

Imaging system manual

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Requirements

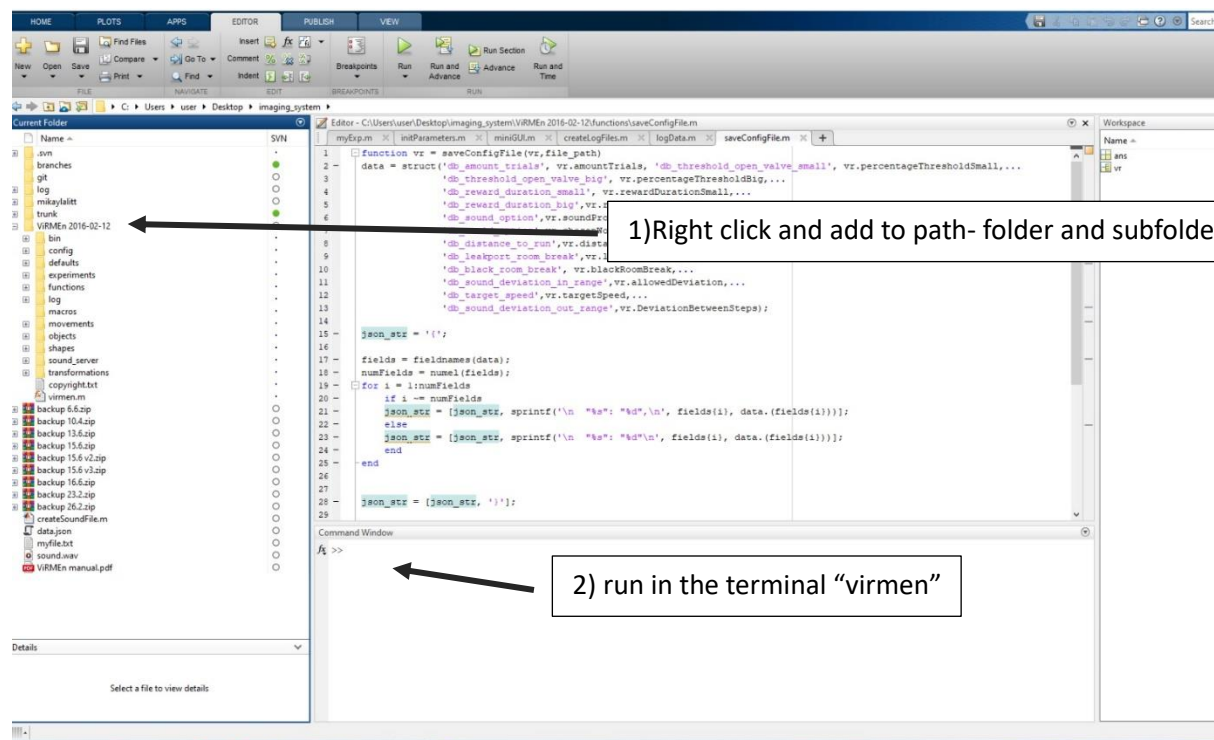
For a new computer – in the sound server folder, run in the cmd “npmi”

“log” folder needs to be in the virmen folder.

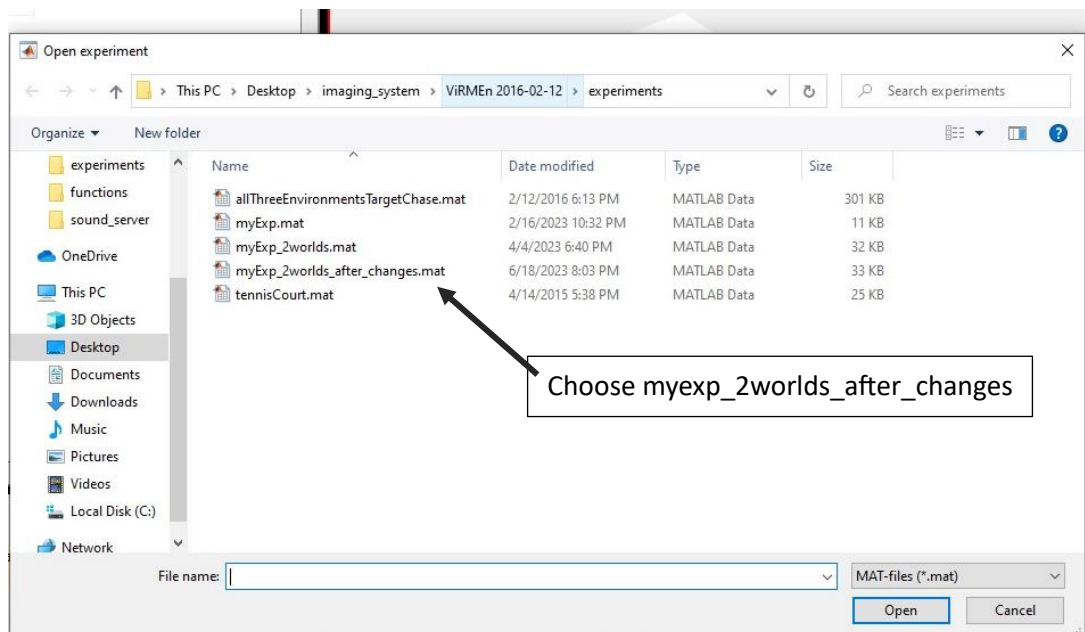
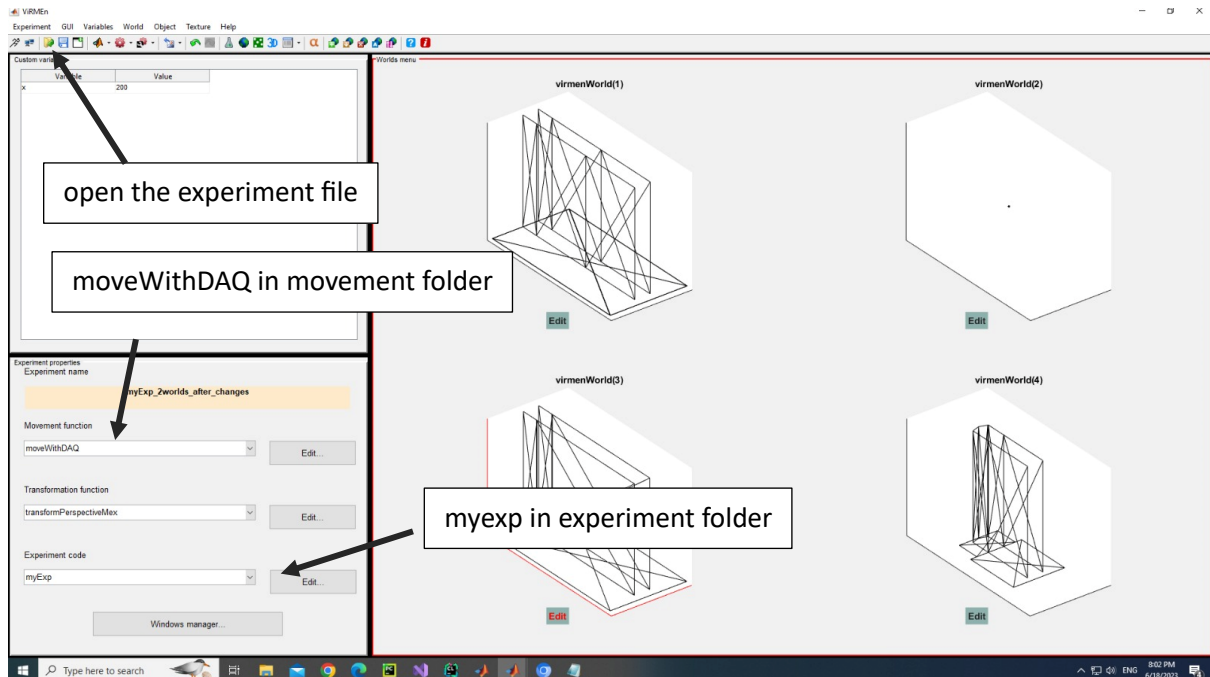
For running the program:

Open Matlab 2018b

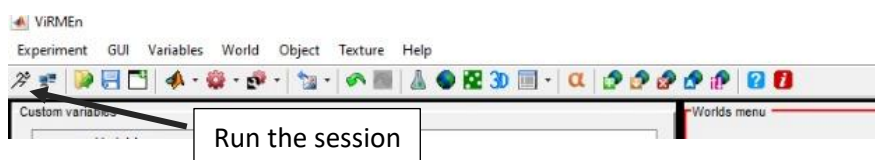
Go to the “Desktop\Imaging system\VIRME n 2016-02-12” folder in the virmen file explorer.



You will get this window



after setting everything, run the session



you will enter the configuration of the session. After pressing “select” It will be saved in the log folder. The default configuration file is the last configuration used.

Figure 1

File Edit View Insert Tools Desktop Window Help

1 Number of trials: Slider Value: 7

2 % correct for small reward: Slider Value: 0

3 Valve opening time (ms) small reward: Slider Value: 70

4 Auditory feedback paradigm: Preferred speed

5 World of large reward: Checkers

6 Reward room duration (s): Slider Value: 2

7 Inter trial interval (s): Slider Value: 2

8 Preferred speed (cm/s): Slider Value: 30

9 Preferred speed deviation (cm/s): Slider Value: 10

10 Speed step size: Slider Value: 10

11 % correct for large reward: Slider Value: 0

12 Valve opening time (ms) large reward: Slider Value: 100

13 Track length (cm): Slider Value: 1.780205e+02

Select

- 1) Number of trials for the session
- 2) Percentage of time running in the goal range in the small reward room
- 3) Reward size- how much time to open the valve for the small reward.
- 4) Which type of sound policy to activate.
- 5) Choose the hallway that will represent the big reward hallway
- 6) How much time (in sec) to be in the reward room.
- 7) How much time (in sec) to be in the black room.
- 8) Target speed
- 9) How much deviation from the target speed we allowed.
- 10) When out of range, how much deviation between each step
- 11) Percentage of time running in the goal range in the big reward room
- 12) Reward size- how much time to open the valve for the big reward.
- 13) The length of the trace (in cm, not precise)

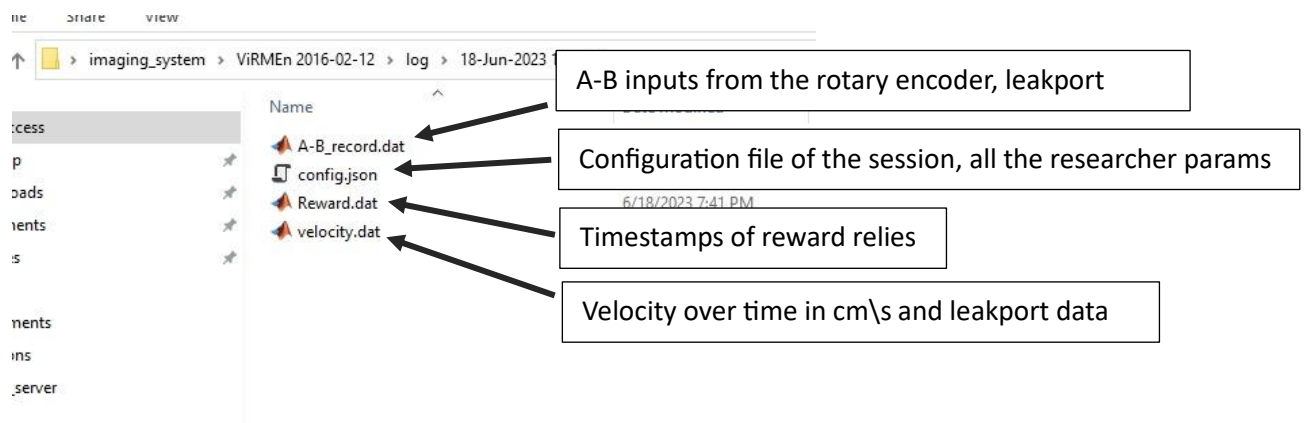
Changing configuration files

For using a config file from other session, copy its content and paste it in the default config file in config\config.json

results

after running the session, all the data will be saved in the log folder, under the session's date and time

There are 4 files in the folder:



How the data is structured

A-B_Leakport_record (4Xn)

timestamp	...
A state(0-4 Volt)	...
B state(0-4 Volt)	...
Lickport state	...

Reward(2Xn)

Timestamps	...
Reward gaved	...

Velocity (3Xn)

timestamp	...
Velocity (cm\s)	...
Current leakport status	...