To: Executive Leadership

From: Brian Pedroza, Project Manager

Date: Jan 28, 2026

Subject: Status Report: Project RootBeer (scottyab/rootbeer)

Repository Link: https://github.com/Brian-Pedroza/Group-5.git

Overview

Project RootBeer remains a critical component of our Android security suite, providing robust root detection capabilities. Our recent repository mining analysis covers **36 unique source files** and tracks the contribution history across the project's lifetime.

Key Findings

- **Work Distribution:** Analysis shows that Scott Alexander-Bown is the primary contributor, responsible for the vast majority of file touches.
- **Recent Activity:** In the most recent weeks (approx. week 480), activity has increased. Recent commits are focused on RootItemAdapterView.kt
- **Resource Risks:** We have identified a "Single Point of Failure" risk. Several core files, such as `RootCheck.java`, are primarily maintained by a single developer. If this individual leaves the project, technical debt and onboarding time will increase significantly.
- **Refactoring Opportunities:** Files such as `RootBeer.java` show a high frequency of "touches." This indicates either high volatility or a need for refactoring to improve stability.

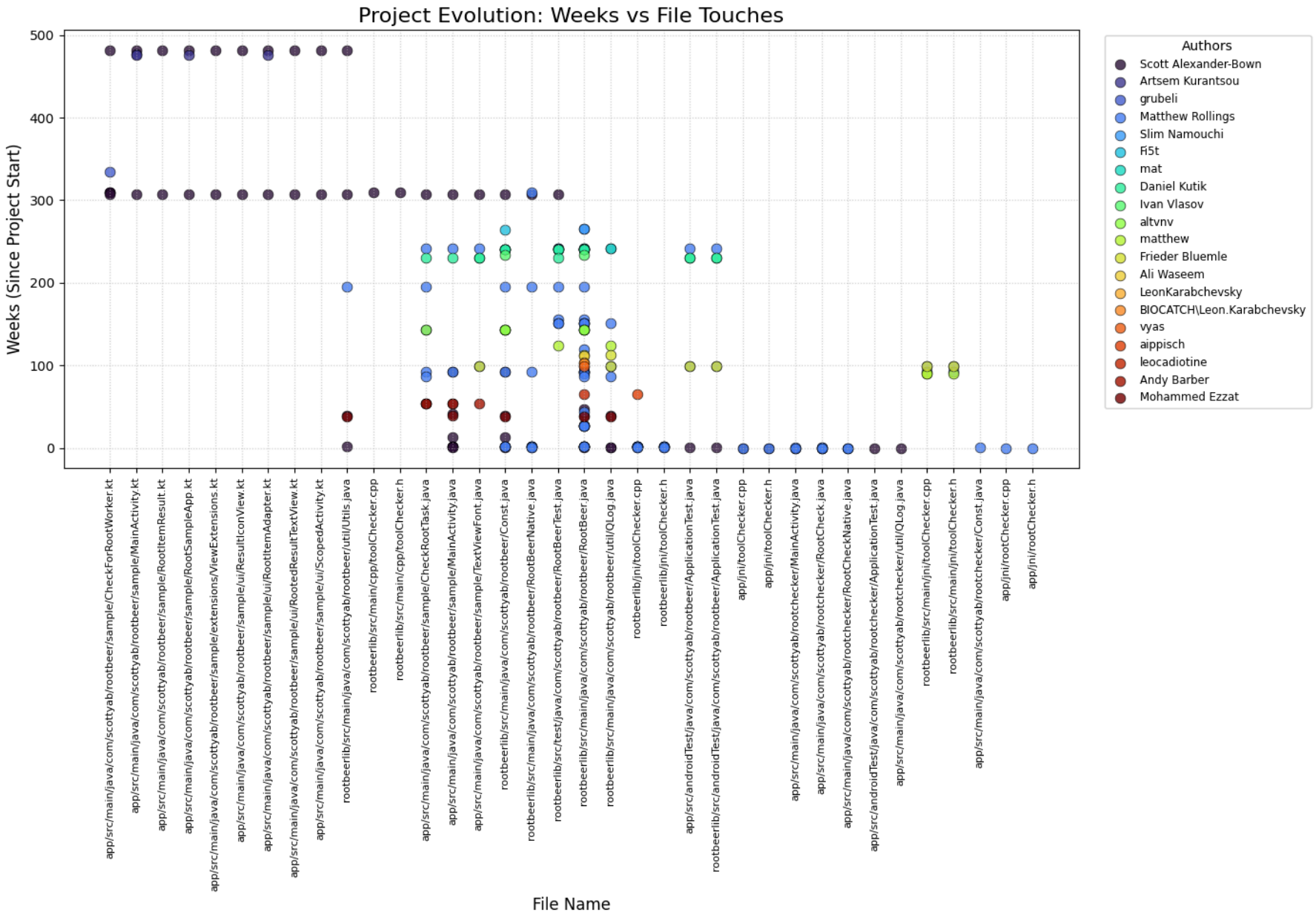
Visual Analysis

The attached scatter plot, in the second page below, illustrates the project timeline. You can observe the dense clusters of activity in the first 250 weeks, followed by maintenance phases at the 300 week and 480 week marks.

Technical Methodology

To complete this analysis, I utilized the GitHub API to extract commit metadata. Key Git commands that were instrumental in this process included:

- `git clone`: To mirror the repository locally for inspection.
- `git checkout -b`: To manage feature branches for mining scripts.
- `git ls-files`: To verify the count of source files against our mined data.


Project Evolution: Weeks vs File Touches
Weeks (Since Project Start)
File Name
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