



College of Engineering

Software Engineering Department

Software Configuration Management

Title: Intelligent parking management system

section: C

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Configuration Audit Report

Project Title: Intelligent Parking Management System (IPMS)

Date of Audit: December 30, 2025

Auditor: Kirubel Eskinder (QA/Configuration Auditor)

Status: Final

1. Introduction

The purpose of this audit is to verify the integrity and completeness of the Intelligent Parking Management System (IPMS) project artifacts. This report includes the Physical Configuration Audit (PCA) to verify repository contents and the Functional Configuration Audit (FCA) to verify that the system satisfies the defined requirements and approved change requests.

2. Physical Configuration Audit (PCA)

Objective: To ensure that all items listed in the Configuration Item (CI) Register are physically present in the repository, correctly named, and properly versioned.

Audit Checklist & Findings:

Configuration Item (CI)	Expected Location	Found?	Version	Remarks
SCM Plan (SCMP)	/docs	Yes	v1.1	Correct naming convention followed.
CI Register	/docs	Yes	v1.1	Matches the current repository state.
Requirements Doc (SRS)	/docs	Yes	v1.0	Baseline established.
Baseline Records	/docs	Yes	BL1, BL2	Two baseline documents present.

Change Request Forms	/docs	Yes	CR-01,02,03	Records of 3 approved changes.
Change Log	/docs	Yes	v1.1	All CRs properly tracked.
Source Code Files	/src	Yes	v1.1	5 files found (HTML, CSS, JS, JSON).
Release Notes	/releases	Yes	v1.0, v1.1	Documentation matches GitHub releases.

Audit Findings:

1. **Repository Structure:** The repository correctly maintains the required folder structure: /docs, /src, /tests, and /releases.
2. **Naming Convention:** Files follow the standard prefix IPMS_ and versioning suffix as defined in the SCM Plan.
3. **Baseline Consistency:** All items associated with Baseline 1 (BL1) and Baseline 2 (BL2) are correctly tagged in Git.

Result: PASS

3. Functional Configuration Audit (FCA)

Objective: To verify that the software prototype performs the functions defined in the Requirements Specification and successfully implements all approved Change Requests (CRs).

Verification Results:

Requirement / CR ID	Functionality	Status	Observation
FR-01	Authentication	PASS	index.html provides a functional login UI.
FR-04	Floor Allocation	PASS	parking.js correctly recommends floors based on vehicle type (Car, Van, Truck).

CR-01	Logout Function	PASS	A functional "Log Out" button was added to dashboard.html.
CR-02	Fee Calculation	PASS	System displays estimated fees (\$10, \$15, \$25) upon booking.
CR-03	UI Theme Update	PASS	style.css updated to Light Blue (#e3f2fd) as requested.
Data Integrity	JSON Storage	PASS	parking.json correctly stores initial system configuration.

Audit Findings:

1. The system functionality aligns 100% with the requirements baseline established in BL1.
2. The "Final Release v1.1" accurately reflects the implementation of all three approved change requests.
3. The transition from the initial prototype (v1.0) to the final system (v1.1) is documented and traceable via the Change Log.

Result: PASS

4. Auditor Conclusion

The Intelligent Parking Management System (IPMS) project has been found to be **configuration-compliant**. The project team has successfully demonstrated core SCM principles, including configuration identification, baseline management, and a controlled change process.

The repository history shows clear traceability from the planning phase (BL1) to the final implementation (BL2). Version control was maintained throughout the development cycle using Git/GitHub, and all physical artifacts match the documented CI Register.

Audit Status: Approved for Project Completion