MOSAIK™ Suite
Automated validation of sensors and algorithms, enabling machine learning and AI projects

Key Features
- Includes MVIS Auto-Annotation software
- Automatically annotates objects and lanes
- Allows for manual editing of objects and lanes
- Supports data of selected third-party lidars
- Scalable due to cloud-compatible architecture
- Offers the complete toolchain from a single source
- Compatible with MVIS SyncBox Pro

Toolchain

STEP 1  Real-time Tracking and Recording
0 % raw data  100 % raw data

Recording System
- Hardware
  - Lidar
  - Lane tracker SLMS
  - Third-party lidar sensors*
  - MVIS ECU
  - MVIS SyncBox Pro
  - IMU / GPS
- Software
  - MVIS ECU Recording Suite
  - MVIS CaliGraph

STEP 2  Recorded Data Validation
0 % GT** data  100 % GT data

MVIS Validation
- MVIS Auto-Annotation Software
  - Automatic object detection, classification & tracking
  - Automatic lane marking and road boundary detection (highway)
  - Automatic scenario detection
  - Cloud-compatible architecture due to Docker image
  - Intuitive graphical user interface
  - Data formats:
    • For objects .json
    • For lanes OpenDRIVE xODR
- MVIS Reference Software
  - Visualization for scan point, object, and lane data
  - Editors for object, lane and scenario data
  - Interface software development kit (SDK)

*Selected third-party hardware not in MVIS product portfolio; real-time object data not available
**GT = Ground Truth

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System Architecture

MOSAIK™ Suite: Our Difference

Third-Party Lidar Data Support
- MOSAIK™ Suite supports selected lidar devices from other suppliers
- Offers increased flexibility through support of third-party lidar devices (e.g., 360° lidar on the rooftop)
- Enables simultaneous operation of different devices to accommodate any use case

Object and Lane Editing
- Quick and intuitive tools to increase object and lane quality of the reference data manually
- Enables modification of objects and lanes, such as position, orientation, and classification
- Applies changes to the entire object track instead of frame-by-frame editing

MVIS SyncBox Pro
- Time management device that synchronizes all systems in the car to a single source of truth
- Able to function as leader clock or follower clock for each connected component or protocol
- Ensures data time quality of all systems in the car
- Supports all common time protocols (such as PPS & NMEA, gPTP/PTP, NTP, CAN) and can be configured to the use case accordingly
- Monitors synchronization status for various interfaces