

Smart Solutions for Smart Vehicle Data Management.

Bertrandt's and b-plus joint solution for comprehensive ADAS/AD data acquisition.





TWO SPECIALISTS - ONE INTEGRATED SOLUTION!

Bertrandt stands for comprehensive expertise and integrated solutions in the area of vehicle development. In cooperation with the Automotive Metrology-specialist b-plus we offer validated solutions for the demands of our customers. Our jointly developed demo car Max vividly demonstrates the latest generation of measurement technology. The concept offers innovative and modular solutions, customized to meet the specific needs of test vehicles and prototypes for autonomous driving. Our highly efficient measurement data recording setup supports the development of system functions optimizing timeline and costs and allows a requirement specific vehicle integration including all required sensors and the system network. In addition, Bertrandt offers solutions for the further processing of the acquired measurement data as for example analysis and evaluation using AI algorithms.

CHALLENGES

The complexity of autonomous systems and the associated sensor technology e.g. Cameras, Radars and Lidars is increasing continuously. Therefore, the complexity and scope of measurement data involved in the development and application of future systems must be managed accordingly. A powerful and reliable measurement technology is a prerequisite for the development and validation of systems and is a critical and safety-relevant part of autonomous mobility. It is also decisive how well this measurement technology is integrated in the overall vehicle system. A powerful energy supply, a safe and user-friendly operating concept (HMI), and reliable cooling of the measurement equipment are key factors for reliable performance, ensuring a high quality result.

PARTNERS FOR
COMPREHENSIVE
ADAS/AD DATA
ACQUISITION

b - plus

bertrandt

YOU'LL GET THE DATA, WE'LL TAKE CARE OF THE REST

VEHICLE SYSTEM SETUP

CAMERA



RADAR / LIDAR



SENSORS



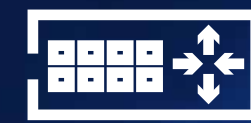
6 GB/S

IN-VEHICLE RECORDING & DATA INGEST

RECORD 1



RECORD 2

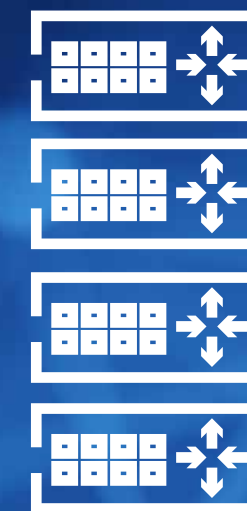


COMPUTE



STORAGE / INGEST
120 TB/
DAY/VEHICLE

DATA CENTER



EDGE COMPUTING



3rd party data

PRE-ANALYTICS

- Result visualization
- Data analysis
- Cloud services
- Data connection
- Fast data cleaning
- Data enrichment
- Pre annotation

YOUR ADVANTAGES:

One stop shopping for your project's needs:

- Powerful and reliable measurement technology from b-plus specifically designed for the use in vehicle measurement applications
- Many years of experience in the development of test vehicles for autonomous driving
- Top notch security based on a reliable system
- Bertrandt as single point of contact for your entire project scope - from the conceptual design all the way to implementation.
- A coherent and practicable overall solution thanks to close connection between the measurement systems specialists and the vehicle conversion team
- The option of an optically seamless integration (show car grade) including road allowance.
- Delivery of the vehicle "ready for testing" with complete documentation.
- Operational services and support from vehicle maintenance and update up to the execution of complete data collection campaigns

WE OFFER:

- High-end automotive measurement technology from b-plus
- Perfect integration of measurement systems by Bertrandt
- Development and design of ADAS/AD technology carriers up to SAE L5
- Equipment and operation of vehicles and entire vehicle fleets
- Extensive expertise in the field of (partially) autonomous systems, ADAS and AD as well as associated solutions for digitization and networking.



TWO COMPANIES FOR YOUR SOLUTION

bertrandt

DEVELOPMENT

Mechanical development
E/E system development
Road approval

**VEHICLE
SMARTIFICATION**

Sensor integration
Vehicle modification
Vehicle transformation
up to level 5

OPERATION

Maintenance
Testing
Fleet management

SUBSYSTEMS

Power supply
measurement cooling
Safe measurement
operation via HMI

**AVETO VALIDATION
TOOLCHAIN:**

In-vehicle data recording
Analysis of sensor data
Replay and simulation

**IN-VEHICLE DATA
RECORDING**

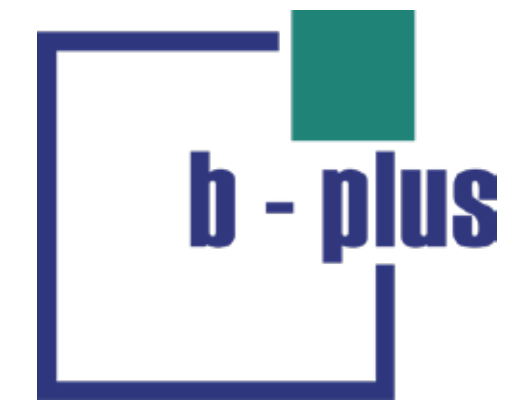
High-performance
measurement platform
Recording &
visualization software

**MOBILE STORAGE
AND DATA INGEST**

Data lake class in
the vehicle
Simplifying data
ingestion

**TEST FLEET
MANAGEMENT TOOL**

Live monitoring
OTA updates
Scene tagging





INTERESTED? - EXPERIENCE THE VEHICLE, THE SOLUTIONS AND THE POSSIBILITIES LIVE!

- Measurement data rate up to 8 GB/s Recording Performance
- Disk size: Central storage unit based on data center technology with 60TB
- Built-in sensors for data acquisition: 9 cameras, 2 LiDARs
- Customized power management of up to approx. 3kW

- Controlled air cooling
- Safe operation of measurement technology via tablet incl. OTA fleet management and measurement monitoring
- Recording and visualization software
- Sensor raw data acquisition via raw data interface
- High-performance computing for onboard data processing

Smart Solutions for Smart Vehicle Data Management.

From street to laboratory - we provide you with ADAS/AD data!



Bertrandt AG
Birkensee 1
71139 Ehningen, Germany
Telephone +49 7034 656-0
www.bertrandt.com
elektronik@bertrandt.com

b-plus GmbH
Ulrichsberger Str. 17
94469 Deggendorf, Germany
Telephone +49 991 270302-0
www.b-plus.com
sales@b-plus.com