**<https://www.wikihow.com/Write-a-Test-Plan>**

As per IEEE 829 standards, the components of a Test Plan document should be :

* Test Plan identifier
* References
* Introduction
* Test Items
* Risks
* Items to be tested
* Features excluded for testing
* Testing Approach
* Test Pass and Fail Criteria
* Resumption/Suspension Criteria
* Test deliverables
* Test Environment Set Up
* Training and Staffing
* Team Member Responsibilities
* Testing Schedule
* Planning for Risks and Contingency Plans
* Approvals

1. **Summary**

1.1. **Introduction** - Provide an overview of this document in this section

1.2. **Scope of testing** - The scope of testing needs to be clearly defined. The plan should define items / features that are in scope or out of scope for the testing phase.

- 1.2.1. \*\*Features To be tested\*\* - All features/use cases which are to be tested

- 1.2.2. \*\*Features Not to be tested\*\* - All features which are not to be tested

- 1.2.3. \*\*References\*\* - SRS, BRD, FRS references used for the scope

1.3. **Milestones** - List down all the minor and major milestones along with planned start and end dates

1.4. **Deliverables** - List down all the deliverables from the testing phase along with their acceptance criteria

1. **Resources** - Mention all the physical and non-physical resources that will be used

2.1. **Hardware** - List down the hardware requirements for the testing phase

2.2. **Environment details** - Provide a list of the various environments that will be used for the testing phase along with their purpose and configuration details.

2.3. **Testing tools** - Provide a list of the tools that are required for this phase.

2.4. **Team composition** - List down the names of the team members who will be involved in the testing phase, along with their roles and responsibilities

2.5. **Training Requirements** - If any skill set or training is required

1. **Test Strategy** - Describe the testing strategy which will be followed in the project. Also, define the different types testing.

3.1. **Types of testing** - List out different types of testing that will be conducted in the testing phase. Elaborate the different testing specifications given by the customer and provide details on how different types of testing would be conducted

3.2. **Entry and Exit Criteria** - Write down the entry and exit criteria of the testing phase i.e. when you will start testing and when you stop testing.

3.3. **Suspension and Resumption Criteria** - Use this section to write down the suspension and Resumption during the testing phase.

3.4. **System Acceptance Criteria** - Use this section to describe the system acceptance criteria based on which the project acceptance will be received

1. **Test Planning**

4.1. **Test Schedule** - Use this section to document the detailed test plan. This would include a detailed work breakdown structure (WBS) of all activities related to testing along with resources.

4.2. **Test Design** - Use this section to document the procedure for preparing test cases. Explain the various fields of the test cases. Expand this section to include the process for review and approval of test cases and how the documents will be shared among stakeholders.

4.3. **Test Execution** - Use this section to detail the process that will be followed for testing - how testing would be conducted, and how testing results would be captured and shared.

1. **Bug Tracking Process** - Use this section to describe the process for recording bugs found during the various testing cycles and the workflow for tracking these bugs to closure. This section would also provide details as per the sections below.

5.1. **Bug tracking tool** - Detail about the tool being used for defect logging and tracking

5.2. **Bug reporting** - Provide details of the various fields against which information needs to be entered while reporting a bug.

5.3. **Bug lifecycle** - For example: New/raised --> open/assigned --> resolved/fixed --> closed/verified. Also, specify who will be responsible for conducting triage meetings and how any conflicts will be resolved.

1. **NFRs Testing** - Use this section to define plan for the Non-functional testing like Performance, Security, Usability etc.

6.1. **Tools used for NFRs** - name of the tools

6.2. **NFR Goals** - Mention all the goals for performance testing for Response time, Throughput etc.

1. **Risk Management** - Use this section for documenting the risks involved in testing and their Mitigation plan. Assign priority and impact to all risks.
2. **Reporting and Communication Plan** - Write down the reporting and communication plan for the testing phase. Identify Key contact personnel from both on-site and off-shore teams and representatives from the client side.
3. **Measurement Plan** - List down the metrics that will be used to track the progress of the testing phase and assess whether the objectives of this phase have been met or not. Like Defect Leakage, Defect Removal Efficiency etc.
4. **Assumptions and Dependencies** - List out the assumptions and dependencies associated with this phase and any risks that may exist pertaining to these.
5. **Appendix** - Use this section to provide expansion of abbreviation and attach reference documents and templates

[**How to Write a Test Plan**](https://www.wikihow.com/Write-a-Test-Plan)

Two Parts:[Preparing the Test Plan](https://www.wikihow.com/Write-a-Test-Plan#Preparing_the_Test_Plan_sub)[Writing the Test Plan](https://www.wikihow.com/Write-a-Test-Plan#Writing_the_Test_Plan_sub)[Community Q&A](https://www.wikihow.com/Write-a-Test-Plan#Questions_and_Answers_sub)

Test plans outline the process of testing the functionality of software. A test plan details each step taken to achieve a certain result and states the objective of each action. The plan also highlights the projected resources, risks, and personnel involved in the test. You should use a test plan if you are seeking to eliminate bugs and other errors in your software before it becomes available to customers. Follow the steps below to create a test plan.

**Part 1** Preparing the Test Plan

**1 Know the basics.** What you put in your test plan depends largely on the complexity of the software you’re planning to test. However, there are three basic sections that should always be included in a test plan: Test Coverage, Test Methods, and Test Responsibilities.

* Test coverage defines *what* you will be testing and what you will not.
* Test methods define *how* you will be testing each part defined in the “coverage” section.
* Test responsibilities assign tasks and responsibilities to different parties. This section should also include what data each party will record and how it will be stored and reported.

### Preparing the Test Plan

2 **Familiarize yourself with necessary IEEE standards documents.** The Institute of Electrical and Electronics Engineers (IEEE) publishes international standards for testing and documenting software and system development.[[1]](https://www.wikihow.com/Write-a-Test-Plan#_note-1) To hold your test plan to the highest standard, consult with the IEEE publications below:

* 29119-1-2013, Software and Systems Engineering - Software Testing - Part 1: Concepts and Definitions[[2]](https://www.wikihow.com/Write-a-Test-Plan#_note-2)
* 29119-2-2013, Software and Systems Engineering - Software Testing - Part 2: Test Processes[[3]](https://www.wikihow.com/Write-a-Test-Plan#_note-3)
* 29119-3-2013, Software and Systems Engineering - Software Testing - Part 3: Test Documentation[[4]](https://www.wikihow.com/Write-a-Test-Plan#_note-4)
* 829-2008, IEEE Standard for Software and System Test Documentation[[5]](https://www.wikihow.com/Write-a-Test-Plan#_note-5)
* 1008-1987 - IEEE Standard for Software Unit Testing[[6]](https://www.wikihow.com/Write-a-Test-Plan#_note-6)

3 **Consult a template.** You can find templates for test plans online. The best source for templates is the IEEE library, but access does cost a fee.

* The North Carolina Office of Information Technology Services offers an annotated test plan template, based on IEEE 829 standards, [here](http://www.epmo.scio.nc.gov/library/docs/TESTPLAN.doc).
* Dublin City University also offers a free test plan template, based on IEEE 829 standards.

### Part 2 Writing the Test Plan

1 **Write the introduction.** Your introduction functions as the “executive summary” of the test plan: its goals, its scope, and its schedule. This should be kept brief, as you will go into further detail in subsequent sections of the test plan.

* Your goals and scope statements should define, in general terms, the methods that will be used in the testing process and the projected results. The scope statement should also include the most critical performance measures, as well as a list of what the test plan will not address, and why.[[7]](https://www.wikihow.com/Write-a-Test-Plan#_note-7)[[8]](https://www.wikihow.com/Write-a-Test-Plan#_note-8)
* A schedule details the increments of time in which each phase of the test will be completed.
* Related documents include any peripheral material that is relevant to the current project, such as lists of specifications.

2 **Define your objectives.** Your test plan should clearly define *what* you will test and *why* you will test it. These should always be based on industry standards.[[9]](https://www.wikihow.com/Write-a-Test-Plan#_note-9)[[10]](https://www.wikihow.com/Write-a-Test-Plan#_note-10)[[11]](https://www.wikihow.com/Write-a-Test-Plan#_note-11)

* Determine what the scope of the test is. What scenarios will be tested?
* Determine what is out of scope for the test. What scenarios will not be tested?
* Common scenarios include Module Testing, Integration Testing, Systems/Acceptance Testing, and Beta Testing.

3 **Write a section on required resources.** This section describes all of the resources needed to complete the testing, including hardware, software, testing tools, and staff.[[12]](https://www.wikihow.com/Write-a-Test-Plan#_note-12)[[13]](https://www.wikihow.com/Write-a-Test-Plan#_note-13)

* When accounting for your staff, make sure to detail the responsibilities required of each member and the training needed to execute those responsibilities.
* Make sure to document the exact specifications of hardware and software.

4 **Write a section on risks and dependencies.** Detail all the factors that your project depends on and the risks involved in each step. The level of acceptable risk in your project will help determine what you will and will not test.

* Consider the likelihood of various risks.[[14]](https://www.wikihow.com/Write-a-Test-Plan#_note-14) You will need to prioritize the critical areas.
* Be aware of any vague or unclear requirements. Users often lack the expertise to understand technical language or procedures, so user misunderstanding could pose a risk.
* Use your past “bug” history to help you identify areas for concern and extra testing.

5 **Write a section on what you are going to test.** List what new aspects you will be testing and what old aspects you will be re-testing. Make sure to detail the purpose for each test.[[15]](https://www.wikihow.com/Write-a-Test-Plan#_note-15)[[16]](https://www.wikihow.com/Write-a-Test-Plan#_note-16)

* You can use software application inventories, IEEE guidelines, and other sources to help you determine this list.
* This section also represents your “deliverables,” or what data you will deliver to the client once the testing is complete.

6 **Write a section on what you will not be testing.** List any features that will not be tested during the current project.[[17]](https://www.wikihow.com/Write-a-Test-Plan#_note-17) Reasons not to test features include:

* The feature will not be included in this version of the software
* The feature is low-risk or has been used before without issue

7 **List your strategy.** This section outlines the overall test strategy for your test plan. It will specify the rules and processes that will apply to the tests outlined above.

* Include information on tools to be used, what metrics will be collected and at what level, how many configurations will be tested, and whether there are any special requirements or procedures for testing.

8 **Develop pass/fail criteria.** These criteria will guide your testing staff so that they know whether testing objectives have been achieved. This section can also include “exit criteria,” so that your staff know when it is acceptable to stop testing a certain feature.[[18]](https://www.wikihow.com/Write-a-Test-Plan#_note-18)

* You should also include a list of suspension criteria and resumption requirements. This information tells testers when to pause tests and what the acceptable level of defect is to resume them.

9 **Write a list of documents that will be produced during testing.** Also known as “deliverables,” these documents are the data, reports, scripts, and results that will be produced by testing.[[19]](https://www.wikihow.com/Write-a-Test-Plan#_note-19)

* It’s a good idea to assign these deliverables to “owners” who are responsible for their delivery. Assign deadlines by which they are due.[[20]](https://www.wikihow.com/Write-a-Test-Plan#_note-20)

10 **Write a section on the results of your project.** Outline all the goals that you hope to achieve during the testing process. Detail who is in charge of final approvals.