

INSTRUCTIONS

1. SCRUB.py and NORMAL.py can be run only via command line
2. Default logging level is ERROR
3. Required logging level for log file to capture time and memory heap is INFO
4. Required logging level for SCRUB log file to also capture index of noise ticks and the reason for those ticks to be noise is DEBUG (in python INFO is above DEBUG level)
5. Line-by-line function memory profiling is not done in every run as that slows down execution time and is required only when program faces some issue that needs to be debugged. General profile is provided by memory heap logged in log file in every run.
6. To do line-by-line function memory profiling for any function, uncomment the following lines in SCRUB.py and/ or NORMAL.py
 - `"# from memory_profiler import profile"` (in the import section on top)
 - `"# mf = open("Scrub_functions_memory_log.log", 'w')"` (after import section in SCRUB.py)
 - `"# mf = open("Normal_functions_memory_log.log", 'w')"` (after import section in NORMAL.py)
 - `"# @profile(stream=mf)"` (This line is written above each function as it is a function decorator. Uncomment for the function for which you need memory profiling)
 - `"# mf.close()"` (at the end)
7. To run SCRUB.py via command line, use the following:

```
mpirun -n <number of nodes> python SCRUB.py <data file name>
```

This will create empty log file
8. To run NORMAL.py via command line, use the following:

```
mpirun -n <number of nodes> python NORMAL.py <data file name> <noise file name>
```

Noise file should have index of noise ticks in ascending order with one index per line.
This will create empty log file
9. To be able to log into log file you need to provide logging level by adding the following to the above command line as the last argument:

```
--log=<level of logging>
```

e.g. `--log=info`

Level of logging has to be mentioned without quotes and levels of logging are debug, info, warning, error and critical. If incorrect logging level is provided, program will let you know and exit.

In SCRUB.py logging has been done only at debug and info levels. In NORMAL.py logging is done only at info level.