

# CAN Newsletter Online

GPS SIMULATOR

## CAN logging with arbitration

The latest firmware update for the GPS simulator Labsat 3 from Racelogic (UK) is available for download. The release includes CAN logging with arbitration.

THE FIRMWARE UPDATE RELEASE INCLUDES the addition of CAN logging with arbitration, adjustable start point and duration, Ethernet commands, Ethernet control of NMEA stream, and constellation muting during replay. Labsat 3 is a GPS simulator for testing GPS enabled systems within a laboratory environment.

Before this update, the simulator was able to record and replay two separate CAN networks into a digitized format. The channels are synchronized within 62 ns of the GPS signal. Now, CAN arbitration allows for the recording of CAN signals into a simple text file, which is saved in the same directory as that of the GNSS data.

The advantage of CAN arbitration is that when it is replayed in a network, it does so without 'speaking' over the top of other traffic, thereby avoiding bus errors. Individual CAN frames can also be filtered so that only a selection of IDs is recorded.



*The synchronized data can later be replayed (Photo: Racelogic)*

### “Play from/for” and “record for”

Via the front panel (rather than only over Ethernet) it is possible to start a scenario from a certain point rather than always from the start and for a selected period of time rather than the whole scenario length. It is also possible to record for a selected length of time from the moment the recording is started. The API/SDK will soon be updated so that new commands allowing for the configuration of CAN and triple constellations are possible via Telnet. The streaming of NMEA can be enabled or disabled via the Ethernet connection. Previously, it was only possible to mute all constellations during replay, but now the user can choose to mute a specific constellation whilst replaying.