

**FUNCTIONAL CONFIGURATION AUDIT PROCEDURE**

**Software Process And Quality Management**

**Team 5 K16T1**



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**REVISIONS**

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# OVERVIEW

## Description

This Configuration Management activity involves auditing the Configuration Item (CI) performance against its approved configuration documentation to verify the customer's functional requirements. In addition, the Project Configuration Manager audits the production software comparing it to the software contained in the project's Configuration Management Library. The Functional Configuration Audit (FCA) should occur at least once for new development but may be held more frequently as determined by the project manager.

## Entry Criteria

Complete the following before beginning this procedure:

* Work Products in the Product Baseline
* Project Configuration Management Plan (CMP)

## Exit Criteria

The following are a result of completing this procedure:

* Compiled and signed FCA checklist and support material

# PROCEDURE STEPS

## Prepare for the Technical Review

Prepare for the technical review using **Plan the Technical Review Procedure**.

## Project Manager

**Plan Configuration Audits.**

* Notify the Project Configuration Manager of upcoming FCA reviews. Select the audit team members. The audit team must include the Project Configuration Manager, Project Manager, and customer representative. Other stakeholders may also serve as members of the audit team.

## Project Configuration Manager

**Gather audit review materials.**

The FCA should occur at least once, as a minimum, for new development but may be held more frequently as deemed necessary by project management. Distribute the work products, facilitate the FCA for the assigned projects and perform the following in preparing for the audit:

* Gather all applicable material for review.
* Prepare audit checklists using FCA Checklist. Refer to MIL-HDBK-61A CM Guidance.

## Project Configuration Manager

**Support audit.**

Perform the following in support of the audit:

* Ensure audit team members are aware of their responsibilities.
* Coordinate the FCA activities on the formal audit agenda.
* Gather all audit interim and finalized checklists at the end of the day for audits that cover more than one day.
* Review audit status with the audit team at the end and beginning of each day when audit covers more than one day.
* Consolidate audit results upon completion of the audit.

## Project Manager

**Ensure accomplishment of the FCA.**

Ensure that the audit team accomplishes the following audits and procedures to verify that the performance of each CI complies with approved documented requirements. The FCA should be conducted after Test Readiness Review I (TRR I), and just prior to the Operational Test Readiness Review (OTRR). To conduct an FCA, the following inputs are required:

* Functional requirements document such as the Software Requirement Specification or General Requirements Specification
* System design documents such as the Interface Requirement Agreements, Design Document, and the Database Specification, etc.
* Integrated Test Plan (ITP)
* Minutes of the TRR I and all open Action Items (AIs) from past reviews
* A copy of baseline and database change requests with their associated status accounting records
* Test scripts
* Integrated Test Report (ITR)
* Other input as specified by the functional requirements and planning documents

## Audit Team

**Conduct FCA.**

The audit team members must perform the following tasks when conducting an FCA:

* Review test procedures and results against test specifications and procedures.
* Review analysis or simulations when specific parameters were not verifiable during CI testing.
* Review internal documents to verify that there are records of the physical configuration or the version of the CI for the recorded test data.
* Ensure corrective actions have been taken for cases that failed during testing.
* Conduct tests and retests to assure quality of the product.
* Obtain a briefing on each CI and discuss the following with the producer: requirements not met, solutions to deficiencies, engineering change proposals incorporated and those not tested, and CI testing in general to include problems and successes.
* Audit the ITP, test scripts, and ITR for each CI and check for completeness and accuracy. Ensure the correction and documentation of all discrepancies.
* Audit system evaluation documents validating test accuracy and completeness.
* Review all approved engineering change proposals ensuring their technical incorporation and verification.
* Review all operational and support manuals ensuring they are accurate and consistent.
* Review all past formal review meeting minutes and verify the completion of required corrective actions.
* Review and validate CI interface requirements and testing.
* Review database requirements, storage allocations, data and timing, and sequencing characteristics for compliance with specified and designed requirements
* Compile the FCA checklist

## Project Configuration Manager

**Capture and report audit findings.**

The Project Configuration Manager will use the FCA checklists to ensure that all tasks are completed during the audit and all findings are documented. The FCA checklists and any support material used to document the audit results must be placed under configuration control and made available to audit team members.