

# Logging Structure

The Software logs various aspects during its execution. The logs can be classified into ones that are logged via network and ones that are just standard out or standard error.

1. `cpm::Logging`
2. `std::cout`

See [Logging to DDS](#) for information about `cpm::Logging`.

## Log aggregation

Logs are being collected at `/tmp/lab_software_logs/`.

After an simulation experiment the structure might look as follows:

### Log folder structure

```
lab_software_logs
|-2023-04-09--11-35-29
| | -2023-04-09--11-35-44
| | | -stderr_middleware.txt
| | | -stdout_middleware.txt
| | | -stderr_high_level_controller.txt
| | | -stdout_high_level_controller.txt
| | -stderr_vehicle3.txt
| | -stdout_vehicle3.txt
| | -stderr_vehicle2.txt
| | -stdout_vehicle2.txt
| | -stderr_vehicle1.txt
| | -stdout_vehicle1.txt
| | -stderr_tmux_kill.txt
| | -stdout_tmux_kill.txt
| | -all_received_logs.csv
```

After a physical experiment using the NUCs the contents could look like this:

TODO



### Log deletion

The logs in `/tmp/` are usually deleted on boot. However this might depend on the Operating System.

## Where are logs being written

### Cycle of logging

A per lcc session folder is created.

Per experiment another folder is created.

Locally generated logs are directly placed in there.

After an experiment is ended logs from the vehicle and NUCs are downloaded to the log folder automatically.

