Standard Glossary of Terms used in Software Testing

Version 3.1

Foundation Extension - Agile Tester Terms

International Software Testing Qualifications Board

acceptance criteria

Ref: IEEE 610

The exit criteria that a component or system must satisfy in order to be accepted by a user, customer, or other authorized entity.

acceptance testing

Ref: After IEEE 610   **See Also:** user acceptance testing

Formal testing with respect to user needs, requirements, and business processes conducted to determine whether or not a system satisfies the acceptance criteria and to enable the user, customers or other authorized entity to determine whether or not to accept the system.

accuracy

Ref: ISO 9126   **See Also:** functionality

The capability of the software product to provide the right or agreed results or effects with the needed degree of precision.

actor

User or any other person or system that interacts with the test object in a specific way.

Agile Manifesto

A statement on the values that underpin Agile software development. The values are: individuals and interactions over processes and tools, working software over comprehensive documentation, customer collaboration over contract negotiation, responding to change over following a plan.

Agile software development

A group of software development methodologies based on iterative incremental development, where requirements and solutions evolve through collaboration between self-organizing cross-functional teams.

Agile testing

See Also: test-driven development

Testing practice for a project using Agile software development methodologies, incorporating techniques and methods, such as extreme programming (XP), treating development as the customer of testing and emphasizing the test-first design paradigm.

alpha testing

Simulated or actual operational testing by potential users/customers or an independent test team at the developers' site, but outside the development organization. Alpha testing is often employed for commercial off-the-shelf software as a form of internal acceptance testing.

audit

Ref: IEEE 1028

An independent evaluation of software products or processes to ascertain compliance to standards, guidelines, specifications, and/or procedures based on objective criteria, including documents that specify: the form or content of the products to be produced, the process by which the products shall be produced, and how compliance to standards or guidelines shall be measured.

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availability

Ref: IEEE 610

The degree to which a component or system is operational and accessible when required for use. Often expressed as a percentage.

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baseline

Ref: After IEEE 610

A specification or software product that has been formally reviewed or agreed upon, that thereafter serves as the basis for further development, and that can be changed only through a formal change control process.

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best practice

A superior method or innovative practice that contributes to the improved performance of an organization under given context, usually recognized as "best" by other peer organizations.

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beta testing

Synonyms: field testing

Operational testing by potential and/or existing users/customers at an external site not otherwise involved with the developers, to determine whether or not a component or system satisfies the user/customer needs and fits within the business processes. Beta testing is often employed as a form of external acceptance testing for commercial off-the-shelf software in order to acquire feedback from the market.

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black-box test design technique

Synonyms: black-box technique , specification-based technique , specification-based test design technique

Procedure to derive and/or select test cases based on an analysis of the specification, either functional or non-functional, of a component or system without reference to its internal structure.

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black-box testing

Synonyms: specification-based testing

Testing, either functional or non-functional, without reference to the internal structure of the component or system.

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boundary value analysis

See Also: boundary value

A black-box test design technique in which test cases are designed based on boundary values.

build verification test (BVT)

See Also: regression testing, smoke test

A set of automated tests which validates the integrity of each new build and verifies its key/core functionality, stability and testability. It is an industry practice when a high frequency of build releases occurs (e.g., Agile projects) and it is run on every new build before the build is released for further testing.

burndown chart

A publicly displayed chart that depicts the outstanding effort versus time in an iteration. It shows the status and trend of completing the tasks of the iteration. The X-axis typically represents days in the sprint, while the Y-axis is the remaining effort (usually either in ideal engineering hours or story points).

code

Ref: IEEE 610

Computer instructions and data definitions expressed in a programming language or in a form output by an assembler, compiler or other translator.

code coverage

An analysis method that determines which parts of the software have been executed (covered) by the test suite and which parts have not been executed, e.g., statement coverage, decision coverage or condition coverage.

complexity

See Also: cyclomatic complexity

The degree to which a component or system has a design and/or internal structure that is difficult to understand, maintain and verify.

component

Synonyms: module , unit

A minimal software item that can be tested in isolation.

component testing

Ref: After IEEE 610

Synonyms: module testing , program testing , unit testing

The testing of individual software components.

condition

See Also: condition testing

Synonyms: branch condition

A logical expression that can be evaluated as True or False, e.g., A>B.

configuration

The composition of a component or system as defined by the number, nature, and interconnections of its constituent parts.

configuration control

Ref: IEEE 610

Synonyms: change control , version control

An element of configuration management, consisting of the evaluation, coordination, approval or disapproval, and implementation of changes to configuration items after formal establishment of their configuration identification.

configuration item

Ref: IEEE 610

An aggregation of hardware, software or both, that is designated for configuration management and treated as a single entity in the configuration management process.

configuration management

Ref: IEEE 610

A discipline applying technical and administrative direction and surveillance to identify and document the functional and physical characteristics of a configuration item, control changes to those characteristics, record and report change processing and implementation status, and verify compliance with specified requirements.

configuration management tool

A tool that provides support for the identification and control of configuration items, their status over changes and versions, and the release of baselines consisting of configuration items.

confirmation testing

Synonyms: re-testing

Testing that runs test cases that failed the last time they were run, in order to verify the success of corrective actions.

coverage

Synonyms: test coverage

The degree, expressed as a percentage, to which a specified coverage item has been exercised by a test suite.

daily build

A development activity whereby a complete system is compiled and linked every day (often overnight), so that a consistent system is available at any time including all latest changes.

dashboard

See Also: corporate dashboard, scorecard

A representation of dynamic measurements of operational performance for some organization or activity, using metrics represented via metaphors such as visual dials, counters, and other devices resembling those on the dashboard of an automobile, so that the effects of events or activities can be easily understood and related to operational goals.

data definition

An executable statement where a variable is assigned a value.

debugging

The process of finding, analyzing and removing the causes of failures in software.

decision

A program point at which the control flow has two or more alternative routes. A node with two or more links to separate branches.

decision coverage

The percentage of decision outcomes that have been exercised by a test suite. 100% decision coverage implies both 100% branch coverage and 100% statement coverage.

decision table

Synonyms: cause-effect decision table

A table showing combinations of inputs and/or stimuli (causes) with their associated outputs and/or actions (effects), which can be used to design test cases.

defect

Synonyms: bug , fault , problem

A flaw in a component or system that can cause the component or system to fail to perform its required function, e.g., an incorrect statement or data definition. A defect, if encountered during execution, may cause a failure of the component or system.

defect density

Synonyms: fault density

The number of defects identified in a component or system divided by the size of the component or system (expressed in standard measurement terms, e.g., lines-of-code, number of classes or function points).

defect management

Ref: After IEEE 1044

Synonyms: problem management

The process of recognizing, investigating, taking action and disposing of defects. It involves recording defects, classifying them and identifying the impact.

defect management tool

See Also: incident management tool

Synonyms: bug tracking tool , defect tracking tool

A tool that facilitates the recording and status tracking of defects and changes. They often have workflow-oriented facilities to track and control the allocation, correction and re-testing of defects and provide reporting facilities.

defect report

Ref: After IEEE 829

Synonyms: bug report , problem report

A document reporting on any flaw in a component or system that can cause the component or system to fail to perform its required function.

defect taxonomy

Synonyms: bug taxonomy

A system of (hierarchical) categories designed to be a useful aid for reproducibly classifying defects.

defect-based test design technique

See Also: defect taxonomy

Synonyms: defect-based technique

A procedure to derive and/or select test cases targeted at one or more defect types, with tests being developed from what is known about the specific defect type.

deliverable

Any (work) product that must be delivered to someone other than the (work) product's author.

domain

The set from which valid input and/or output values can be selected.

dynamic testing

Testing that involves the execution of the software of a component or system.

effectiveness

See Also: efficiency

The capability of producing an intended result.

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efficiency

Ref: ISO 9126

(1) The capability of the software product to provide appropriate performance, relative to the amount of resources used, under stated conditions. (2) The capability of a process to produce the intended outcome, relative to the amount of resources used.

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entry criteria

Ref: Gilb and Graham

The set of generic and specific conditions for permitting a process to go forward with a defined task, e.g., test phase. The purpose of entry criteria is to prevent a task from starting which would entail more (wasted) effort compared to the effort needed to remove the failed entry criteria.

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equivalence partitioning

Synonyms: partition testing

A black-box test design technique in which test cases are designed to execute representatives from equivalence partitions. In principle, test cases are designed to cover each partition at least once.

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error

Ref: After IEEE 610

Synonyms: mistake

A human action that produces an incorrect result.

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error guessing

A test design technique where the experience of the tester is used to anticipate what defects might be present in the component or system under test as a result of errors made, and to design tests specifically to expose them.

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exit criteria

Ref: After Gilb and Graham

Synonyms: completion criteria , test completion criteria

The set of generic and specific conditions, agreed upon with the stakeholders for permitting a process to be officially completed. The purpose of exit criteria is to prevent a task from being considered completed when there are still outstanding parts of the task which have not been finished. Exit criteria are used to report against and to plan when to stop testing.

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expected result

Synonyms: expected outcome , predicted outcome

The behavior predicted by the specification, or another source, of the component or system under specified conditions.

experience-based testing

Testing based on the tester's experience, knowledge and intuition.

exploratory testing

Ref: After Bach

An informal test design technique where the tester actively controls the design of the tests as those tests are performed and uses information gained while testing to design new and better tests.

Extreme Programming (XP)

See Also: Agile software development

A software engineering methodology used within Agile software development whereby core practices are programming in pairs, doing extensive code review, unit testing of all code, and simplicity and clarity in code.

fail

Synonyms: test fail

A test is deemed to fail if its actual result does not match its expected result.

failure

Ref: After Fenton

Deviation of the component or system from its expected delivery, service or result.

fault attack

See Also: negative testing, security attack

Synonyms: attack

Directed and focused attempt to evaluate a specific quality characteristic of a test object by attempting to force specific failures to occur. Usually focused on reliability or security.

feature

Ref: After IEEE 1008

Synonyms: software feature

An attribute of a component or system specified or implied by requirements documentation (for example reliability, usability or design constraints).

formal review

A review characterized by documented procedures and requirements, e.g., inspection.

functional requirement

Ref: IEEE 610

A requirement that specifies a function that a component or system must perform.

functional testing

See Also: black-box testing

Testing based on an analysis of the specification of the functionality of a component or system.

functionality

Ref: ISO 9126

The capability of the software product to provide functions which meet stated and implied needs when the software is used under specified conditions.

horizontal traceability

The tracing of requirements for a test level through the layers of test documentation (e.g., test plan, test design specification, test case specification and test procedure specification or test script).

incident management tool

See Also: defect management tool

A tool that facilitates the recording and status tracking of incidents. They often have workflow-oriented facilities to track and control the allocation, correction and re-testing of incidents and provide reporting facilities.

incremental development model

A development lifecycle where a project is broken into a series of increments, each of which delivers a portion of the functionality in the overall project requirements. The requirements are prioritized and delivered in priority order in the appropriate increment. In some (but not all) versions of this lifecycle model, each subproject follows a mini V-model with its own design, coding and testing phases.

infeasible path

A path that cannot be exercised by any set of possible input values.

informal review

A review not based on a formal (documented) procedure.

input

A variable (whether stored within a component or outside) that is read by a component.

integration

The process of combining components or systems into larger assemblies.

integration testing

See Also: component integration testing, system integration testing

Testing performed to expose defects in the interfaces and in the interactions between integrated components or systems.

interoperability

Ref: After ISO 9126   **See Also:** functionality

The capability of the software product to interact with one or more specified components or systems.

iterative development model

A development lifecycle where a project is broken into a usually large number of iterations. An iteration is a complete development loop resulting in a release (internal or external) of an executable product, a subset of the final product under development, which grows from iteration to iteration to become the final product.

lifecycle model

Ref: CMMI   **See Also:** software lifecycle

A partitioning of the life of a product or project into phases.

maintainability

Ref: ISO 9126

The ease with which a software product can be modified to correct defects, modified to meet new requirements, modified to make future maintenance easier, or adapted to a changed environment.

maintenance

Ref: IEEE 1219

Modification of a software product after delivery to correct defects, to improve performance or other attributes, or to adapt the product to a modified environment.

maturity

Ref: ISO 9126   **See Also:** Capability Maturity Model Integration, Test Maturity Model integration, reliability

(1) The capability of an organization with respect to the effectiveness and efficiency of its processes and work practices. (2) The capability of the software product to avoid failure as a result of defects in the software.

measure

Ref: ISO 14598

The number or category assigned to an attribute of an entity by making a measurement.

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metric

Ref: ISO 14598

A measurement scale and the method used for measurement.

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mind map

A diagram used to represent words, ideas, tasks, or other items linked to and arranged around a central keyword or idea. Mind maps are used to generate, visualize, structure, and classify ideas, and as an aid in study, organization, problem solving, decision making, and writing.

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model-based testing (MBT)

Testing based on or involving models.

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non-functional requirement

A requirement that does not relate to functionality, but to attributes such as reliability, efficiency, usability, maintainability and portability.

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non-functional testing

Testing the attributes of a component or system that do not relate to functionality, e.g., reliability, efficiency, usability, maintainability and portability.

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output

A variable (whether stored within a component or outside) that is written by a component.

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pair programming

A software development approach whereby lines of code (production and/or test) of a component are written by two programmers sitting at a single computer. This implicitly means ongoing real-time code reviews are performed.

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pass

Synonyms: test pass

A test is deemed to pass if its actual result matches its expected result.

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path

Synonyms: control flow path

A sequence of events, e.g., executable statements, of a component or system from an entry point to an exit point.

performance

Ref: After IEEE 610   **See Also:** efficiency

Synonyms: time behavior

The degree to which a system or component accomplishes its designated functions within given constraints regarding processing time and throughput rate.

performance testing

See Also: efficiency testing

Testing to determine the performance of a software product.

planning poker

See Also: Agile software development, Wideband Delphi

A consensus-based estimation technique, mostly used to estimate effort or relative size of user stories in Agile software development. It is a variation of the Wideband Delphi method using a deck of cards with values representing the units in which the team estimates.

precondition

Environmental and state conditions that must be fulfilled before the component or system can be executed with a particular test or test procedure.

priority

The level of (business) importance assigned to an item, e.g., defect.

process

Ref: ISO 12207

A set of interrelated activities, which transform inputs into outputs.

process improvement

Ref: CMMI

A program of activities designed to improve the performance and maturity of the organization's processes, and the result of such a program.

product risk

See Also: risk

A risk directly related to the test object.

project

Ref: ISO 9000

A project is a unique set of coordinated and controlled activities with start and finish dates undertaken to achieve an objective conforming to specific requirements, including the constraints of time, cost and resources.

project risk

See Also: risk

A risk related to management and control of the (test) project, e.g., lack of staffing, strict deadlines, changing requirements, etc.

quality

Ref: After IEEE 610

The degree to which a component, system or process meets specified requirements and/or user/customer needs and expectations.

quality assurance

Ref: ISO 9000

Part of quality management focused on providing confidence that quality requirements will be fulfilled.

quality attribute

Ref: IEEE 610

Synonyms: quality characteristic , software product characteristic , software quality characteristic

A feature or characteristic that affects an item's quality.

quality control

Ref: after ISO 8402

The operational techniques and activities, part of quality management, that are focused on fulfilling quality requirements.

quality risk

See Also: quality attribute, product risk

A product risk related to a quality attribute.

Rational Unified Process (RUP)

A proprietary adaptable iterative software development process framework consisting of four project lifecycle phases: inception, elaboration, construction and transition.

reactive testing

Testing that dynamically responds to the system under test and test results being obtained. Typically reactive testing has a reduced planning cycle and the design and implementation test phases are not carried out until the test object is received.

recoverability testing

See Also: reliability testing

Synonyms: recovery testing

Testing to determine the recoverability of a software product.

regression testing

Testing of a previously tested program following modification to ensure that defects have not been introduced or uncovered in unchanged areas of the software, as a result of the changes made. It is performed when the software or its environment is changed.

regression-averse testing

Testing using various techniques to manage the risk of regression, e.g., by designing re-usable testware and by extensive automation of testing at one or more test levels.

release note

Ref: After IEEE 829

Synonyms: item transmittal report , test item transmittal report

A document identifying test items, their configuration, current status and other delivery information delivered by development to testing, and possibly other stakeholders, at the start of a test execution phase.

reliability

Ref: ISO 9126

The ability of the software product to perform its required functions under stated conditions for a specified period of time, or for a specified number of operations.

requirement

Ref: After IEEE 610

A condition or capability needed by a user to solve a problem or achieve an objective that must be met or possessed by a system or system component to satisfy a contract, standard, specification, or other formally imposed document.

requirements management tool

A tool that supports the recording of requirements, requirements attributes (e.g., priority, knowledge responsible) and annotation, and facilitates traceability through layers of requirements and requirements change management. Some requirements management tools also provide facilities for static analysis, such as consistency checking and violations to pre-defined requirements rules.

requirements-based testing

An approach to testing in which test cases are designed based on test objectives and test conditions derived from requirements, e.g., tests that exercise specific functions or probe non-functional attributes such as reliability or usability.

result

See Also: actual result, expected result

Synonyms: outcome , test outcome , test result

The consequence/outcome of the execution of a test. It includes outputs to screens, changes to data, reports, and communication messages sent out.

retrospective meeting

Synonyms: post-project meeting

A meeting at the end of a project during which the project team members evaluate the project and learn lessons that can be applied to the next project.

review

Ref: After IEEE 1028

An evaluation of a product or project status to ascertain discrepancies from planned results and to recommend improvements. Examples include management review, informal review, technical review, inspection, and walkthrough.

risk

A factor that could result in future negative consequences.

risk analysis

The process of assessing identified project or product risks to determine their level of risk, typically by estimating their impact and probability of occurrence (likelihood).

risk identification

The process of identifying risks using techniques such as brainstorming, checklists and failure history.

risk level

Synonyms: risk exposure

The importance of a risk as defined by its characteristics impact and likelihood. The level of risk can be used to determine the intensity of testing to be performed. A risk level can be expressed either qualitatively (e.g., high, medium, low) or quantitatively.

risk mitigation

Synonyms: risk control

The process through which decisions are reached and protective measures are implemented for reducing risks to, or maintaining risks within, specified levels.

risk-based testing

An approach to testing to reduce the level of product risks and inform stakeholders of their status, starting in the initial stages of a project. It involves the identification of product risks and the use of risk levels to guide the test process.

robustness

Ref: IEEE 610   **See Also:** error-tolerance, fault-tolerance

The degree to which a component or system can function correctly in the presence of invalid inputs or stressful environmental conditions.

root cause analysis

An analysis technique aimed at identifying the root causes of defects. By directing corrective measures at root causes, it is hoped that the likelihood of defect recurrence will be minimized.

scrum

See Also: Agile software development

An iterative incremental framework for managing projects commonly used with Agile software development.

security

Ref: ISO 9126   **See Also:** functionality

Attributes of software products that bear on its ability to prevent unauthorized access, whether accidental or deliberate, to programs and data.

session-based test management

A method for measuring and managing session-based testing, e.g., exploratory testing.

severity

Ref: After IEEE 610

The degree of impact that a defect has on the development or operation of a component or system.

simulation

Ref: ISO 2382/1

The representation of selected behavioral characteristics of one physical or abstract system by another system.

software

Ref: IEEE 610

Computer programs, procedures, and possibly associated documentation and data pertaining to the operation of a computer system.

software lifecycle

The period of time that begins when a software product is conceived and ends when the software is no longer available for use. The software lifecycle typically includes a concept phase, requirements phase, design phase, implementation phase, test phase, installation and checkout phase, operation and maintenance phase, and sometimes, retirement phase. Note these phases may overlap or be performed iteratively.

specification

Ref: After IEEE 610

A document that specifies, ideally in a complete, precise and verifiable manner, the requirements, design, behavior, or other characteristics of a component or system, and, often, the procedures for determining whether these provisions have been satisfied.

standard

Ref: After CMMI

Formal, possibly mandatory, set of requirements developed and used to prescribe consistent approaches to the way of working or to provide guidelines (e.g., ISO/IEC standards, IEEE standards, and organizational standards).

state transition testing

See Also: N-switch testing

Synonyms: finite state testing

A black-box test design technique in which test cases are designed to execute valid and invalid state transitions.

statement

Synonyms: source statement

An entity in a programming language, which is typically the smallest indivisible unit of execution.

static analysis

Analysis of software development artifacts, e.g., requirements or code, carried out without execution of these software development artifacts. Static analysis is usually carried out by means of a supporting tool.

static code analysis

Analysis of source code carried out without execution of that software.

static testing

Testing of a software development artifact, e.g., requirements, design or code, without execution of these artifacts, e.g., reviews or static analysis.

suitability

Ref: ISO 9126   **See Also:** functionality

The capability of the software product to provide an appropriate set of functions for specified tasks and user objectives.

system

Ref: IEEE 610

A collection of components organized to accomplish a specific function or set of functions.

system integration testing

Testing the integration of systems and packages; testing interfaces to external organizations (e.g., Electronic Data Interchange, Internet).

system testing

Ref: Hetzel

Testing an integrated system to verify that it meets specified requirements.

system under test (SUT)

See test object.

test

Ref: IEEE 829

A set of one or more test cases.

test analysis

The process of analyzing the test basis and defining test objectives.

test approach

The implementation of the test strategy for a specific project. It typically includes the decisions made that follow based on the (test) project's goal and the risk assessment carried out, starting points regarding the test process the test design techniques to be applied, exit criteria and test types to be performed.

test automation

The use of software to perform or support test activities, e.g., test management, test design, test execution and results checking.

test basis

Ref: After TMap

All documents from which the requirements of a component or system can be inferred. The documentation on which the test cases are based. If a document can be amended only by way of formal amendment procedure, then the test basis is called a frozen test basis.

test case

Ref: After IEEE 610

A set of input values, execution preconditions, expected results and execution postconditions, developed for a particular objective or test condition, such as to exercise a particular program path or to verify compliance with a specific requirement.

test charter

See Also: exploratory testing

Synonyms: charter

A statement of test objectives, and possibly test ideas about how to test. Test charters are used in exploratory testing.

test condition

Synonyms: test requirement , test situation

An item or event of a component or system that could be verified by one or more test cases, e.g., a function, transaction, feature, quality attribute, or structural element.

test data

Data that exists (for example, in a database) before a test is executed, and that affects or is affected by the component or system under test.

test data preparation tool

Synonyms: test generator

A type of test tool that enables data to be selected from existing databases or created, generated, manipulated and edited for use in testing.

test design

See Also: test design specification

The process of transforming general test objectives into tangible test conditions and test cases.

test design technique

Synonyms: test case design technique , test specification technique , test technique

Procedure used to derive and/or select test cases.

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test design tool

A tool that supports the test design activity by generating test inputs from a specification that may be held in a CASE tool repository, e.g., requirements management tool, from specified test conditions held in the tool itself, or from code.

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test environment

Ref: After IEEE 610

Synonyms: test bed , test rig

An environment containing hardware, instrumentation, simulators, software tools, and other support elements needed to conduct a test.

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test estimation

The calculated approximation of a result related to various aspects of testing (e.g., effort spent, completion date, costs involved, number of test cases, etc.) which is usable even if input data may be incomplete, uncertain, or noisy.

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test execution

The process of running a test on the component or system under test, producing actual result(s).

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test execution automation

The use of software, e.g., capture/playback tools, to control the execution of tests, the comparison of actual results to expected results, the setting up of test preconditions, and other test control and reporting functions.

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test execution tool

A type of test tool that is able to execute other software using an automated test script, e.g., capture/playback.

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test level

Ref: After TMap

Synonyms: test stage

A group of test activities that are organized and managed together. A test level is linked to the responsibilities ir a project. Examples of test levels are component test, integration test, system test and acceptance test.

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test management

The planning, estimating, monitoring and control of test activities, typically carried out by a test manager.

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test management tool

A tool that provides support to the test management and control part of a test process. It often has several capabilities, such as testware management, scheduling of tests, the logging of results, progress tracking, incident management and test reporting.

test oracle

Ref: After Adrion

Synonyms: oracle

A source to determine expected results to compare with the actual result of the software under test. An oracle may be the existing system (for a benchmark), other software, a user manual, or an individual's specialized knowledge, but should not be the code.

test plan

Ref: After IEEE 829

A document describing the scope, approach, resources and schedule of intended test activities. It identifies amongst others test items, the features to be tested, the testing tasks, who will do each task, degree of tester independence, the test environment, the test design techniques and entry and exit criteria to be used, and the rationale for their choice, and any risks requiring contingency planning. It is a record of the test planning process.

test planning

The activity of establishing or updating a test plan.

test process

The fundamental test process comprises test planning and control, test analysis and design, test implementation and execution, evaluating exit criteria and reporting, and test closure activities.

test reporting

See Also: test process

Collecting and analyzing data from testing activities and subsequently consolidating the data in a report to inform stakeholders.

test script

Commonly used to refer to a test procedure specification, especially an automated one.

test session

See Also: exploratory testing

An uninterrupted period of time spent in executing tests. In exploratory testing, each test session is focused on a charter, but testers can also explore new opportunities or issues during a session. The tester creates and executes on the fly and records their progress.

test specification

A document that consists of a test design specification, test case specification and/or test procedure specification.

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test strategy

A high-level description of the test levels to be performed and the testing within those levels for an organization or programme (one or more projects).

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test type

Ref: After TMap

A group of test activities aimed at testing a component or system focused on a specific test objective, i.e. functional test, usability test, regression test etc. A test type may take place on one or more test levels or test phases.

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test-driven development (TDD)

A way of developing software where the test cases are developed, and often automated, before the software is developed to run those test cases.

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testability

Ref: ISO 9126   **See Also:** maintainability

The capability of the software product to enable modified software to be tested.

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tester

A skilled professional who is involved in the testing of a component or system.

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testing

The process consisting of all lifecycle activities, both static and dynamic, concerned with planning, preparation and evaluation of software products and related work products to determine that they satisfy specified requirements, to demonstrate that they are fit for purpose and to detect defects.

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traceability

See Also: horizontal traceability, vertical traceability

The ability to identify related items in documentation and software, such as requirements with associated tests.

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understandability

Ref: ISO 9126   **See Also:** usability

The capability of the software product to enable the user to understand whether the software is suitable, and how it can be used for particular tasks and conditions of use.

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unit test framework

Ref: Graham

A tool that provides an environment for unit or component testing in which a component can be tested in isolation or with suitable stubs and drivers. It also provides other support for the developer, such as debugging capabilities.

usability

Ref: ISO 9126

The capability of the software to be understood, learned, used and attractive to the user when used under specified conditions.

usability testing

Ref: After ISO 9126

Testing to determine the extent to which the software product is understood, easy to learn, easy to operate and attractive to the users under specified conditions.

use case

A sequence of transactions in a dialogue between an actor and a component or system with a tangible result, where an actor can be a user or anything that can exchange information with the system.

user acceptance testing

See Also: acceptance testing

Acceptance testing carried out by future users in a (simulated) operational environment focusing on user requirements and needs.

user story

See Also: Agile software development, requirement

A high-level user or business requirement commonly used in Agile software development, typically consisting of one sentence in the everyday or business language capturing what functionality a user needs and the reason behind this, any non-functional criteria, and also includes acceptance criteria.

V-model

A framework to describe the software development lifecycle activities from requirements specification to maintenance. The V-model illustrates how testing activities can be integrated into each phase of the software development lifecycle.

validation

Ref: ISO 9000

Confirmation by examination and through provision of objective evidence that the requirements for a specific intended use or application have been fulfilled.

variable

An element of storage in a computer that is accessible by a software program by referring to it by a name.

verification

Ref: ISO 9000

Confirmation by examination and through provision of objective evidence that specified requirements have been fulfilled.

white-box testing

Synonyms: clear-box testing , code-based testing , glass-box testing , logic-coverage testing , logic-driven testing , structural testing , structure-based testing

Testing based on an analysis of the internal structure of the component or system.