Glossary Terms for
Advanced Level
Test Automation Engineer
GA version

The following terms originated with the previously published beta Advanced Level Test Automation – Engineering syllabus. For the GA release of Advanced Level Test Automation Engineer syllabus, all terms remain unchanged.

API testing
Testing performed by submitting commands to the software under test using programming interfaces of the
application directly.

automated testware
Testware used in automated testing, such as tool scripts.

automation code defect density
See Also: defect density
Defect density of a component of the test automation code.

capture/playback
A test automation approach, where inputs to the test object are recorded during manual testing in order to
generate automated test scripts that could be executed later (i.e. replayed).

CLI testing
Testing performed by submitting commands to the software under test using a dedicated command-line
interface.

confirmation testing
Synonyms: re-testing
Testing that runs test cases that failed the last time they were run, in order to verify the success of corrective
actions.

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

data-driven testing
Ref: Fewster and Graham   **See Also:** keyword-driven testing
A scripting technique that stores test input and expected results in a table or spreadsheet, so that a single
control script can execute all of the tests in the table. Data-driven testing is often used to support the application
of test execution tools such as capture/playback tools.

driver
Ref: After TMap
Synonyms: test driver
A software component or test tool that replaces a component that takes care of the control and/or the calling of
a component or system.

equivalent manual test effort (EMTE)
Effort required for running tests manually.

generic test automation architecture
Representation of the layers, components, and interfaces of a test automation architecture, allowing for a
structured and modular approach to implement test automation.

GUI
Acronym for Graphical User Interface.

GUI testing
Testing performed by interacting with the software under test via the graphical user interface.

keyword-driven testing
See Also: data-driven testing
Synonyms: action word-driven testing
A scripting technique that uses data files to contain not only test data and expected results, but also keywords
related to the application being tested. The keywords are interpreted by special supporting scripts that are
called by the control script for the test.

level of intrusion
The level to which a test object is modified by adjusting it for testability.

linear scripting
A simple scripting technique without any control structure in the test scripts.

maintainability
Ref: ISO 9126
The ease with which a software product can be modified to correct defects, modified to meet new
requirements, modified to make future maintenance easier, or adapted to a changed environment.

maintenance
Ref: IEEE 1219
Modification of a software product after delivery to correct defects, to improve performance or other attributes,
or to adapt the product to a modified environment.

metric
Ref: ISO 14598
A measurement scale and the method used for measurement.

model-based testing (MBT)
Testing based on or involving models.

process-driven scripting
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.

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

risk
A factor that could result in future negative consequences.

risk assessment

See Also: product risk, project risk, risk, risk impact, risk level, risk likelihood

The process of identifying and subsequently analyzing the identified project or product risk to determine its

level of risk, typically by assigning likelihood and impact ratings.

risk mitigation

Synonyms: risk control

The process through which decisions are reached and protective measures are implemented for reducing risks

to, or maintaining risks within, specified levels.

structured scripting

A scripting technique that builds and utilizes a library of reusable (parts of) scripts.

stub

Ref: After IEEE 610

A skeletal or special-purpose implementation of a software component, used to develop or test a component

that calls or is otherwise dependent on it. It replaces a called component.

system under test (SUT)

See test object.

test adaptation layer

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 automation architecture

An instantiation of the generic test automation architecture to define the architecture of a test automation

solution, i.e., its layers, components, services and interfaces.

test automation engineer

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

A tool that provides an environment for test automation. It usually includes a test harness and test libraries.

test automation manager

A person who is responsible for the planning and supervision of the development and evolution of a test

automation solution.

test automation solution

A realization/implementation of a test automation architecture, i.e., a combination of components implementing

a specific test automation assignment. The components may include commercial off-the-shelf test tools, test

automation frameworks, as well as test hardware.

test automation strategy

A high-level plan to achieve long-term objectives of test automation under given boundary conditions.

test case result

The final verdict on the execution of a test and its outcomes, such as pass, fail, or error. The result of error is

used for situations where it is not clear whether the problem is in the test object.

test definition layer

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 execution automation

The use of software, e.g., capture/playback tools, to control the execution of tests, the comparison of actual

results to expected results, the setting up of test preconditions, and other test control and reporting functions.

test execution layer

The layer in a generic test automation architecture which supports the execution of test suites and/or test

cases.

test execution tool

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

test generation layer

The layer in a generic test automation architecture which supports manual or automated design of test suites

and/or test cases.

test hook

A customized software interface that enables automated testing of a test object.

test logging

Synonyms: test recording

The process of recording information about tests executed into a test log.

test management tool

A tool that provides support to the test management and control part of a test process. It often has several

capabilities, such as testware management, scheduling of tests, the logging of results, progress tracking,

incident management and test reporting.

test process improvement

Ref: After CMMI

A program of activities designed to improve the performance and maturity of the organization's test processes

and the results of such a program.

test reporting

See Also: test process

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

inform stakeholders.

test script

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

testability

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

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

testware

Ref: After Fewster and Graham

Artifacts produced during the test process required to plan, design, and execute tests, such as documentation,
scripts, inputs, expected results, set-up and clear-up procedures, files, databases, environment, and any
additional software or utilities used in testing.

verification

Ref: ISO 9000

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