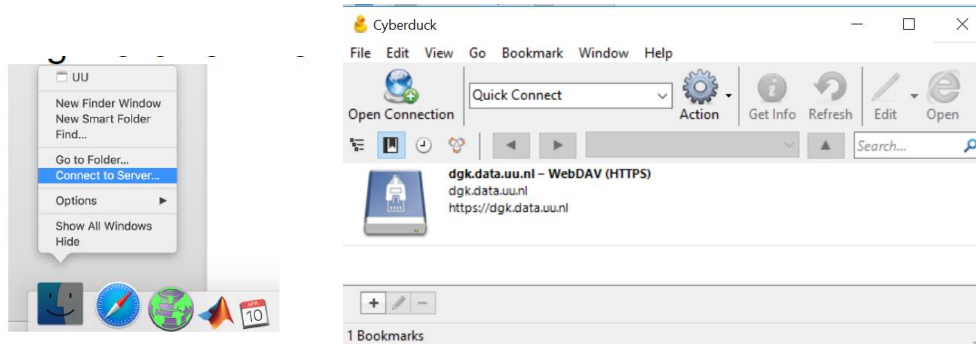


Data access to the 'EquiLame' dataset

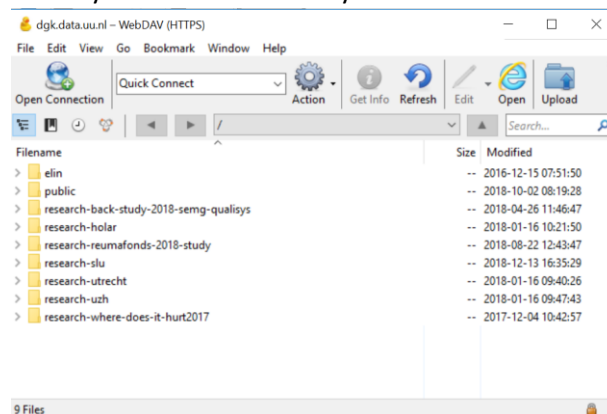
1. Download Cyberduck if you are using a PC. If you use a Mac you can access the server from the Finder icon.



2. The server address is: dgk.data.uu.nl – WebDAV (HTTPS)

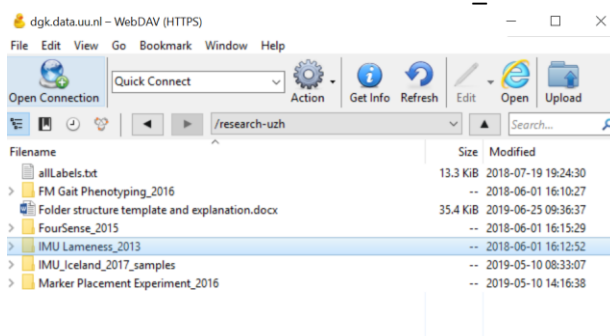
User: elin
pass: elin_SLU_005

3. When you enter the server you will see theses folders:

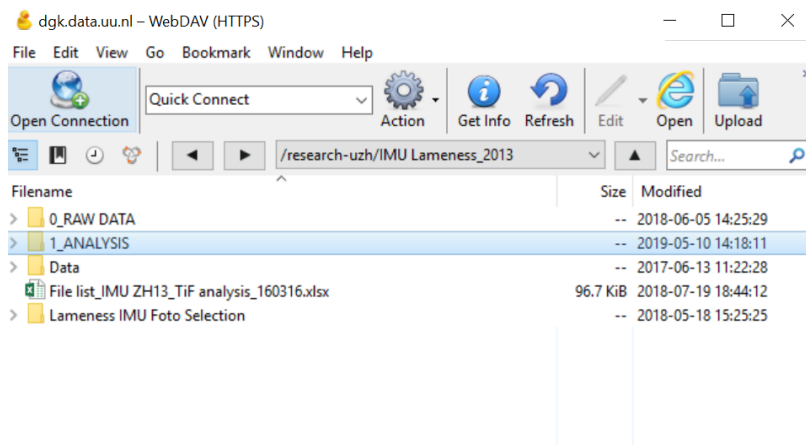


4. Enter > research-uzh

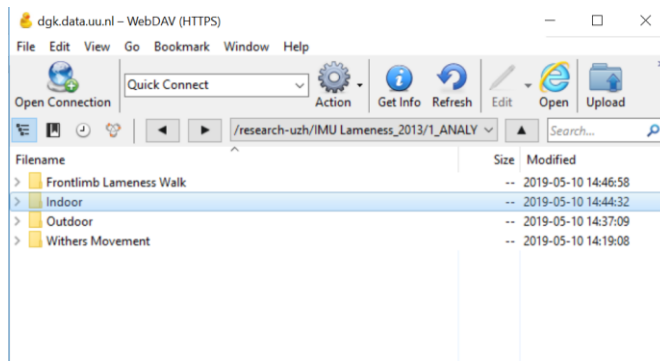
5. Enter > IMU Lameness_2013



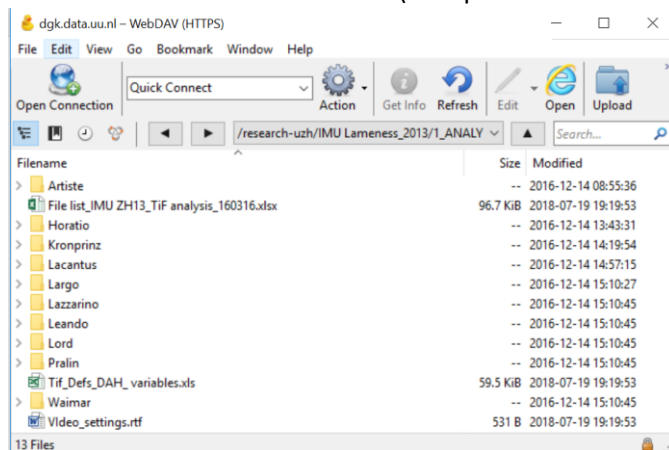
6. > 1_ANALYSIS



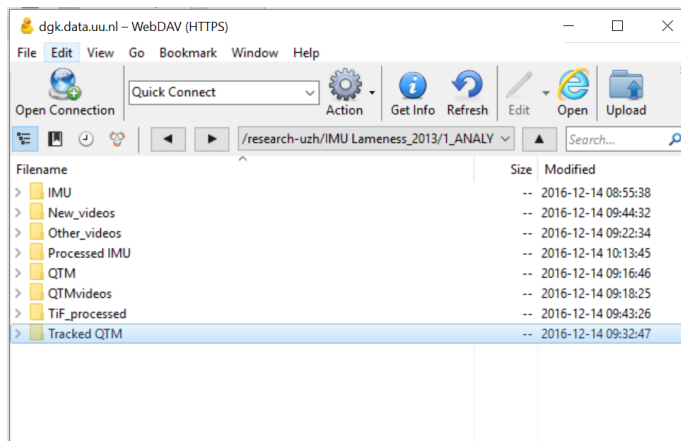
7. >Indoor



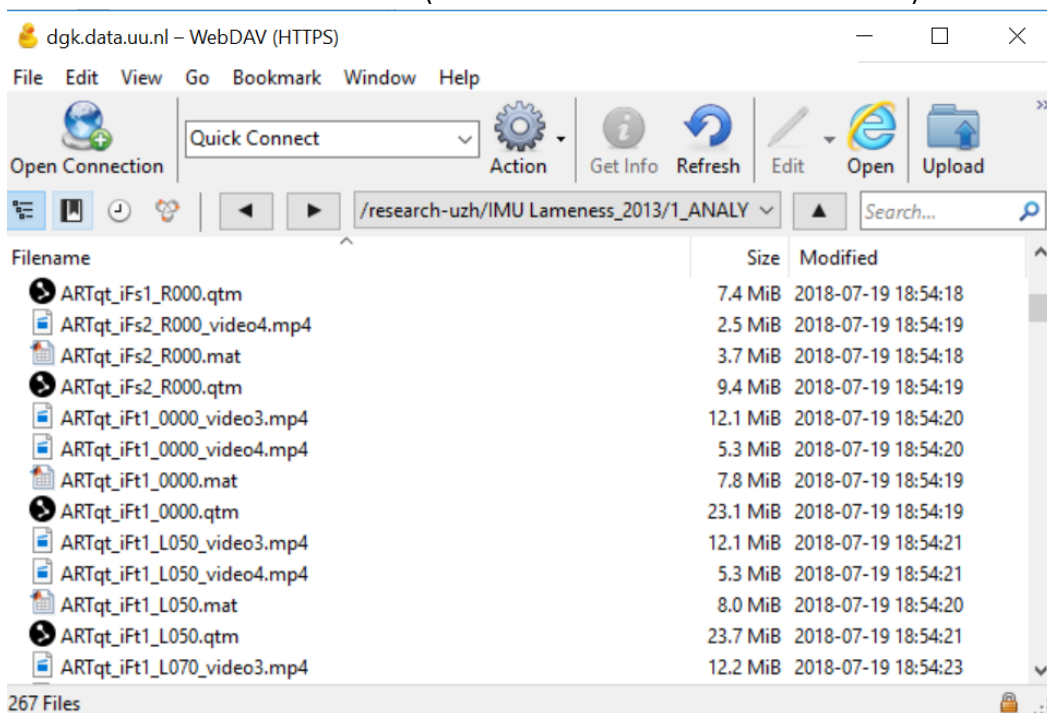
8. Here you will find a folder for each horse. There are 10 horses but 2 miss their video files. (Kronprinz and Waimar)







9. Enter a horse folder and enter > Tracked QTM



10. Here you will find the .mat-file, the .qtm-file and synchronized video file for all measurements (all times the horse runs on the treadmill).



- The .qtm file ( ARTqt_iFt1_0000.qtm) needs to be opened in the QTM software that we looked at together. That's where you can see all the markers in the 3-D coordinate system. I don't think you need it but if you want to have a look –tell me. I will then make sure you will get a temporary licence to the software.
- The .mat file ( ARTqt_iFt1_0000.mat) is the one with the position in x y z for each of the 51 markers. You will use the 27 markers that we decided on. See the separate list on Google drive. Ignore the 4th column of data. It contains the residual for the xyz position for each marker at each time point. At the end of this document I am attaching the format description for the .mat file.

- The videos are in mp4-format ( ARTqt_iFt1_0000_video3.mp4  ARTqt_iFt1_0000_video4.mp4). For most horses and trials there is only one video –one taken from the side = lateral. It has the name video4.mp4. The other videos you might find are 3 or 2 which are taken from the front or back. As said earlier 2 horses seem to lack video. This is the specification for the videos. They are synchronised to fit the .qtm recording and should have the same length. Please double check this.

Video files

- Format: .mp4
- Codec: H.264
- Resolution: 768 x 576
- Bit-rate: 1500
- Frame rate: 25fps
- _video4 -> Lateral
- _video3 -> Front
- _video2 -> Back

Naming of files:

The naming convention is as follows:

- First three letter for horse name (eg **ART**)
- **qt** for qualisys system (this means we look at movement data)
- **_i** for indoor (on the treadmill)
- **H** for hindleg or **F** for Fore leg being induced with lameness
- **t** for trot or **w** for walk or **s** for stance. I guess you will only use walk and trot, not when the horse stands still (s)?
- **1** or **2** or **3** for trial number (repetition under same conditions)
- **R** for right or **L** for left limb being induced with lameness if **O** that's the initial run (the first run of the day).
- The three numbers that come next show you the amount of pressure on the foot (eg 130). BUT 900 is just after the screw was released.

At this point you don't need to care about if the horse is walking, running or if it is lame (have the screw pressing on the sole).

MAT file format

When the data from the 'MoCap' system that records the positions of the skin mounted reflective markers is exported to a MAT file a struct array is saved in the file. The struct array is named the same as the file. If the file name does not start with an English letter, a prefix qtm_ will be added to the name of the structure array.

The struct array contains different fields depending on if the file includes 3D, 6DOF, analog (including EMG), force, Eye tracker, SMPTE timecode and events data. The fields and their contents are described below:

File

File name and directory path.

Timestamp

Time when measurement was started. In format YYYY-MM-DD, HH:MM:SS


StartFrame

The measurement start frame number.

Frames

Number of frames.

FrameRate

 ame rate in frames per second.

Note: When using external timebase the frequency is set to the actual frequency for the **Multiplier/Divisor** mode and to EXT for the **Edge triggered** mode.

Trajectories


Struct array with fields **Labeled** for labeled markers and, optionally **Unidentified** for unidentified markers. These fields are struct arrays with three fields:

Count

Number of trajectories in the window.

Labels

A list of the trajectory labels.

 Note: This field is only included in the **Labeled** struct array.