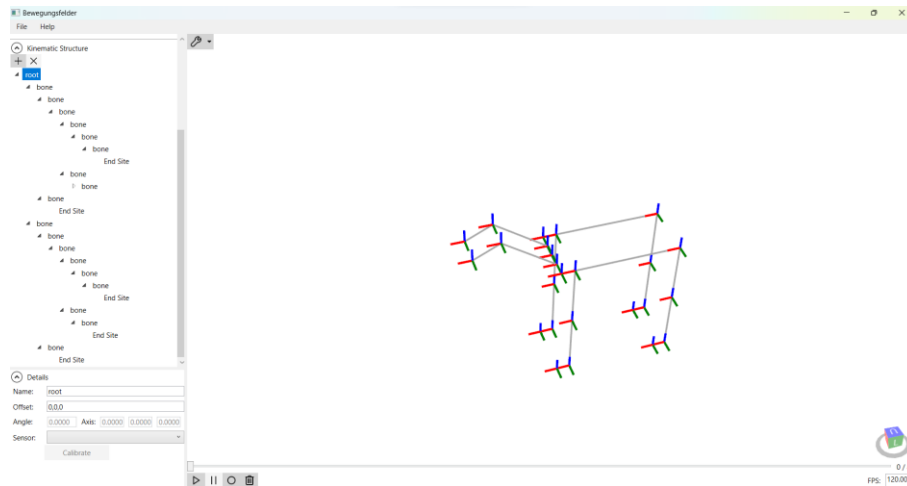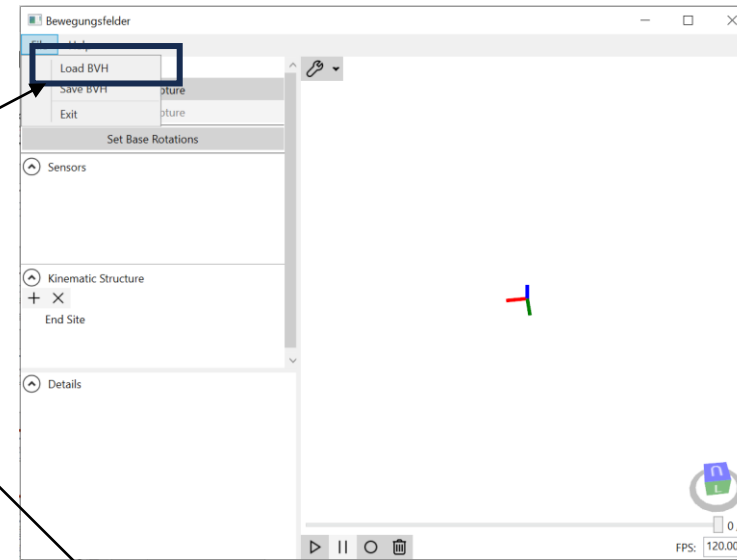
Step 8 : Init visualization tool

1. Open /bat-horse/User-script/app.exe

    a. In this app, server address is already defined, but you can change at the start if need, to get file in server.

        a. Server is used to direct link, and when Raspberry save data on cloud

    b. You will have this window

2. You will see in local part, files that you have add

    a. Select a file you want to visualize, and click on "confirm"

    b. This windows will open, with id of sensors in data file

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Select data file

Direct link

Choose a LOCAL file for vizualisation

```
2023-10-09_19-06_name
2023-10-10_12-05_name
2023-10-10_13-49_name
2023-10-10_13-50_name
2023-10-10_19-31_name
sample
```

Confirm   Delete

Choose an ONLINE file for vizualisation

```
sample11
sample2223
sample33
sample2211
sample22555
sample_copy copy
sample_copy
```

Confirm   Delete

Manage visual...

Back to list choice

Id of sensors in data file : 8, 9

Init with fake data   Start   Stop

Step 9 : Start fake data

1. You can start by using "init with fake data", to send fake data to visualization app.

   a. With that, you will see id of sensors on Bewegungsfelder app

   b. During fake data, you have to place sensors id on the skeleton and "set rotation base"
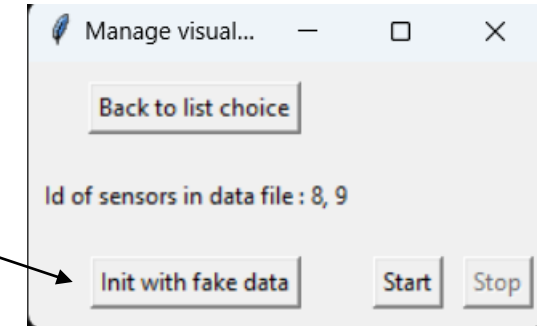
2. Choose on the left the bone that you want to assign a sensor

Step 10 : Start vizualisation

- When initialisation is ready, you can use « start » and « stop » buttons to visualize data saved