

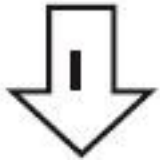


Test Plan

Maryna Didkovska

Test plan. Advantages

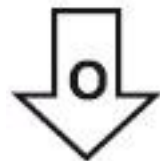
- *Test planning should start as early as possible*
 - time to do a proper planning job
 - adequate time to include the stakeholders
 - early visibility of potential problems
 - means of influencing the development plan



- The inputs on which this process is based are:
 - Test strategy
 - Master test plan
 - Information about how the testing is progressing



- The activities are:
 - Verify the mission and define the objectives of the testing
 - Decide and document how the general test strategy and the project test plan apply to the specific test level: what, how, where, who
 - Make decisions and initiate corrective actions as appropriate as the testing progresses



- The output consists of:
 - Level test plan

Test Plan structure - **IEEE 829**

- Test plan identifier
- Introduction
- Test items
- Features to be tested
- Features not to be tested
- Approach
- Item pass/fail criteria
- Suspension criteria and resumption requirements
- Test deliverables
- Testing tasks
- Environmental needs
- Responsibilities
- Staffing and training needs
- Schedule
- Risks and contingencies
- Approvals

Test Plan - minimum

- Objectives
- Scope
- Approach
- Assumptions
- Dependencies
- Risks
- Schedule for the appropriate test phase or phases

Test Plan

- Objectives
 - describes the "why" of the testing effort
- In scope
 - The components of the system to be tested (hardware, software, middleware, etc.) ": requirements, functional areas, systems, business functions or any aspect of the system
- Out of scope
 - What is NOT to be tested?"

Test Plan - Approach

- the testing activities that will be applied against the application for the current testing phase
 - backup and recovery testing, compatibility testing, destructive testing, environment testing, interface testing, parallel testing, regression testing, application security testing, storage testing, stress and performance testing, and any other testing approach.
- The reasoning for using any given set of approaches should be described, usually from the perspective of risk

Test Plan

- Assumptions
 - facts, statements and/or expectations of other teams that the test team believes to be true
- Dependencies
 - events or milestones that must be completed in order to proceed within any given testing activity.
 - These are the dependencies that will be presented in the test schedule.

Test Plan

- Risks
 - factors that could negatively impact the testing effort
- Schedule
 - defines when and by whom testing activities will be performed

Completion criteria

- derived from the strategy
- should be based on a risk analysis;
 - the higher the risk, the stricter the completion criteria;
 - the lower the risk the less demanding and specific the completion criteria.

Completion criteria

- Specified coverage has been achieved
- Specified number of failures found per test effort has been achieved
- No known serious faults
- The benefits of the system are bigger than known problems
- (The time has run out)

Test plan. To be realistic

- The test planning must identify the test basis and define what it is we are going to test in relation to this.
- This includes determination of the coverage to achieve for the appropriate coverage item

Test level	Test basis	Coverage items
Component testing	<ul style="list-style-type: none"> • Requirements • Detailed design • Code 	<ul style="list-style-type: none"> • Statements • Decisions • Conditions
Component integration testing	<ul style="list-style-type: none"> • Architectural design 	<ul style="list-style-type: none"> • Internal interfaces • Individual parameters • Invariants
System testing	<ul style="list-style-type: none"> • Software requirements specification 	<ul style="list-style-type: none"> • Requirements: <ul style="list-style-type: none"> ◦ functional ◦ nonfunctional
System integration testing	<ul style="list-style-type: none"> • Product design 	<ul style="list-style-type: none"> • External interfaces • Individual parameters • Invariants
Acceptance testing	<ul style="list-style-type: none"> • User requirements specification • User manual 	<ul style="list-style-type: none"> • Requirements expressed as <ul style="list-style-type: none"> ◦ use cases ◦ business scenarios
Static test	<ul style="list-style-type: none"> • Documents the static test is based on 	<ul style="list-style-type: none"> • Pages • Requirements • Test cases

Test deliveries

- ◉ Level test plan(s)
- ◉ Test specification(s)
- ◉ Test environment(s)
- ◉ Test logs and journals
- ◉ Test reports
- ◉ etc

The last, but not the least

- Do not forget about the revision history

Revision #	Revision Date	Description of Change	Author