Outline:

1. What is the problems with the current simulations?

the parameters in the test scenarios in the current simulation test are all fixed values, the test is only a discrete test, and a comprehensive test of the entire parameter space is lacking.

1. The types of the autonomous driving simulation tests:

一張含有 文字, 螢幕擷取畫面, 字型, 數字 的圖片

自動產生的描述

1. What is OpenScenario?

OpenSCENARIO is a standard developed by the Association for Standardization of Automation and Measurement Systems (ASAM), which is dedicated to the description of dynamic scenarios in the field of scenario simulation for the virtual development, testing and validation of advanced autonomous driving assistance and autonomous driving functions.

1. What is the process of generating the AD scenario tests?

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自動產生的描述

1. How to generate the complete tests?

The autonomous driving operational design domain is the first step in developing an autonomous driving system. By defining the autonomous driving operational design domain, the safety of the autonomous driving system is guaranteed. Therefore, we can first filter the test scenarios that conform to the autonomous driving operational design domain through road elements, weather elements, and traffic participant elements.

Ideas:

This paper shows how we could use the OpemScenario standard to automoatically generate the parameter space files instead of the fixed-parameter ones by filtering out those which follows the driving operational design domain and adding the variations by the perspectives of Road, Environment and traffic participants.