

[expleo]

MODICA

Model-based test generation



Reduce complexity

- Generation of usage models for systems
- Generation of relevant, reproducible and automatically executable test sequences



Improve test efficiency

- Intuitive modeling methodology with state machines
- Easy verification by standard-compliant traceability
- Coupling to test automation
- Reduced effort for the specification, generation and evaluation of test cases

Application area

MODICA is a powerful tool for the model-based test case development. It accelerates the test process and automatically generates relevant test sequences for complex systems based on usage models. MODICA offers an intuitive, graphical user interface to map the specified behaviour of the test object in usage models.

Generated tests can be linked easily to textual requirements from requirements management tools, e.g. DOORS.

The executable test scenarios are generated directly within **MODICA**. By defining specific sequence rules, the user can control the generation process in terms of test content and scope. For the generation itself, the powerful and deterministic test case generator from Conformiq is used.

Benefits of MODICA

Abstraction

- The model-based approach simplifies the testing process – no implementation of tests required
- State machines facilitate the exchange between developers, testers, and experts

Systematisation

- Interfaces to specification tools such as DOORS ensure the traceability between requirements and tests
- Deterministic test case generation – controllable by sequence rules
- Gaps in test coverage are found efficiently and systematically

Automation

- Automated generation of test suites with different test objectives from one model (single-source-principle)
- Generation of executable tests
- Support of test automation systems, e.g. EXAM, MESSINA

Maintainability

- By adapting the model and generating new test cases, bug fixes or changes to the system can easily be applied to the test

Further information & download:
products.expleogroup.com/modica

From model to test case

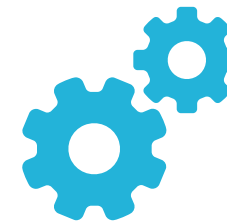

modeling of
usage models


definition of
test objectives

test case
generation


executable **test cases**

test execution



About Expleo

Expleo is a global engineering, technology and consulting service provider that partners with leading organisations to guide them through their business transformation, helping them achieve operational excellence and future-proof their businesses.

Expleo benefits from more than 40 years of experience developing complex products, optimising manufacturing processes, and ensuring the quality of information systems. Leveraging its deep sector knowledge and wide-ranging expertise in fields including AI engineering, digitalisation, hyper-automation, cybersecurity and data science, the group's mission is to fast-track innovation through each step of the value chain.

As a responsible and diverse organisation, Expleo is committed to doing business with integrity and working towards a more sustainable and secure society. Expleo boasts an extensive global footprint, powered by 15,000 highly-skilled experts delivering value in 30 countries.

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