

# Challenges Concerning Test Case Specifications in Automotive Software Testing: Assessment of Frequency and Criticality

Study Material of the Exploratory Case Study and the Descriptive Survey

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Automotive Test Case Specifications document test cases to be performed for a specific test object at a defined test level during the automotive test process. A test case specification involves different actors, such as test designers, testers or reviewers, each of whom has a different context of use, for example, creation, processing or quality assurance. Based on feedback from industry practitioners, it is known that faulty test case specifications exist and that their quality is poor. A faulty test case specification entails that testing takes too much time, is too expensive, and, in some cases, testing has no effect and no defects are detected. In order to investigate which challenges are related to the creation, processing and quality assurance of automotive test case specifications that influence quality, we first conducted an exploratory case study and then a descriptive study. For this purpose we provide the study material used for these two studies as follows:

- **Interview\_SQJO\_2020.pdf** contains the interview guide used during the interviews of our exploratory case study.
- **Survey\_SQJO\_2020.pdf** contains the questionnaire used during the descriptive study.

The material is used in the following journal article:

Katharina Juhnke, Matthias Tichy, and Frank Houdek. “Challenges Concerning Test Case Specifications in Automotive Software Testing: Assessment of Frequency and Criticality.” In: *Software Quality Journal* (2020), pp. 1–62. doi: 10.1007/s11219-020-09523-0.