



MOBILE MAPPING

Since 2020, Ramboll RST has been providing the Mobile Mapping service, i.e. laser scanning and 360 photography of the entire road area. Since the 1980s, Ramboll RST has set the standard for various types of non-destructive measurements of road infrastructure.

The importance of a good infrastructure

Our roads and road network represents multibillion investments. The standard on the roads is of great importance for countries economic development. The roads must provide a long-term security, accessibility and comfort for its road users. To meet the requirements the road owner needs to have a true picture of the status of the road and its surroundings, in order to be able to assess how they change over time.

Data collection

The data collection takes place at normal traffic speed, with self-developed measuring systems, mounted on our measuring vehicles intended for the purpose.

The laser scanning is performed with 2 Zoller+Fröhlich laser scanners, frequency 1MHz, set at ± 45 degrees to the direction of travel, which provides an optimal situation for capturing the smallest details in the road area.

Point density/resolution in point cloud is 1500 points/m².

At the same time, photography takes place with two Ladybug panoramic cameras at 30Mpxl, which are very valuable for visualizing the road area.

The measurement system also has several still cameras that generate image material with the aim of being used for digital inventory.

Positioning takes place by post-calculation of data from the system's positioning sensors, GNSS (GPS+GLONASS+Galileo), inertial data and DMI (Distance Measurement Instrument), which provides stable and accurate absolute positioning.

Area of use

- Point cloud - RGB colored, intensity, classified
- Street view images are visualized via a cloud-based viewer platform
- Mapping and modeling of objects
- Facility/premises model
- Ground models, model for pavement design
- Data required for a digital twin/management system

- The measuring system can be used on road, track and water

Customer benefit

The measurement method is efficient with a capacity of up to 500km/day.

It is a safe and objective measurement method where data collection takes place without to obstruct the flow of traffic, and where none personnel are needed in the road area.

By visualizing the whole road area in a web-based viewer, digital site visits can be carried out in a safe and cost-effective manner. Collected data will benefit the projects throughout the entire production cycle, from the early project stage to the construction stage with machine control.

CONTACT

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