A Dashboard for Test History
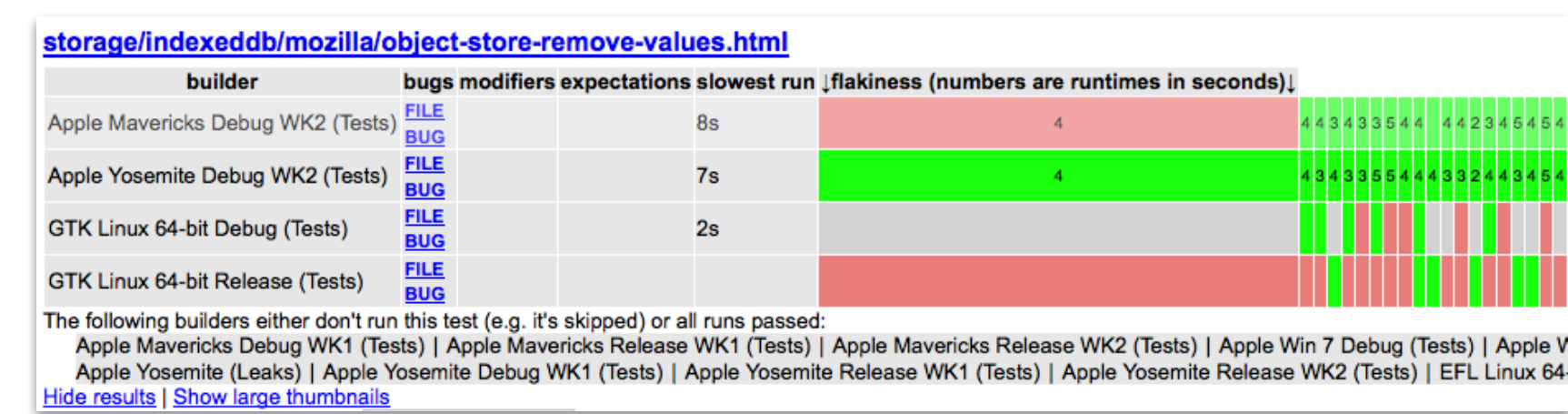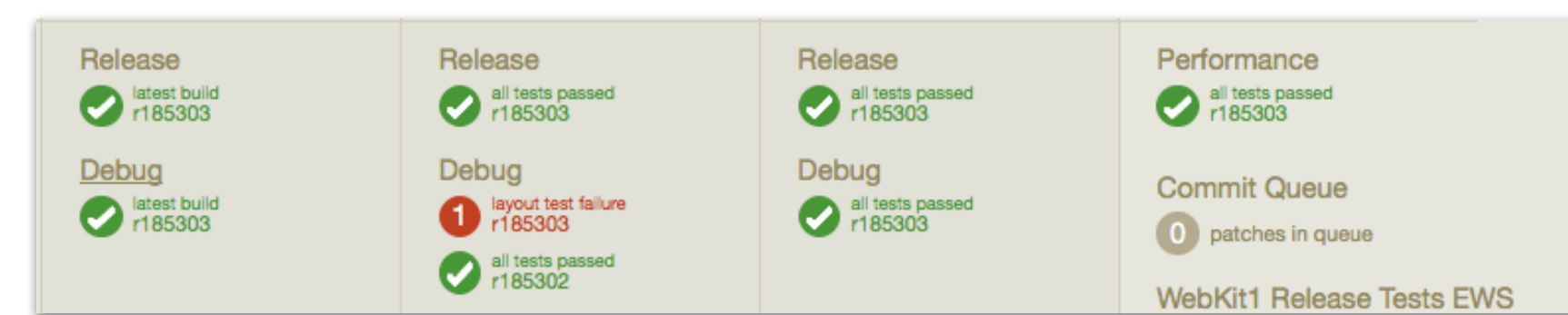
CSE 512 • Brian Burg • burg@uw.edu
www.brrian.org/webkit-dashboard
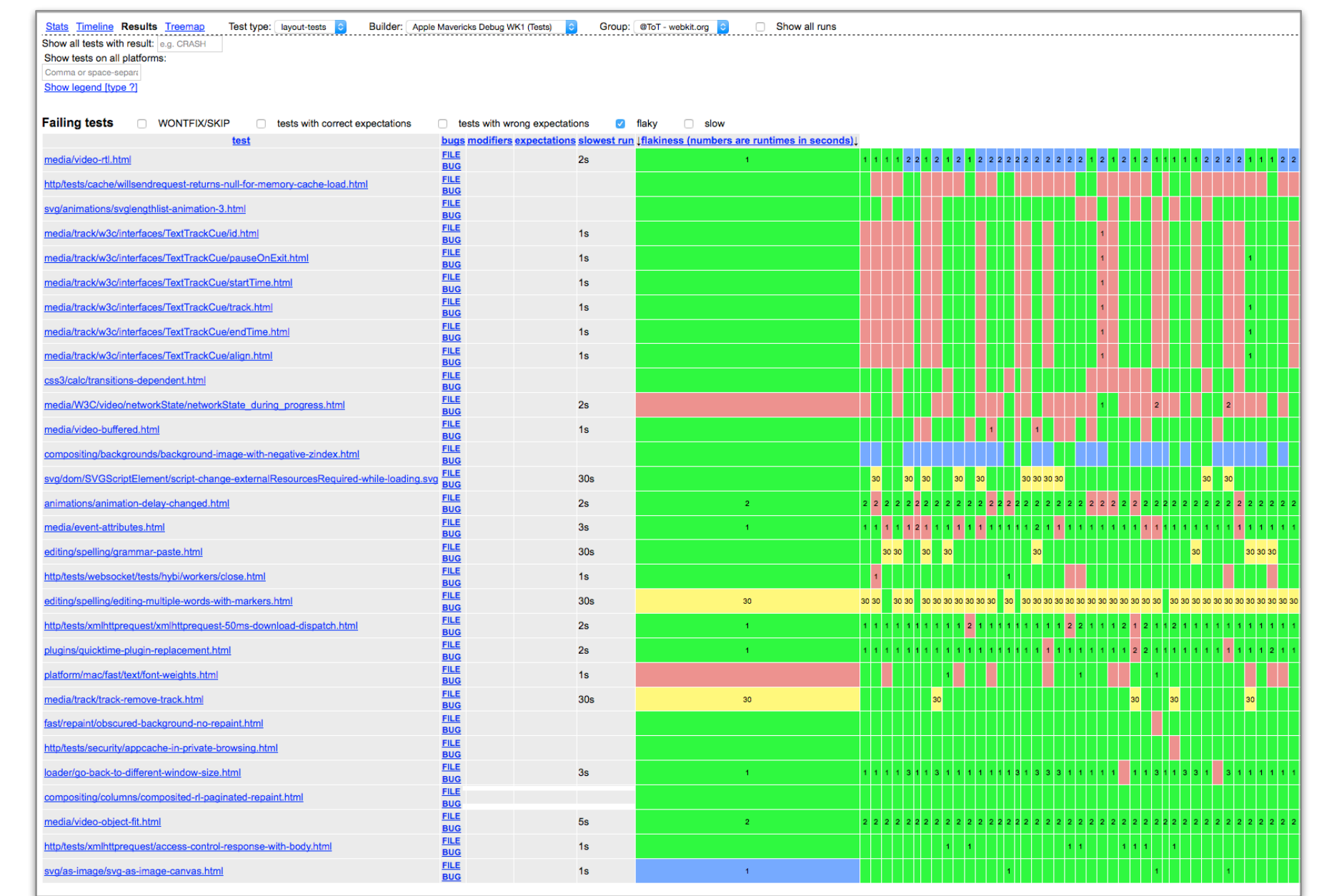
Diagnosing failing tests in a test suite is important and difficult.

WebKit (Safari)

2 million lines of code
~40,000 automated tests
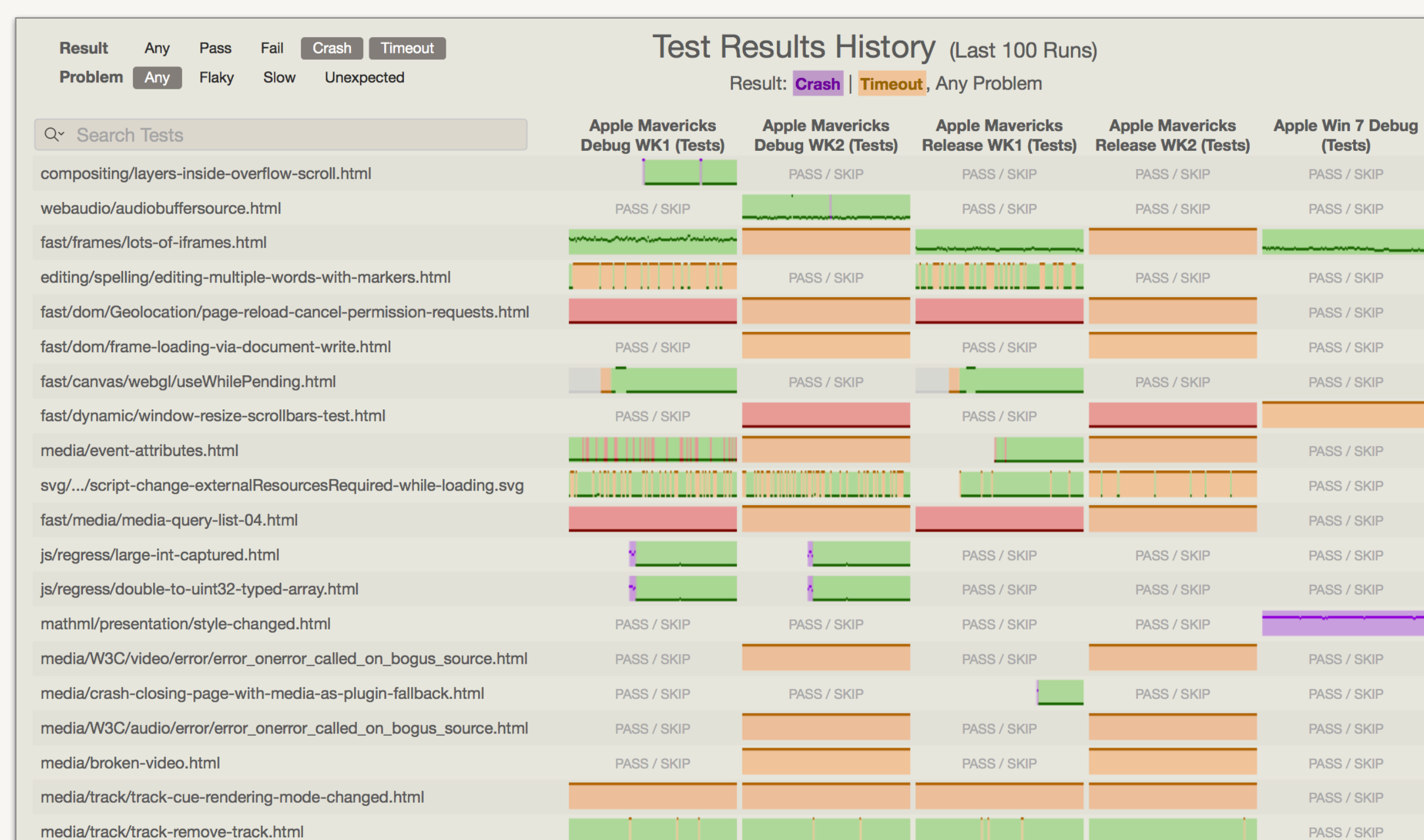300 developers
50 commits a day
1 on-call bot watcher

Large-scale software projects like WebKit contain thousands of tests.
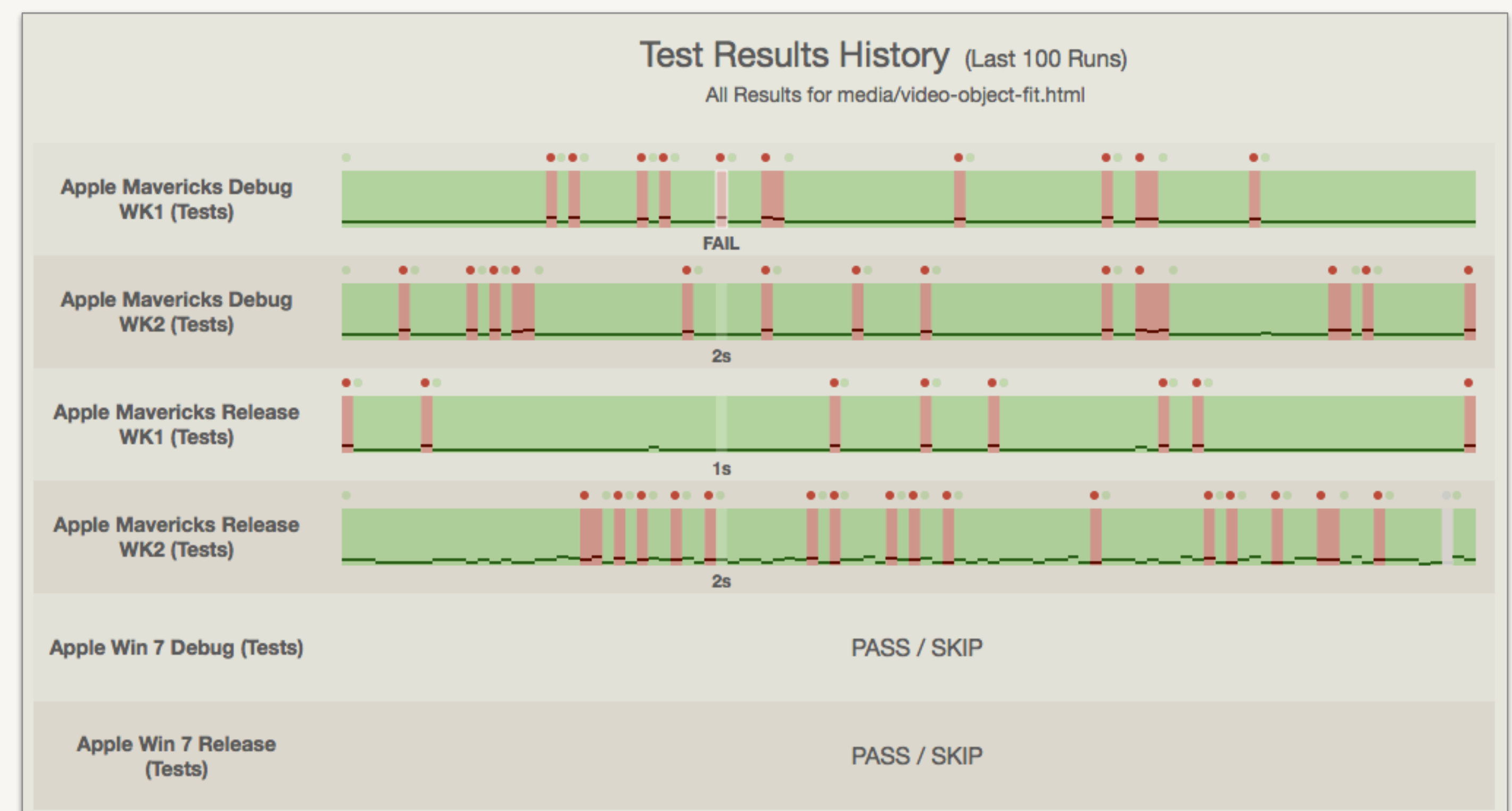
If a test regresses, an engineer must find the code change that's responsible.

Existing tools use poor visual encodings that make common tasks difficult.

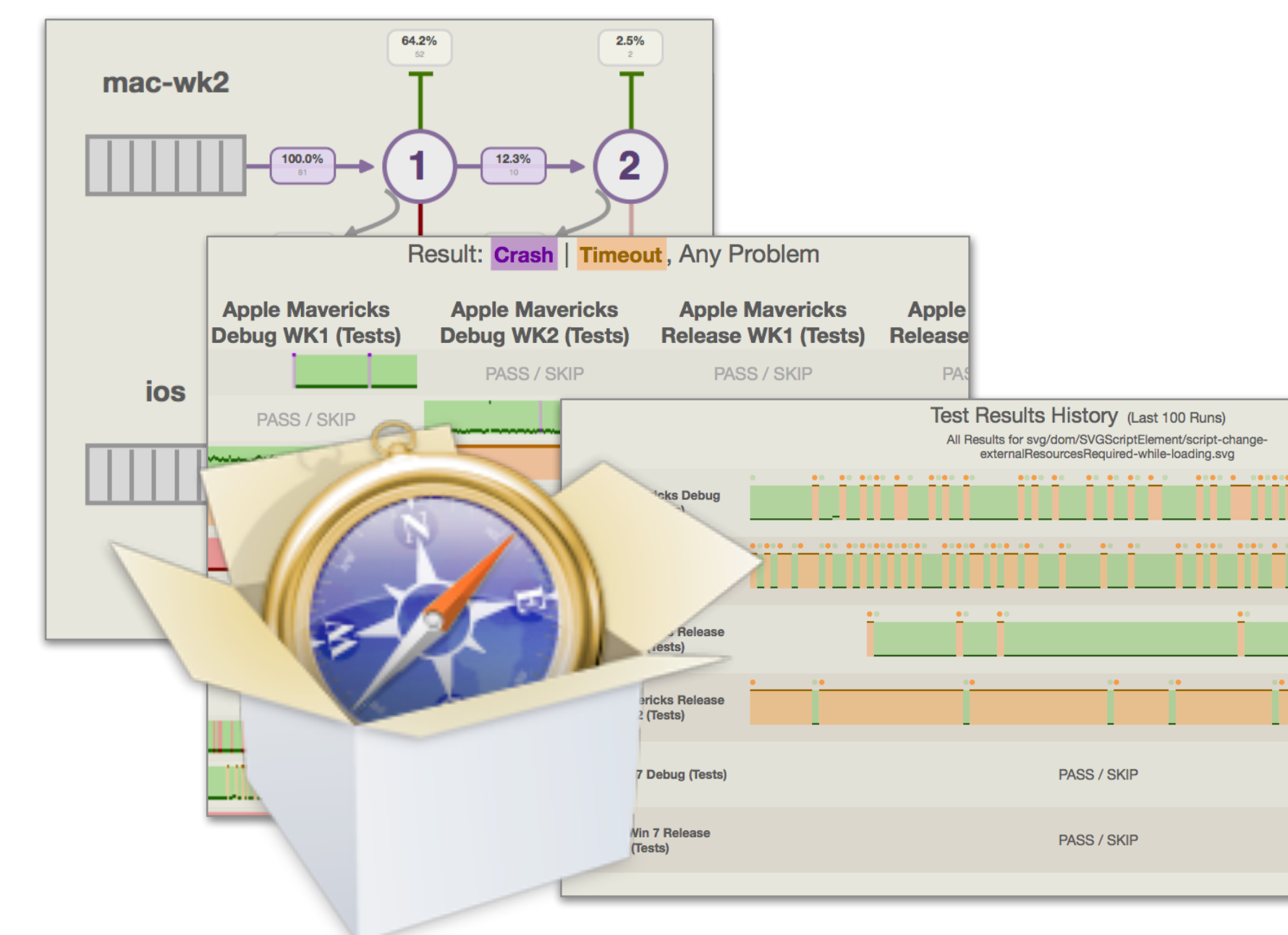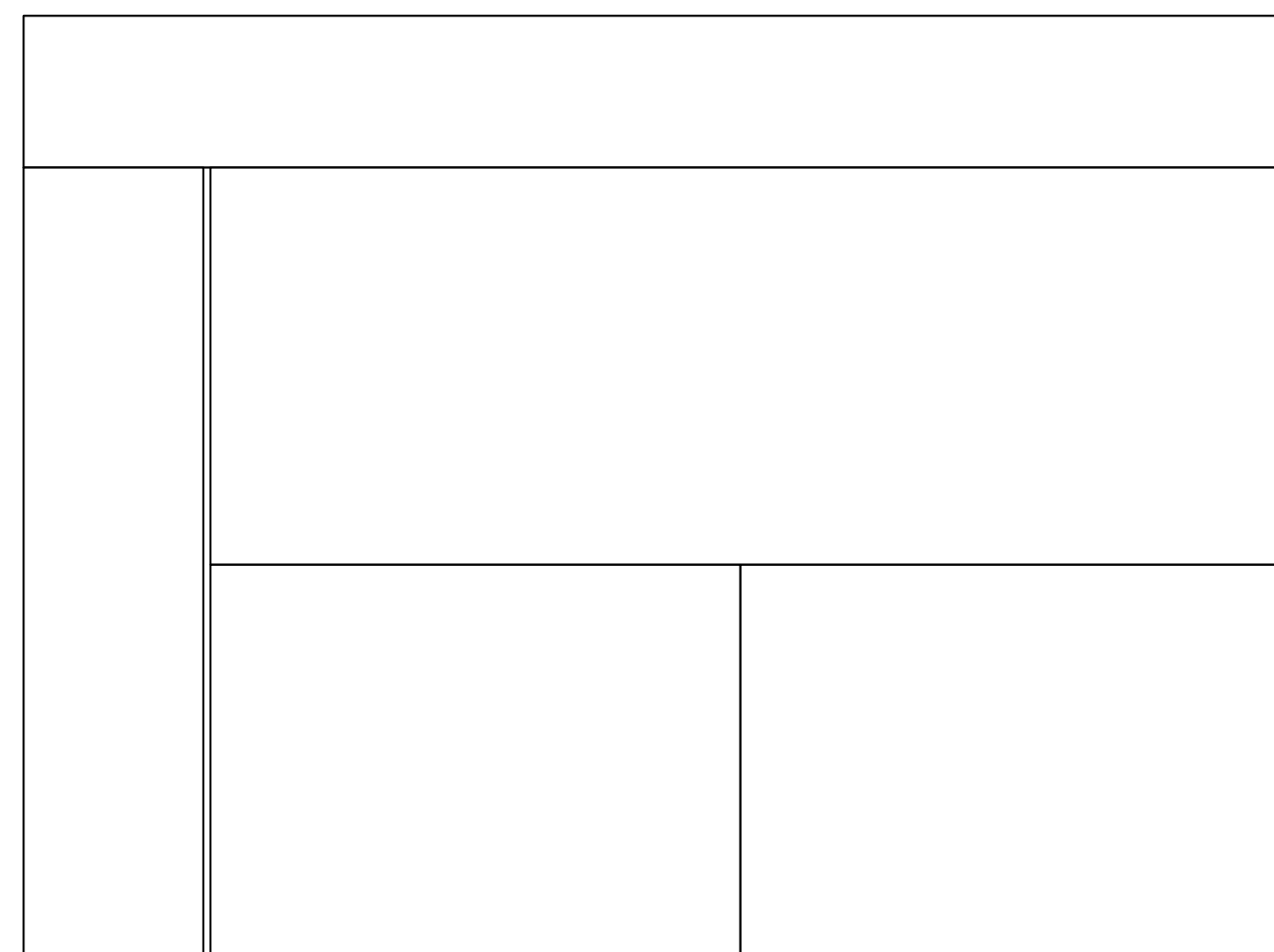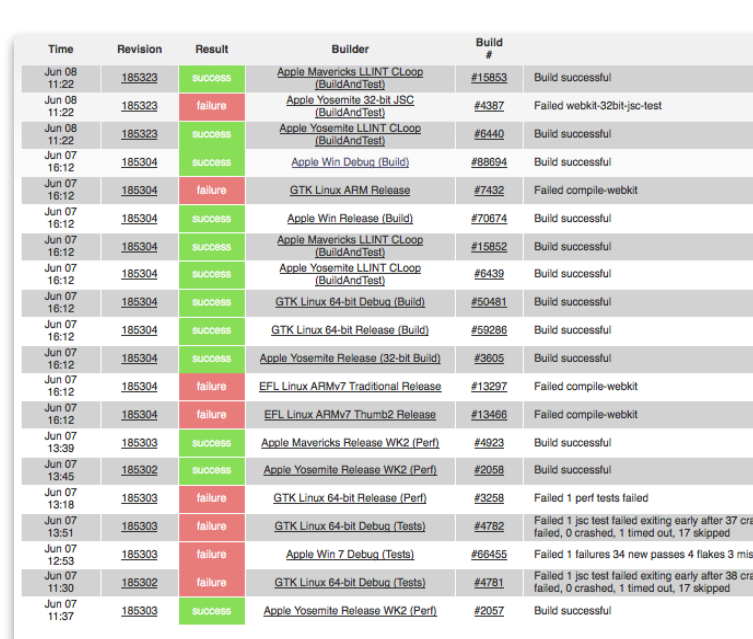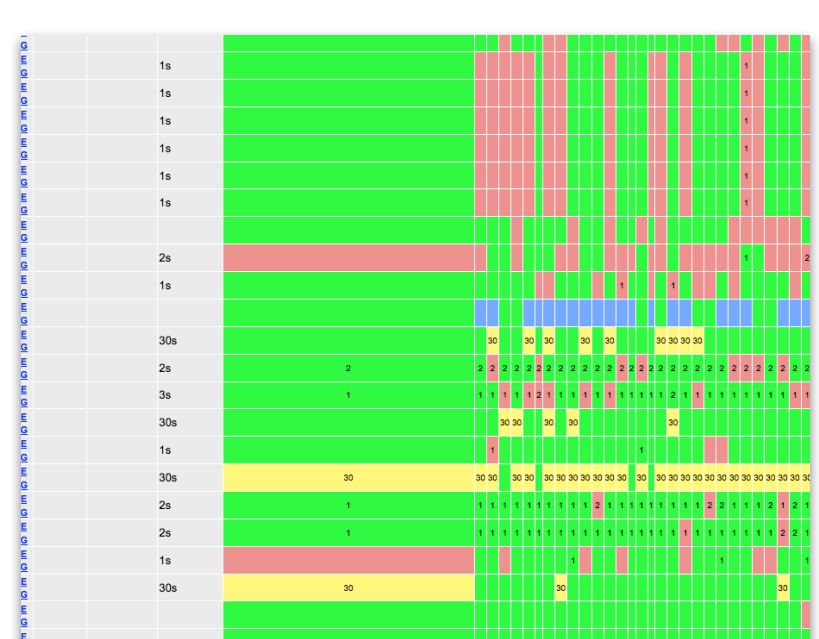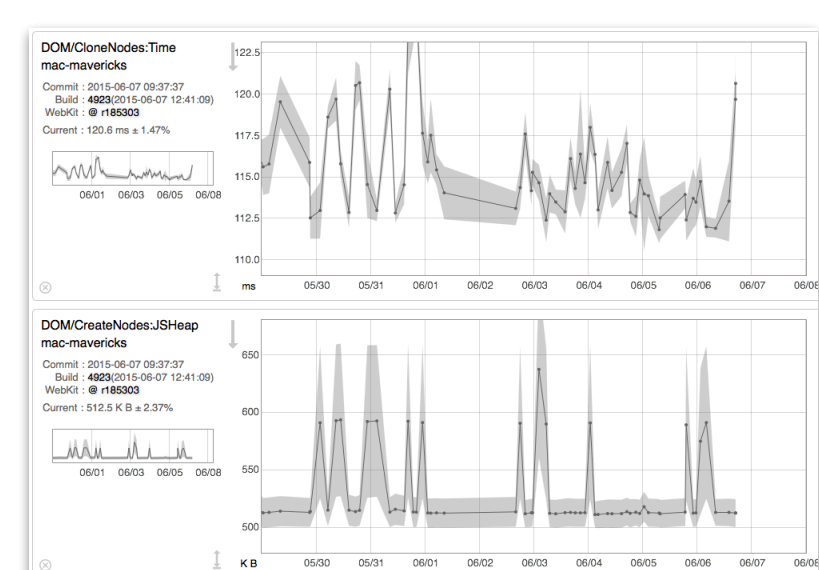## Solution: a dashboard that supports common test diagnosis tasks.

The test history overview is a flexible, compact visual index of recent test results, grouped by test and platform.

Detail views focus on a single test and highlight regressions and time trends.

Next: an interface for understanding builds, tests, and benchmarks.

Tools for understanding code changes are disconnected and hard to learn.

A dashboard approach integrates and visualizes key aspects of every change.

Plan: clean up and deploy class project dashboards to WebKit in Summer 2015.