Project	**Lamborghini Gallardo LP 560 GT3**

Overview

The Lamborghini Gallardo LP 560 GT3 is the successor of one of the most successful GT3 cars ever.
Reiter Engineering put a lot of effort to use the racing genes of the old model into the new LP 560 to make it even faster.
2D Datarecording was chosen as a single supplier to equip the car with a dashboard, shift lights and logger and complete vehicle wiring. The teams are supplied with a customized CD which makes it a plug and play kit.
Many upgrades are available for the data recording system for improved analysis and ease of use.

Used 2D Datarecording products

Dashboard

The Lamborghini Gallardo LP 560 GT3 uses the track proven **DI-Dash_6/8_2C-000**. It is connected to the engine and ABS CAN bus and shows vital information as Speed, RPM, temperatures, brake pressures and laptimes. The integrated shift lights show the optimum shift RPM.

Logging system

A **_LG-PRO08-000_** is used to log all engine data along with laptime, lateral and longitudinal acceleration. Vital parameters can be monitored through a CAN connection between logger, ECU and ABS. The logger has a memory of 2GB so that even long distance races can be logged without a download. The 8 analogue channels are used for cabin temperature, steering angle, 4 suspension potentiometers and 2 spare channels. Analysis of these data is done with the 2D software WinARace with pre configured settings.

Upgrade possibilities

All upgrades can be ordered with a new car or the logger/dashboard can be send in for modifications.

Dashboard upgrade - GAP and Pit timing function

The dashboard can be upgraded to show the time between the currently driven lap and the previous fastest lap.(GAP function) This enables the driver to improve lap times through trying different approaches and driving styles and see the result while driving by comparing the time difference to the fastest lap. This puts you ahead of the competition that has to download the data after the session and can the results just for the next session.
The pit timing function counts down a specified time from entering the pits down to 0. By using this function the time in the pitlane can be reduced to the required minimum and valuable time and track position can be gained over the competition using the old fashioned stopwatch.
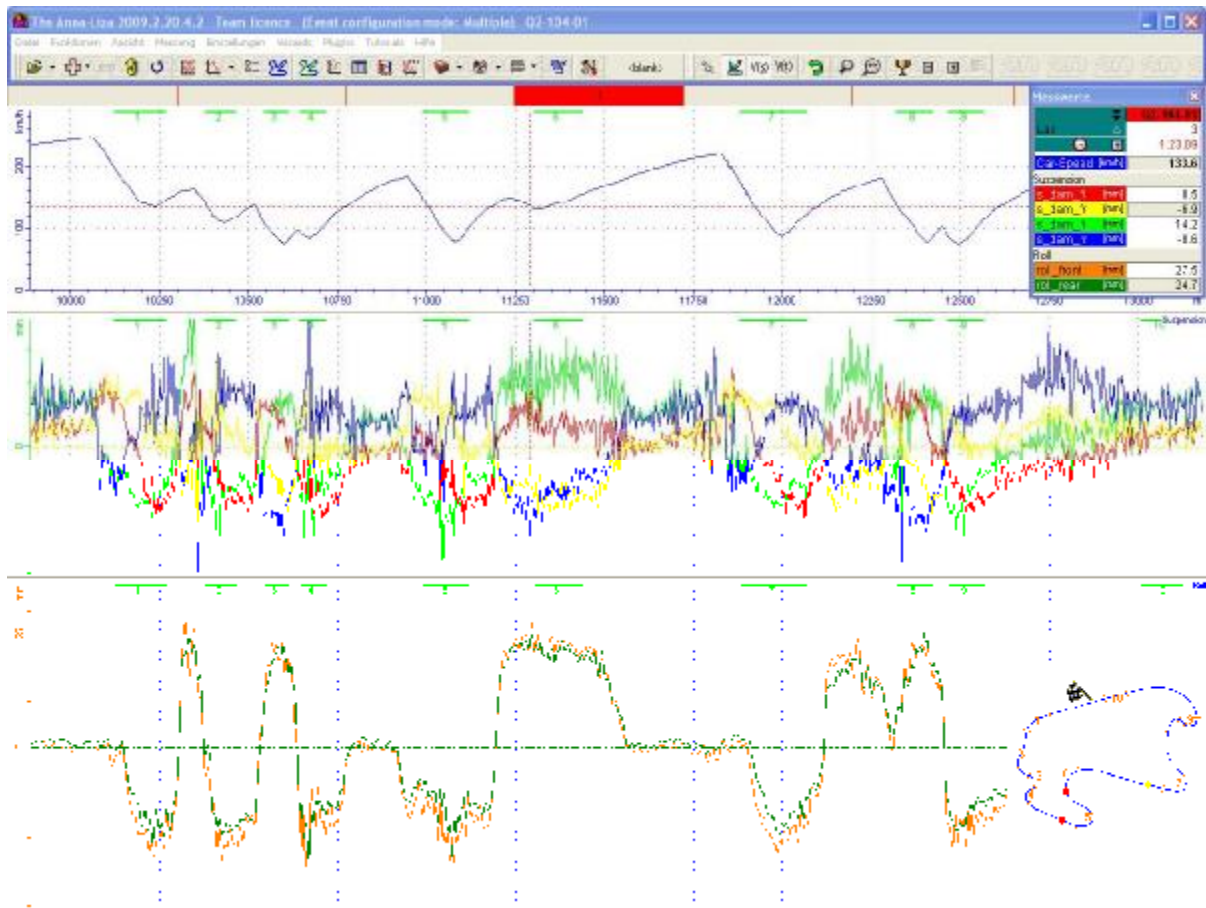
Logger upgrade - GPS

By using a GPS mouse important information can be picked up and used for advanced driving line analysis. The GPS gives speed, lateral und longitudinal acceleration, yaw rate and driving line. Via Google Earth satellite maps the position on track can be shown an overplayed between several runs. The picture below shows 2 driving lines through a tricky corner combination in Assen.

Logger upgrade - Suspension

The Gallardo LP 650 GT3 comes with a complete wiring loom to use 4 suspension sensors. This enables you to fine tune their suspension and monitor aerodynamic changes. By using calculation files the user can analyze damper speeds, downforce, pitch and roll. Aerodynamic behavior can easily be seen and setup work is not limited to driver comments anymore.
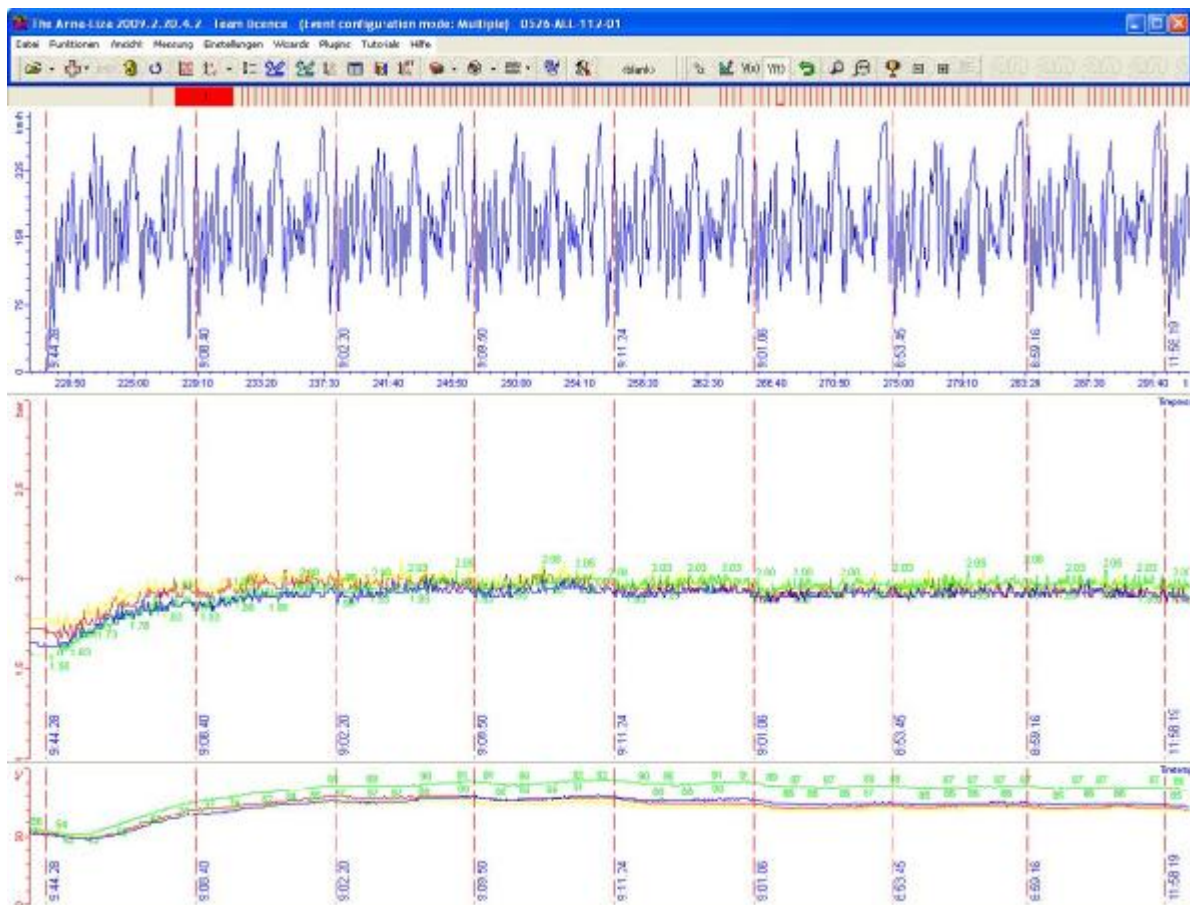The picture below shows the suspension movement as well as roll of the front and rear axle over one lap on Eurospeedway.

Logger upgrade – Tire temperature and pressure

Reiter Engineering offers its customers a kit to monitor tire temperature and pressure. 2D Datarecording supplies the receiver that sends the sensor data onto the CAN bus. The logger is already pre-programmed to receive the values so that just the channels have to be set to "recording". The teams can send the tire pressure to the dashboard so that the driver can check if the target pressure is reached for a qualifying lap or inform the pits before the pitstop which tires to bleed. The dashboard can be programmed to show alarms if pressure falls below a user defined limit so that the driver is made aware of slow punctures.

The picture below shows the temperature and pressure build up over several laps on the Nuerburgring.

Useful links

www.2d-datarecording.com

www.2d-kit-system.com

www.reiter-engineering.com

www.lamborghini.com