

Towards Event Sequence Graph-based Testing of Feature-oriented Software

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Abstract

This study attempts to suggest an approach to systematically test potentially very large number of product variants in feature-oriented software. Feature-oriented software forms a popular concept to efficiently realize software reuse. Developing product variants by exploiting the power of software reuse and, automatically validating each of them brings qualified individual products, efficiency, productivity and a cost-, labor- and time-friendly development process. We propose a model-based approach to top-down testing of feature-oriented software. In the case study, we used event sequence graphs (ESGs) to model the software under consideration and then to generate test cases for positive and negative testing. The generated tests are executed via SahiPro web test automation tool, of which scripts are also automatically generated from ESGs.