

# EXECUTIVE SUMMARY: Rootbeer Repository Status

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## Project Overview

Rootbeer is an Android library that detects rooted devices, created by Scott Alexander-Bown and Mat Rollings. The library provides security sensitive applications with root detection capabilities through multiple techniques including native checks and binary detection. With 2,800+ stars and 500+ forks, it's a widely adopted security tool in the Android ecosystem.

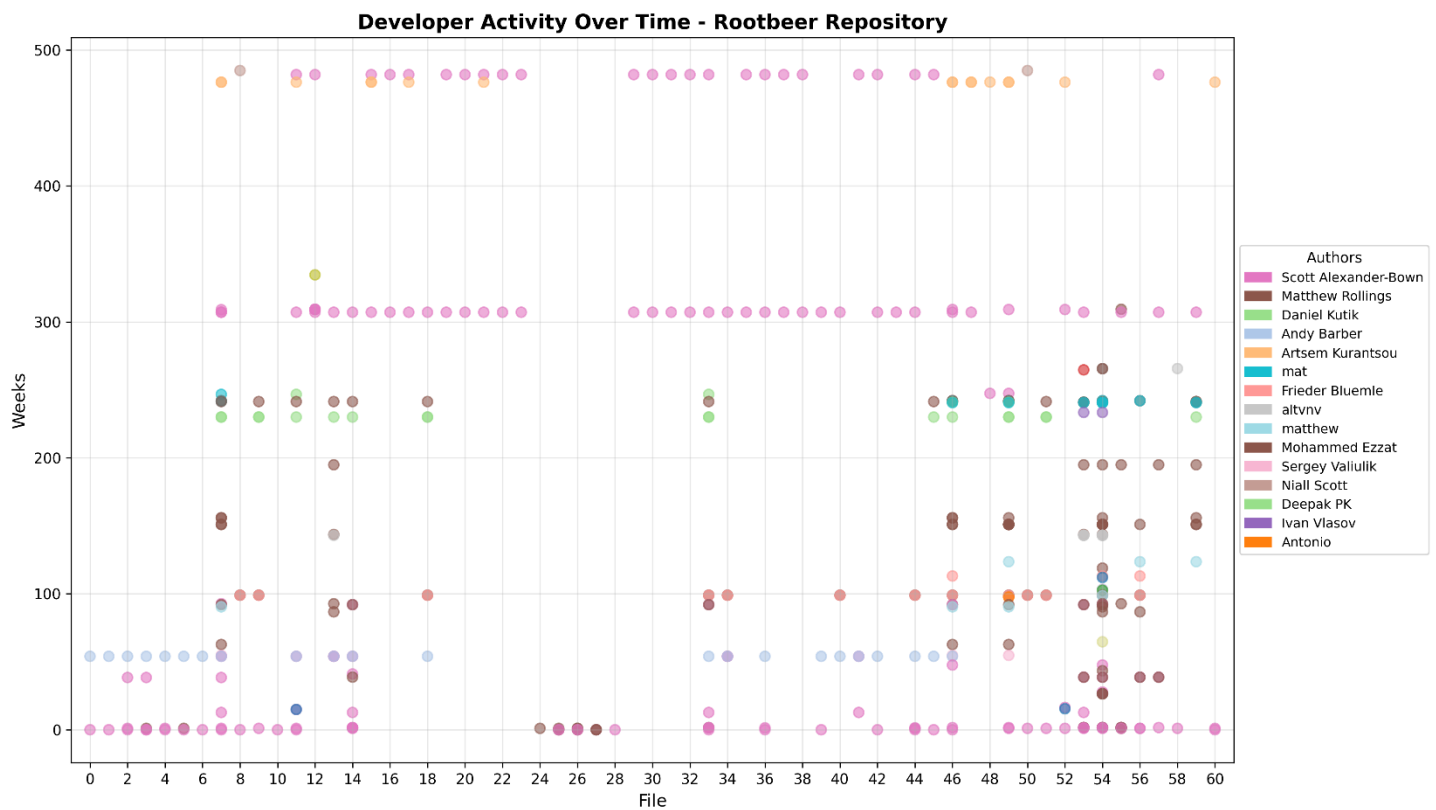
## Repository Activity

Active for 9 years with 60+ source files and 33+ contributors. Core files like RootBeer.java show 50+ modifications. The project is in mature maintenance mode with periodic Android compatibility updates. Most recent release (v0.1.1, Sept 2024) added Android 15 support.

## Key Contributors & Recent Activity

Scott Alexander-Bown (40-50% of commits) remains the primary maintainer and most active contributor. Mat Rollings (15-20%) co-created the native library implementation. Artsem Kurantsou (10-15%) handles build system updates. Recent activity shows Scott as the sole active maintainer, with other historical contributors having reduced involvement—typical for mature projects but indicating concentration of knowledge.

## Developer Activity Visualization



## Key Findings

- Hotspot files: RootBeer.java and build.gradle show highest modification frequency, indicating central maintenance points
- Development phases: Peak activity weeks 0-150 (initial development), maintenance mode after week 200, recent spikes for Android updates
- Bus factor risk: Heavy reliance on single maintainer creates sustainability concern

## Recommendations

- Establish co-maintainers and document architectural decisions to reduce dependency on primary maintainer
- Refactor high-touch files (50+ modifications) to improve maintainability and reduce technical debt

- Implement contributor retention strategies to build sustainable community engagement beyond one-time fixes

## **Analysis Methodology**

Analysis conducted using git commands. Most valuable commands: `git shortlog -sn` (contributor counts), `git log --since="6 months ago"` (recent activity patterns), `git log --follow` (file history tracking), and `git log --format="%ai"` (commit frequency analysis). These tools enabled repository insights without requiring deep historical knowledge.