

ASAM MDF Sensor Logging

Kick Off Review

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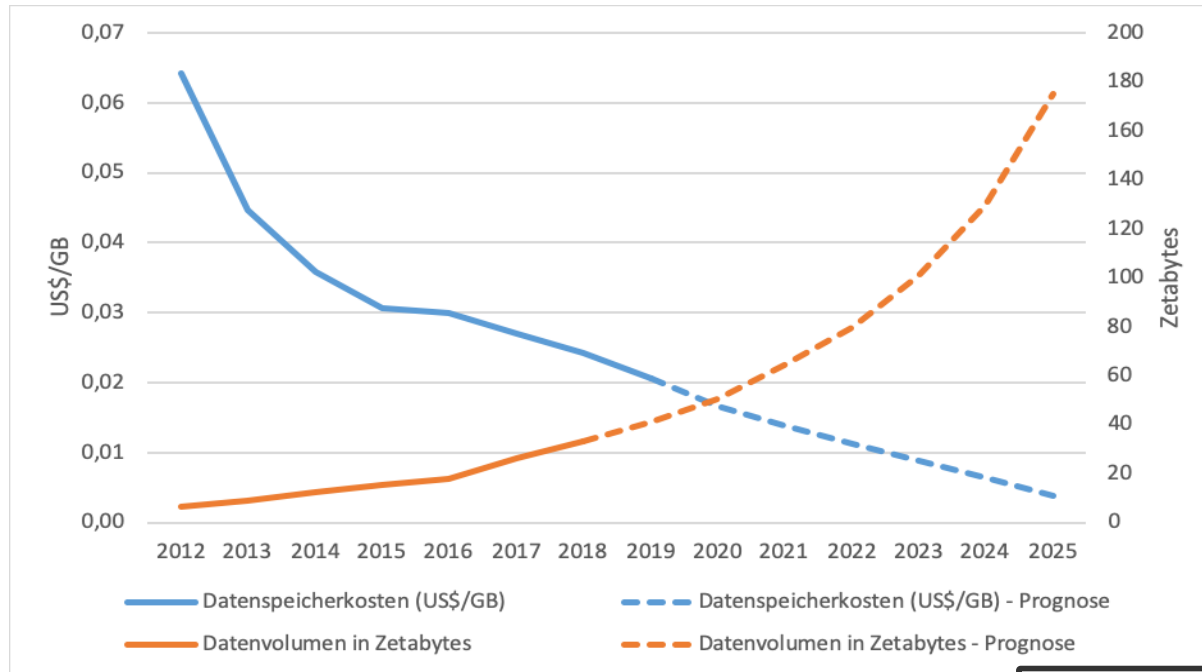
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Stuttgart



ASAM MDF Sensor Logging

Motivation



Source: [Technologiestiftung-Berlin](#)

Aiming for 600Mp for All

To date, the major applications for image sensors have been in the smartphones field, but this is expected to expand soon into other rapidly-emerging fields such as **autonomous vehicles**, IoT and drones.

Source: [Samsung](#)

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Introduction and Motivation

- **ensure the operability between various vendor tools**
 - Storage costs: prevent data duplication in different file formats (today central device with 12 video sensors 1min~80GByte)
 - CPU costs: minimize data conversion during the project time (CPU costs and time impact)
- **Standardized meta data information to interpret sensor data correctly**
- **Performant storage read and write access**
- **Ensure compatibility to ASAM ODS** <https://www.asam.net/standards/detail/ods/>

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Project and Schedule

- **ASAM Project details** <https://www.asam.net/project-detail/asam-mdf-image-radar-lidar-sensor-logging/>
 - Infrastructure such as SVN access still pending
- project proposal how to handle ADAS and Reference sensor data independently from HW interface in MDF 4.x and its associated standards
- Sensor types: video, radar, lidar and ultrasonic system
- Constraint: reuse the existing MDF 4.1 and MDF4.2 standard for new features.
- **Kickoff on 18th October 2021 (20 companies)**
- **Release End of 2022 with following output:**
 - Associated Standard for Sensor Logging data (similar to Bus Logging Standard)
 - Minor version MDF 4.3.0 Base standard

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Kick Off Meeting Results and work in progress

- **Sensor Stream**
 - Support samples (e.g. image content) with various sizes agreed
 - Due to the compression or dynamic sensor resolution between two samples
 - Sample based error information
 - Data Integrity information (sample CRC)
- **Sensor meta data information**
 - Common / base contents (e.g. compression, encryption)
 - Sensor specific information
 - Associated streams (e.g. I²C stream with Image Stream) → Clarification in progress if we can reuse the existing bus standard?

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Next Meeting on Fr 12.11.2021 14:00 CET

Agenda:

- **MDF 4.3 side topic: Introduce and extend the enum specification of compression for DZ (Data zipped block) Block in MDF 4.2**
 - Proposal and review of new open-source compression algorithm
- **Continue the work on meta data**
- **Review of offline Meetings for fast data access and dynamic sample size**
 - Prevent the overall file parsing to access specific information
- **ASAM ODS Requirements towards MDF in order to recognize the sensor data and its characteristics (e.g. video preview) have to be prepared and reviewed in next meetings**

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Participants

- Accurate Technologies Inc
- BMW AG
- Bosch GmbH
- b-plus technologies GmbH
- DENSO AUTOMOTIVE Deutschland GmbH
- Dr. Ing. h.c. F. Porsche AG
- dSPACE GmbH
- ETAS GmbH
- HighQSoft GmbH
- Huawei Technologies
- iASYS Technology Solutions Pvt. Ltd
- JOYNEXT GmbH
- Kistler Chemnitz GmbH
- Kithara Software GmbH
- MAN Truck & Bus AG
- National Instruments Engineering
- NI
- OTSL
- Vector Informatk GmbH
- Xylon d.o.o.

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