ETH MIKE Software Upgrade
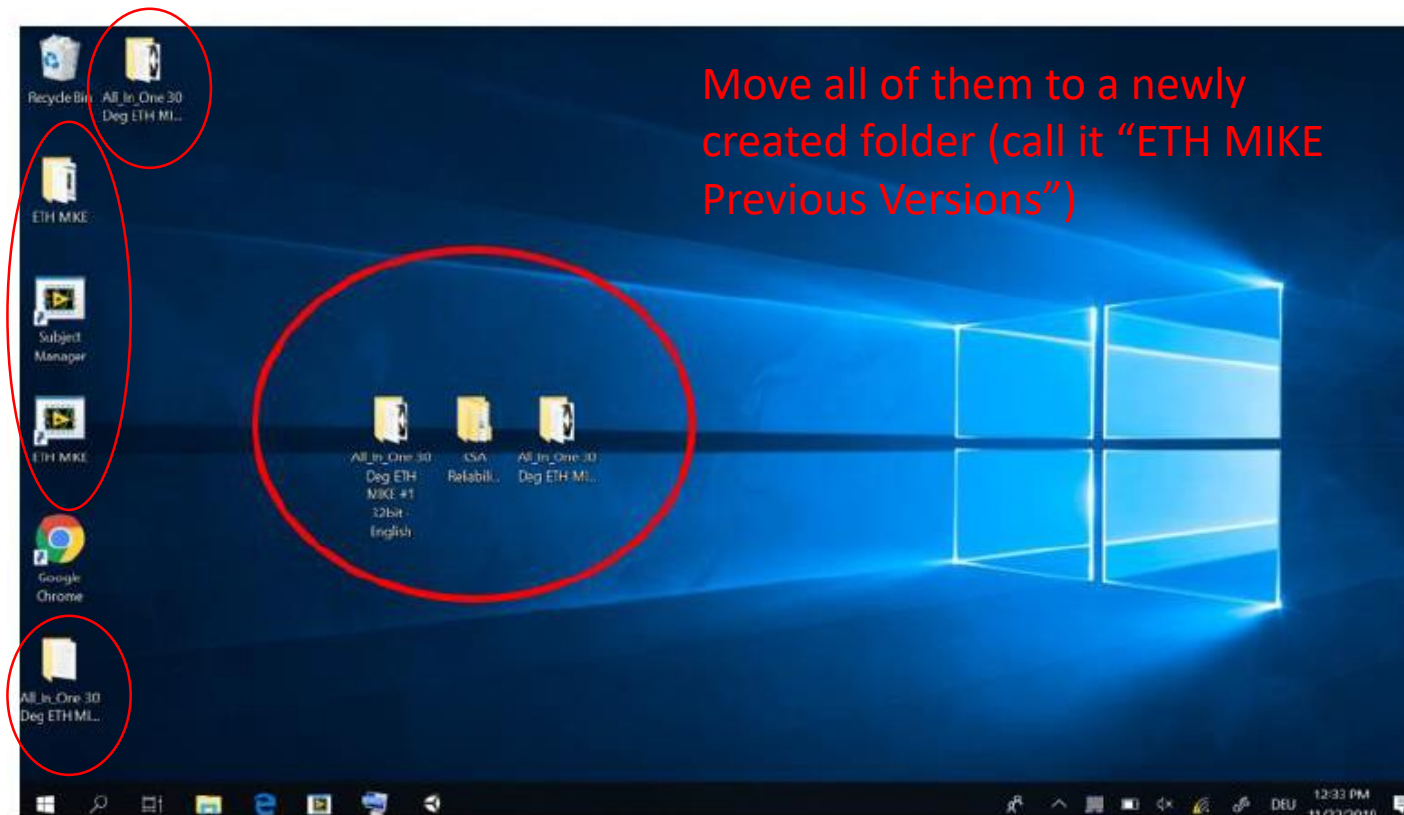
Step-by-step instructions

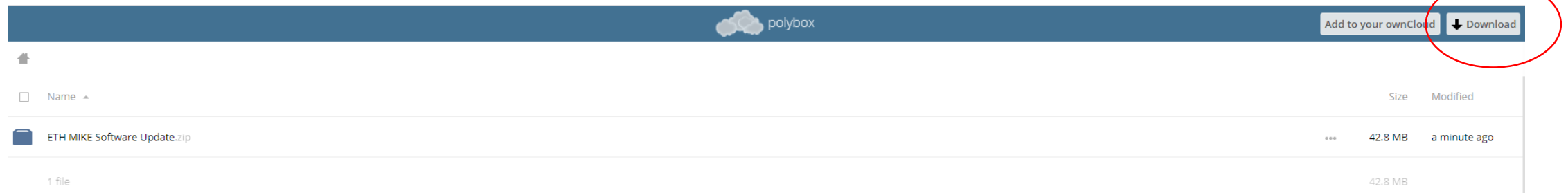Monika Zbytniewska

18.08.2020

1. Clean up of the tablet desktop

- Move the previous software versions to a new folder on the desktop to avoid confusion (call it e.g. ETH MIKE Previous Versions)


Move all of them to a newly created folder (call it "ETH MIKE Previous Versions")

2. Download the zip folder from Polybox

1. Use this link: https://polybox.ethz.ch/index.php/s/Qj4m0naGB8VGVvJ

2. Click on download button

3. Transfer the zip file from the PC you downloaded on to the ETH MIKE tablet (e.g. using a USB stick)

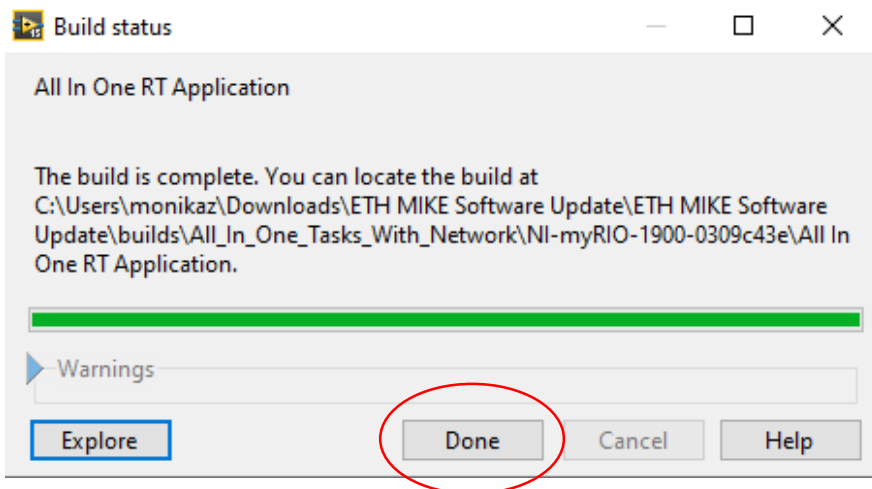4. Unzip the contents of the zip file to the desktop

polybox

Add to your ownCloud   ↓ Download

Name ▲   Size   Modified

ETH MIKE Software Update.zip   •••   42.8 MB   a minute ago

1 file   42.8 MB

3. Hardware update – step 1

1. Make sure that the tablet is connected to the ETH MIKE (connect to "myRIO_Mike" wifi network. In case you are asked for WLAN-password, it is: ethz-relab

2. Follow the folder path: ETH MIKE Software Update → HARDWARE → double click on "All_In_One_Tasks_With_Network.lvproj"

3. The following window will pup-up:
   a) Click on (+) NI-myRIO-...(172.16.0.1)
   b) Click on (+) Build Specifications
   c) You should be able to see **All In One RT Application**
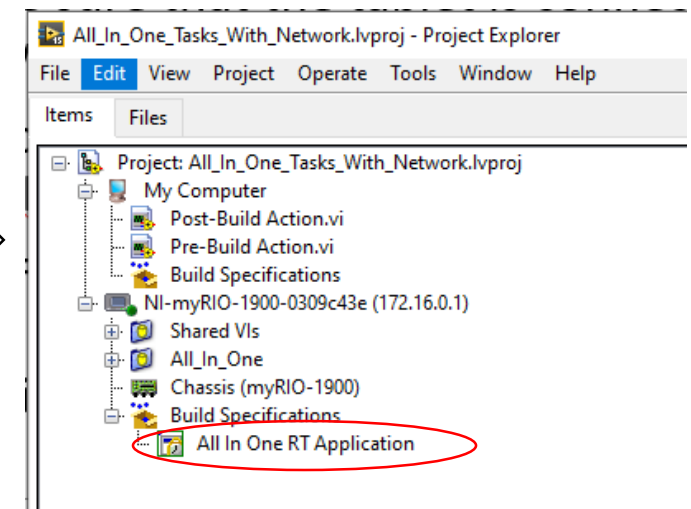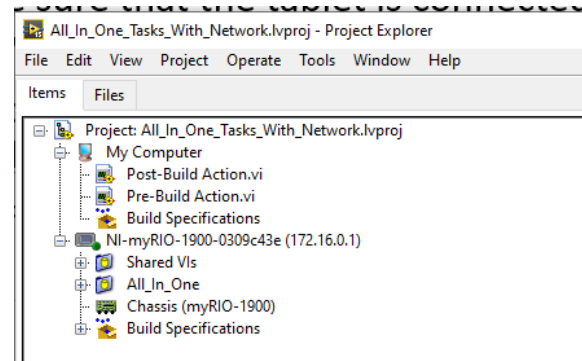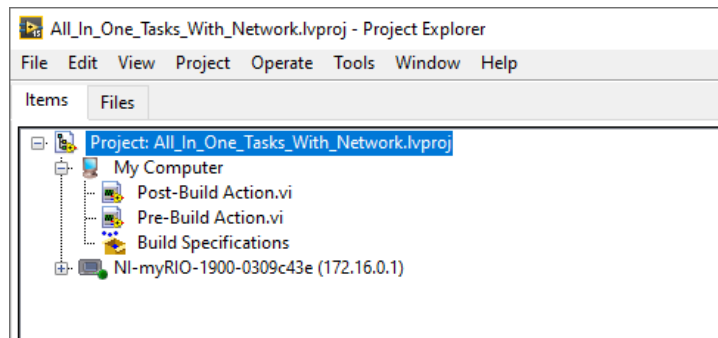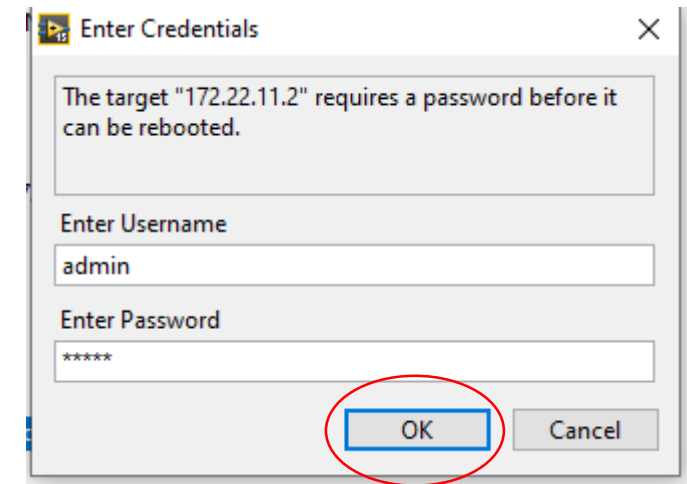
4. Hardware update – step 2

1. Right click on "All In One RT Application"→ Build

2. Right click on "All In One RT Application" → Deploy

3. Right click on "All In One RT Application" → Run as startup

4. You will be asked for username and password, they are:
   username: admin;
   password: admin.

Ref 4: You will be asked for password for the reboot. Insert username and password and press "OK". The target same will be shown as "172.16.0.1"

Ref 1: after you click build and it finishes successfully, you will get this pop-up. Click "done". The build path will be different than the one shown in the image.
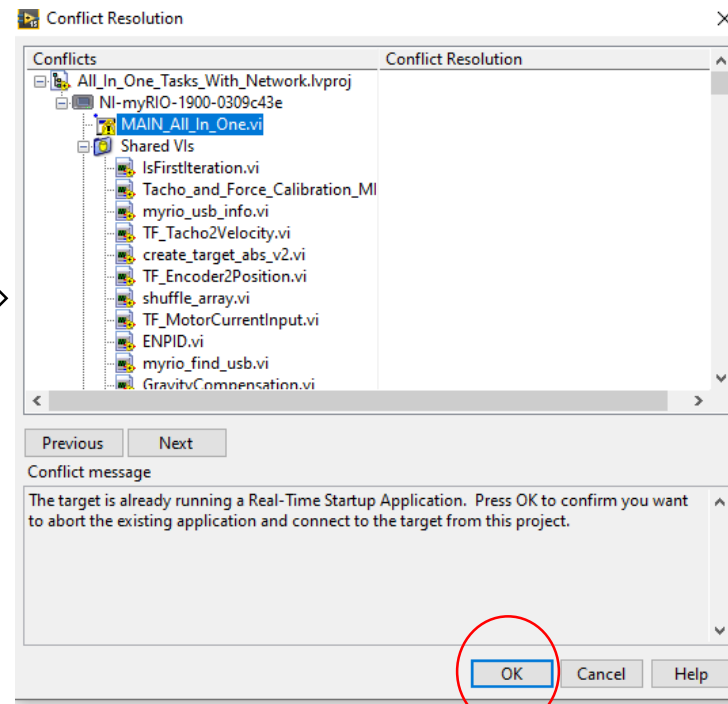
Ref 2: after you click "Deploy" you'll get this popup. Click "OK" to proceed.
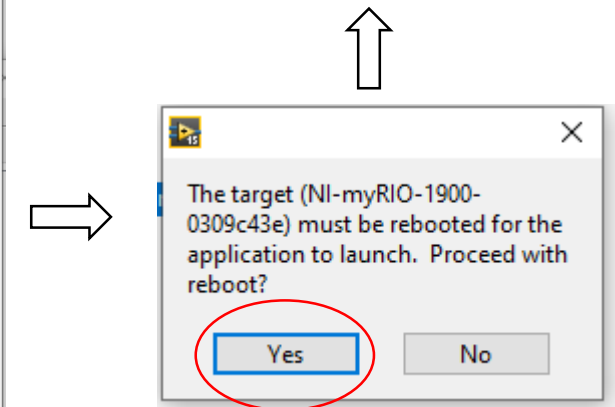
Ref 3: after you click "run as startup" you'll get this popup. Click "Yes" to proceed.

5. Hardware update – step 3

1. Save changes in All_In_One_Tasks_With_Net work.lvproj by clicking "Ctrl+s" or File→Save

2. Close the window by clicking on "X" in the right hand corner.

3. Restart ETH MIKE (using the power switch on the side of the robot) – switch off and back on again
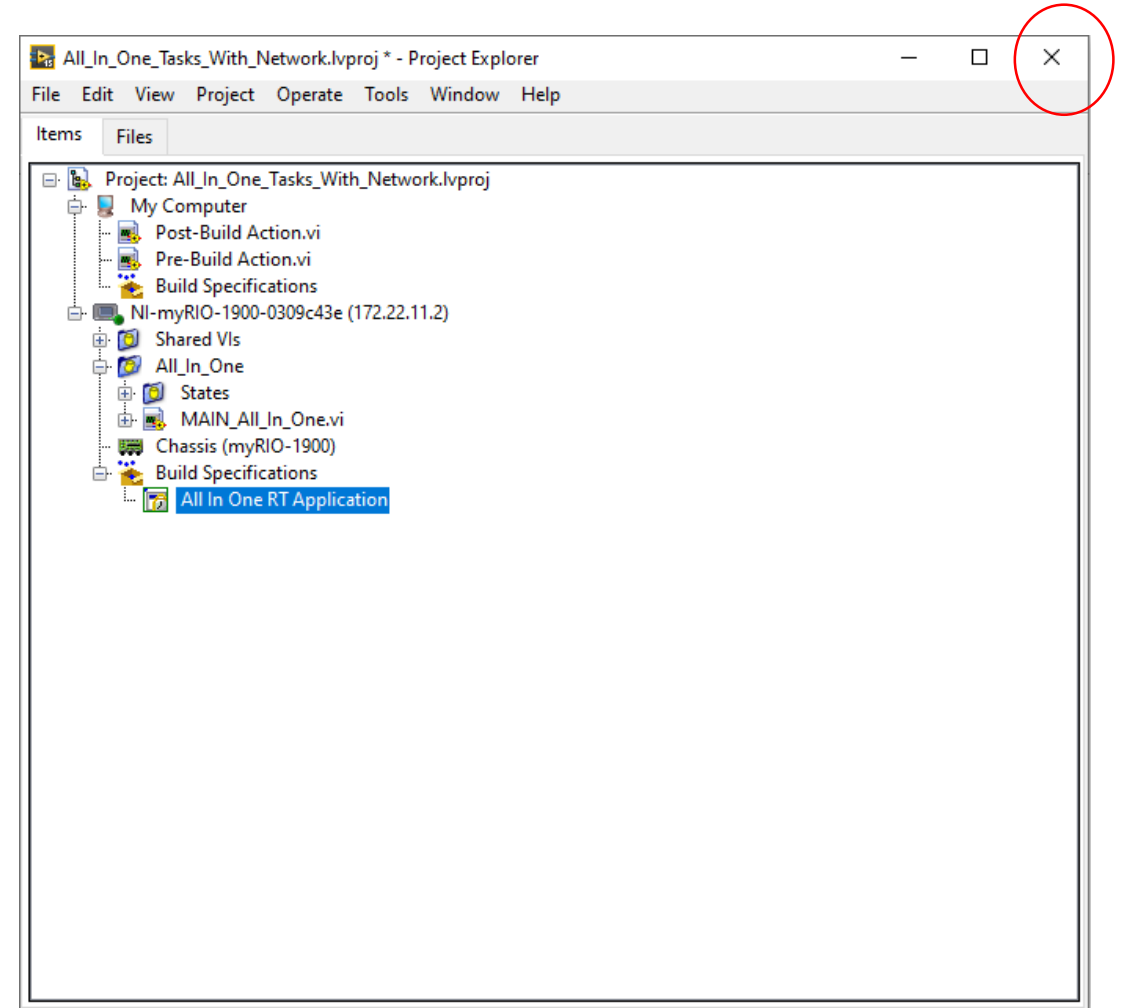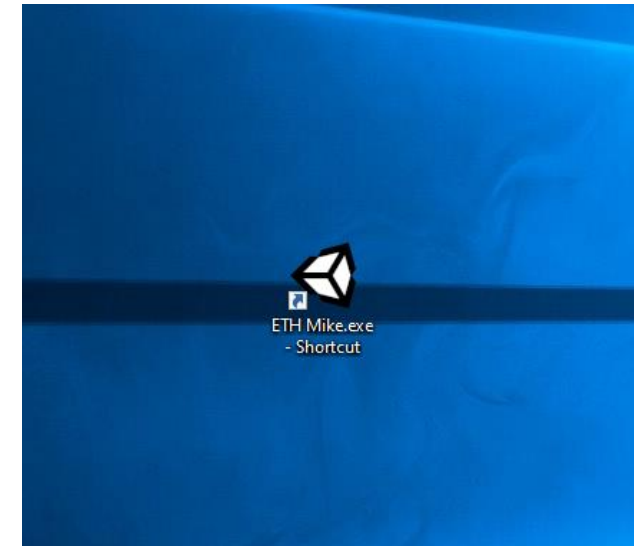
6. Software update – step 1

1. Follow the path ETH MIKE Software Update –> SOFTWARE
2. Right click on ETH Mike.exe –> Create shortcut
3. Locate the shortcut directly on the desktop for easy access to the GUI

7. Software update – explore the config file

1. Right click on the file "config.json" inside the folder SOFTWARE

2. Open with → open with Notepad

3. What is important for you:

   a. "normalTrialConfiguration" (assessment trials)
      - "iNumPosMatchTrials": 11
      - "iNumPreciseReachingTrialsPerDirection": 10
      (which means 20 assessment trials in total)

   b. "trialRoundTrialConfiguration" (practice rounds)
      - "iNumPosMatchTrials": 6
      - "iNumPreciseReachingTrialsPerDirection": 2
      (which means 4 practice trials in total)
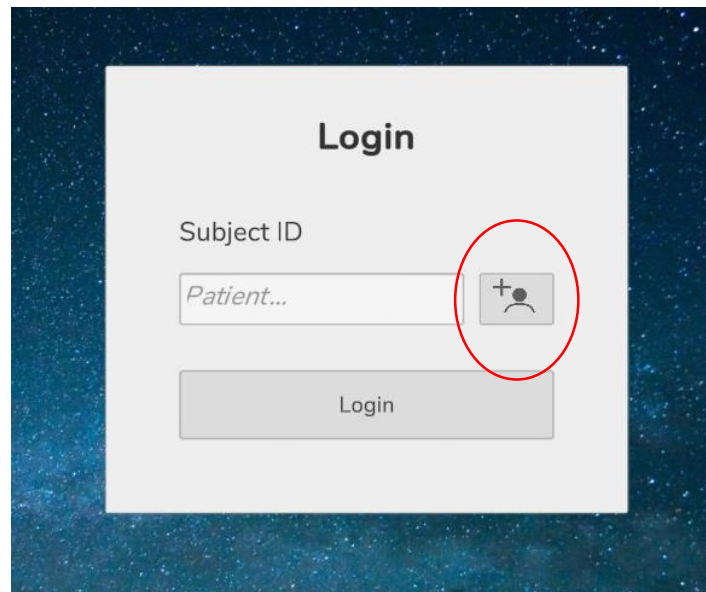
   c. "sLanguage": "Dutch" – see later how to modify

8. Run the software – step 1 (open the app)

1. Double click on the "ETH Mike.exe - Shortcut", which you previously moved to the desktop – you should see the view as below

2. It is important that the square in the right hand corner is green as below
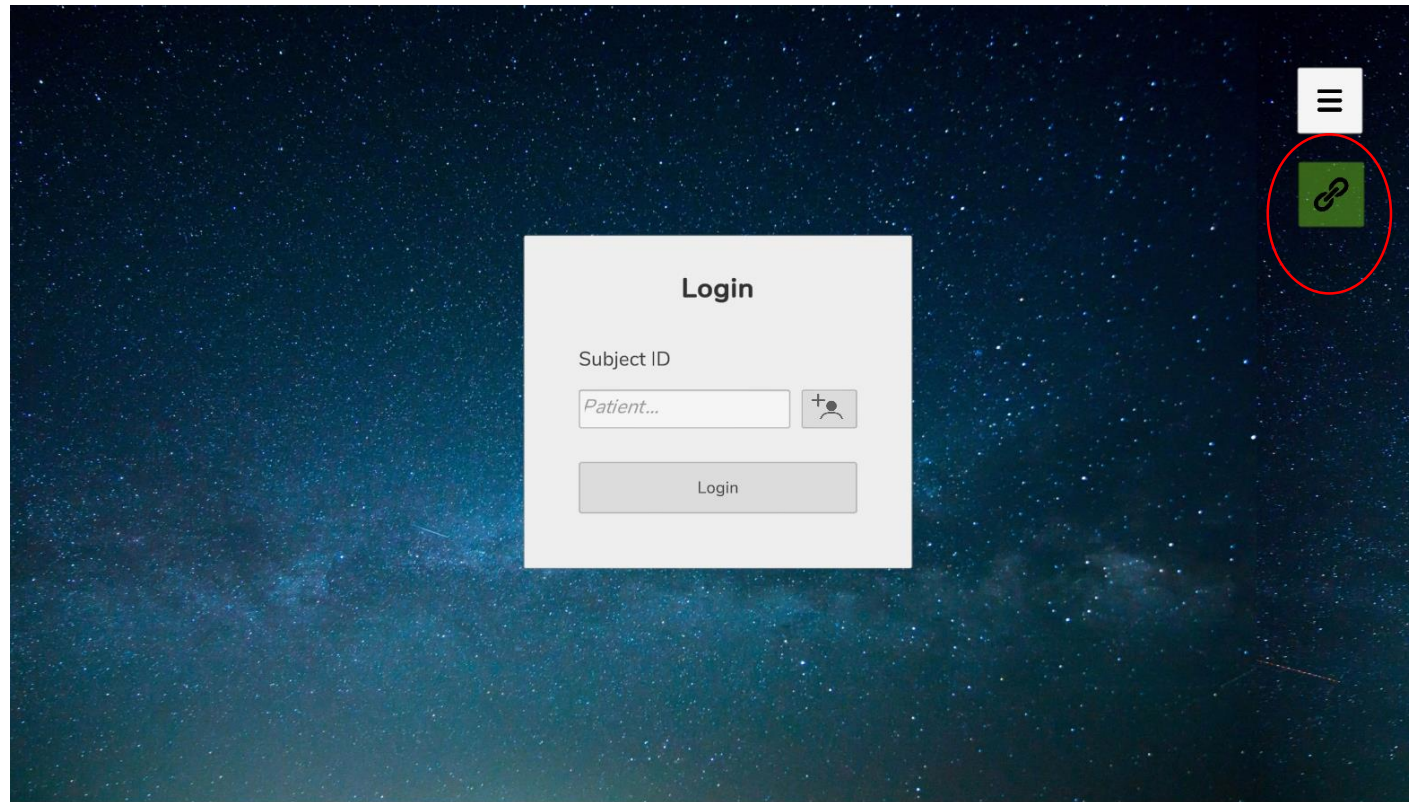
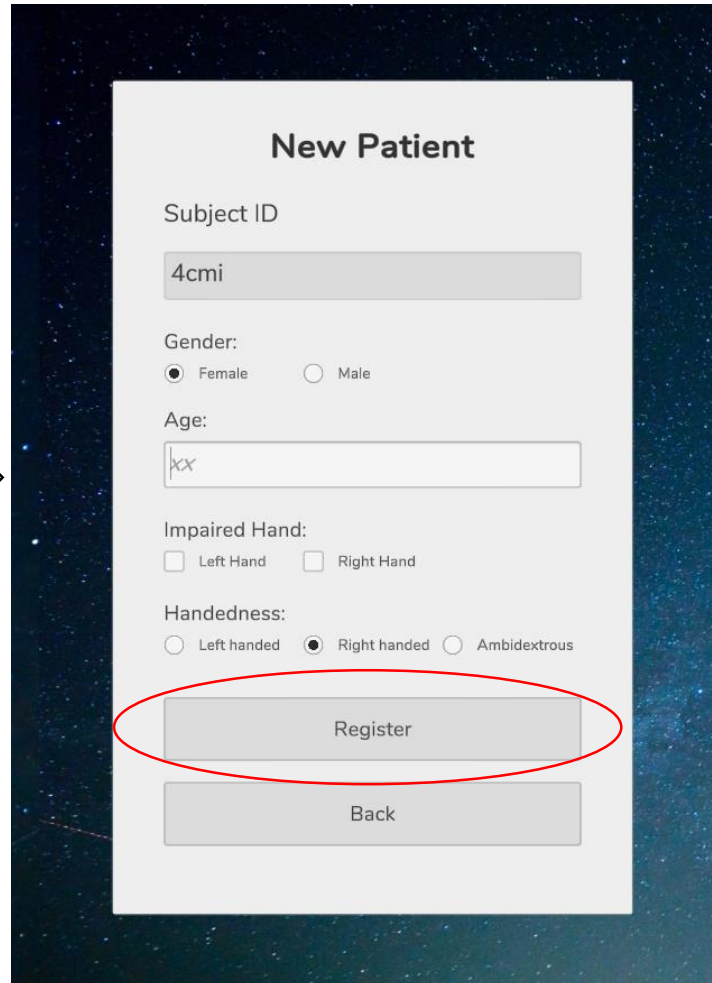# 9. Run the software – step 2 (login)
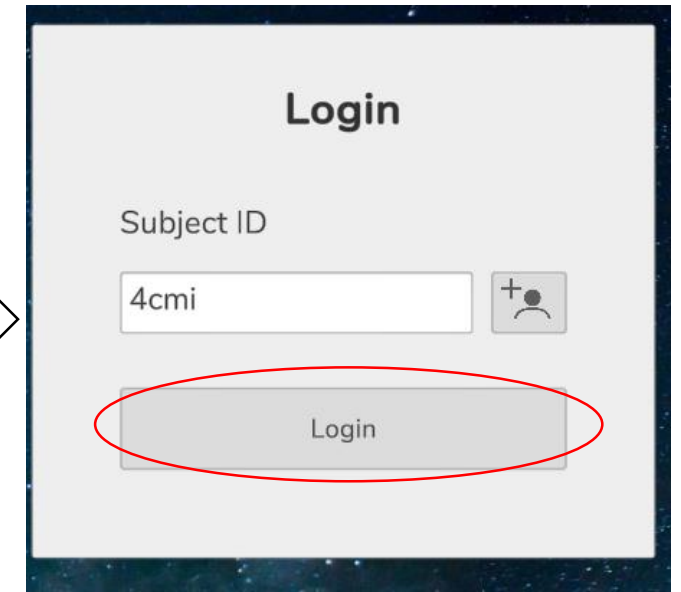
Remember to write down the subject ID so you don't loose it

10. Run the software – step 3 (menus)
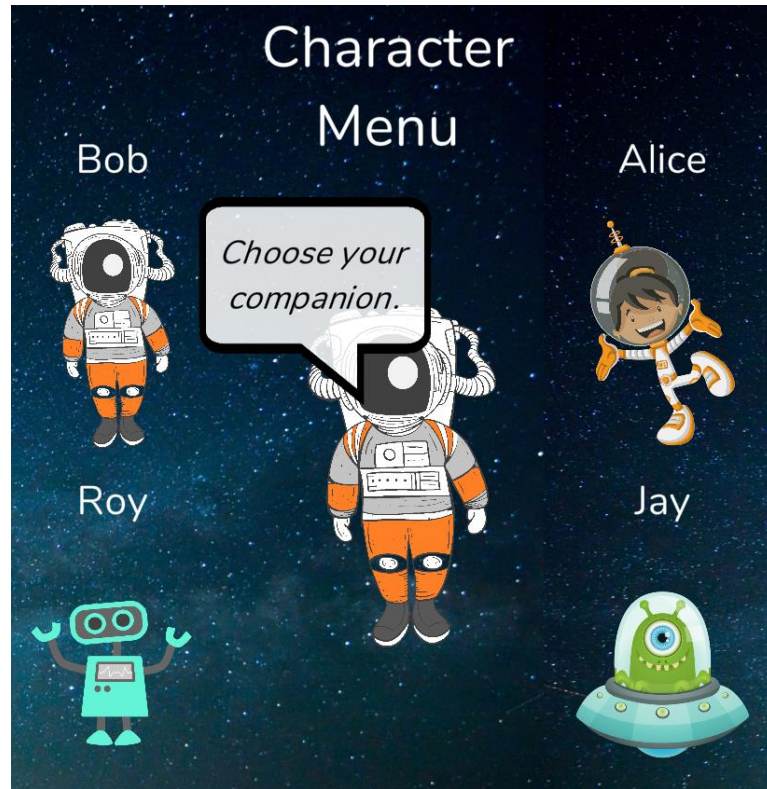
Choose your character
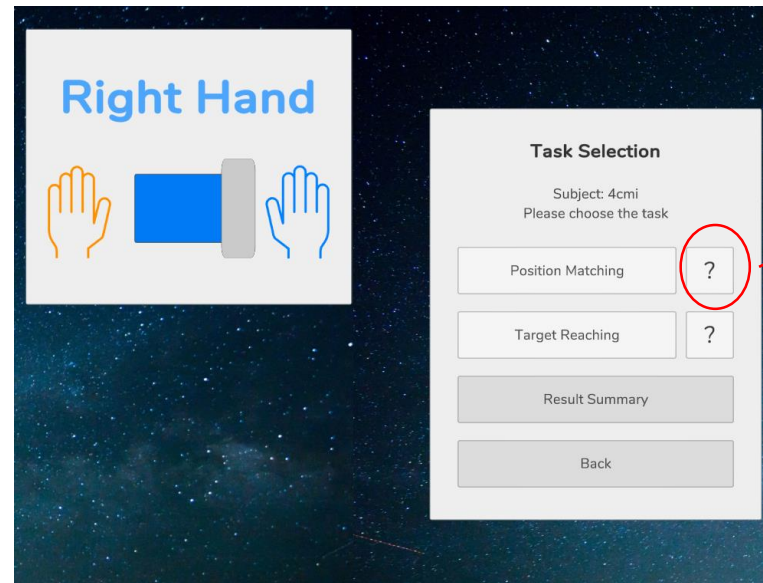
Choose the hand and the task
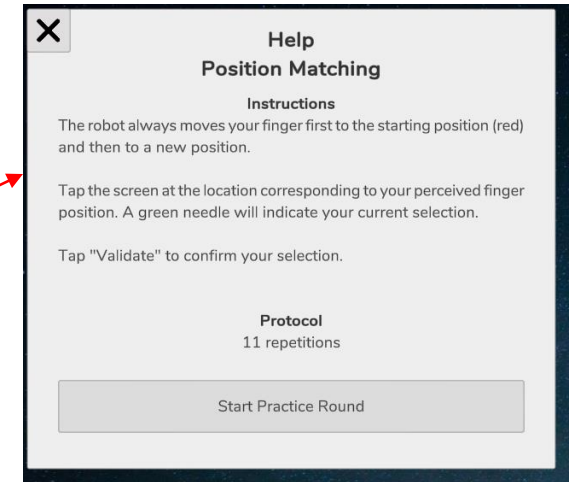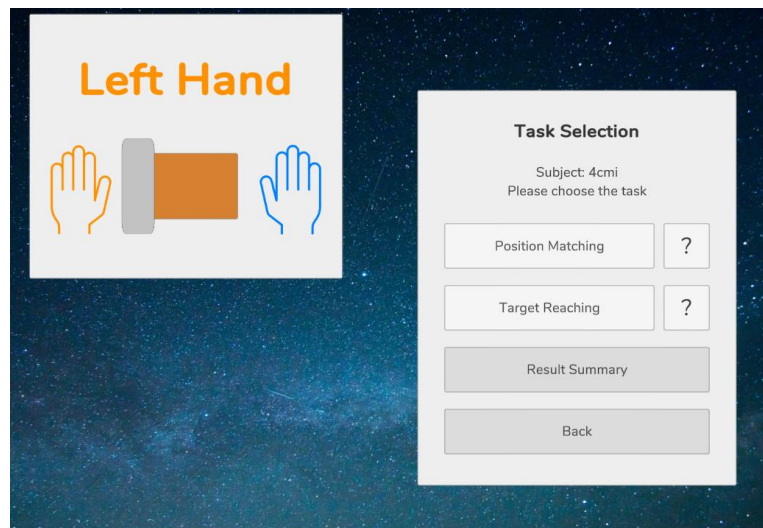
When you click on the question mark, task instruction is shown and you can start a **practice round** (practice round has reduced number of trials with some additional visual feedback, and results are not included in Results Summary)

11. Download data
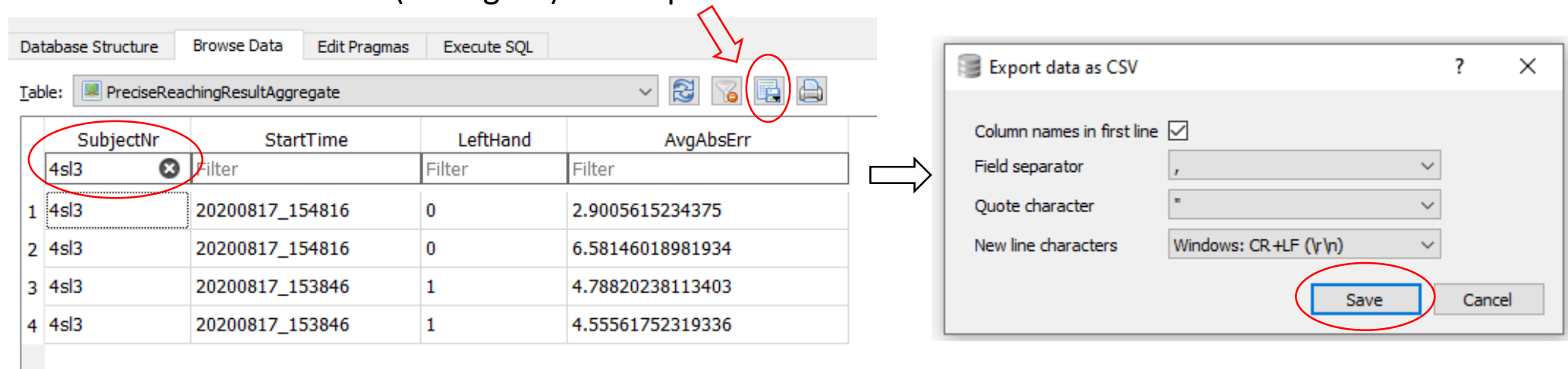
 After you perform a task once, a folder will automatically be created on the desktop called "ETH MIKE DATA". Inside, it will have a folder for each subject ID you created, for each task, for each hand. The folder organisation is as follows:

ETH MIKE DATA → Subject ID → Task Name → Hand → file name (YYYYMMDD_HHMMSS, for practice YYYYMMDD_HHMMSS_practice)

There are three file types under the same name: csv, tdms, txt (all important).

12. How to access data in the database

1. Download: https://sqlitebrowser.org/dl/ (Standard installer for 32-bit Windows) – or transfer the installer to the tablet using USB stick → follow the installation procedure (requires restarting the tablet)

2. Open db.db (double click) in SOFTWARE folder → Right click → Open with… → Look for another app on this PC → DB Browser for SQLite (folder in Program Files) → DB Browser for SQLite.exe

3. Once you open the db.db with the DB Browser, click "Browse Data"

4. Select "PreciseReachingResultAggregate" or "PositionMatchResultAggregate" for the end results of all completed assessments, select "PreciseReachingResultFull" or "PositionMatchResultFull" for results of individual trials.

5. Filter by subject number (SubjectNr) – type the ID into the input field under SubjectNr (see below)

6. Left click on the icon (see figure) and export to csv.
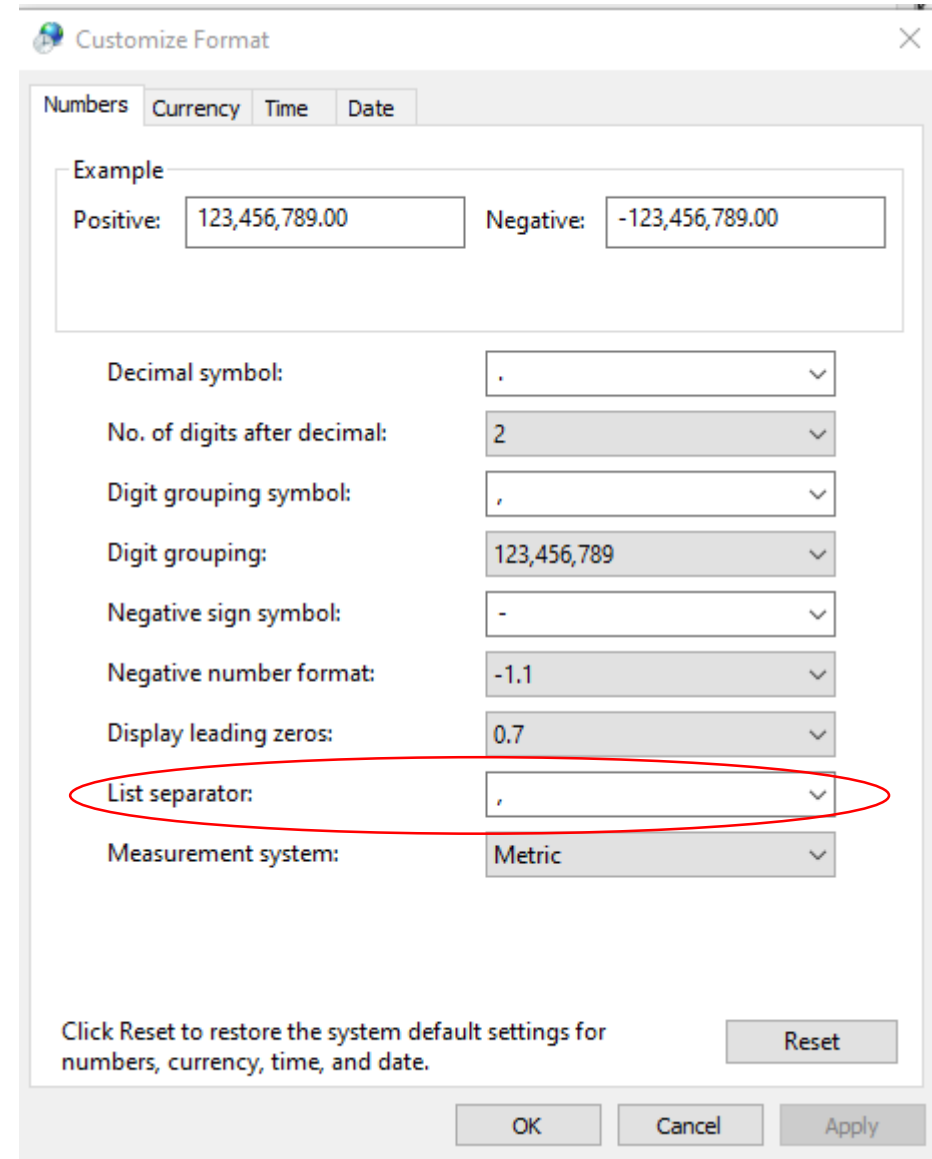
13. How to modify text in software – step 1

First, we need to make sure that you have correct settings to open CSV file, follow these steps:

1. On your windows laptop/ tablet, go to Control Panel

2. Click on "Clock and Region"

3. Region → Change date, time or number formats

4. Click Additional settings…

5. List separator: make sure comma is chosen (" , ") see on the figure:

14. How to modify text in software – step 2

If you would like to change text in the software display, because for example you discover a typo or don't like how something is phrased:

1. SOFTWARE → ETH Mike_Data → StreamingAssets → Localization

2. You will see 3 language options: Dutch.csv, English.csv, German.csv

3. Double click to open the language option you want to change (it will automatically open in Excel)

4. To see rows/columns clearly: select the two columns (Id and Text), Home → Format → AutoFit Column Width + AutoFit Row Height

5. Edit the text you need to change

6. Click save (don't change the format, needs to be saved in csv)

15. How to add a new language

1. SOFTWARE → ETH Mike_Data → StreamingAssets → Localization
2. Copy a language version you want to translate (e.g. Dutch.csv)
3. Rename it into a new language (e.g. French.csv)
4. Modify text (see point 14 on How to modify text in software) & save
5. Open config.json (see point 7 on Software update – explore config file)
6. Modify "sLanguage": "Dutch" into "French", save the config file