



Standard Glossary of Terms used in Software Testing

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All terms

A/B testing

Version 2

A test approach in which two components or systems are statistically evaluated to determine which performs better for specified criteria.

Reference: After ISO 29119-11

abnormal end

Version 1

The unintended termination of the execution of a component or system prior to completion.

Reference: After ISO 24765

Synonyms: abnormal termination

abuse case

Version 1

A use case in which some actors with malicious intent are causing harm to the system or to other actors.

acceptance criteria

Version 3

The criteria that a work product must satisfy to be accepted by the stakeholders.

Reference: After IREB Glossary

acceptance test-driven development

Version 1

A collaboration-based test-first approach that defines acceptance tests in the stakeholders' domain language.

Abbreviation: ATDD

See also: specification by example

acceptance testing

Version 2

A test level that focuses on determining whether to accept the system.

See also: user acceptance testing

accessibility

Version 2

The degree to which a component or system can be used by people with the widest range of characteristics and capabilities to achieve a specified goal in a specified context of use.

Synonyms: user assistance

account harvesting

Version 1

The process of obtaining user account information based on trial and error with the intention of using that information in a security attack.

accountability

Version 1

The degree to which the actions of an entity can be traced uniquely to that entity.

Reference: After ISO 25010

actual result

Version 1

The behavior produced/observed when a component or system is tested.

Synonyms: actual outcome

ad hoc testing

Version 2

Informal testing performed without test analysis and test design.

adaptability

Version 3

The degree to which a component or system can be adapted to various or evolving hardware, software, or other operational or usage environments.

Reference: After ISO 25010

See also: portability

adversarial example

Version 1

An input to an ML model created by applying small perturbations to a working example that results in the model outputting an incorrect result with high confidence.

Reference: ISO 29119-11

adversarial testing

Version 1

A test technique based on the attempted creation and execution of adversarial examples to identify defects in an ML model.

Reference: After ISO 29119-11

Agile Manifesto

Version 1

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

Version 1

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

See also: feature-driven development

Agile test leader

Version 1

A leadership role that serves agile teams, championing testing and quality at the organizational level.

Synonyms: quality coach, agile test manager, quality leader

See also: test manager, Agile test team leader

Agile test team leader

Version 1

A role that is responsible for maintaining solution quality within an agile delivery team.

See also: Agile test leader

alpha testing

Version 3

A type of acceptance testing performed in the developer's test environment by roles outside the development organization.

analytical test strategy

Version 1

A test strategy whereby the test team analyzes the test basis to identify the test conditions to cover.

analyzability

Version 2

The degree to which an assessment can be made for a component or system of either the impact of one or more intended changes, the diagnosis of deficiencies or causes of failures, or the identification of parts to be modified.

Reference: After ISO 25010

See also: maintainability

anomaly

Version 1

A condition that deviates from expectation.

Reference: After ISO 24765

anti-malware

Version 1

Software that is used to detect and inhibit malware.

See also: malware

API testing

Version 2

A test approach performed by submitting requests to a test object using its application programming interface.

application programming interface

Version 1

A type of interface in which the components or systems involved exchange information in a defined formal structure.

Abbreviation: API

appraisal

Version 1

The activities of measuring and monitoring the quality of a system.

Reference: After ASQ

appropriateness recognizability

Version 2

The degree to which users can recognize whether a component or system is appropriate for their needs.

Reference: After ISO 25010

Synonyms: understandability

See also: usability

assertion	Version 1
A Boolean expression that is expected to evaluate to true if and only if the software executes correctly.	
atomic condition	Version 2
A condition that does not contain logical operators.	
attack vector	Version 1
A path or means by which an attacker can gain access to a system for malicious purposes.	
attacker	Version 1
A person or process that attempts to access data, functions or other restricted areas of the system without authorization, potentially with malicious intent.	
See also: hacker	
audio testing	Version 1
Testing to determine if the game music and sound effects will engage the user in the game and enhance the game play.	
audit	Version 2
An independent examination performed by a third party on a work product or process to assess whether it complies with specified criteria.	
Reference: After ISO 24765	
authentication	Version 1
A procedure determining whether a person or a process is, in fact, who or what it is declared to be.	
See also: authorization	
authenticity	Version 1
The degree to which the identity of a subject or resource can be proved to be the one claimed.	
Reference: ISO 25010	
authorization	Version 1
Permission given to a user or process to access resources.	
See also: authentication	
automation code defect density	Version 1
Defect density of a component of the test automation code.	
See also: defect density	
automotive safety integrity level	Version 1
One of four levels that specify the item's or element's necessary requirements of ISO 26262 and safety measures to avoid an unreasonable residual risk.	
Abbreviation: ASIL	
Reference: ISO 26262	
See also: safety integrity level	
automotive SPICE	Version 1
A process reference model and an associated process assessment model in the automotive industry.	
Abbreviation: ASPICE	
Reference: ISO 33002	
availability	Version 2
The degree to which a component or system is operational and accessible when required for use.	
Reference: After ISO 25010	
back-to-back testing	Version 1
Testing to compare two or more variants of a test item or a simulation model of the same test item by executing the same test cases on all variants and comparing the results.	
Reference: Spillner	

behavior-driven development

Version 1

A collaborative approach to development in which the team is focusing on delivering expected behavior of a component or system for the customer, which forms the basis for testing.

Abbreviation: BDD

beta testing

Version 3

A type of acceptance testing performed at an external site to the developer's test environment by roles outside the development organization.

black-box test technique

Version 3

A test technique based on an analysis of the specification of a component or system.

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

black-box testing

Version 2

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

Synonyms: specification-based testing

botnet

Version 1

A network of compromised computers, called bots or robots, which is controlled by a third party and used to transmit malware or spam, or to launch attacks.

boundary value

Version 2

A minimum or maximum value of an ordered equivalence partition.

See also: boundary value analysis

boundary value analysis

Version 2

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

Abbreviation: BVA

See also: boundary value

branch

Version 2

A transfer of control between two consecutive nodes in the control flow graph of a test item.

branch coverage

Version 2

The coverage of branches in a control flow graph.

branch testing

Version 1

A white-box test technique in which the test conditions are branches.

bug hunting

Version 1

A test approach in which gamification and awards for defects found are used as a motivator.

build verification test

Version 1

An automated test that validates the integrity of each new build and verifies its key/core functionality, stability, and testability.

Abbreviation: BVT

built-in quality

Version 1

A set of practices to ensure that each solution meets quality standards throughout each increment of development, focusing on constructive quality assurance as a shared responsibility.

Reference: After SAFe

Capability Maturity Model Integration

Version 1

A framework that describes the key elements of an effective product development and maintenance process. The Capability Maturity Model Integration covers best-practices for planning, engineering and managing product development and maintenance.

Abbreviation: CMMI

Reference: CMMI

capacity

Version 1

The degree to which the maximum limits of a component or system parameter meet requirements.

Reference: After ISO 25010

capacity testing	Version 1
Testing to evaluate the capacity of a system.	
capture/playback	Version 2
A test automation approach in which inputs to a test object are recorded during manual testing to generate automated test scripts that can be executed later.	
Synonyms: capture/replay, record/playback	
causal loop diagram	Version 1
A graphical representation used to visualize cause-effect relationships and feedback loops in a system.	
Reference: After Sterman	
cause-effect diagram	Version 1
A graphical representation used to organize and display the interrelationships of various possible root causes of a problem. Possible causes of a real or potential defect or failure are organized in categories and subcategories in a horizontal tree-structure, with the (potential) defect or failure as the root node.	
Reference: After Juran	
Synonyms: fishbone diagram, Ishikawa diagram	
cause-effect graph	Version 1
A graphical representation of logical relationships between inputs (causes) and their associated outputs (effects) of a test object.	
certification	Version 1
The process of confirming that a component, system or person complies with specified requirements.	
checklist-based review	Version 1
A review technique guided by a list of questions or required attributes.	
Reference: ISO 20246	
checklist-based testing	Version 3
An experience-based test technique in which test cases are designed to exercise the items of a checklist.	
classification tree	Version 2
A tree diagram representing test data domains of a test object.	
classification tree technique	Version 2
A black-box test technique in which test cases are designed using a classification tree.	
Reference: Grochtmann	
Synonyms: classification tree method	
See also: combinatorial testing	
CLI testing	Version 1
Testing performed by submitting commands to the software under test using a dedicated command-line interface.	
closed-loop-system	Version 1
A system in which the controlling action or input is dependent on the output or changes in output.	
Reference: Bakshi	
code injection	Version 1
A type of security attack performed by inserting malicious code at an interface into an application to exploit poor handling of untrusted data.	
coding standard	Version 1
A standard that describes the characteristics of a design or a design description of data or program components.	
Reference: ISO 24765	

coexistence	Version 2
The degree to which a component or system can perform its required functions while sharing an environment and resources with other components or systems without a negative impact on any of them.	
Reference: After ISO 25010	
Synonyms: co-existence	
See also: portability	
collaboration-based test approach	Version 1
An approach to testing that focuses on defect avoidance by collaborating among stakeholders.	
combinatorial testing	Version 3
A black-box test technique in which test conditions are specific combinations of values of several parameters.	
See also: classification tree technique	
command-line interface	Version 2
A type of interface in which the information is passed in form of command lines.	
Abbreviation: CLI	
commercial off-the-shelf	Version 2
A type of product developed in an identical format for a large number of customers in the general market.	
Abbreviation: COTS	
Synonyms: off-the-shelf software	
compatibility	Version 1
The degree to which a component or system can exchange information with other components or systems, and/or perform its required functions while sharing the same hardware or software environment.	
Reference: After ISO 25010	
compliance	Version 2
Adherence of a work product to standards, conventions or regulations in laws and similar prescriptions.	
Reference: IREB Glossary	
compliance testing	Version 1
Testing to determine the compliance of the component or system.	
Synonyms: conformance testing, regulation testing, standards testing	
component	Version 2
A part of a system that can be tested in isolation.	
Synonyms: module, unit	
component integration testing	Version 3
The integration testing of components.	
Synonyms: module integration testing, unit integration testing	
component testing	Version 3
A test level that focuses on individual hardware or software components.	
Synonyms: module testing, unit testing	
computer forensics	Version 1
The practice of determining how a security attack has succeeded and assessing the damage caused.	
concurrency	Version 1
The simultaneous execution of multiple independent threads by a component or system.	
concurrency testing	Version 1
Testing to evaluate if a component or system involving concurrency behaves as specified.	

condition coverage	Version 1
The coverage of condition outcomes.	
Synonyms: branch condition coverage	
condition testing	Version 2
A white-box test technique in which test conditions are outcomes of atomic conditions.	
confidence interval	Version 1
In managing project risks, the period of time within which a contingency action must be implemented in order to be effective in reducing the impact of the risk.	
confidentiality	Version 1
The degree to which a component or system ensures that data are accessible only to those authorized to have access.	
Reference: After ISO 25010	
configuration management	Version 2
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 that it complies with specified requirements.	
confirmation testing	Version 3
A type of change-related testing performed after fixing a defect to confirm that a failure caused by that defect does not reoccur.	
Synonyms: re-testing	
connectivity	Version 1
The degree to which a component or system can connect to other components or systems.	
Reference: After ISO 2382	
consultative test strategy	Version 1
A test strategy whereby the test team relies on the input of one or more key stakeholders to determine the details of the strategy.	
Synonyms: directed test strategy	
context of use	Version 1
Users, tasks, equipment (hardware, software and materials), and the physical and social environments in which a software product is used.	
Reference: ISO 9241-11	
continuous integration	Version 1
An automated software development procedure that merges, integrates and tests all changes as soon as they are committed.	
continuous testing	Version 1
A test approach that involves testing early, testing often, testing throughout the software development lifecycle, and automating to obtain feedback on the business risks associated with a software release candidate as soon as possible.	
contract testing	Version 1
A type of integration testing that verifies that the interfaces are used as specified in their contracts.	
control chart	Version 1
A statistical process control tool used to monitor a process and determine whether it is statistically controlled. It graphically depicts the average value and the upper and lower control limits (the highest and lowest values) of a process.	
Synonyms: Shewhart chart	
control flow	Version 3
The sequence in which operations are performed by a business process, component or system.	
Reference: After ISO 29119-4	
control flow analysis	Version 3
A type of static analysis based on a representation of unique paths for executing a component or system.	

convergence metric	Version 1
A metric that shows progress toward a defined criterion, e.g., convergence of the total number of tests executed to the total number of tests planned for execution.	
cost of quality	Version 1
The total costs incurred on quality activities and issues and often split into prevention costs, appraisal costs, internal failure costs and external failure costs.	
coverage	Version 3
The degree to which specified coverage items are exercised by a test suite, expressed as a percentage.	
Synonyms: test coverage	
coverage criteria	Version 1
The criteria to define the coverage items required to reach a test objective.	
See also: coverage item	
coverage item	Version 2
An attribute or combination of attributes derived from one or more test conditions by using a test technique.	
See also: coverage criteria	
Critical Testing Processes	Version 1
A content-based model for test process improvement built around twelve critical processes. These include highly visible processes, by which peers and management judge competence and mission-critical processes in which performance affects the company's profits and reputation.	
Abbreviation: CTP	
cross-browser compatibility	Version 1
The degree to which a website or web application can function across different browsers and degrade gracefully when browser features are absent or lacking.	
cross-site scripting	Version 1
A vulnerability that allows attackers to inject malicious code into an otherwise benign website.	
Abbreviation: XSS	
Reference: NIST.IR.7298	
crowd testing	Version 1
A test approach in which testing is distributed to a large group of testers.	
custom tool	Version 1
A software tool developed specifically for a set of users or customers.	
cyclomatic complexity	Version 3
The maximum number of linear, independent paths through a program.	
Reference: After McCabe	
Synonyms: cyclomatic number	
dashboard	Version 1
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 flow analysis	Version 2
A type of static analysis based on the lifecycle of variables.	
data obfuscation	Version 1
Data transformation that makes it difficult for a human to recognize the original data.	
data privacy	Version 1
The protection of personally identifiable information or otherwise sensitive information from undesired disclosure.	

data-driven testing	Version 2
A scripting technique that uses data files to contain the test data and expected results needed to execute the test scripts.	
See also: keyword-driven testing	
debugging	Version 2
The process of finding, analyzing and removing the causes of failures in a component or system.	
decision coverage	Version 2
The coverage of decision outcomes.	
decision table testing	Version 3
A black-box test technique in which test cases are designed to exercise the combinations of conditions and the resulting actions shown in a decision table.	
decision testing	Version 2
A white-box test technique in which test cases are designed to execute decision outcomes.	
defect	Version 3
An imperfection or deficiency in a work product where it does not meet its requirements or specifications or impairs its intended use.	
Reference: After ISO 24765	
See also: error, failure	
defect density	Version 2
The number of defects per unit size of a work product.	
Reference: After ISO 24765	
Synonyms: fault density	
See also: automation code defect density	
defect detection percentage	Version 1
The number of defects found by a test level, divided by the number found by that test level and any other means afterwards.	
Abbreviation: DDP	
Synonyms: Fault Detection Percentage (FDP)	
See also: escaped defect	
defect management	Version 4
The process of recognizing, recording, classifying, investigating, fixing and disposing of defects.	
defect management committee	Version 2
A cross-functional team of stakeholders who perform defect management.	
defect prevention	Version 1
The measures that reduce the likelihood of recurrence of defects in work products and limit the propagation of defects in subsequent work products.	
defect report	Version 2
Documentation of the occurrence, nature, and status of a defect.	
Synonyms: bug report	
defect taxonomy	Version 2
A list of categories designed to identify and classify defects.	
Synonyms: bug taxonomy	
See also: defect-based test technique	
defect workflow	Version 1
The state transition model of a defect lifecycle, including responsibilities.	

defect-based test technique	Version 2
A test technique in which test cases are developed from what is known about a specific defect type.	
Synonyms: defect-based test design technique, defect-based technique	
See also: defect taxonomy	
definition-use pair	Version 2
The association of a definition of a variable with the subsequent use of that variable.	
demilitarized zone	Version 1
A physical or logical subnetwork that contains and exposes an organization's external-facing services to an untrusted network, commonly the Internet.	
Abbreviation: DMZ	
See also: network zone	
denial of service	Version 1
A security attack that is intended to overload the system with requests such that legitimate requests cannot be serviced.	
Abbreviation: DoS	
destructive testing	Version 1
A test type performed to find weaknesses in a component or system by attempting to make it unusable.	
device-based testing	Version 1
A test type in which test suites are executed on physical or virtual devices.	
driver	Version 2
A component or tool that temporarily replaces another component and controls or calls a test item in isolation.	
Synonyms: test driver	
dynamic analysis	Version 2
The process of evaluating a component or system based on its behavior during execution.	
Reference: After ISO 24765	
dynamic application security testing	Version 1
A test approach in which attacks are simulated and reactions are analyzed to determine the vulnerabilities of a component or system.	
Abbreviation: DAST	
Reference: After NIST.IR.7298	
See also: static application security testing	
dynamic testing	Version 2
Testing that involves the execution of the test item.	
Reference: After ISO 29119-1	
See also: static testing	
effectiveness	Version 2
The extent to which correct and complete goals are achieved.	
Reference: ISO 9241-11	
See also: efficiency	
efficiency	Version 3
The degree to which resources are expended in relation to results achieved.	
Reference: IREB Glossary	
See also: effectiveness, performance efficiency	
EFQM model	Version 2
A management framework that supports organisations in managing change and improving performance.	
Reference: EFQM	
Synonyms: European Foundation for Quality Management excellence model, EFQM excellence model	

emulator	Version 2
Software used during testing that mimics the behavior of hardware.	
See also: simulator	
encryption	Version 1
The process of encoding information so that only authorized parties can retrieve the original information, usually by means of a specific decryption key or process.	
end-to-end testing	Version 1
A test type in which business processes are tested from start to finish under production-like circumstances.	
Synonyms: E2E testing	
endurance testing	Version 1
Testing to determine the stability of a system under a significant load over a significant period of time within the system's operational context.	
entry criteria	Version 2
The set of conditions for officially starting a defined task.	
Reference: Gilb and Graham	
See also: exit criteria	
environment model	Version 1
An abstraction of the real environment of a component or system including other components, processes, and environment conditions, in a real-time simulation.	
Reference: Wallentowitz	
epic	Version 1
A large user story that cannot be delivered as defined within a single iteration or is large enough that it can be split into smaller user stories.	
Reference: Agile Alliance	
equivalence partition	Version 3
A subset of the value domain of a variable within a component or system in which all values are expected to be treated the same based on the specification.	
Synonyms: equivalence class	
equivalence partitioning	Version 3
A black-box test technique in which test conditions are equivalence partitions exercised by one representative member of each partition.	
Abbreviation: EP	
Reference: After ISO 29119-1	
Synonyms: partition testing	
equivalent manual test effort	Version 1
Effort required for running tests manually.	
Abbreviation: EMTE	
ergonomics testing	Version 1
Testing to determine whether a component or system and its input devices are being used properly with correct posture.	
error	Version 1
A human action that results in a defect.	
Reference: ISO 24765	
Synonyms: mistake	
See also: defect	
error guessing	Version 2
A test technique in which tests are derived on the basis of the tester's knowledge of past failures, or general knowledge of failure modes.	
Reference: ISO 29119-1	

escaped defect	Version 2
A defect that was not detected by a testing activity that is supposed to find that defect.	
See also: defect detection percentage	
ethical hacker	Version 1
A security tester using hacker techniques.	
exhaustive testing	Version 1
A test approach in which the test suite comprises all combinations of input values and preconditions.	
Synonyms: complete testing	
exit criteria	Version 2
The set of conditions for officially completing a defined task.	
Reference: After Gilb and Graham	
Synonyms: test completion criteria, completion criteria	
See also: entry criteria	
expected result	Version 2
The observable predicted behavior of a test item under specified conditions based on its test basis.	
Reference: After ISO 29119-1	
Synonyms: predicted outcome, expected outcome	
experience-based test technique	Version 4
A test technique based on the tester's experience, knowledge and intuition.	
Synonyms: experience-based test design technique, experience-based technique	
experience-based testing	Version 1
Testing based on the tester's experience, knowledge and intuition.	
expert usability review	Version 1
An informal usability review in which the reviewers are experts. Experts can be usability experts or subject matter experts, or both.	
exploratory testing	Version 3
An approach to testing in which the testers dynamically design and execute tests based on their knowledge, exploration of the test item and the results of previous tests.	
Reference: After ISO 29119-1	
See also: test charter	
external failure	Version 1
A failure that occurs during the regular operation of a system after its delivery to the end users.	
Reference: After ASQ	
failed	Version 1
The status of a test result if the actual result does not match the expected result.	
failover	Version 1
The backup operational mode in which the functions of a system that becomes unavailable are assumed by a secondary system.	
failure	Version 3
An event in which a component or system does not meet its requirements within specified limits.	
Reference: After ISO 24765	
See also: defect	
failure mode	Version 1
The physical or functional manifestation of a failure.	
Reference: ISO 24765	

failure mode and effect analysis	Version 1
A systematic approach to risk identification and analysis of identifying possible modes of failure and attempting to prevent their occurrence.	
Abbreviation: FMEA	
Synonyms: Software Failure Mode and Effect Analysis	
failure rate	Version 2
The ratio of the number of failures of a given category to a given unit of measure.	
Reference: ISO 24765	
false-negative result	Version 1
A test result which fails to identify a defect that is actually present in a test object.	
Synonyms: false-pass result	
false-positive result	Version 1
A test result in which a defect is reported although no such defect actually exists in the test object.	
Synonyms: false-fail result	
fault attack	Version 1
A test technique to evaluate a specific quality characteristic of a test object by attempting to trigger specific failures.	
See also: security attack	
fault injection	Version 1
The process of intentionally adding a defect to a component or system to determine whether it can detect and possibly recover from it.	
fault seeding	Version 2
The process of intentionally adding defects to a component or system to monitor the rate of detection and removal, and to estimate the number of defects remaining.	
Reference: After ISO 24765	
Synonyms: bebugging, error seeding	
fault tolerance	Version 2
The degree to which a component or system operates as intended despite the presence of hardware or software faults.	
Reference: After ISO 25010	
Synonyms: robustness	
fault tree analysis	Version 1
A technique for analyzing the causes of failures that uses a hierarchical model of events and their logical relationships.	
Abbreviation: FTA	
Synonyms: Software Fault Tree Analysis	
feature-driven development	Version 1
An iterative and incremental software development process driven from a client-valued functionality (feature) perspective. Feature-driven development is mostly used in Agile software development.	
See also: Agile software development	
field testing	Version 1
A test level performed to evaluate the system behavior in an operational environment.	
finding	Version 1
A result of an evaluation that identifies some important issue, problem, or opportunity.	
firewall	Version 1
A component or set of components that controls incoming and outgoing network traffic based on predetermined security rules.	
follow-up test case	Version 1
A test case generated by applying a metamorphic relation to a source test case during metamorphic testing.	

formal review	Version 2
A review that follows a defined process with a formally documented output.	
Reference: After ISO 20246	
formative evaluation	Version 1
A type of evaluation designed and used to improve the quality of a component or system, especially when it is still being designed.	
See also: summative evaluation	
functional appropriateness	Version 3
The degree to which the functions facilitate the accomplishment of specified tasks and objectives.	
Reference: ISO 25010	
Synonyms: suitability	
functional completeness	Version 1
The degree to which the set of functions covers all the specified tasks and user objectives.	
Reference: ISO 25010	
functional correctness	Version 2
The degree to which a component or system provides the correct results with the needed degree of precision.	
Synonyms: accuracy	
functional safety	Version 1
The absence of unreasonable risk due to hazards caused by malfunctioning behavior of Electric/Electronic(E/E) - Systems.	
Reference: ISO 26262	
Synonyms: safety	
functional suitability	Version 2
The degree to which a component or system provides functions that meet stated and implied needs when used under specified conditions.	
Reference: After ISO 25010	
Synonyms: functionality	
See also: interoperability, security	
functional testing	Version 3
Testing performed to evaluate if a component or system satisfies functional requirements.	
Reference: After ISO 24765	
fuzz testing	Version 1
A software testing technique used to discover security vulnerabilities by inputting massive amounts of random data, called fuzz, to the component or system.	
Synonyms: fuzzing	
generic test automation architecture	Version 2
A representation of the layers, components, and interfaces that allows for a structured and modular approach to implement test automation.	
graphical user interface	Version 1
A type of interface that allows users to interact with a component or system through graphical icons and visual indicators.	
Abbreviation: GUI	
GUI testing	Version 2
A test approach performed by interacting with a test object using a graphical user interface.	
hacker	Version 1
A person or organization who is actively involved in security attacks, usually with malicious intent.	
See also: attacker, script kiddie	
hardware in the loop	Version 1
Dynamic testing performed using real hardware with integrated software in a simulated environment.	
Abbreviation: HiL	

hashing	Version 1
Transformation of a variable length string of characters into a usually shorter fixed-length value or key. Hashed values, or hashes, are commonly used in table or database lookups. Cryptographic hash functions are used to secure data.	
See also: salting	
heuristic	Version 1
A generally recognized rule of thumb that helps to achieve a goal.	
heuristic evaluation	Version 2
A usability review technique that evaluates a work product by using a set of heuristics.	
high-level test case	Version 3
A test case with abstract preconditions, input data, expected results, postconditions, and actions (where applicable).	
Synonyms: logical test case, abstract test case	
See also: low-level test case	
human-centered design	Version 1
An approach to design that aims to make software products more usable by focusing on the use of the software products and applying human factors, ergonomics, and usability knowledge and techniques.	
Reference: ISO 9241-210	
hybrid software development model	Version 1
A type of software development lifecycle model that combines elements of different software development lifecycle models.	
hypothesis testing	Version 1
The validation of a theory and its assumptions using sample data	
impact analysis	Version 2
The identification of all work products affected by a change, including an estimate of the resources needed to accomplish the change.	
Reference: After ISO 24765	
incremental development model	Version 2
A type of software development lifecycle model in which the component or system is developed through a series of increments.	
Reference: After PMBOK	
independence of testing	Version 1
Separation of responsibilities, which encourages the accomplishment of objective testing.	
Reference: After DO-178C	
independent test lab	Version 1
An organization responsible to test and certify that the software, hardware, firmware, platform, and operating system follow all jurisdictional rules for each location where a component or system will be used.	
Abbreviation: ITL	
informal review	Version 3
A type of review that does not follow a defined process and has no formally documented output.	
information assurance	Version 1
Measures that protect and defend information and information systems by ensuring their availability, integrity, authentication, confidentiality, and non-repudiation. These measures include providing for restoration of information systems by incorporating protection, detection, and reaction capabilities.	
Reference: NIST.IR.7298	
input data testing	Version 1
A test level that focuses on the quality of the data used for training and prediction by ML models.	
insider threat	Version 1
A security threat originating from within the organization, often by an authorized system user.	

inspection	Version 3
A type of formal review that uses defined team roles and measurement to identify defects in a work product, and improve the review process and the software development process.	
Reference: After ISO 20246	
See also: peer review	
installability	Version 2
The degree to which a component or system can be successfully installed and/or uninstalled in a specified environment.	
Reference: After ISO 25010	
See also: portability	
integration testing	Version 2
A test level that focuses on interactions between components or systems.	
integrity	Version 1
The degree to which a component or system allows only authorized access and modification to a component, a system or data.	
interface testing	Version 1
A type of integration testing performed to determine whether components or systems pass data and control correctly to one another.	
Reference: After ISO 24765	
internal failure	Version 1
A failure that occurs during the operation of a system before its delivery to the end users.	
Reference: After ASQ	
internationalization	Version 1
The process of making a system suitable for international user groups.	
See also: localization	
interoperability	Version 2
The degree to which two or more components or systems can exchange information and use the information that has been exchanged.	
Reference: After ISO 25010	
See also: functional suitability	
intrusion detection system	Version 1
A system which monitors activities to detect violations of the security policy.	
Abbreviation: IDS	
See also: malware scanning	
iterative development model	Version 1
A type of software development lifecycle model in which the component or system is developed through a series of repeated cycles.	
keyword-driven testing	Version 2
A scripting technique in which test scripts contain high-level keywords and supporting files that contain low-level scripts that implement those keywords.	
Synonyms: action word-driven testing	
See also: data-driven testing	
learnability	Version 2
The degree to which a component or system can be used by specified users to achieve specified goals of learning with satisfaction and freedom from risk in a specified context of use.	
level of intrusion	Version 1
The level to which a test object is modified by adjusting it for testability.	
level test plan	Version 1
A test plan that typically addresses one test level.	
See also: test plan	

linear scripting	Version 1
A simple scripting technique without any control structure in the test scripts.	
load generation	Version 1
The process of simulating a defined set of activities at a specified load to be submitted to a component or system.	
load generator	Version 1
A tool that generates a load for a system under test.	
load management	Version 1
The control and execution of load generation, and performance monitoring and reporting of the component or system.	
load profile	Version 1
Documentation defining a designated number of virtual users who process a defined set of transactions in a specified time period that a component or system being tested may experience in production.	
load testing	Version 2
A type of performance testing conducted to evaluate the behavior of a component or system under varying loads, usually between anticipated conditions of low, typical, and peak usage.	
Reference: After ISO 29119-1	
localization	Version 1
The process of making a system suitable for a specific user group.	
See also: internationalization	
low-level test case	Version 3
A test case with concrete values for preconditions, input data, expected results, postconditions, and a detailed description of actions (where applicable).	
Synonyms: concrete test case, physical test case	
See also: high-level test case	
maintainability	Version 2
The degree to which a component or system can be modified by the intended maintainers.	
Reference: After ISO 25010	
See also: analyzability, modifiability, testability	
maintenance	Version 2
The process of modifying a component or system after delivery to correct defects, improve quality characteristics, or adapt to a changed environment.	
Reference: After ISO 24765	
maintenance testing	Version 1
Testing the changes to an operational system or the impact of a changed environment to an operational system.	
malware	Version 1
Software that is intended to harm a system or its components.	
See also: anti-malware	
malware scanning	Version 1
Static analysis aiming to detect and remove malicious code received at an interface.	
See also: intrusion detection system	
management review	Version 1
A systematic evaluation of software acquisition, supply, development, operation, or maintenance process, performed by or on behalf of management that monitors progress, determines the status of plans and schedules, confirms requirements and their system allocation, or evaluates the effectiveness of management approaches to achieve fitness for purpose.	
Reference: After ISO 24765	

manufacturing-based quality

Version 2

A view of quality measured by the degree that a product or service conforms to its intended design and requirements based on the process used.

Reference: After Garvin

master test plan

Version 2

A test plan that is used to coordinate multiple test levels or test types.

See also: test plan

math testing

Version 1

A test type to determine the correctness of the pay table implementation, the random number generator results, and the return to player computations.

maturity

Version 2

(1) The capability of an organization with respect to the effectiveness and efficiency of its processes and work practices. (2) The degree to which a component or system meets needs for reliability under normal operation.

MBT model

Version 1

Any model used in model-based testing.

mean time between failures

Version 1

The average time between consecutive failures of a component or system.

Abbreviation: MTBF

See also: mean time to failure

mean time to failure

Version 1

The average time from the start of operation to a failure for a component or system.

Abbreviation: MTTF

See also: mean time between failures

mean time to repair

Version 1

The average time a component or system will take to recover from a failure.

Abbreviation: MTTR

measurement

Version 1

The process of assigning a number or category to an entity to describe an attribute of that entity.

Reference: After ISO 24765

memory leak

Version 2

A memory access failure due to a defect in a program's dynamic store allocation logic that causes it to fail to release memory after it has finished using it.

metamorphic relation

Version 1

A description of how a change in the test inputs from the source test case to the follow-up test case affects a change in the expected outputs from the source test case to the follow-up test case.

Abbreviation: MR

Reference: ISO 29119-11

metamorphic testing

Version 1

A test technique in which the inputs and expected results are extrapolated from a passing test case using a metamorphic relation.

Abbreviation: MT

method table

Version 1

A table containing different test approaches, testing techniques and test types that are required depending on the Automotive Safety Integrity Level (ASIL) and on the context of the test object.

Reference: ISO 26262

methodical test strategy

Version 1

A test strategy whereby the test team uses a pre-determined set of test conditions such as a quality standard, a checklist, or a collection of generalized, logical test conditions which may relate to a particular domain, application or type of testing.

metric	Version 1
A measurement scale and the method used for measurement.	
ML functional performance	Version 1
The degree to which an ML model meets ML functional performance criteria.	
ML functional performance criteria	Version 1
Criteria based on ML functional performance metrics used as a basis for model evaluation, tuning and testing.	
ML functional performance metrics	Version 1
A set of measures that relate to the functional correctness of an ML system.	
ML model	Version 1
An implementation of machine learning (ML) that generates a prediction, classification or recommendation based on input data.	
ML model testing	Version 1
A test level that focuses on the ability of an ML model to meet required ML functional performance criteria and non-functional criteria.	
mock	Version 1
A type of test double that simulates the expected behavior of the component during testing.	
Synonyms: mock object, mock-up	
See also: test double, stub	
model coverage	Version 2
The coverage of model elements.	
model in the loop	Version 1
Dynamic testing performed using a simulation model of the system in a simulated environment.	
Abbreviation: MiL	
model-based test strategy	Version 1
A test strategy whereby the test team derives testware from models.	
model-based testing	Version 1
Testing based on or involving models.	
Abbreviation: MBT	
moderator	Version 4
(1) The person responsible for running review meetings. (2) The person who performs a usability test session.	
Synonyms: facilitator	
modifiability	Version 2
The degree to which a component or system can be modified without degrading its quality.	
Reference: After ISO 25010	
Synonyms: changeability	
See also: maintainability	
modified condition/decision coverage	Version 2
The coverage of all outcomes of the atomic conditions that independently affect the overall decision outcome.	
Abbreviation: MC/DC	
Synonyms: condition determination coverage, modified multiple condition coverage	
modified condition/decision testing	Version 1
A white-box test technique in which test cases are designed to exercise outcomes of atomic conditions that independently affect a decision outcome.	
Synonyms: condition determination testing, modified multiple condition testing, MC/DC testing	

modularity

Version 1

The degree to which a system is composed of discrete components such that a change to one component has minimal impact on other components.

monitoring tool

Version 2

A software tool or hardware device that runs concurrently with the component or system under test and supervises, records and/or analyzes the behavior of the component or system.

Reference: ISO 24765

multiplayer testing

Version 1

A test type to determine if many players can simultaneously interact with the casino game world, with computer-controlled opponents, game servers, and with each other based on the game design.

multiple condition coverage

Version 1

The coverage of all possible combinations of all single condition outcomes within one statement.

Synonyms: branch condition combination coverage, condition combination coverage

multiple condition testing

Version 2

A white-box test technique in which test cases are designed to exercise outcome combinations of atomic conditions.

Synonyms: branch condition combination testing, condition combination testing

Myers-Briggs Type Indicator

Version 1

An indicator of psychological preference representing the different personalities and communication styles of people.

Abbreviation: MBTI

N-switch coverage

Version 1

The coverage of sequences of N+1 transitions.

Reference: Chow

Synonyms: Chow's coverage metrics

negative testing

Version 1

A test type in which a component or system is used in a way that it is not intended.

Synonyms: invalid testing, dirty testing

network zone

Version 1

A sub-network with a defined level of trust. For example, the Internet or a public zone would be considered to be untrusted.

See also: demilitarized zone

neuron coverage

Version 1

The coverage of activated neurons in the neural network for a set of tests.

non-functional testing

Version 3

Testing performed to evaluate that a component or system complies with non-functional requirements.

non-repudiation

Version 1

The degree to which actions or events can be proven to have taken place, so that the actions or events cannot be repudiated later.

Reference: After ISO 25010

offline MBT

Version 1

Model-based test approach whereby test cases are generated into a repository for future execution.

online MBT

Version 1

Model-based test approach whereby test cases are generated and executed simultaneously.

Synonyms: on-the-fly MBT

open-loop-system

Version 1

A system in which controlling action or input is independent of the output or changes in output.

Reference: Bakshi

open-source tool	Version 1
A software tool that is available to all potential users in source code form, usually via the internet. Its users are permitted, usually under license, to study, change, improve and, at times, to distribute the software.	
Synonyms: open source tool	
operability	Version 2
The degree to which a component or system has attributes that make it easy to operate and control.	
Reference: After ISO 25010	
See also: usability	
operational acceptance testing	Version 2
A type of acceptance testing performed to determine if operations and/or systems administration staff can accept a system.	
Synonyms: production acceptance testing	
operational profile	Version 2
An actual or predicted pattern of use of the component or system.	
operational profiling	Version 1
The process of developing and implementing an operational profile.	
organizational test strategy	Version 1
A strategy that describes the generic requirements for testing and how to perform testing within an organization.	
pair testing	Version 1
A test approach in which two team members simultaneously collaborate on testing a work product.	
pairwise testing	Version 2
A black-box test technique in which test cases are designed to exercise pairs of parameter-value pairs.	
Reference: After ISO 29119-4	
par sheet testing	Version 1
A test type to determine that a game returns the correct mathematical results to the screen, to the players' accounts, and to the casino account.	
pass/fail criteria	Version 1
Decision rules used to determine whether a test item has passed or failed.	
Reference: After ISO 29119-1	
passed	Version 1
The status of a test result if the actual result matches the expected result.	
password cracking	Version 1
A security attack recovering secret passwords stored in a computer system or transmitted over a network.	
Reference: After NIST.IR.7298	
peer review	Version 2
A type of review performed on a work product by persons that have the abilities required to create it.	
Reference: After ISO 20246	
See also: technical review, inspection, walkthrough	
penetration testing	Version 1
A testing technique aiming to exploit security vulnerabilities (known or unknown) to gain unauthorized access.	
performance efficiency	Version 2
The degree to which a component or system uses time, resources and capacity when accomplishing its designated functions.	
See also: efficiency	
performance testing	Version 2
A test type to determine the performance efficiency of a component or system.	

performance testing tool	Version 1
A test tool that generates load for a designated test item and that measures and records its performance during test execution.	
pharming	Version 1
A security attack intended to redirect a website's traffic to a fraudulent website without the user's knowledge or consent.	
phase containment	Version 2
The policy of removing defects in the same phase of the software development lifecycle in which they were introduced.	
phishing	Version 1
An attempt to acquire personal or sensitive information by masquerading as a trustworthy entity in an electronic communication.	
planning poker	Version 1
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.	
Reference: Mountain Goat Software	
player perspective testing	Version 1
Testing done by testers from a player's perspective to validate player satisfaction.	
playtest	Version 1
Ad hoc testing of a game by players to identify failures and gather feedback.	
portability	Version 2
The degree to which a component or system can be transferred from one hardware, software or other operational or usage environment to another.	
See also: adaptability, coexistence, installability, replaceability	
post-release testing	Version 1
A test level performed after the release of a system to validate that it can be deployed in operational environments.	
See also: testing in production	
postcondition	Version 2
The expected state of a test item and its environment at the end of test execution.	
precondition	Version 2
The required state of a test item and its environment prior to test execution.	
priority	Version 1
The level of (business) importance assigned to an item, e.g., defect.	
PRISMA	Version 1
A technique used in risk-based testing that creates a product risk matrix.	
process assessment	Version 1
A disciplined evaluation of an organization's software processes against a reference model.	
Reference: After ISO 15504	
process-compliant test strategy	Version 1
A test strategy whereby the test team follows a set of predefined processes, whereby the processes address such items as documentation, the proper identification and use of the test basis and test oracle(s), and the organization of the test team.	
process-driven scripting	Version 1
A scripting technique where scripts are structured into scenarios which represent use cases of the software under test. The scripts can be parameterized with test data.	
product risk	Version 2
A risk that impacts the quality of a product.	
See also: risk	

product-based quality	Version 3
A view of quality measured by the degree that well-defined quality characteristics are met.	
Reference: After Garvin	
project risk	Version 2
A risk that impacts project success.	
See also: risk	
proximity-based testing	Version 1
A test type to confirm that sensors can detect nearby objects without physical contact.	
pseudo-oracle	Version 1
An independently derived variant of the test item used to generate results, which are compared with the results of the original test item based on the same test inputs.	
Reference: ISO 29119-11	
quality	Version 4
The degree to which a work product satisfies stated and implied requirements.	
Reference: After IREB Glossary	
quality assistance	Version 1
An approach to quality management that focuses on a quality culture throughout an organization.	
quality assurance	Version 2
Activities focused on providing confidence that quality requirements will be fulfilled.	
Abbreviation: QA	
Reference: After ISO 24765	
See also: quality management	
quality capability	Version 1
The abilities an organization needs to accomplish its quality goals.	
See also: testing capability	
quality characteristic	Version 3
A category of quality attributes that bears on work product quality.	
Reference: ISO 24765	
Synonyms: quality attribute, software quality characteristic, software product characteristic	
quality coaching	Version 1
The activities focused on helping an agile organization identify, understand, and deal with quality management, business value, flow of work, and customer collaboration.	
quality control	Version 1
Activities designed to evaluate the quality of a component or system.	
Abbreviation: QC	
Reference: After ISO 24765	
See also: testing	
quality culture	Version 1
An organizational value system that results in an environment to establish and continually improve quality.	
quality debt	Version 1
The implied cost of deferred quality assurance activities.	
quality gate	Version 1
A milestone at which a decision about proceeding to the next phase is taken based on predefined quality criteria.	

quality management

Version 1

The process of establishing and directing a quality policy, quality objectives, quality planning, quality control, quality assurance, and quality improvement for an organization.

Reference: After ISO 24765

See also: quality assurance

quality risk

Version 2

A product risk or a project risk impacting quality management.

RACI matrix

Version 1

A matrix describing the participation by various roles in completing tasks or deliverables for a project or process. It is especially useful in clarifying roles and responsibilities. RACI is an acronym derived from the four key responsibilities most typically used: Responsible, Accountable, Consulted, and Informed.

ramp-down

Version 1

A technique for decreasing the load on a system in a measurable and controlled way.

ramp-up

Version 1

A technique for increasing the load on a system in a measurable and controlled way.

random testing

Version 1

A black-box test technique in which input values are randomly generated.

reactive test strategy

Version 1

A test strategy whereby the test team waits to design and implement tests until the software is received, reacting to the actual system under test.

reactive testing

Version 1

A test approach that dynamically responds to the behavior of a test object and to test results being obtained.

reconnaissance

Version 1

The exploration of a target area aiming to gain information that can be useful for an attack.

Synonyms: footprinting

recoverability

Version 2

The degree to which a component or system can recover the data directly affected by an interruption or a failure and re-establish the desired state of the component or system.

Reference: After ISO 25010

See also: reliability

regression testing

Version 3

A type of change-related testing to detect whether defects have been introduced or uncovered in unchanged areas of the software.

regression-averse test strategy

Version 1

A test strategy whereby the test team applies various techniques to manage the risk of regression such as functional and/or non-functional regression test automation at one or more levels.

regulatory acceptance testing

Version 3

A type of acceptance testing performed to determine the compliance of the test object.

reliability

Version 2

The degree to which a component or system performs specified functions under specified conditions for a specified period of time.

Reference: After ISO 25010

See also: recoverability

reliability growth model

Version 2

A model that shows the growth in reliability over time of a component or system as a result of the defect removal.

remote test lab

Version 1

A facility that provides remote access to a test environment.

replaceability	Version 2
The degree to which a component or system can replace another specified component or system for the same purpose in the same environment.	
Reference: After ISO 25010	
See also: portability	
requirement	Version 2
A provision that contains criteria to be fulfilled.	
Reference: ISO 24765	
requirements-based testing	Version 2
A test approach in which test conditions are based on requirements.	
resource utilization	Version 2
The degree to which the amounts and types of resources used by a component or system, when performing its functions, meet requirements.	
Synonyms: storage	
retrospective	Version 2
A regular event in which team members discuss results, review their practices, and identify ways to improve.	
Reference: After SAFe	
Synonyms: project retrospective, retrospective meeting, post-project meeting	
reusability	Version 1
The degree to which a work product can be used in more than one system, or in building other work products.	
Reference: After ISO 25010	
review	Version 4
A type of static testing in which the quality of a work product or process is evaluated by individuals.	
See also: static testing	
reviewer	Version 2
A participant in a review who identifies defects in the work product.	
Reference: After ISO 20246	
Synonyms: checker, inspector	
risk	Version 1
A factor that could result in future negative consequences.	
See also: product risk, project risk	
risk analysis	Version 2
The overall process of risk identification and risk assessment.	
risk assessment	Version 2
The process to examine identified risks and determine the risk level.	
risk control	Version 1
The overall process of risk mitigation and risk monitoring.	
risk identification	Version 2
The process of finding, recognizing and describing risks.	
Reference: ISO 31000	
risk impact	Version 1
The damage that will be caused if a risk becomes an actual outcome or event.	
Synonyms: impact	
risk level	Version 2
The measure of a risk defined by risk impact and risk likelihood.	
Synonyms: risk exposure	

risk likelihood	Version 1
The probability that a risk will become an actual outcome or event.	
Synonyms: likelihood	
risk management	Version 3
The process for handling risks.	
Reference: After ISO 24765	
risk mitigation	Version 2
The process through which decisions are reached and protective measures are implemented for reducing or maintaining risks to specified levels.	
risk monitoring	Version 1
The activity that checks and reports the status of known risks to stakeholders.	
risk-based testing	Version 3
A test approach in which the management, selection, prioritization, and use of test activities and resources are based on corresponding risk types and risk levels.	
Reference: After ISO 29119-1	
root cause	Version 1
A source of a defect such that if it is removed, the occurrence of the defect type is decreased or removed.	
Reference: CMMI	
root cause analysis	Version 2
An analysis technique aimed at identifying the root causes of defects.	
Synonyms: causal analysis	
S.M.A.R.T. goal methodology	Version 1
A framework for the clear formulation of management objectives by requiring goals to be specific, measurable, attainable, relevant, and timely.	
Abbreviation: SMART	
safety integrity level	Version 1
The level of risk reduction provided by a safety function, related to the frequency and severity of perceived hazards.	
Abbreviation: SIL	
Reference: After IEC 61508	
See also: automotive safety integrity level	
salting	Version 1
A cryptographic technique that adds random data (salt) to the user data prior to hashing.	
See also: hashing	
scalability	Version 1
The degree to which a component or system can be adjusted for changing capacity.	
Reference: After Gerrard	
scalability testing	Version 1
Testing to determine the scalability of the software product.	
scenario-based review	Version 2
A review technique in which a work product is evaluated to determine its ability to address specific scenarios.	
schema validation	Version 1
A type of static analysis based on a database schema.	
scribe	Version 2
A person who records information at a review meeting.	
Reference: After ISO 24765	
Synonyms: recorder	

script kiddie	Version 1
A person who executes security attacks that have been created by other hackers rather than creating one's own attacks.	
See also: hacker	
scripted testing	Version 1
A test approach that involves the creation and use of a test script.	
security	Version 3
The degree to which a component or system protects its data and resources against unauthorized access or use and secures unobstructed access and use for its legitimate users.	
Synonyms: information security	
See also: functional suitability	
security attack	Version 1
An attempt to gain unauthorized access to a component or system, resources, information, or an attempt to compromise system integrity.	
Reference: After NIST.IR.7298	
See also: fault attack	
security audit	Version 1
An audit evaluating an organization's security processes and infrastructure.	
security policy	Version 1
A high-level document describing the principles, approach and major objectives of the organization regarding security.	
security procedure	Version 1
A set of steps required to implement the security policy and the steps to be taken in response to a security incident.	
security risk	Version 1
A quality risk related to security.	
security testing	Version 1
A test type to determine the security of a component or system.	
security vulnerability	Version 1
A weakness in the system that could allow for a successful security attack.	
sequential development model	Version 2
A type of software development lifecycle model in which a complete system is developed in a linear way of several discrete and successive phases with no overlap between them.	
service virtualization	Version 1
A technique to enable virtual delivery of services which are deployed, accessed and managed remotely.	
session-based test management	Version 1
A method for measuring and managing session-based testing.	
Abbreviation: SBTM	
session-based testing	Version 1
A test approach in which test activities are planned as test sessions.	
severity	Version 1
The degree of impact that a defect has on the development or operation of a component or system.	
shift left	Version 1
A test approach to perform testing and quality assurance activities as early as possible in the software development lifecycle.	
See also: shift right	
shift right	Version 1
A test approach to test a system continuously in production.	
See also: shift left, testing in production	

sign change coverage	Version 1
The coverage of neurons activated with both positive and negative activation values in a neural network for a set of tests.	
sign-sign coverage	Version 1
The coverage achieved if by changing the sign of each neuron it can be shown to individually cause one neuron in the next layer to change sign while all other neurons in the next layer do not change sign for a set of tests.	
Reference: After ISO 29119-11	
simulator	Version 2
A component or system used during testing which behaves or operates like a given component or system.	
Reference: After ISO 24765	
See also: emulator	
smoke test	Version 1
A test suite that covers the main functionality of a component or system to determine whether it works properly before planned testing begins.	
Synonyms: sanity test, intake test, confidence test	
social engineering	Version 1
An attempt to trick someone into revealing information (e.g., a password) that can be used to attack systems or networks.	
Reference: NIST.IR.7298	
software development lifecycle	Version 1
The activities performed at each stage in software development, and how they relate to one another logically and chronologically.	
Abbreviation: SDLC	
Synonyms: lifecycle model	
software in the loop	Version 1
Dynamic testing performed using real software in a simulated environment or with experimental hardware.	
Abbreviation: SiL	
software lifecycle	Version 1
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.	
software process improvement	Version 1
A program of activities designed to improve the performance and maturity of the organization's software processes and the results of such a program.	
Abbreviation: SPI	
Reference: After CMMI	
software qualification test	Version 1
Testing performed on completed, integrated software to provide evidence for compliance with software requirements.	
Software Usability Measurement Inventory	Version 2
A questionnaire-based usability testing tool that measures and benchmarks user experience.	
Abbreviation: SUMI	
Reference: Kirakowski93	
source test case	Version 1
A test case that passed and is used as the basis of follow-up test cases in metamorphic testing.	
specification by example	Version 1
A development technique in which the specification is defined by examples.	
Abbreviation: SBE	
See also: acceptance test-driven development	

spike testing	Version 1
Testing to determine the ability of a system to recover from sudden bursts of peak loads and return to a steady state.	
standard-compliant test strategy	Version 1
A test strategy whereby the test team follows a standard. Standards followed may be valid e.g., for a country (legislation standards), a business domain (domain standards), or internally (organizational standards).	
state transition testing	Version 3
A black-box test technique in which test cases are designed to exercise elements of a state transition model.	
Reference: After ISO 29119-4	
Synonyms: finite state testing	
statement coverage	Version 2
The coverage of executable statements.	
statement testing	Version 2
A white-box test technique in which test cases are designed to execute statements.	
static analysis	Version 2
The process of evaluating a component or system without executing it, based on its form, structure, content, or documentation.	
Reference: After ISO 24765	
See also: static testing	
static application security testing	Version 1
A type of static analysis that focuses on detecting security vulnerabilities.	
Abbreviation: SAST	
Reference: After NIST.IR.7298	
See also: dynamic application security testing	
static testing	Version 4
Testing that does not involve the execution of a test item.	
See also: dynamic testing, static analysis, review	
stress testing	Version 1
A type of performance testing conducted to evaluate a system or component at or beyond the limits of its anticipated or specified workloads, or with reduced availability of resources such as access to memory or servers.	
Reference: ISO 24765	
structural coverage	Version 1
Coverage measures based on the internal structure of a component or system.	
structured scripting	Version 1
A scripting technique that builds and utilizes a library of reusable (parts of) scripts.	
stub	Version 2
A type of test double providing predefined responses.	
See also: mock	
summative evaluation	Version 1
A type of evaluation designed and used to gather conclusions about the quality of a component or system, especially when a substantial part of it has completed design.	
See also: formative evaluation	
system hardening	Version 1
The step-by-step process of reducing the security vulnerabilities of a system by applying a security policy and different layers of protection.	
system integration testing	Version 4
The integration testing of systems.	

system of systems

Version 1

Multiple heterogeneous, distributed systems that are embedded in networks at multiple levels and in multiple interconnected domains, addressing large-scale inter-disciplinary common problems and purposes, usually without a common management structure.

Synonyms: multi-system

system qualification test

Version 1

Testing performed on the completed, integrated system of software components, hardware components, and mechanics to provide evidence for compliance with system requirements and that the complete system is ready for delivery.

system testing

Version 2

A test level that focuses on verifying that a system as a whole meets specified requirements.

system throughput

Version 1

The amount of data passing through a component or system in a given time period.

Reference: After ISO 24765

system under test

Version 2

A type of test object that is a system.

Abbreviation: SUT

System Usability Scale

Version 1

A simple, ten-item attitude scale giving a global view of subjective assessments of usability.

Abbreviation: SUS

Systematic Test and Evaluation Process

Version 2

A structured testing methodology also used as a content-based model for improving the testing process. It does not require that improvements occur in a specific order.

Abbreviation: STEP

technical review

Version 3

A formal review by technical experts that examine the quality of a work product and identify discrepancies from specifications and standards.

Reference: After IEEE 1028

See also: peer review

test

Version 1

A set of one or more test cases.

test adaptation layer

Version 1

The layer in a test automation architecture which provides the necessary code to adapt test scripts on an abstract level to the various components, configuration or interfaces of the SUT.

test analysis

Version 2

The activity that identifies test conditions by analyzing the test basis.

test approach

Version 3

The manner of implementing testing tasks.

test architect

Version 1

(1) A person who provides guidance and strategic direction for a test organization and for its relationship with other disciplines. (2) A person who defines the way testing is structured for a given system, including topics such as test tools and test data management.

test automation

Version 3

The conversion of test activities to automatic operation.

Reference: After ISO 2382

test automation architecture

Version 2

An instantiation of the generic test automation architecture for a system.

test automation engineer	Version 1
A person who is responsible for the design, implementation and maintenance of a test automation architecture as well as the technical evolution of the resulting test automation solution.	
test automation framework	Version 2
A set of test harnesses and test libraries for test automation.	
test automation manager	Version 1
A person who is responsible for the planning and supervision of the development and evolution of a test automation solution.	
test automation solution	Version 2
The implementation of a test automation architecture for a test automation assignment.	
test automation strategy	Version 2
A high-level description how to achieve long-term objectives of test automation under given technological, organizational and economic conditions.	
test basis	Version 2
The body of knowledge used as the basis for test analysis and test design.	
Reference: After TMap	
test case	Version 2
A set of preconditions, inputs, actions (where applicable), expected results and postconditions, developed based on test conditions.	
See also: test step	
test case explosion	Version 1
The disproportionate growth of the number of test cases with growing size of the test basis, when using a certain test design technique. Test case explosion may also happen when applying the test design technique systematically for the first time.	
test charter	Version 3
Documentation of the goal or objective for a test session.	
Synonyms: charter	
See also: exploratory testing	
test closure	Version 1
During the test closure phase of a test process data is collected from completed activities to consolidate experience, testware, facts and numbers. The test closure phase consists of finalizing and archiving the testware and evaluating the test process, including preparation of a test evaluation report.	
test completion	Version 2
The activity that makes testware available for later use, leaves test environments in a satisfactory condition and communicates the results of testing to relevant stakeholders.	
test completion report	Version 3
A type of test report produced at completion milestones that provides an evaluation of the corresponding test items against exit criteria.	
Synonyms: test summary report	
test condition	Version 3
A testable aspect of a component or system identified as a basis for testing.	
Reference: After ISO 29119-1	
Synonyms: test situation, test requirement	
test control	Version 2
The activity that develops and applies corrective actions to get a test project on track when it deviates from what was planned.	
See also: test management	
test cycle	Version 1
An instance of the test process against a single identifiable version of the test object.	

test data	Version 3
Data needed for test execution.	
Synonyms: test dataset	
test data management	Version 1
The process of providing the required test data for a component or system while ensuring compliance with legislation and standards.	
test data preparation	Version 1
The activity to select data from existing databases or create, generate, manipulate and edit data for testing.	
test definition layer	Version 1
The layer in a generic test automation architecture which supports test implementation by supporting the definition of test suites and/or test cases, e.g., by offering templates or guidelines.	
test design	Version 3
The activity that derives and specifies test cases from test conditions.	
test director	Version 1
A senior manager who manages test managers.	
See also: test manager	
test double	Version 1
A replacement component invoked by a test object to perform testing.	
See also: mock	
test environment	Version 1
An environment containing hardware, instrumentation, simulators, software tools, and other support elements needed to perform a test.	
Reference: ISO 24765	
Synonyms: test bed, test rig	
test estimation	Version 2
An approximation related to various aspects of testing.	
test execution	Version 2
The activity that runs a test on a component or system producing actual results.	
test execution automation	Version 1
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.	
test execution layer	Version 1
The layer in a generic test automation architecture which supports the execution of test suites and/or test cases.	
test execution schedule	Version 2
A schedule for the execution of test suites within a test cycle.	
test execution tool	Version 1
A test tool that executes tests against a designated test item and evaluates the outcomes against expected results and postconditions.	
test fixture	Version 1
The predefined data and test environment to test software in a repeatable manner.	
test generation layer	Version 1
The layer in a generic test automation architecture which supports manual or automated design of test suites and/or test cases.	
test harness	Version 2
A collection of stubs and drivers needed to execute a test suite	
test histogram	Version 1
A visual representation of test results that shows trends from test execution.	

test hook	Version 1
A customized software interface that enables automated testing of a test object.	
test implementation	Version 2
The activity that prepares the testware needed for test execution based on test analysis and design.	
test infrastructure	Version 1
The artifacts needed to perform testing, consisting of test environments, test tools, office environment and procedures.	
test item	Version 2
A part of a test object used in the test process.	
See also: test object	
test leader	Version 1
On large projects, the person who reports to the test manager and is responsible for project management of a particular test level or a particular set of testing activities.	
Synonyms: lead tester	
See also: test manager	
test level	Version 2
A specific instantiation of a test process.	
Synonyms: test stage	
test log	Version 1
A chronological record of relevant details about the execution of tests.	
Reference: ISO 24765	
Synonyms: test record, test run log	
test logging	Version 2
The activity of creating a test log.	
Synonyms: test recording	
test management	Version 2
The process of planning, scheduling, estimating, monitoring, reporting, controlling, and completing test activities.	
Reference: ISO 29119-1	
See also: test control, test monitoring	
test management tool	Version 2
A tool that supports test management.	
test manager	Version 2
The person responsible for project management of testing activities, resources, and evaluation of a test object.	
See also: test director, test leader, Agile test leader	
Test Maturity Model integration	Version 1
A five-level staged framework for test process improvement, related to the Capability Maturity Model Integration (CMMI), that describes the key elements of an effective test process.	
Abbreviation: TMMi	
test mission	Version 1
The purpose of testing for an organization, often documented as part of the test policy.	
See also: test policy	
test model	Version 1
A model describing testware that is used for testing a component or a system under test.	
test monitoring	Version 3
The activity that checks the status of testing activities, identifies any variances from planned or expected, and reports status to stakeholders.	
See also: test management	

test object	Version 2
The work product to be tested.	
See also: test item	
test objective	Version 3
The purpose for testing.	
Synonyms: test goal	
test oracle	Version 2
A source to determine an expected result to compare with the actual result of the system under test.	
Reference: After Adrion	
Synonyms: oracle	
test plan	Version 2
Documentation describing the test objectives to be achieved and the means and the schedule for achieving them, organized to coordinate testing activities.	
Reference: After ISO 29119-1	
See also: master test plan, level test plan, test scope	
test planning	Version 1
The activity of establishing or updating a test plan.	
test point analysis	Version 1
A formula-based test estimation technique based on function point analysis.	
Abbreviation: TPA	
Reference: TMap	
test policy	Version 1
A high-level document describing the principles, approach and major objectives of the organization regarding testing.	
Synonyms: organizational test policy	
See also: test mission	
test procedure	Version 1
A sequence of test cases in execution order, and any associated actions that may be required to set up the initial preconditions and any wrap up activities post execution.	
Reference: ISO 29119-1	
test process	Version 2
The set of interrelated activities comprising of test planning, test monitoring and control, test analysis, test design, test implementation, test execution, and test completion.	
test process group	Version 2
A collection of specialists who facilitate the definition, maintenance, and improvement of the test processes used by an organization.	
Abbreviation: TPG	
Reference: After CMMI	
test process improvement	Version 1
A program of activities undertaken to improve the performance and maturity of the organization's test processes.	
Reference: After CMMI	
test process improvement manifesto	Version 2
A statement that echoes the Agile manifesto, and defines values for improving the test process.	
Reference: Veenendaal08	
test progress	Version 1
The progress of testing against a baseline.	

test progress report	Version 4
A type of periodic test report that includes the progress of test activities against a baseline, risks, and alternatives requiring a decision.	
Synonyms: test status report	
test pyramid	Version 1
A graphical model representing the relationship of the amount of testing per level, with more at the bottom than at the top.	
test report	Version 1
Documentation summarizing testing and results.	
test reporting	Version 1
Collecting and analyzing data from testing activities and subsequently consolidating the data in a report to inform stakeholders.	
test result	Version 1
The consequence/outcome of the execution of a test.	
Synonyms: outcome, test outcome, result	
test run	Version 1
The execution of a test suite on a specific version of the test object.	
test scope	Version 1
A description of the test object and its features to be tested.	
See also: test plan	
test script	Version 2
A sequence of instructions for the execution of a test.	
test selection criteria	Version 1
The criteria used to guide the generation of test cases or to select test cases in order to limit the size of a test.	
test session	Version 1
An uninterrupted period of time spent in executing tests.	
test specification	Version 2
The complete documentation of the test design, test cases, and test scripts for a specific test item.	
Reference: After ISO 29119-1	
test step	Version 1
A single interaction between an actor and a test object consisting of an input, an action, and an expected result.	
See also: test case	
test strategy	Version 4
A description of how to perform testing to reach test objectives under given circumstances.	
test suite	Version 3
A set of test scripts or test procedures to be executed in a specific test run.	
Synonyms: test set, test case suite	
test technique	Version 3
A procedure used to define test conditions, design test cases, and specify test data.	
Synonyms: test design technique	
test type	Version 2
A group of test activities based on specific test objectives aimed at specific characteristics of a component or system.	
Reference: After TMap	

test-driven development

Version 2

A software development technique in which the test cases are developed, automated and then the software is developed incrementally to pass those test cases.

Abbreviation: TDD

See also: test-first approach

test-first approach

Version 1

An approach to software development in which the test cases are designed and implemented before the associated component or system is developed.

See also: test-driven development

testability

Version 3

The degree to which test conditions can be established for a component or system, and tests can be performed to determine whether those test conditions have been met.

See also: maintainability

tester

Version 2

A person who performs testing.

testing

Version 3

The process within the software development lifecycle that evaluates the quality of a component or system and related work products.

See also: quality control

testing capability

Version 1

The abilities an organization needs to accomplish its test objectives.

See also: quality capability

testing in production

Version 1

A test type performed in the production environment with live data.

See also: post-release testing, shift right

testing quadrants

Version 1

A classification model of test types/test levels in four quadrants, relating them to two dimensions of test objectives: supporting the product team versus critiquing the product, and technology-facing versus business-facing.

testware

Version 2

Work products produced during the test process for use in planning, designing, executing, evaluating and reporting on testing.

Reference: After ISO 29119-1

think aloud usability testing

Version 1

A usability testing technique where test participants share their thoughts with the moderator and observers by thinking aloud while they solve usability test tasks. Think aloud is useful to understand the test participant.

think time

Version 1

The amount of time required by a user to determine and execute the next action in a sequence of actions.

threshold coverage

Version 1

The coverage of neurons exceeding a threshold activation value in a neural network for a set of tests.

time behavior

Version 1

The degree to which a component or system can perform its required functions within required response times, processing times and throughput rates.

Total Quality Management

Version 2

An organization-wide management approach to quality based on employee participation to achieve long-term success through customer satisfaction.

Abbreviation: TQM

Reference: After ISO 24765

tour	Version 1
A set of exploratory tests organized around a special focus.	
TPI Next	Version 1
A continuous business-driven framework for test process improvement that describes the key elements of an effective and efficient test process.	
traceability	Version 3
The ability to establish explicit relationships between related work products or items within work products.	
Reference: IREB Glossary	
traceability matrix	Version 1
A two-dimensional table, which correlates two entities (e.g., requirements and test cases). The table allows tracing back and forth the links of one entity to the other, thus enabling the determination of coverage achieved and the assessment of impact of proposed changes.	
transcendent quality	Version 2
A view of quality based on the perception and feeling of individuals.	
Reference: After Garvin	
unit test framework	Version 1
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.	
Reference: Graham	
usability	Version 3
The degree to which a component or system can be used by specified users to achieve specified goals in a specified context of use.	
See also: user interface aesthetics, operability, appropriateness recognizability	
usability evaluation	Version 1
A process through which information about the usability of a system is gathered in order to improve the system (known as formative evaluation) or to assess the merit or worth of a system (known as summative evaluation).	
usability lab	Version 1
A test facility in which unintrusive observation of participant reactions and responses to software takes place.	
usability requirement	Version 1
A requirement on the usability of a component or system.	
usability test participant	Version 1
A representative user who solves typical tasks in a usability test.	
usability test script	Version 1
A document specifying a sequence of actions for the execution of a usability test. It is used by the moderator to keep track of briefing and pre-session interview questions, usability test tasks, and post-session interview questions.	
usability test session	Version 1
A test session in usability testing in which a usability test participant is executing tests, moderated by a moderator and observed by a number of observers.	
usability test task	Version 1
A usability test execution activity specified by the moderator that needs to be accomplished by a usability test participant within a given period of time.	
usability testing	Version 2
Testing to evaluate the degree to which the system can be used by specified users with effectiveness, efficiency and satisfaction in a specified context of use.	
Reference: After ISO 25010	
use case testing	Version 3
A black-box test technique in which test cases are designed to exercise use case behaviors.	
Synonyms: user scenario testing, scenario testing	

user acceptance testing	Version 4
A type of acceptance testing performed to determine if intended users accept the system.	
Abbreviation: UAT	
See also: acceptance testing	
user error protection	Version 1
The degree to which a component or system protects users against making errors.	
Reference: After ISO 25010	
user experience	Version 1
A person's perceptions and responses resulting from the use or anticipated use of a software product.	
Reference: ISO 9241-210	
user interface	Version 1
All components of a system that provide information and controls for the user to accomplish specific tasks with the system.	
user interface aesthetics	Version 2
The degree to which a user interface enables pleasing and satisfying interaction for the user.	
Reference: ISO 25010	
Synonyms: attractiveness	
See also: usability	
user interface guideline	Version 1
A low-level, specific rule or recommendation for user interface design that leaves little room for interpretation so designers implement it similarly. It is often used to ensure consistency in the appearance and behavior of the user interface of the systems produced by an organization.	
user story	Version 3
A user or business requirement consisting of one sentence expressed in the everyday or business language which is capturing the functionality a user needs, the reason behind it, any non-functional criteria, and also including acceptance criteria.	
See also: user story testing	
user story testing	Version 2
A black-box test technique in which test conditions are the acceptance criteria of user stories.	
See also: user story	
user survey	Version 1
A usability evaluation whereby a representative sample of users are asked to report subjective evaluation into a questionnaire based on their experience in using a component or system.	
user-agent based testing	Version 1
A test type in which a test client is used to switch the user agent string and identify itself as a different client while executing test suites.	
user-based quality	Version 2
A view of quality measured by the degree that the needs, wants, and desires of a user are met.	
Reference: After Garvin	
V-model	Version 2
A sequential software development lifecycle model describing a one-for-one relationship between major phases of software development from business requirements specification to delivery, and corresponding test levels from acceptance testing to component testing.	
validation	Version 2
Confirmation by examination that a work product matches a stakeholder's needs.	
Reference: After IREB Glossary	
value change coverage	Version 1
The coverage of neurons activated where their activation values differ by more than a change amount in the neural network for a set of tests.	

value-based quality	Version 2
A view of quality measured by the ratio of the cost to the value received from a product or service.	
Reference: After Garvin	
verification	Version 2
The process of confirming that a work product fulfills its specification.	
Reference: After IREB Glossary	
virtual test environment	Version 1
A test environment in which one or more parts are digitally simulated.	
Reference: ISO 29119-11	
virtual user	Version 1
A simulation of activities performed according to a user operational profile.	
visual testing	Version 1
Testing that uses image recognition to interact with GUI objects.	
Reference: After ISO 29119-11	
vulnerability scanner	Version 1
A static analyzer that is used to detect particular security vulnerabilities in the code.	
walkthrough	Version 3
A type of review in which an author leads members of the review through a work product and the members ask questions and make comments about possible issues.	
Reference: After ISO 20246	
Synonyms: structured walkthrough	
See also: peer review	
Web Content Accessibility Guidelines	Version 1
A part of a series of web accessibility guidelines published by the Web Accessibility Initiative (WAI) of the World Wide Web Consortium (W3C), the main international standards organization for the internet. They consist of a set of guidelines for making content accessible, primarily for people with disabilities.	
Abbreviation: WCAG	
Website Analysis and Measurement Inventory	Version 2
A commercial website analysis service providing a questionnaire for measuring user experience and assessing delivery of business goals online.	
Abbreviation: WAMMI	
white-box test technique	Version 3
A test technique only based on the internal structure of a component or system.	
Synonyms: white-box test design technique, structure-based test technique	
white-box testing	Version 1
Testing based on an analysis of the internal structure of the component or system.	
Synonyms: clear-box testing, code-based testing, glass-box testing, logic-coverage testing, logic-driven testing, structural testing, structure-based testing	
Wideband Delphi	Version 1
An expert-based test estimation technique that aims at making an accurate estimation using the collective wisdom of the team members.	
wild pointer	Version 1
A pointer that references a location that is out of scope for that pointer or that does not exist.	
XiL test environment	Version 1
A generalized term for dynamic testing in different virtual test environments.	
Abbreviation: XiL	