Model-based Testing Overview

A model describing an SUT (system under test) is usually an abstract, partial presentation of the SUT's desired behavior. Test cases derived from such a model are functional tests on the same level of abstraction as the model. These test cases are collectively known as an abstract test suite. An abstract test suite cannot be directly executed against an SUT because the suite is on the wrong level of abstraction. An executable test suite needs to be derived from a corresponding abstract test suite. The executable test suite can communicate directly with the system under test. This is achieved by mapping the abstract test cases to concrete test cases suitable for execution. In some model-based testing environments, models contain enough information to generate executable test suites directly.