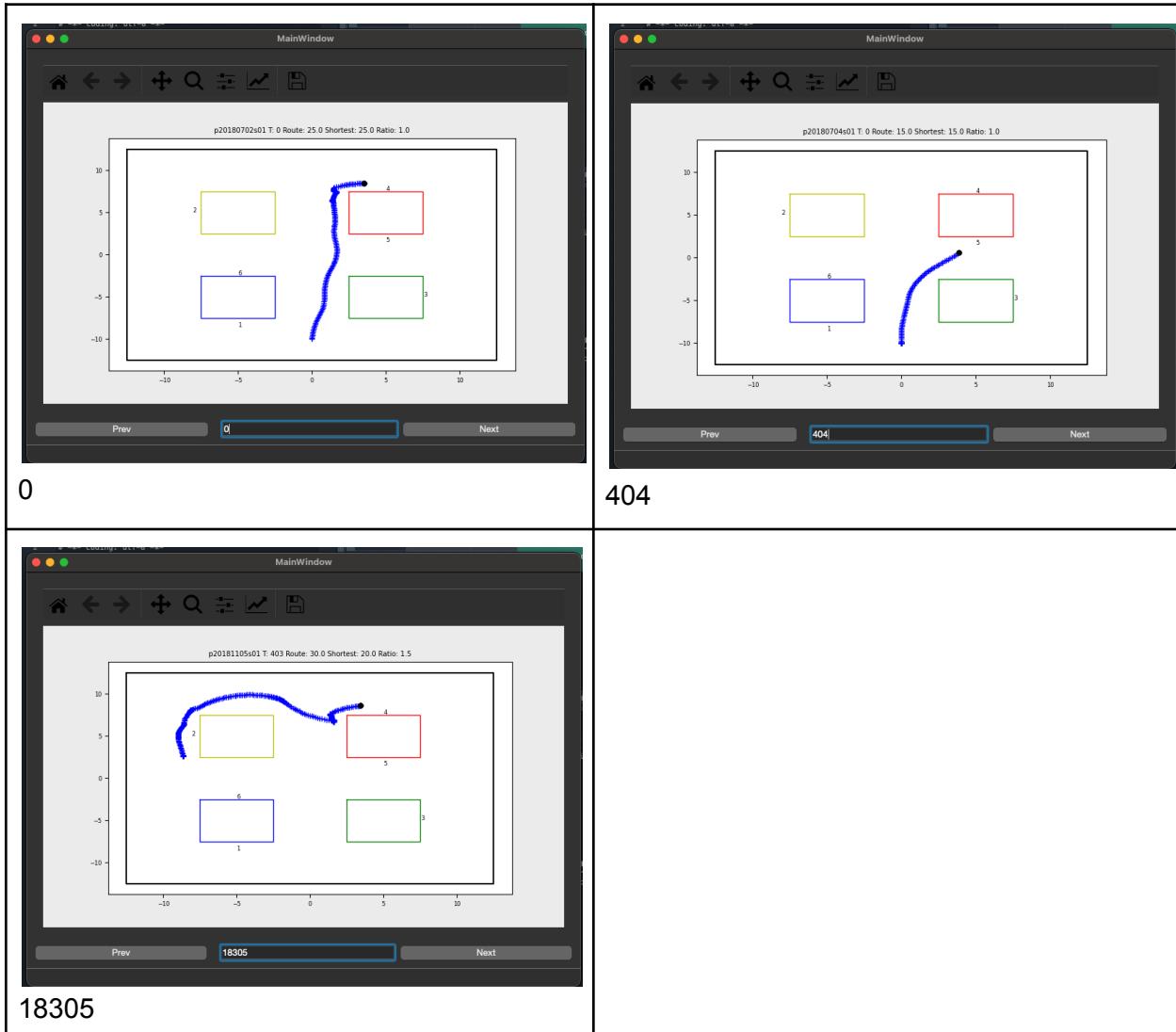


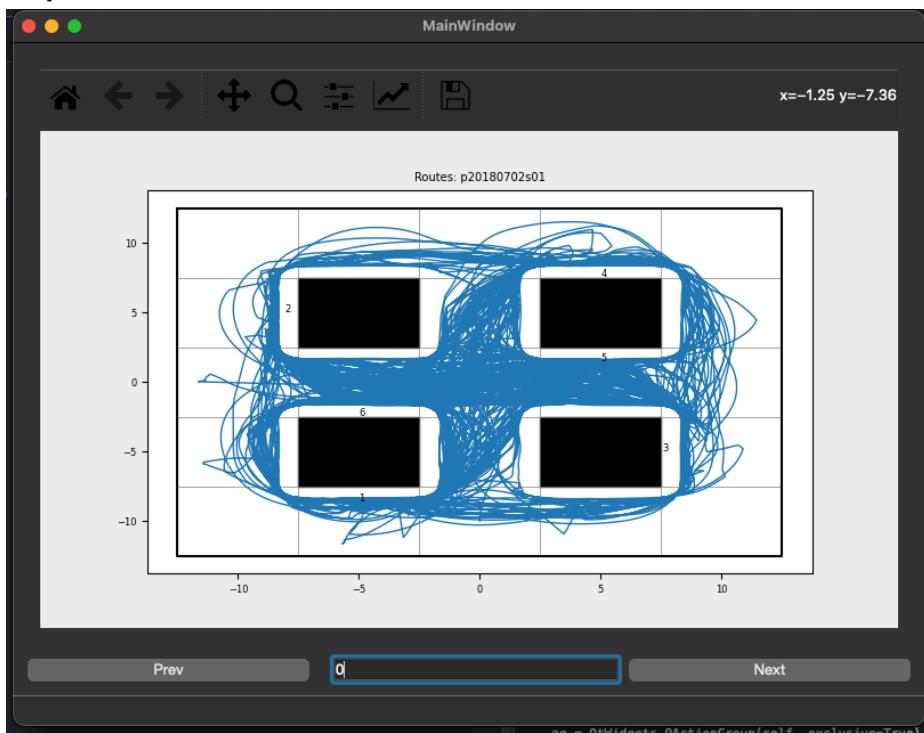
Yeo Meng Han
A0251772A
EE3801 Lab 8B

Lab 8 part B

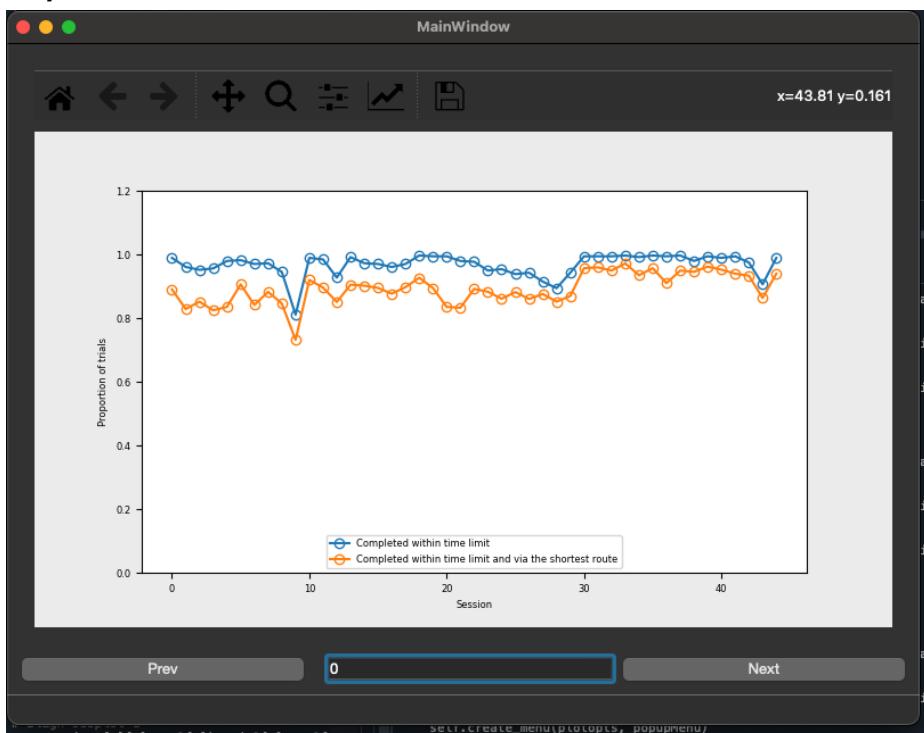
Step 17



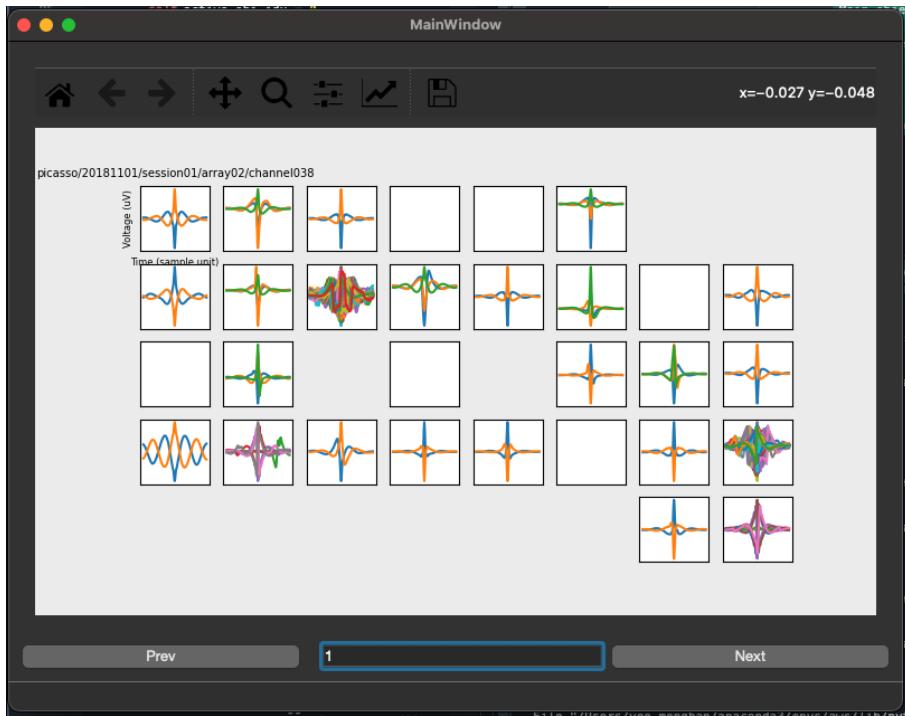
Step 18



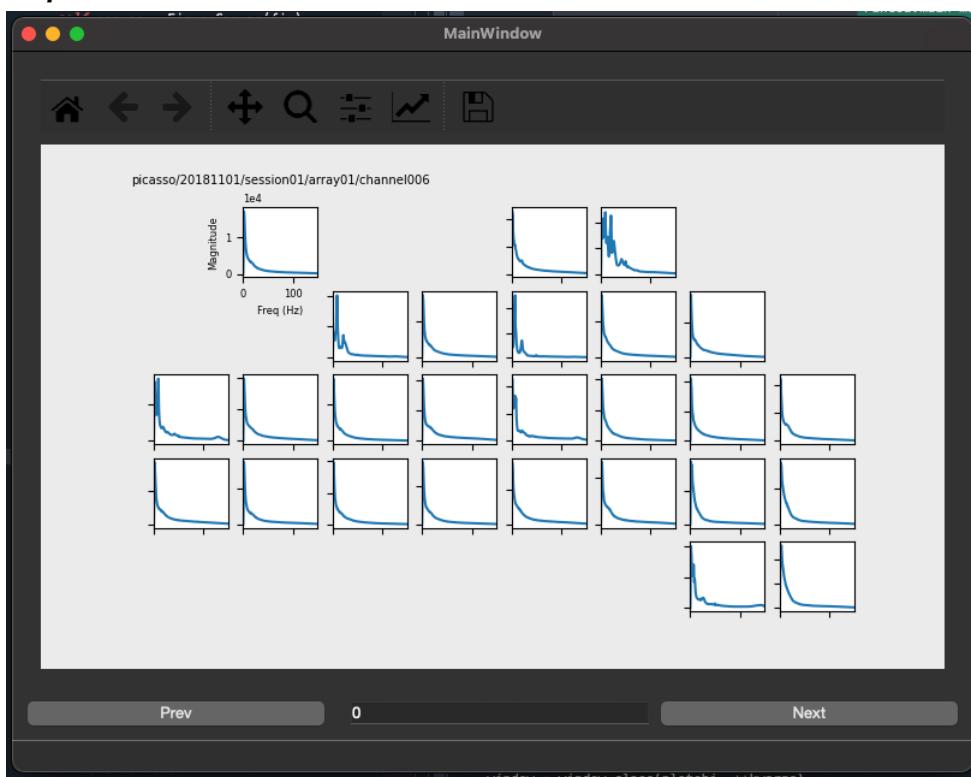
Step 19



Step 21

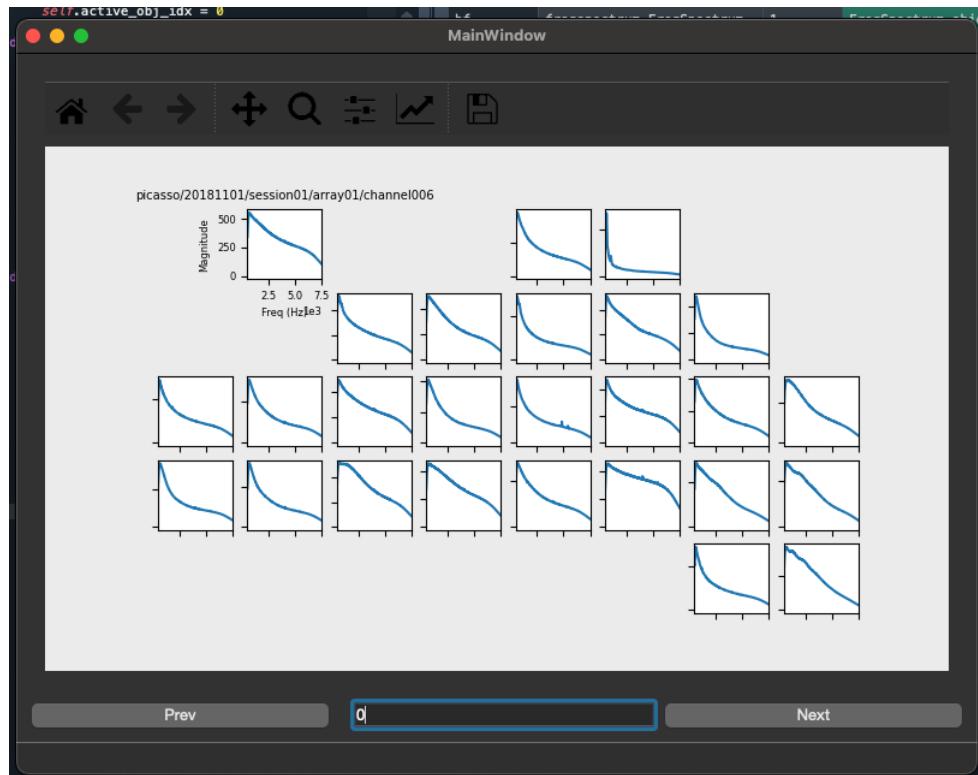


Step 22



Step 23

```
hf = pyh.FreqSpectrum(loadFrom='freqspectrum_660e.hkl')
phf = PanGUI.create_window(hf)
```



Step 27

```
[e0957360@atlas7-c10 ~]$ ssh 'e0957360@atlas7.nus.edu.sg'
Warning: Permanently added 'atlas7.nus.edu.sg,172.25.194.16' (ECDSA) to the list of known hosts.
Last login: Mon Nov  6 13:12:13 2023 from 10.249.218.2
*****
# Use PBS Job Scheduler to Submit and Manage Jobs #
#
# Help info available via command: hpc pbs summary #
*****
Note: Files older than 60 days inside /hpctmp working space are purged automatically
There is no backup copy available and lost data cannot be recovered. Please do house-keeping
work from time to time to backup your important files.

*SOFTWARE USAGE POLICY*: Users shall not use or distribute software contrary to prevailing licensing
agreements and not install illegally obtained software onto NUS HPC System.
*****
For problems or queries, please contact us through nTouch (https://ntouch.nus.edu.sg/) (search for "HPC Enquiries" form)
*****
```

Step 29

```
[e0957360@atlas7-c10 ~]$ nano pbs_job1.txt
[e0957360@atlas7-c10 ~]$ ls
pbs_job1.txt
[e0957360@atlas7-c10 ~]$ cat pbs_job1.txt
#!/bin/bash

#PBS -P Project_Name_of_Job
#PBS -q serial
#PBS -l select=1:ncpus=1:mem=4GB
#PBS -j oe
#PBS -N Sleep30
## -N Job_Name: set filename for standard output/error message.

cd $PBS_O_WORKDIR; ## This line is needed, do not modify.

#---- Put your exec/application commands below ---
sleep 30
[e0957360@atlas7-c10 ~]$
```

Screenshot
2023-11...8.20 PM

Screenshot
2023-11...18.25 PM

Step 31

```
sleep 30
[e0957360@atlas7-c10 ~]$ qsub pbs_job1.txt
5682515.venus01
[e0957360@atlas7-c10 ~]$ qstat
Job id          Name      User          Time Use S Queue
-----
5682515.venus01  Sleep30   e0957360    00:00:00 R serial
[e0957360@atlas7-c10 ~]$
```

Screenshot
2023-11...18.25 PM

Step 33

```
[e0957360@atlas7-c10 ~]$ cat Sleep30.o5682515
=====
Resource Usage on 2023-11-06 13:18:06.444962:
JobId: 5682515.venus01          Project: Project_Name_of_Job
Submission Host: atlas7-c10
Exit Status: 0
NCPUUs Requested: 1           NCPUUs Used: 1
Memory Requested: 4gb          Memory Used: 3704kb
Vmem Used: 338860kb
CPU Time Used: 00:00:00
Walltime requested: 240:00:00   Walltime Used: 00:00:31
Submit Time: Mon Nov  6 13:17:32 2023  Start Time: Mon Nov  6 13:17:35 2023
End Time: Mon Nov  6 13:18:06 2023
Execution Nodes Used: (gold-c13:ncpus=1:mem=4194304kb)
=====

[e0957360@atlas7-c10 ~]$
```

Screenshot
2023-11...8.20 PM

Screenshot
2023-11...18.25 PM

Step 34

```
[e0957360@atlas7-c10 ~]$ qsub -q short pbs_job1.txt
5682517.venus01
[e0957360@atlas7-c10 ~]$ qstat
Job id          Name      User          Time Use S Queue
-----
5682517.venus01  Sleep30   e0957360    0 R short
[e0957360@atlas7-c10 ~]$ qstat
Job id          Name      User          Time Use S Queue
-----
5682517.venus01  Sleep30   e0957360    00:00:00 R short
[e0957360@atlas7-c10 ~]$
```

Screenshot
2023-11...8.20 PM

Screenshot
2023-11...18.25 PM

Step 36

```
[e0957360@atlas7-c10 ~]$ qsub -q short pbs_job1.txt  
5682529.venus01  
[e0957360@atlas7-c10 ~]$ qstat  
Job id          Name        User          Time Use S Queue  
-----  
5682529.venus01  Sleep30    e0957360      0 Q short  
[e0957360@atlas7-c10 ~]$ qdel 5682529  
[e0957360@atlas7-c10 ~]$ qstat  
Job id          Name        User          Time Use S Queue  
-----  
5682529.venus01  Sleep30    e0957360      00:00:00 E short  
[e0957360@atlas7-c10 ~]$ qstat  
[e0957360@atlas7-c10 ~]$
```

Screenshot
2023-11...8.20 PM

Screenshot
2023-11...18.25 PM

Step 37

```
[e0957360@atlas7-c10 ~]$ qstat  
[e0957360@atlas7-c10 ~]$ qsub pbs_job1.txt  
5682532.venus01  
[e0957360@atlas7-c10 ~]$ qsub -W depend=afterok:5682532 pbs_job1.txt  
5682533.venus01  
[e0957360@atlas7-c10 ~]$ qstat  
Job id          Name        User          Time Use S Queue  
-----  
5682532.venus01  Sleep30    e0957360      00:00:00 R serial  
5682533.venus01  Sleep30    e0957360      0 H serial  
[e0957360@atlas7-c10 ~]$
```

Screenshot
2023-11...18.25 PM