

# SE 2226 Test PlanTemplate

(Based on ISO/IEC/IEEE 29119-2 Section 7.2)

The test plan is an item of test documentation that is used for test planning and test management. It describes the decisions made during initial test planning and evolves as re-planning is performed as part of the control activity. See <https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=9591577> Annex E for two examples.

Below is the outline of the report that you must use.

## 1. Context of testing

### 1.1 Project/test levels/test types

Identifies the project, test levels, and/or test types for which the test plan is being written and other relevant contextual information.

### 1.2 Test items

Identifies the test items for the testing covered by this test plan including version/revision information or a reference for where this information can be found. This section may describe the purpose of the test item or reference where this information can be found.

EXAMPLE The test item can be a software unit, a group of units or modules, a service, a subsystem, or a complete system, app, or product.

### 1.3 Test scope

Summarizes the features of each test item to be tested. It also identifies any features of a test item that are to be specifically excluded from testing and the rationale for their exclusion.

EXAMPLE Features to be tested can be specific functions, interfaces, business processes, or attributes of the software, such as usability or performance.

### 1.4. Test basis

Identifies the basis for designing and implementing tests.

## 2. Assumptions and constraints

Describes any assumptions and constraints for the testing covered by this plan. These may include regulatory standards, requirements in the test policy and the organizational test practices, contractual requirements, project time and cost constraints, and availability of appropriately skilled staff, tools, and/or environments.

## 3. Test strategy

### 3.1 General

Describes the approach to testing for the identified scope of testing of the test item, as outlined in 3.2 to 3.11.

### **3.2 Test levels**

For a project test plan or a type test plan, this identifies the levels of testing that will be conducted.

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### **3.4 Test deliverables**

Identifies all test documentation that is to be delivered from the testing activity or equivalent information to be recorded electronically, for example in spreadsheets, databases, or dedicated test tools.

EXAMPLE The following test documentation can be included:

- test plan.
- test model specification.
- test case specification.
- test procedure specification.
- test data readiness report.
- test environment readiness report.
- incident reports.
- test status reports.
- test completion report.

Test input data and test output data may be identified as deliverables. Test tools created as part of the testing activity may also be included. If test documentation has been combined or eliminated, then this list will be modified accordingly.

### **3.5 Test design techniques**

Specifies which test design techniques are to be applied.

### **3.6 Entry and exit criteria**

Specifies when test processes for a given test level or type can start and stop.

Each test level and type consists of the following processes:

- test planning
- test design and implementation
- test environment and data management
- test execution
- test incident reporting

Different entry and exit criteria may be defined for each of these test processes, for selected ones, or for the entire test level or type as a whole.

EXAMPLE Entry criteria for test execution during system testing can include: the system test plan has been created and signed off, test cases have been created and approved by business stakeholders, and test data and the test environment (including deployment of the test item) are prepared and ready for execution. Exit criteria for system testing can include all high-priority test cases that have been executed and passed testing or that any severity 1 or 2 defects that remain open have been reviewed and approved by the business as not requiring addressing during system testing.

### **3.7 Test completion criteria**

Specifies when test execution for a given test level, test type, or test technique can be considered complete. For test types and test levels, the test completion criteria may be the same as the exit criteria for that test level.

EXAMPLE The test completion criterion for state transition testing can be that test execution will continue until all states in the state model have been "visited" during testing.

### **3.8 Metrics to be collected**

Describes the metrics for which values are to be collected during the test activities.

### **3.9 Test data requirements**

Specifies all relevant test data requirements for the project or test level or test type (as appropriate).

EXAMPLE This can identify the origin of the test data and state where specific test data is located, whether data has to be sanitized for confidentiality reasons, and the role responsible for the test data.

NOTE The data quality model defined in ISO/IEC 25012 can support the identification of test data requirements (and potentially data measurement needs).

### **3.10 Test environment requirements**

Specifies the necessary and desired properties of the test environment.

EXAMPLE This can include hardware, software, test tools, databases, and personnel. Information regarding selection, evaluation, acquisition, and support for each part of the test environment may be included.

It may include test environment requirements for test preparation, test execution (including data capture), and any post-execution activities.

### **3.11 Testing activities and estimates**

Identifies all the necessary testing activities required to implement the test strategy.

NOTE The testing activities can be described in terms of a work breakdown structure or activities on an agile activity board.

Describes estimates for each identified testing activity. Additionally, where appropriate, describes the allocated testing budget and cost estimates or references where that information can be found.

#### **4. Staffing**

##### **4.1 General**

Describes the staffing requirements for the testing covered by this plan.

##### **4.2 Roles and responsibilities**

Provides an overview of the primary (they are the activity leader) and secondary (they are not the leader but provide support) people filling the test-related roles and their corresponding responsibilities and authority for the testing activities. In addition, identifies those responsible for providing the test items.

##### **4.3 Schedule**

Summarizes the overall schedule of the testing activities. Specifies the schedule for each testing activity and test milestones based on the activity estimates, available resources, and other constraints.