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# THE JOURNEY TO SAFE AND HIGHLY AUTOMATED DRIVING!

### LAKE FUSION TECHNOLOGIES (LFT)

#### - THE PARTNER FOR SENSOR EVALUATION!

LFT is the world's leading provider of a comprehensive reference system for processing geo-referenced raw data from automotive sensors. Our sophisticated tools enable the playback and processing of the captured data and allow the comparison and testing of different sensors in various environmental conditions.

At the heart of our reference system is the LFT data recorder application, which is based on Linux. This application records time-synchronized, georeferenced data from camera, LiDAR, radar and INS sensors. The modular structure of the recorder enables the recording of sensor data of different types (e.g., LiDAR, camera, RADAR...) with exceptional time synchronization.

#### **REFERENCE SYSTEM**

- Realtime Sensor Data Acquisition
- Data Visualization
- Test of LiDAR
  Sensors





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#### REFERENCE PERFORMA S STEM 6 5

Several Lidar solutions from reputable manufacturers e.g., Innovusion, Innoviz, Hesai, Luminar have undergone testing using LFT's reference system.

- State of the Art Sensor Suite
- Modular System suitable for all sensor platforms
- Support of common standard interfaces e.g., CAN, Ethernet, Serial, USB
- ROS2 compatible DDS interface for real-time visualization of sensor data
- Triggerable sensors are precisely synchronized with known time masters to ensure accurate acquisition
  - and calibrated among each other
- Advanced solution to record LiDAR data of 3rd

party and to compare its parameters with reference

sensors

- Smart data recording
- Smart adaptation of different interfaces
- Inherent motion compensation
- Data acquisition under adverse weather conditions

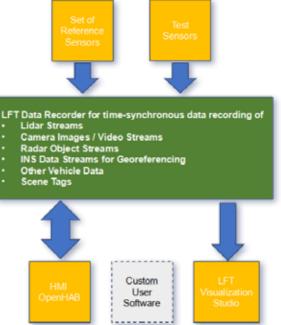




## LFT DATA RECORDER **INTERFACES**

KEY

3







The LFT Data Recorder is controlled by an open HAB Interface via MQTT. This interface permits tagging of objects in the scene or provides the status of the active sensor. The MQTT interface empowers customize software. The ROS2 compatible DDS interface permits real-time visualization of sensor data.



# LFT TAKES THE PRODUCT FROM THE TEST TRACK TO THE ROAD!

