

Use-Case in Delta Learning

The proper and comprehensive training of artificial intelligence is an essential basis for autonomous driving. It is therefore essential for the research project to create a data set that contains all the necessary information and project-specific deltas. The Working Group Route Definition therefore deals with the planning and definition of routes in order to be able to record these deltas with the help of the recording car.

Technical Problem

In order to obtain a complete data set for training the algorithms, it is important to record many different scenarios within recording drives. In addition, the project also requires deltas, which are created by different and spontaneously occurring conditions such as weather, seasons, lighting or traffic. Another important delta is the distinction between different countries in terms of traffic signs and the general street scene. In order to be able to record all of these requirements, a detailed planning of the routes is necessary.

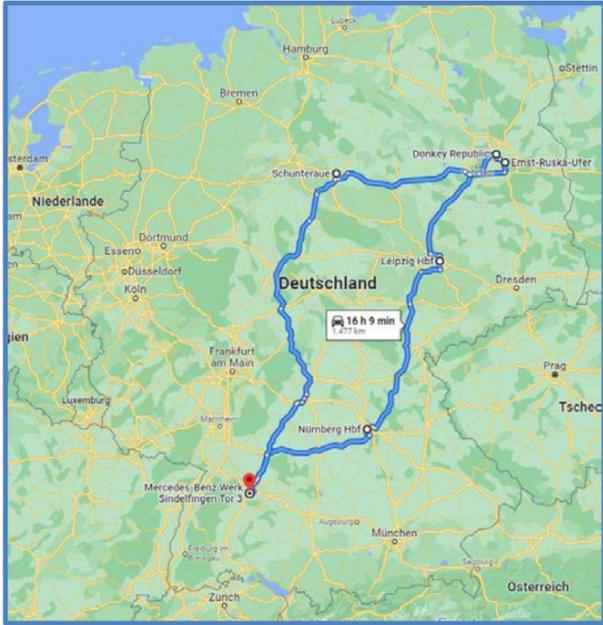


Figure 1: multi-day trip Germany

Technical Solution

The routes were therefore defined within the Working Group Route Definition and can be divided into two categories. On the one hand in shorter routes that are driven several times in order to record spontaneously occurring conditions and on the other hand in long routes that include additional places and cities.

In order to meet the requirements, a total of four individual routes were defined. The local trip as a short route for spontaneous and frequent recording drives as well as a day trip and two multi-day trips for Germany (Figure 1) and Canada (Figure 2) as long routes to reach more cities and locations.

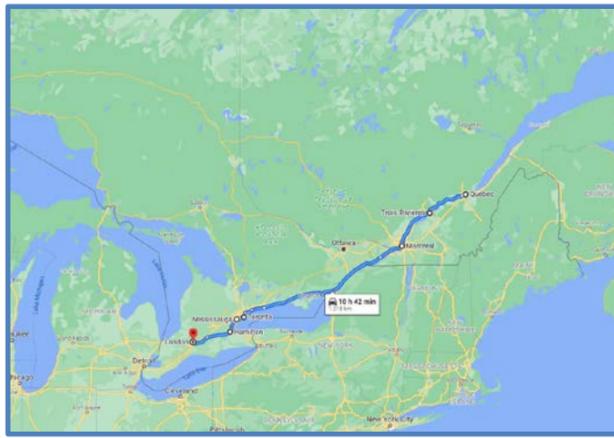


Figure 2: multi-day trip Canada

Evaluation

The definition of the routes in Germany has been completed, the detailed planning for the multi-day trip in Canada is currently still in progress.

Porsche Engineering
driving technologies

For more information contact:
johannes.pfahler@porsche-engineering.de

Partners



External partners



KI Delta Learning is a project of the KI Familie. It was initiated and developed by the VDA Leitinitiative autonomous and connected driving and is funded by the Federal Ministry for Economic Affairs and Energy.



Supported by:

Federal Ministry
for Economic Affairs
and Energy
on the basis of a decision
by the German Bundestag