

11. Level Test Case

The purpose of the LTC is to define (to an appropriate level of detail) the information needed as it pertains to inputs to and outputs from the software or software-based system being tested. The LTC includes all test case(s) identified by the associated segment of the LTD (if there is one).

Clause 7 specifies how to address the content topics shown in the outline example below. Details on the content for each topic are contained in 11.1 through 11.3. A full example of an LTC outline is shown in the boxed text. Section 1 and 3 are specified once per document. The Test Case details in Sections 2 are documented once per Test Case.

Level Test Case Outline (full example)

1. Introduction (once per document)

- 1.1. Document identifier
- 1.2. Scope
- 1.3. References
- 1.4. Context
- 1.5. Notation for description

2. Details (once per test case)

- 2.1. Test case identifier
- 2.2. Objective
- 2.3. Inputs
- 2.4. Outcome(s)
- 2.5. Environmental needs
- 2.6. Special procedural requirements
- 2.7. Intercase dependencies

3. Global (once per document)

- 3.1. Glossary
- 3.2. Document change procedures and history

Since a test case may be referenced by several Level Test Designs used by different groups over a long time period, enough specific information must be included in the test case to permit reuse.

11.1 (LTC Section 1) Introduction

See 10.1.

11.1.1 (LTC Section 1.1) Document identifier

See 8.1.1.

11.1.2 (LTC Section 1.2) Scope

See 9.1.2.

11.1.3 (LTC Section 1.3) References

See 9.1.3.

11.1.4 (LTC Section 1.4) Context

Provide any required context that is not already covered by other sections of this document (e.g., third-party testing via the Internet).

11.1.5 (LTC Section 1.5) Notation for description

Define any numbering schemes, e.g., for scenarios and test cases. The intent of this section is to explain any such schema.

11.2 (LTC Section 2) Details of the Level Test Case

Introduce the following subordinate sections. Describe each test case and its unique identifier, objectives, outcomes, environmental needs, and special procedures.

11.2.1 (LTC Section 2.1) Test case identifier

Describe the unique identifier needed by each test case so that it can be distinguished from all other test cases. An automated tool may control the generation of the identifiers.

11.2.2 (LTC Section 2.2) Objective

Identify and briefly describe the special focus or objective for the test case or a series of test cases. This is much more detailed than the Test Items in the Level Test Plan. It may include the risk or priority for this particular test case or series of test cases.

11.2.3 (LTC Section 2.3) Inputs

Specify each input required to execute each test case. Some inputs will be specified by value (with tolerances where appropriate), whereas others, such as constant tables or transaction files, will be specified by name. Identify all appropriate databases, files, terminal messages, memory resident areas, and values passed by the operating system.

Specify all required relationships between inputs (e.g., timing).

11.2.4 (LTC Section 2.4) Outcome(s)

Specify all outputs and the expected behavior (e.g., response time) required of the test items. Provide the exact value(s) (with tolerances where appropriate) for each required output and expected behavior. This section is not required for self-validating tests.

11.2.5 (LTC Section 2.5) Environmental needs

Describe the test environment needed for test setup, execution, and results recording. This section is commonly documented per scenario or group of scenarios. It may be illustrated with one or more figures showing all of the components and where they interact. This section is only needed if it provides more information than the Level Test Plan or if there have been changes since the Level Test Plan was developed.

11.2.5.1 Hardware

Specify the characteristics and configuration(s) of the hardware required to execute this test case.

11.2.5.2 Software

Specify all software configuration(s) required to execute this test case. This may include system software such as operating systems, compilers, simulators, and test tools. In addition, the test item may interact with application software.

11.2.5.3 Other

Specify any other requirements not yet included [e.g., unique facility needs, specially trained personnel, and third-party provided environment(s)] if there are any.

11.2.6 (LTC Section 2.6) Special procedural requirements

Describe any special constraints on the Level Test Procedures that execute this test case such as pre- and post-conditions and/or processing. This section may reference the use of automated test tools. This section provides exceptions and/or additions to the Level Test Procedures, not a repeat of any of the information contained in the procedures.

11.2.7 (LTC Section 2.7) Intercase dependencies

List the identifiers of test cases that must be executed prior to this test case. Summarize the nature of the dependencies. If test cases are documented (in a tool or otherwise) in the order in which they need to be executed, the Intercase Dependencies for most or all of the cases may not be needed.

11.3 (LTC Section 3) General

See 10.3.

11.3.1 (LTC Section 3.1) Glossary

See 8.3.1.

11.3.2 (LTC Section 3.2) Document change procedures and history

See 8.3.2.