Configuration Management

Purpose: to establish and maintain the integrity of the component or system, the testware, and their relationships to one another through the project and product lifecycle.

May involve ensuring the following:

***** All test items are uniquely identified, version controlled, tracked for changes, and related to each other

***** All items of testware are uniquely identified, version controlled, tracked for changes, related to each other and related to versions of the test items so that traceability can be maintained throughout the process

***** All identified documents and software items are referenced unambiguously in test documentation.

Configuration management procedures and infrustructure (tools) should be identified and implemented during test planning.

Defect Management

Purpose: to manage all defects to resolution.

Defect management process includes a workflow and rules for defects classification. It must be agreed with all those participating in defect management (architects, designers, developers, testers, and product owners).

During the defect management process some of the reports may turn out to describe false positive (for instance, a test may fail when a network connection is broken or times out). Such behavior does not result from a defect in the test object, but is an anomaly that needs to be investigated. Testers should try to minimize the number of false positives reported as defects.

For an effective and efficient defect management process, organizations may define standards for the attributes, classification, and workflow of defects.

Objectives of typical defect report:

- provide developers and other parties with information about any adverse event that occurred, to enable them to identify specific effects, to isolate the problem with a minimal reproducing test, and to correct the potential defects, as needed or to otherwise resolve the ploblem
- provide test managers a means of tracking the quality of the work product and the impact on the testing (if a lot of defects are reported, the testers will have spent a lot of time reporting them instead of running tests, and there will be more confirmation testing needed)
- provide ideas for development and test process improvement

Defect report filed during dynamic testing includes:

- an identifier
- a title and a short summary of the defect being reported
- date of the defect report, issuing organization, and author
- identification of the test item (configuration item being tested) and environment
- development lifecycle phase in which defect was observed
- description of the defect to enable reproduction and resolution, including logs, database dumps, screenshots, or recordings
- expected and actual results
- scope or degree of impact (severity) of the defect on the interests of stakeholders
- urgency/priority to fix
- state of defect report
- conclusions, recommendations and approvals
- global issues, such as other areas that may be affected by a change resulting from the defect
- change history, such as the sequence of actions taken by project team members with respect to the defect to isolate, repair, and confirm it as fixed
- references, including the test case that revealed the problem

Defects found during static testing (particularly reviews) normally are documented in different way (in review meeting notes).