# **Software Configuration Management Plan (SCMP)**

## **Project: Wi-Fi WPA2 Key Extractor GUI**

### **1. Introduction**

**Purpose:** This document outlines the software configuration management (SCM) plan for the Wi-Fi WPA2 Key Extractor GUI. It describes the policies, procedures, and tools used to manage changes and ensure the integrity of the software throughout its development lifecycle.

**Scope:** Covers configuration identification, control, status accounting, and audit for all code, documents, dependencies, and environment setup for this Python-based penetration testing tool.

### **2. Configuration Management Objectives**

* Maintain integrity and traceability of all project artifacts.
* Ensure that changes are reviewed, approved, and tested before integration.
* Provide a controlled environment for versioning, backups, and releases.
* Track changes across scripts, GUI, and supporting files.

### **3. Configuration Identification**

**Baseline Components:**

* wpa2\_gui.py: Main Python GUI script
* wpa2\_extractor\_sdd.md: Software Design Document
* README.md: Setup and usage guide
* Wordlist file (e.g., rockyou.txt.gz)

**Versioning Scheme:**

* Format: Major.Minor.Patch (e.g., v1.0.0)
* Initial baseline: v1.0.0

**Naming Conventions:**

* Source files: snake\_case
* Documents: projectname\_documenttype.md

### **4. Configuration Control**

**Change Requests:**

* Submitted via Git issues or text log
* Reviewed by the developer (Laxmish Saini)

**Change Approval Process:**

1. Developer reviews change
2. Test changes in isolated branch/environment
3. Approve or reject with justification
4. Merge into main codebase

**Tools:**

* Git for version control
* GitHub/Local Git repository for tracking and collaboration

### **5. Configuration Status Accounting**

Each component will be tracked using commit history, tagged releases, and changelogs.

**Tracking Items:**

* Code updates (via Git commits)
* Document revisions
* Dependency changes (PyQt5, aircrack-ng versions)

**Reporting:**

* Changelog.md updated with each release
* Commit logs serve as status records

### **6. Configuration Audits**

**Audit Goals:**

* Ensure all required files are present and updated
* Validate version consistency and integrity
* Confirm all features are tested post-change

**Frequency:**

* After each major feature or version release
* Before distribution or packaging

### **7. Roles and Responsibilities**

* **Developer/Manager:** Laxmish Saini  
  + Controls repository
  + Approves and merges code
  + Maintains documents and versioning

### **8. Tools & Environment**

* **OS:** Kali Linux
* **Languages:** Python 3
* **Package Manager:** apt, pip
* **VC System:** Git
* **GUI Framework:** PyQt5
* **Test Environment:** Local machine with external Wi-Fi adapter

### **9. Backup and Recovery**

* Periodic local backups of the entire project directory
* Important releases are archived in .zip or .tar.gz format

### **10. Appendix**

**Repository Structure:**

project\_root/

├── wpa2\_gui.py

├── README.md

├── wpa2\_extractor\_sdd.md

├── scmp.md

├── wordlists/

│ └── rockyou.txt.gz

└── .git/

**Change Log Example:**

## [v1.0.1] - 2025-04-01

### Added

- Configuration management plan

- BSSID and channel fix in scan function

**Document Owner:** Laxmish Saini  
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