

Data Analysis Checklist



Initial Configuration

- Calibration of sensors
- Zero sensors
- Setup logging list and frequencies, take care with naming conventions
- Setup any internal logging math
- Logging start/stop condition
- Arrange data storage location and structure
- Configure data analysis project, displays, conventions and math channels
- Download some test data and check within analysis project

Pre-Event Planning

- Prepare documentation - entry, license information, event schedule
- Prepare notebook and/or run/tyre pressure sheets etc
- Check weather forecast
- Review notes from previous event
- Note goals for this event
- Generate run plan - outings, fuel requirement etc
- Tyre sets, hot pressure targets, starting cold pressures
- Clear logging memory
- Update shift lights
- Set reference lap and circuit specific details in logger
- Configure reference lap reset behavior
- Set logged data download directory
- Zero sensors, check sensors nominal
- Review previous logged data

Analyse Reliability

- Download run data
- Add sufficient detail to log file during download
- Review reliability report tables for powertrain and performance sensors

Analyse Driver

- Overlay fastest lap from previous run with reference lap
- Make use of time-variance/delta channel to find losses
- Compare fastest lap from previous run with any prior runs to look for gains
- Identify 3 greatest time losses and note them
- Record driver feedback
- Record improvements found in previous run
- Inspect speed trace, and driver inputs
- Inspect steering track in areas of interest if applicable
- Check GG diagram relative to reference in areas of interest
- Summarize required driving technique changes in 3 greatest loss areas

Analyse Chassis

- Use driver debrief and inspect areas where driver complaining
- Check brake locking for driver technique or bias changes
- Check brake temp data mins and maxes, blanking changes?
- Check roll gradients, validate against setup changes
- Check damper histograms for reliability and against changes
- Analyse upshift data, tweak shift lights

Apply Changes

- Discuss technique changes with driver along with positions on track
- Changes to chassis, limit to one change per run
- Head back onto track, continue the loop
- Review event goals periodically

Post-Event

- Review reliability reports and channels in detail
- Review event notes alongside logged data
- Bullet point summary of event
- Priorities and goals to work on for next event