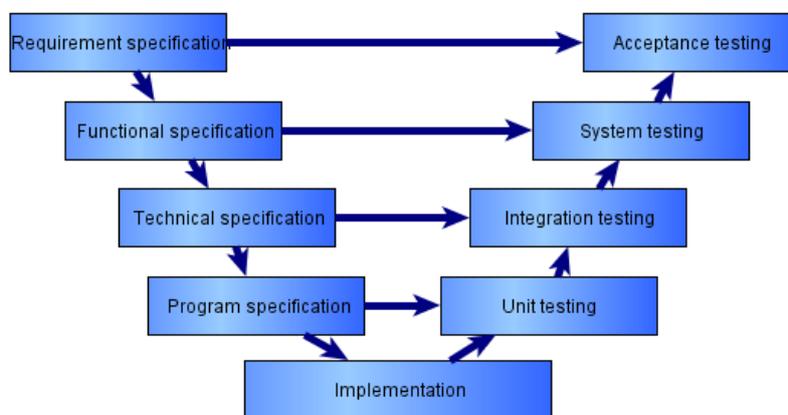


Test Strategy Document.

The scope is the whole system and its components, the architecture, the performance and the network and database connection – which of them are needed depends on the nature of the project. The main role is to systematically uncover different classes of errors in a minimum amount of time and with a minimum amount of effort. Developers carry out unit and integration tests, while testers should do system and user acceptance testing. The testing process follows the V-model: a sequential model that includes 4 levels and implementation. The work products in each phase are:

- **Requirement specification:** in this phase testers review, analyze test requirements and develop the Master Test Plan.
- **Functional specification:** in this phase testers develop the Level Test Plans.
- **Technical specification:** developers integrate components, then make the integration testing.
- **Program specification:** testers start to build components and make the testing of the components



Issue management: The company establishes global issue management. The issue log contains the issue ID, type (technical, business, resources, etc.), date of discovery, description, priority, and status (open, investigating, escalated, resolved).

The chosen strategy of the company is the analytical strategy, mostly requirement and risk based models. In requirements-based testing, test analysis derives test conditions from the requirements, tests are then designed and implemented to cover those conditions. The tests are subsequently executed. Often the priority of the requirement covered by each test determines the order in which the tests will be run. Test results are reported in terms of requirements status (test incident report), e.g., requirement tested and passed, requirement tested and failed, requirement not yet fully tested, requirement testing blocked, etc.

In risk-based testing, functions and features are prioritized based on the possibility and importance of their failure. Tests are designed to cover the recognized risks.

Documentation: The company uses IEEE 829 standards as the base of testing-related documentation. According to IEEE 829, documents produced can be one or more from the list below:

- **Test Plan:** a management planning document that shows how the testing will be done, who will do it, what will be tested, how long it will take, what the test coverage will be.
- **Test Design Specification:** details test conditions, expected results, as well as test pass criteria.
- **Test Case Specification:** specifies the test data for use in running the test conditions identified in the Test Design Specification.
- **Test Procedure Specification:** details how to run each test, including any set-up preconditions and the steps that need to be followed.

- **Test Log:** records which tests cases were run, who ran them, in what order, and whether each test passed or failed.
- **Test Incident Report:** details for any test that failed, the actual versus expected result, and other information intended to throw light on why a test has failed. The report will also include, if possible, an assessment of the impact of an incident upon testing.
- **Test Summary Report:** A management report providing any important information uncovered by the tests accomplished, and including assessments of the quality of the testing effort, the quality of the software system under test, and statistics derived from Incident Reports. The report also records what kind of testing was done and how long it took, in order to improve any future test planning. This document is used to indicate whether the software system under test is fit for purpose, i.e. whether or not it has met acceptance criteria defined by project stakeholders.

Other documents

- Issue log
- Test schedule
- Level test plan

The company uses automation tools for unit and regression testing, and other commercial tools for creating test cases. There are other commercial tools for word processing, database management and making spreadsheets for test reports. The used testing tools are custom tools which can meet the team's needs precisely and can operate efficiently in the context the team requires. The test automation tools are written by the developers of the organization.

For the main entry criteria the business requirement documentation must be signed off by the business owner, and the test environment must be ready and accessible. The main exit criteria is: there are no outstanding high priority issues, so there are no outstanding priority 1 risks or correctable defects.

There are three priority levels of the defects:

High – crash; error occurs in main modules and there is no workaround for the problem.

Medium – A bug occurs with a workaround in a main module, or a bug occurs in other components, or major system components are unusable.

Low – A bug occurs in a minor module, where the bug does not affect data integrity and correctness.

Configuration Management: The organization uses version control for both the source code and for complex documentation. Less formal reviews need not be documented and controlled.

Concerning data modeling, the organization uses the entity-relationship model to represent database structure. The model is used to communicate the database design of the system to the business people, and it is also useful when testers plan the database testing.