

## Wave sensor procedure on the windows science pc

### Log on to the raspberry pi

1. Connect to the Statsraad Lehmkuhl network. Make sure the computer is connected to the blue internet cable in the decks office.
2. Open the app puTTY
3. Type Host name (or IP address): 10.42.1.55 and press Open (See Figure 1)

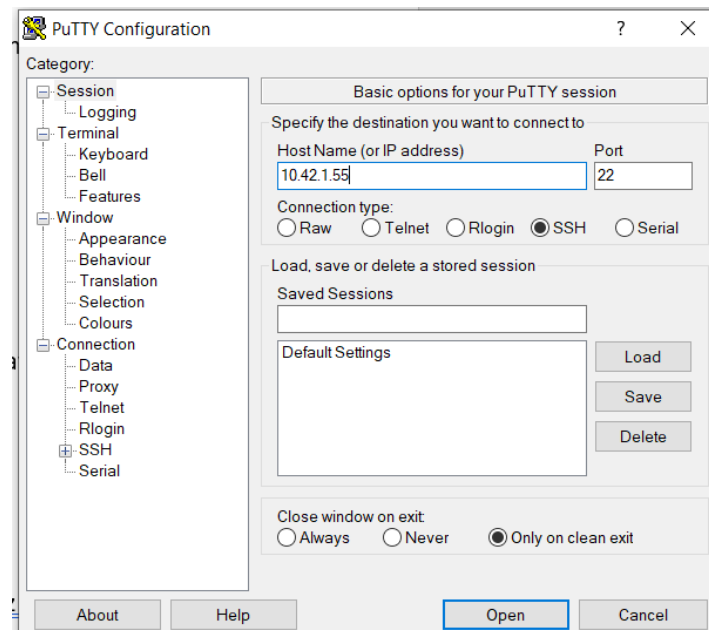


Figure 1: Step number 3 in PuTTY

4. When asked login as: type pi
5. When asked password: type raspberry\_ug\_sl

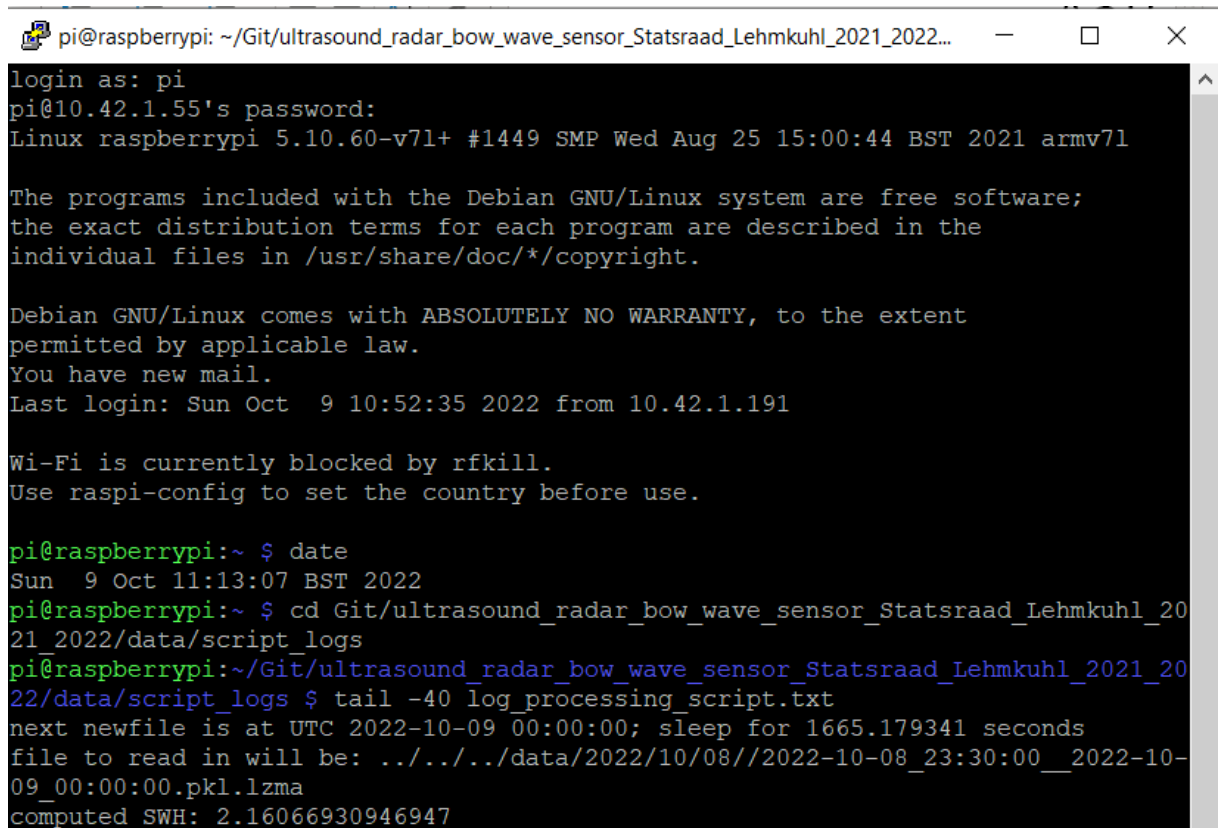
### Check the date and that the system is logging (see Figure 2)

6. Type "date" and note the output time, timezone, local time and UTC time in the document "Wavesensor\_dates".
7. Go to the right folder by typing.

```
cd (no new line here)
Git/ultrasound_radar_bow_wave_sensor_Statsraad_Lehmkuhl_2
021_2022/data/script_logs
```

8. Check that there is a file within the last hour or so by typing

```
tail -40 log_processing_script.txt
```



```
pi@raspberrypi: ~/Git/ultrasound_radar_bow_wave_sensor_Statsraad_Lehmkuhl_2021_2022...
login as: pi
pi@10.42.1.55's password:
Linux raspberrypi 5.10.60-v7l+ #1449 SMP Wed Aug 25 15:00:44 BST 2021 armv7l

The programs included with the Debian GNU/Linux system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/copyright.

Debian GNU/Linux comes with ABSOLUTELY NO WARRANTY, to the extent
permitted by applicable law.
You have new mail.
Last login: Sun Oct  9 10:52:35 2022 from 10.42.1.191

Wi-Fi is currently blocked by rfkill.
Use raspi-config to set the country before use.

pi@raspberrypi:~ $ date
Sun  9 Oct 11:13:07 BST 2022
pi@raspberrypi:~ $ cd Git/ultrasound_radar_bow_wave_sensor_Statsraad_Lehmkuhl_20
21_2022/data/script_logs
pi@raspberrypi:~/Git/ultrasound_radar_bow_wave_sensor_Statsraad_Lehmkuhl_20
22/data/script_logs $ tail -40 log_processing_script.txt
next newfile is at UTC 2022-10-09 00:00:00; sleep for 1665.179341 seconds
file to read in will be: ../../../../data/2022/10/08//2022-10-08_23:30:00__2022-10-
09_00:00:00.pk1.lzma
computed SWH: 2.16066930946947
```

Figure 2: Steps number 6-8

## If there is no activity on the wavesensor within the last hours

9. Start the program manually by typing

```
bash (no new line here)
/home/pi/Git/ultrasound_radar_bow_wave_sensor_Statsraad_L
ehmkuhl_2021_2022/code/launch_scripts/script_launch_all.s
h >> (no new line here)
/home/pi/Git/ultrasound_radar_bow_wave_sensor_Statsraad_L
ehmkuhl_2021_2022/data/script_logs/log_script_launch_all.
txt
```

## Save the files at the end of the month (see Figure 3)

10. Go to the right directory with typing

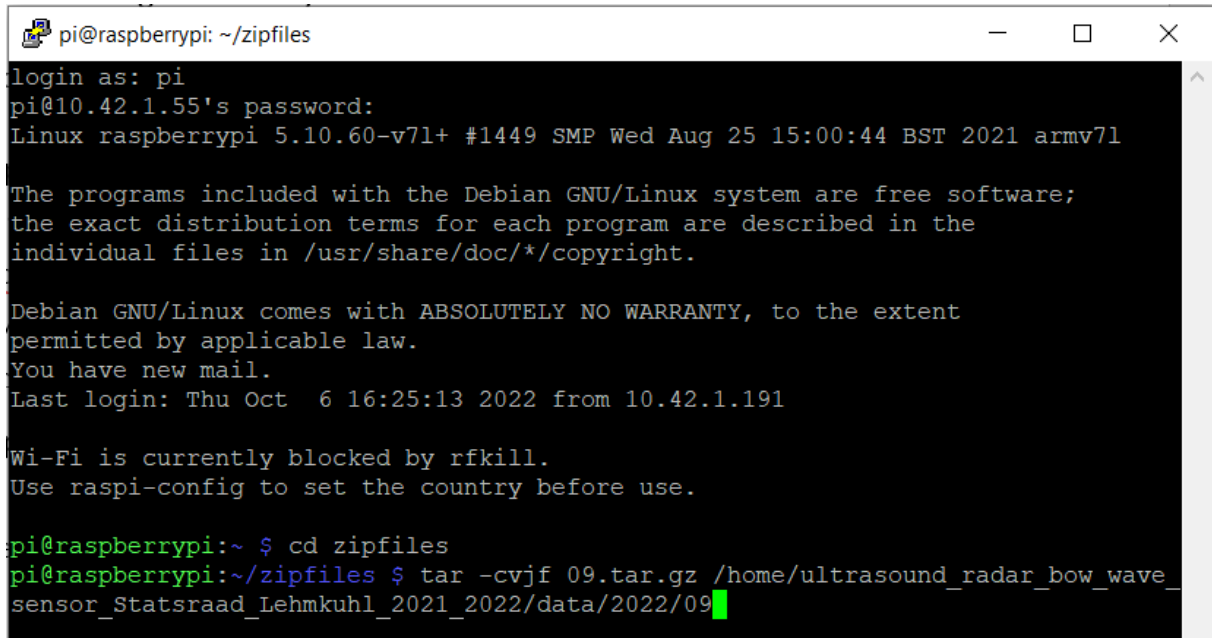
```
cd zipfiles
```

11. Zip the files from the correct month. This example is for September 2022, so I use the month number 09 and year number 2022. October would be 10 and 2022 and so on. The numbers marked in red is the only thing you should change. Note that there is no line break in the command between gz and /home! This command will take some time.

```
tar -cvjf 09.tar.gz
```

```
/home/pi/Git/ultrasound_radar_bow_wave_sensor_Statsraad_Le  
hmkuhl_2021_2022/data/2022/09
```

## 12. Close putty by pressing the exit button



```
pi@raspberrypi: ~/zipfiles
login as: pi
pi@10.42.1.55's password:
Linux raspberrypi 5.10.60-v7l+ #1449 SMP Wed Aug 25 15:00:44 BST 2021 armv7l

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the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/copyright.

Debian GNU/Linux comes with ABSOLUTELY NO WARRANTY, to the extent
permitted by applicable law.
You have new mail.
Last login: Thu Oct  6 16:25:13 2022 from 10.42.1.191

Wi-Fi is currently blocked by rfkill.
Use raspi-config to set the country before use.

pi@raspberrypi:~ $ cd zipfiles
pi@raspberrypi:~/zipfiles $ tar -cvjf 09.tar.gz /home/ultrasound_radar_bow_wave_
sensor_Statsraad_Lehmkuhl_2021_2022/data/2022/09
```

Figure 3: Steps number 10-12

## Save the data to the science computer and litenleie (see Figure 4)

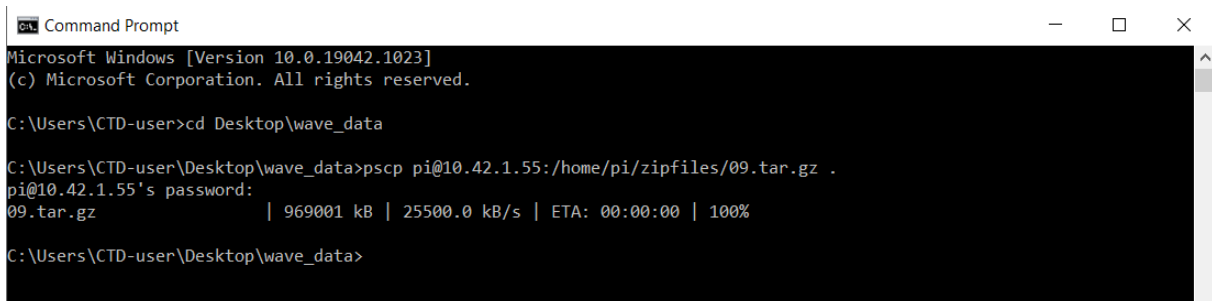
### 13. Open the app Command Prompt

### 14. Go to the right folder by typing

```
cd Desktop\wave_data
```

### 15. Copy the files from the raspberry pi to the computer. Remember the dot at the end and to use the right month number! When asked for password: type raspberry\_ug\_sl. This will also take some time.

```
pscp pi@10.42.1.55:/home/pi/zipfiles/09.tar.gz .
```



```
Microsoft Windows [Version 10.0.19042.1023]
(c) Microsoft Corporation. All rights reserved.

C:\Users\CTD-user>cd Desktop\wave_data

C:\Users\CTD-user\Desktop\wave_data>pscp pi@10.42.1.55:/home/pi/zipfiles/09.tar.gz .
pi@10.42.1.55's password:
09.tar.gz          | 969001 kB | 25500.0 kB/s | ETA: 00:00:00 | 100%

C:\Users\CTD-user\Desktop\wave_data>
```

Figure 4: Steps number 13-15

### 16. Open the File Explorer and copy the file of the month from

C:\Users\CTD-user\Desktop\wave\_data

17. Paste the file in

E:\RAWDATA\PHYSICS\WAVE