

Motion Capture Guide

Motion Capture Remote Connection

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changelog:

author(s): Cezary Banaszek (banaszek@kth.se) testing platform:

- OS: Ubuntu 24.04.3
 - remote desktop app: Remmina
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1. Ensure you are connected to the network *ITRL Labs* using the usual password.
2. Ensure the computer is on by checking blinking lights or other signs of life. The computer is located in the corner of the motion capture room under the server next to one of the

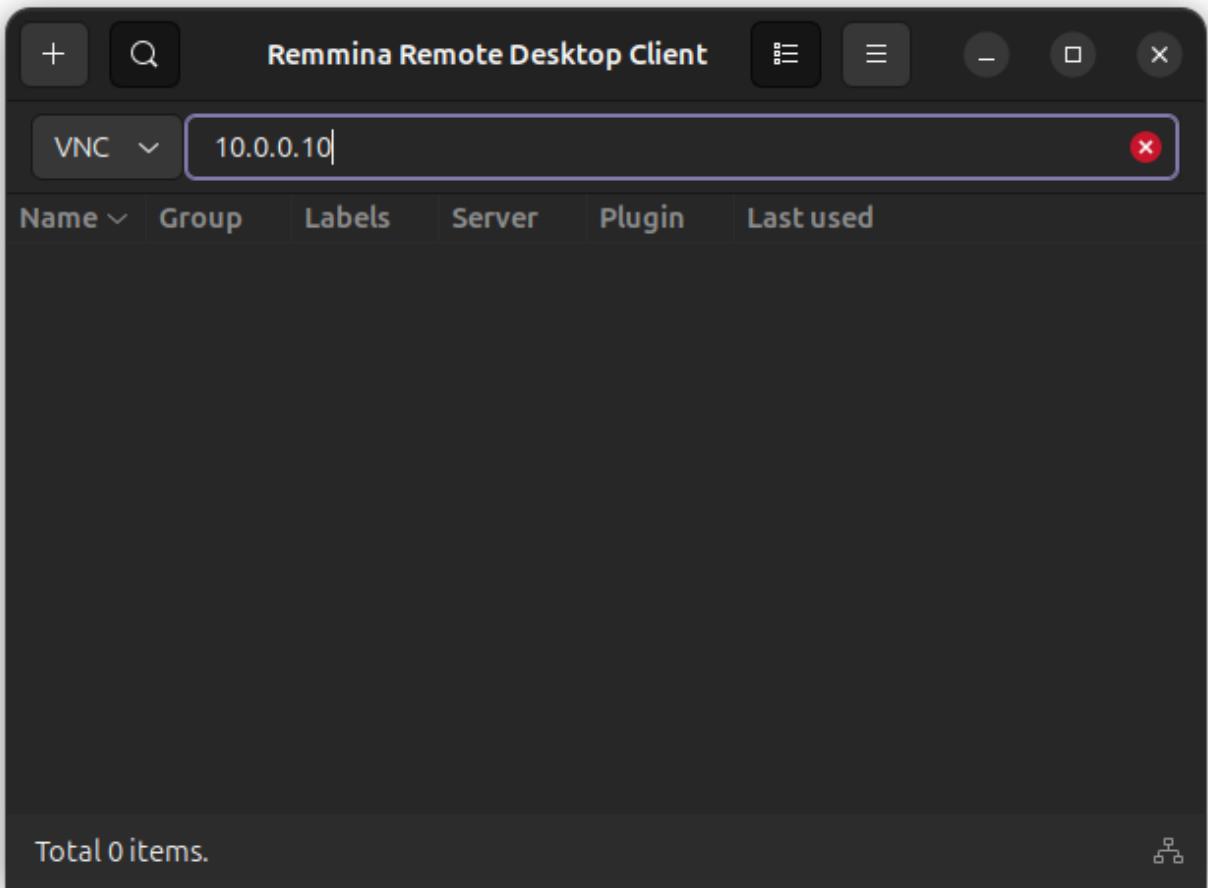
cabinets.



3. Open *GNOME Connections* (untested by the author) or *Reminna* (used in this guide).

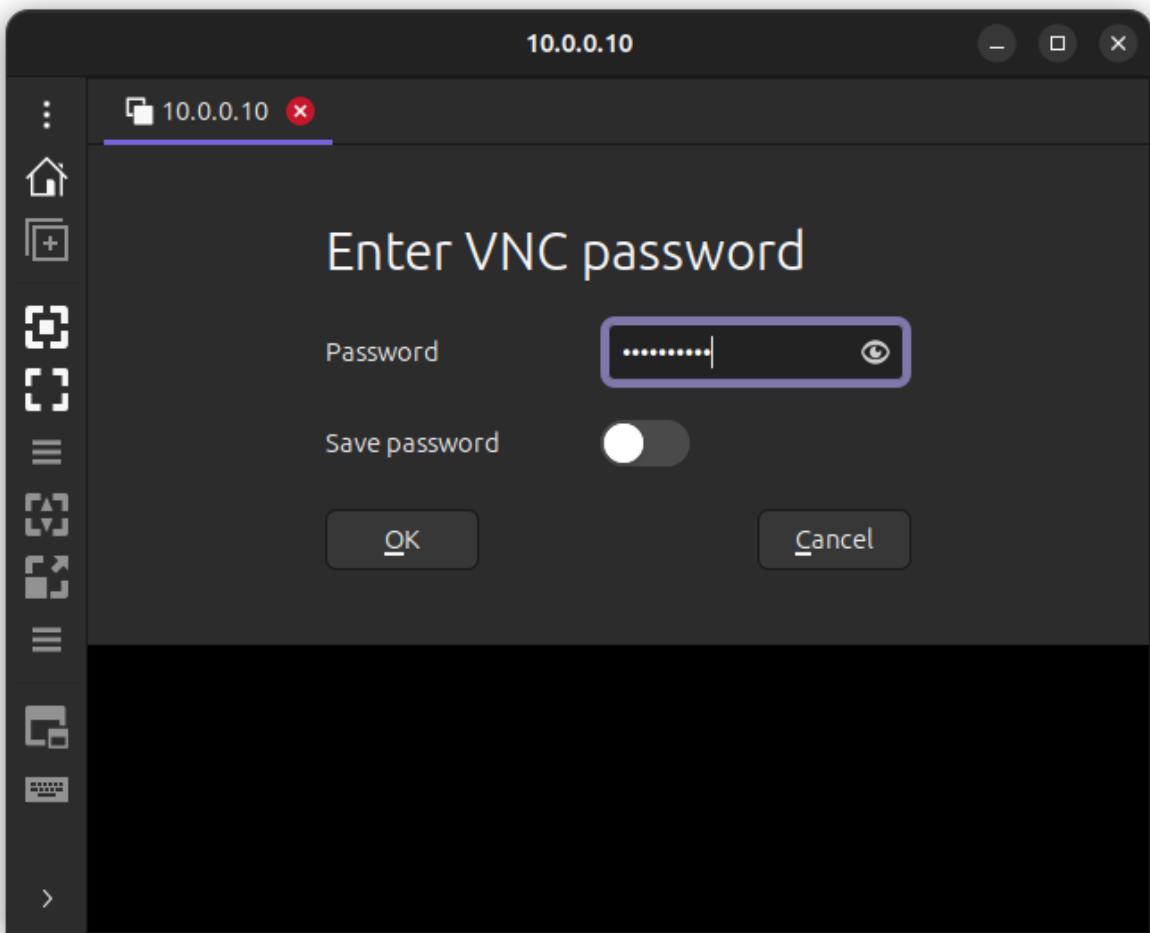
4. Choose the RDP or VNC protocol

1. Enter IP `10.0.0.10`



2. **VNC**- confirmed to work for the author.

password: the usual password

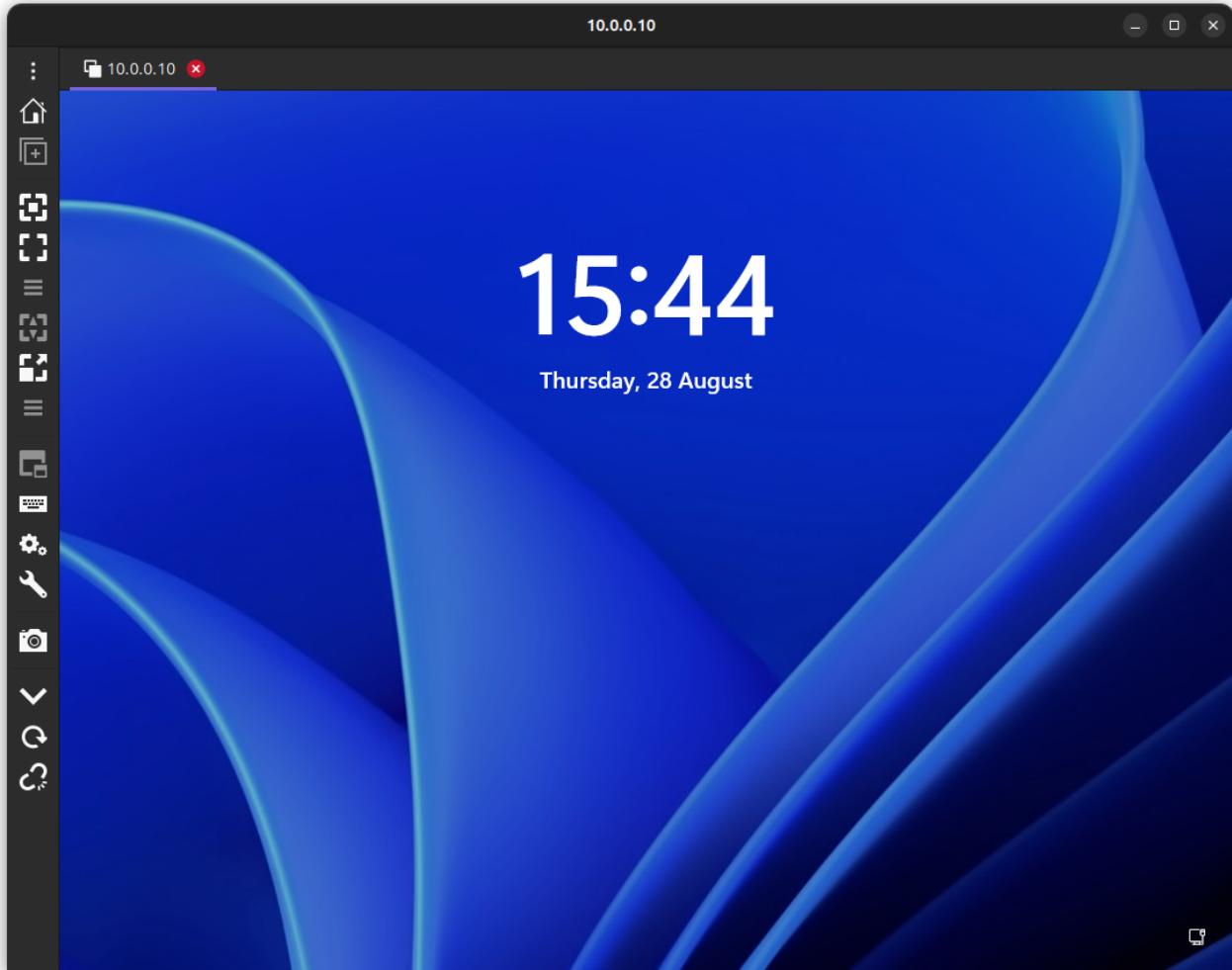


RDP- this protocol did not work for the author but it did work on a different Ubuntu laptop. If you encounter problems with this change to VNC.

username: sml

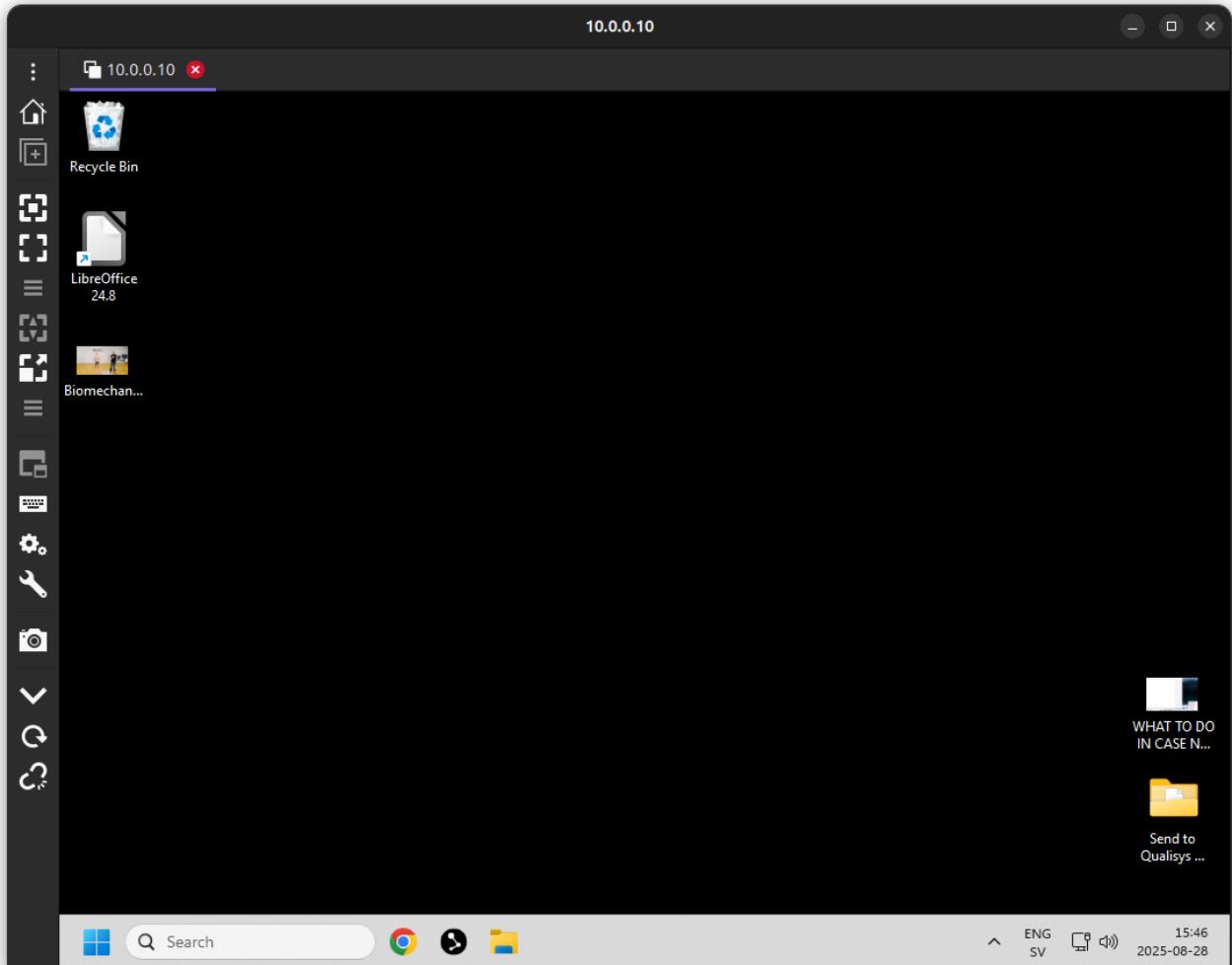
password: the usual password

5. You should get connected with the remote desktop containing the motion caputre software

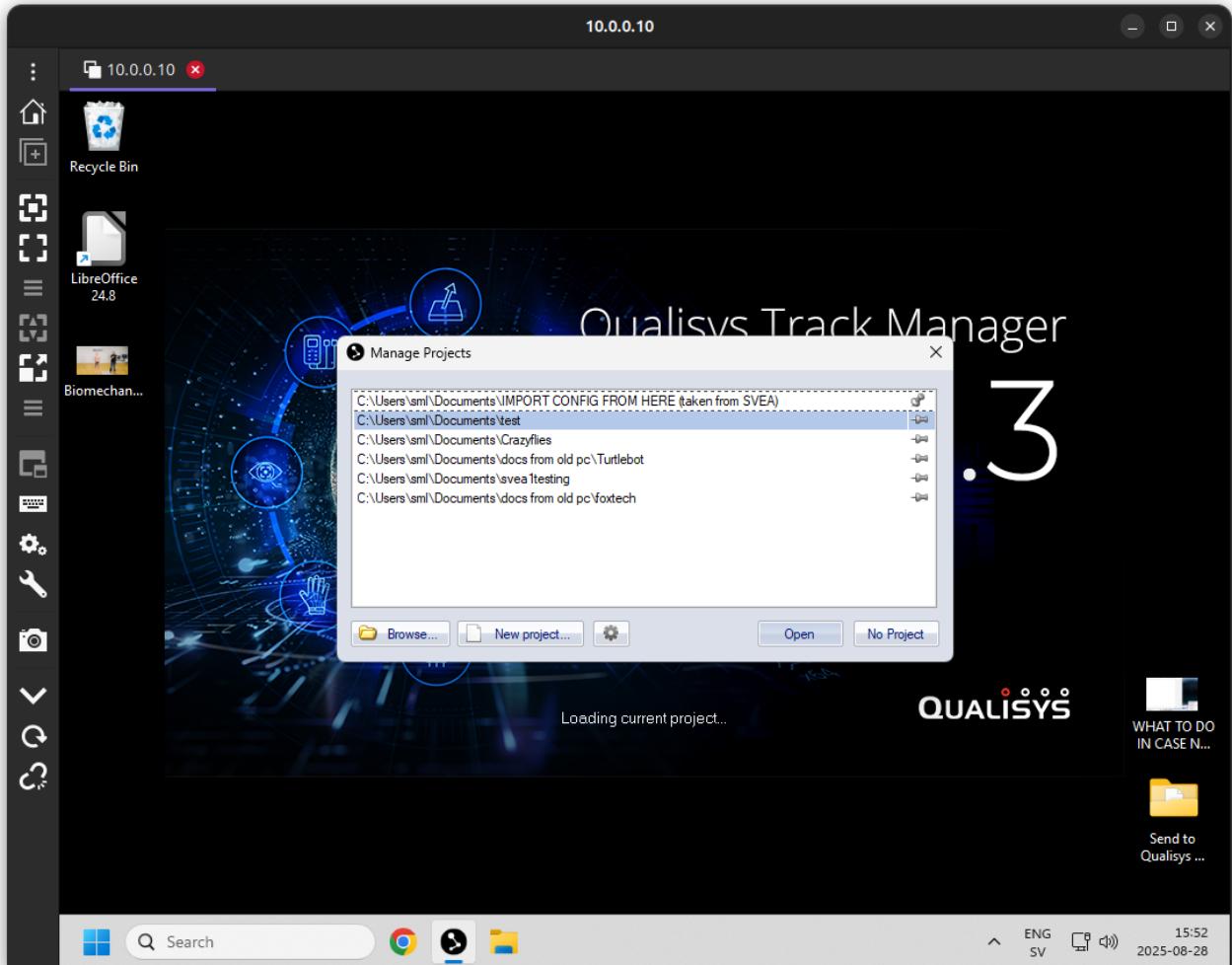


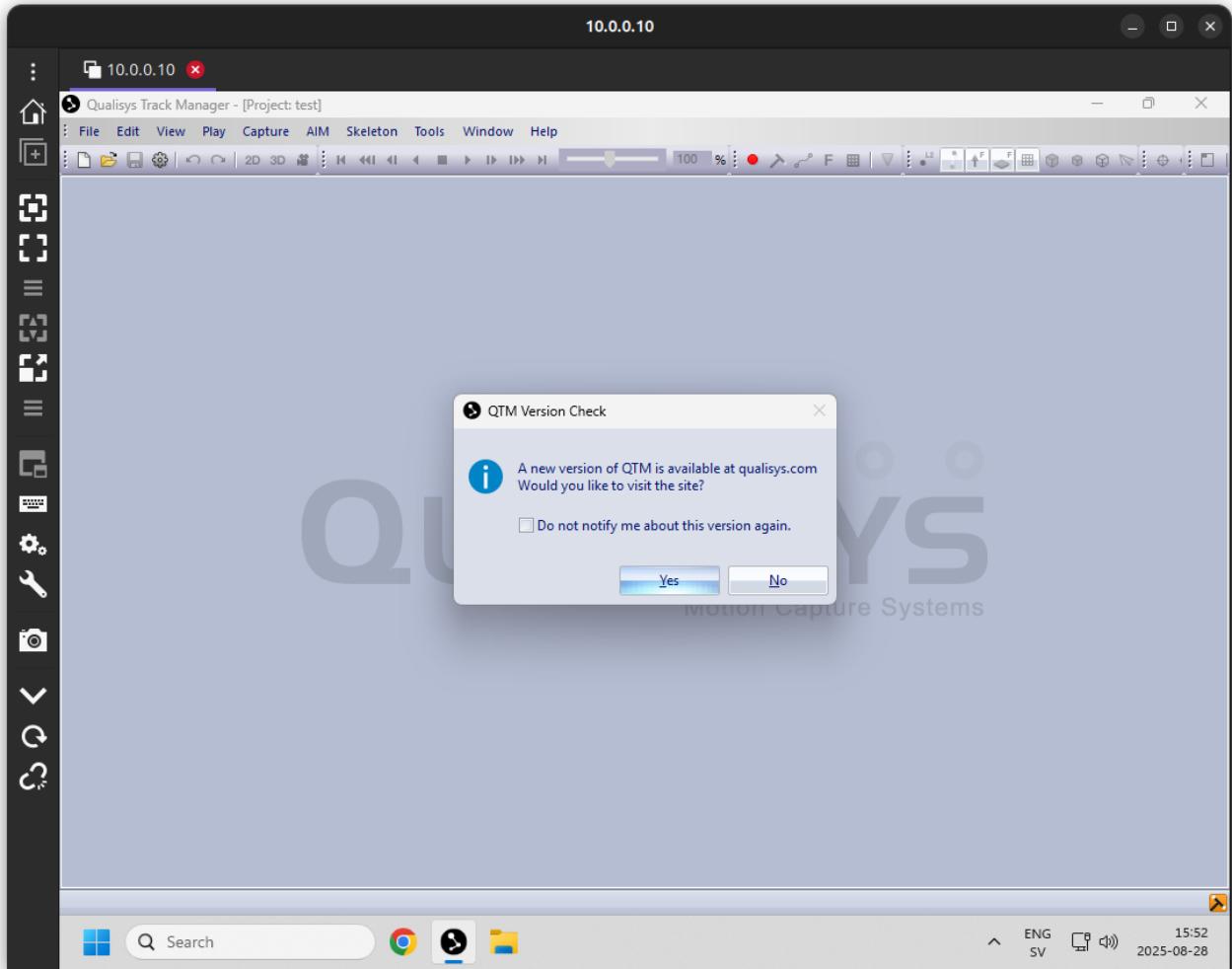
6. Log-in with the usual password. Open *Qualisys* motion capture software by clicking on the

icon:  . It might also open up at system startup.

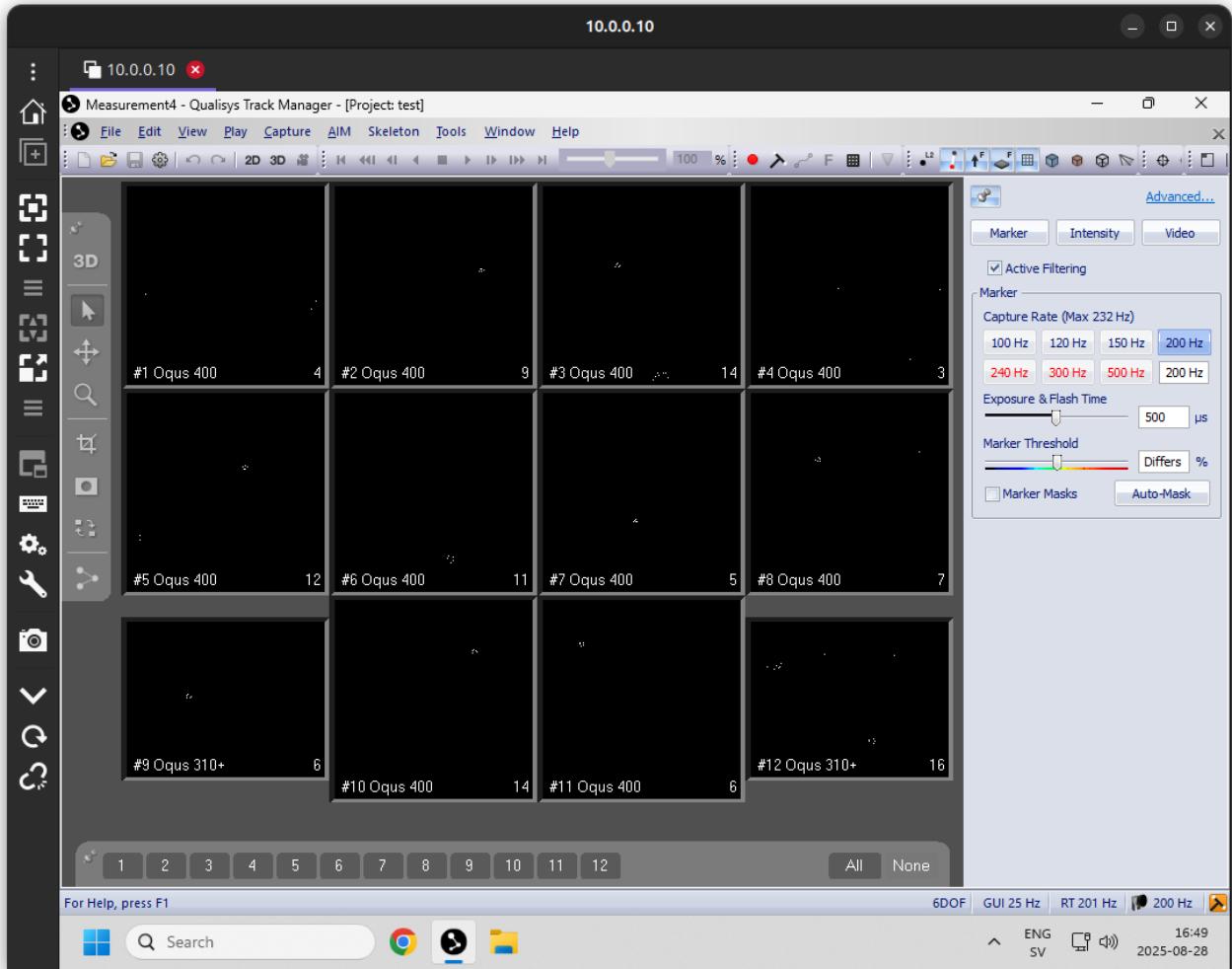


7. Choose/create your project. When asked about a new version just click *No*. **FOR TESTING:** choose test if you are just learning how to use MoCap.

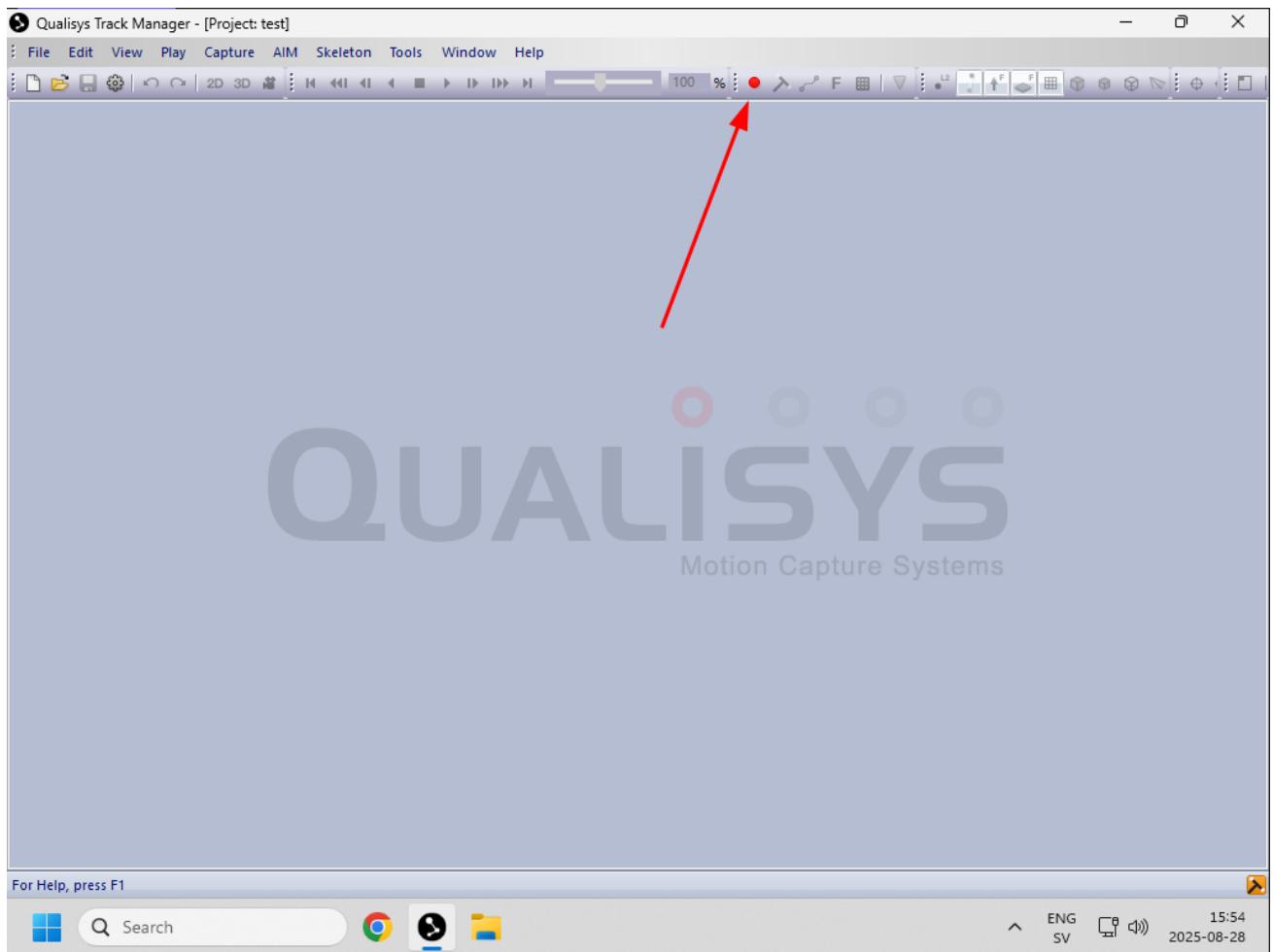


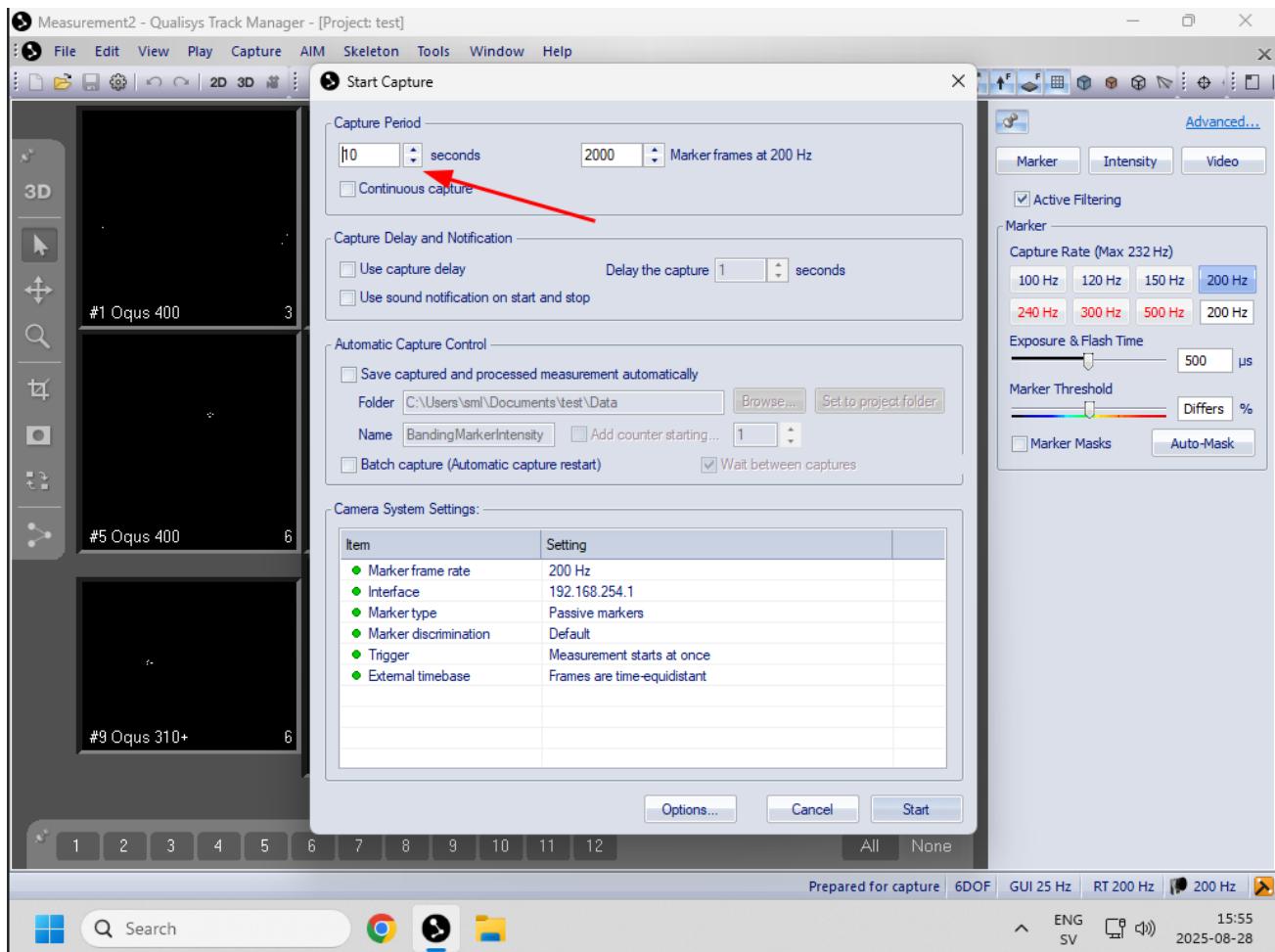


8. You should see the following view. It is the view of the 12 motion capture cameras mounted around the lab. White dots are the trackers attached to the robots/objects. Some reflective surfaces can also show up mistakenly as a tracker. Place a robot/object in the camera view with MoCap markers attached. **FOR TESTING:** feel free to use a small and light turtlebot or other small robot.

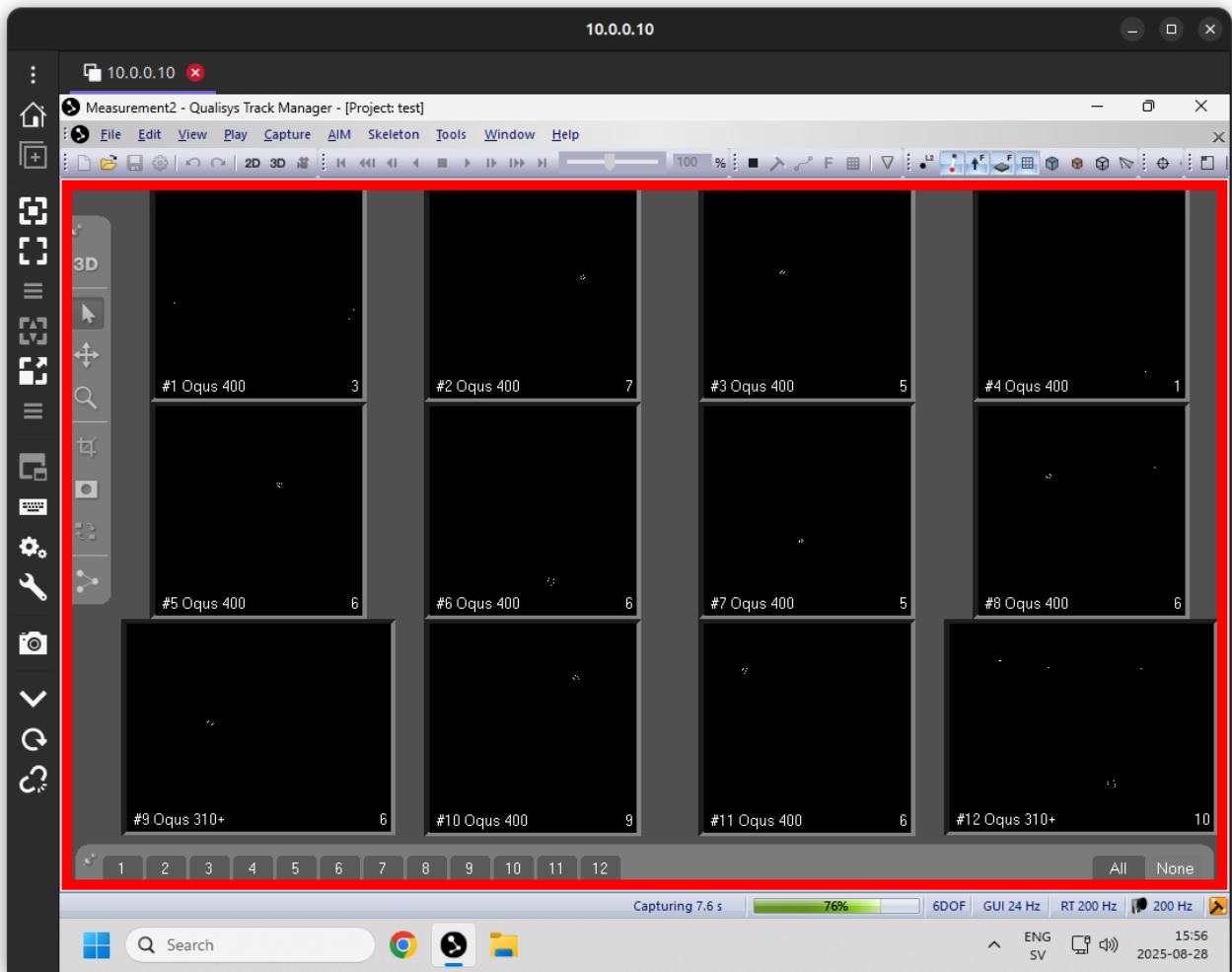


9. Click on the red dot  to record and choose e.g. 10 seconds for the duration. Press **Start** to start recording. **FOR TESTING:** move the robot around during recording to visualize it better.

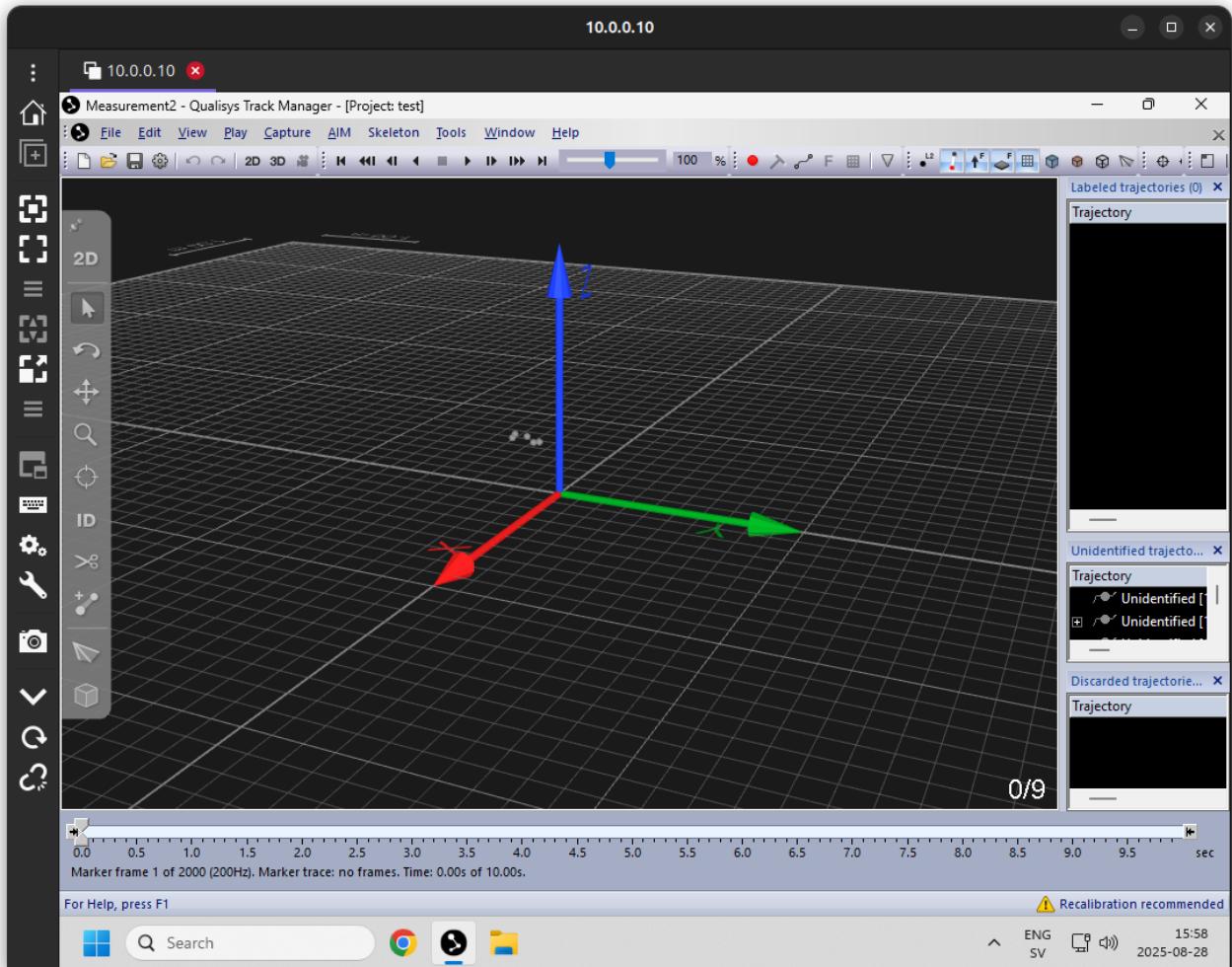




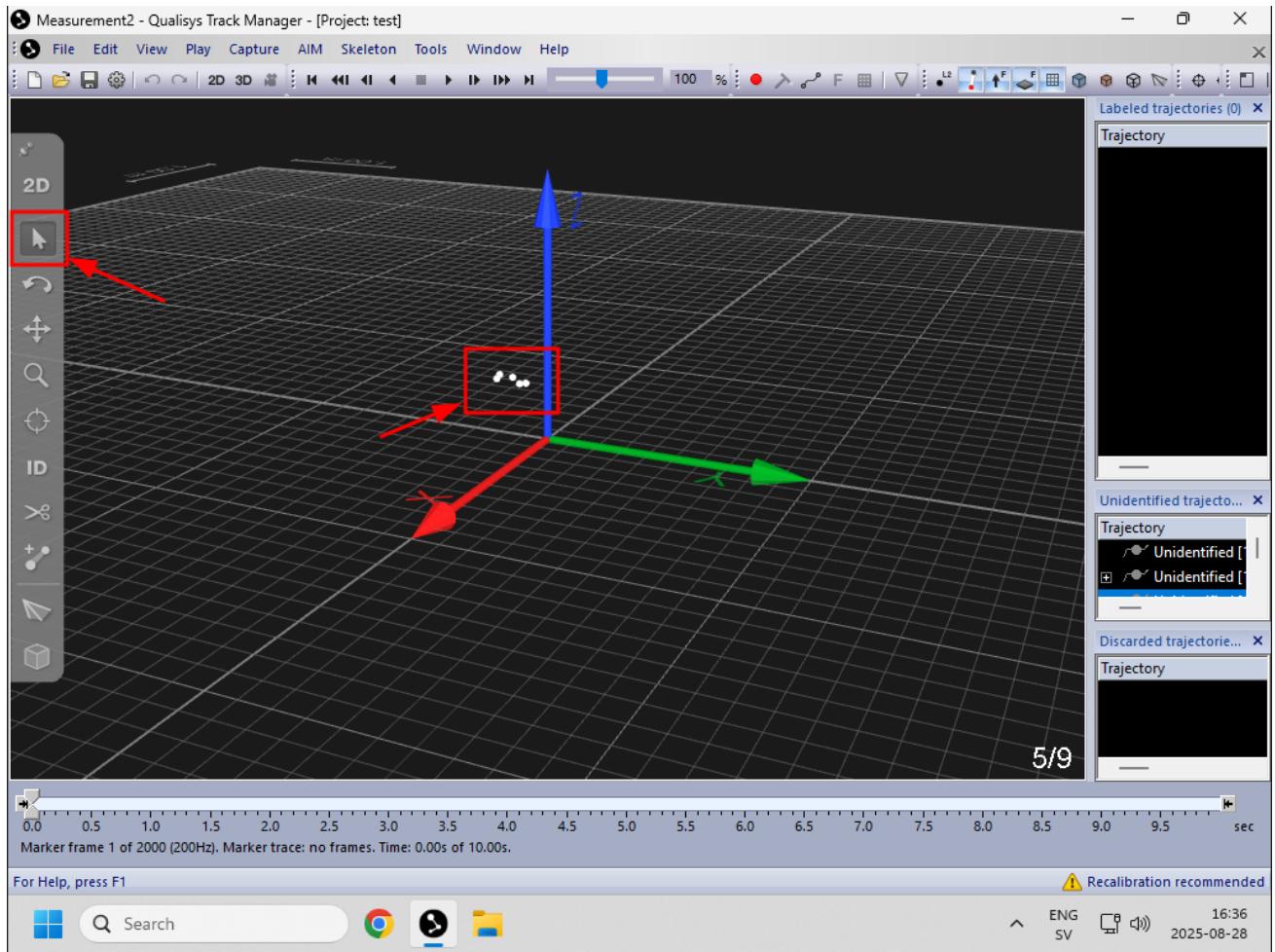
10. As you record you will see the following:



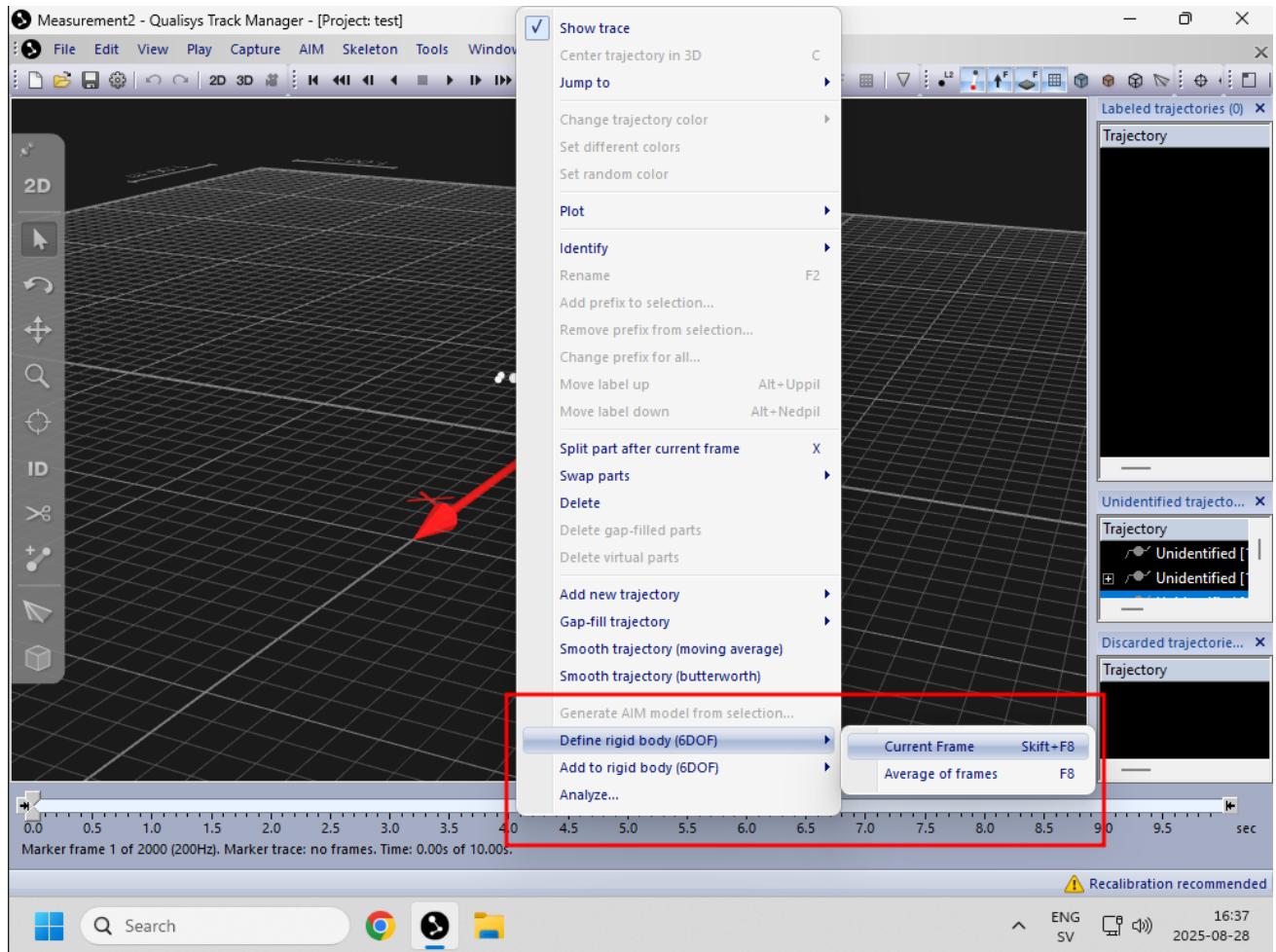
11. Once the recording is done you will see:



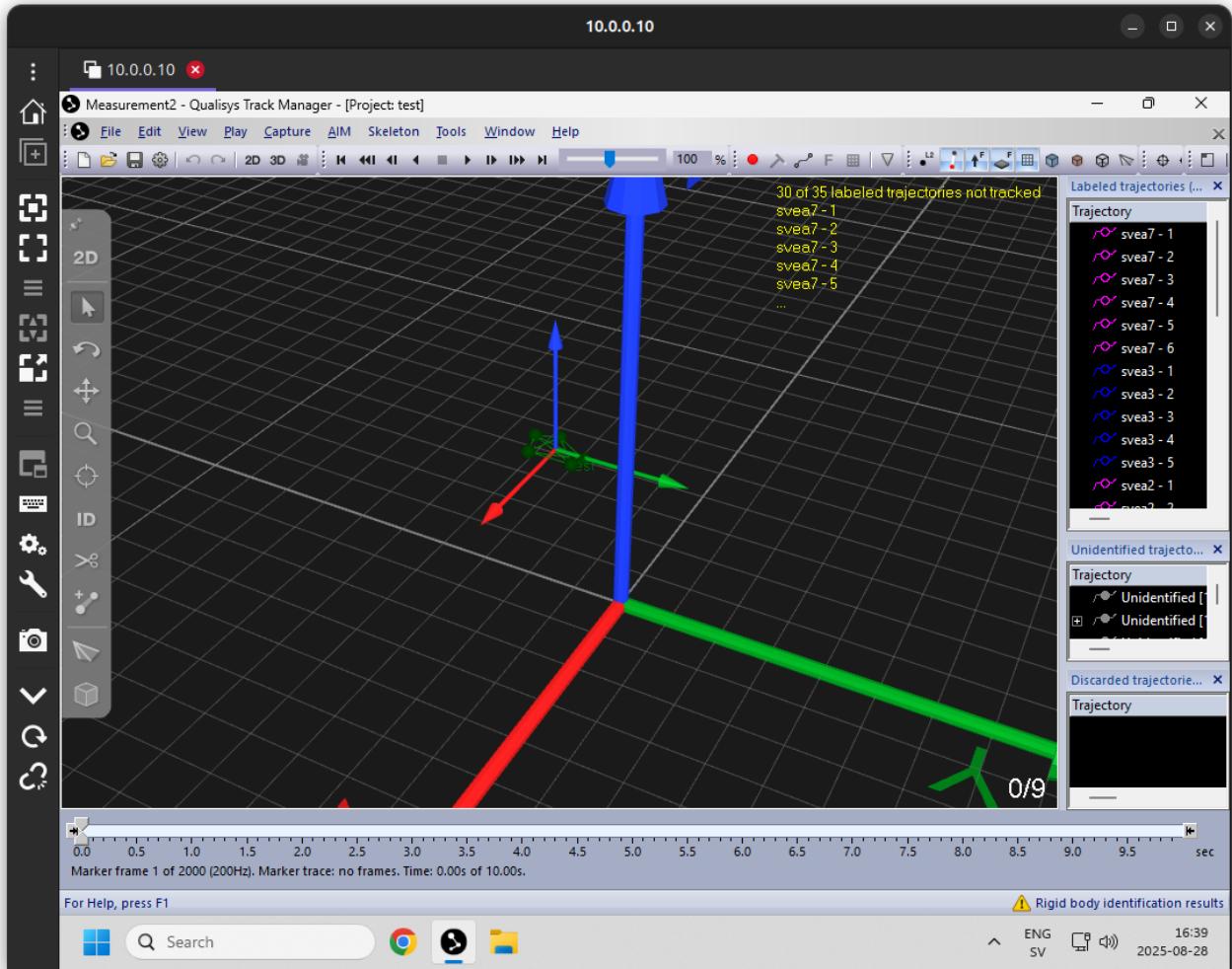
12. You should have the selection tool on (on the left). Select the markers/points that define your robot by clicking SHIFT+click+drag to select the area where the points are located. They should be highlighted in white (rather than gray).



13. Right-click on the selected points. Choose *Define rigid body (6DOF)* and one of the options within that (*Current Frame* or *Average of frames*).



14. The robot should be defined and displayed as for example: **FOR TESTING:** Click play ▶ or click space to replay the recording with the newly defined body.



Issues

1. **RDP** might or might not work. Try using **VNC** protocol instead if the other fails.