Framework for Intelligent and Rapid Execution (FIRE) for Web, Analytics and Mobile

Flexi Hybrid Test Automation Solutions
Time to market is critical to corporate strategies, and companies are rapidly adopting DevOps and Agile environments. This necessitates shorter and more effective testing cycles, for which automated testing is the best solution available. Test automation boosts efficiency, and return on investment is realized quickly.

Tavant FIRE (Framework for Intelligent and Rapid Execution) provides quick turnaround and comprehensive automated test coverage with limited manual intervention.
FIRE solves your testing challenges for:

- Web
- Analytics
- Mobile
☑ Solution accelerator for complete functional automation of Web/ Mobile/Native applications
☑ Developed using open source tools like Selenium/WebDriver, Appium, TestNG, and Java
☑ Visibility via Test Management, Defect Management, and Reporting Modules
☑ Easy-to-use interface that results in high-quality deliverables
☑ Single framework to support both Desktop and Mobile apps

FIRE WEB offers 3 levels of script writing based on user skill set

A  Novice

B  Experienced

C  Expert
Features

- UI-driven test design for planning & execution
- Parallel test-case execution
- Cross-browser support
- Test cases can be grouped and caters to flexible organization of test runs without multiple copies
- Reusable and extendable generic functions library
- User-friendly customized reporting
- Results dashboard with trend analysis depiction and screen capture of test execution failures
- Integrated with defect management/tracking tools

Benefits

- Helps non-technical users to generate scripts
- Easy maintenance reduces test planning effort by 60%
- Parallel test execution reduces overall test execution time by ~60-70%
- Platform-independent support for test execution
- Easy integration of test scripts with CI tools, enabling automatic scheduling
- Upto 60% ROI in FIRE WEB
- Run tests in headless browser
Features

- Testing solutions across multiple environments such as cloud or on-premises
- Solution accelerators for data processing/ETL validation
- Expertise in data consistency checks
- Customizable for each implementation
- Better reporting and analysis through e-mail alerts, notifications, and dashboards
Benefits

- Test cycle time for data release reduces by 75%
- Reduces UAT cycle time by 80%
- 60-70% efficiency gain for presentation layer testing using automation
- Covers up to 100% data with continuous data monitoring
- Enhanced test coverage with flexibility to add new scenarios on regular basis
- Provides stakeholders the access to QA results
Helps automate native, hybrid, and mobile web apps on iOS and Android
- The framework solutions include technologies like Ruby, Java, Calabash, and Appium
- Integrated with Cucumber which helps to write tests/features in plain English
- Integrated with Jenkins for graphical representation of results
- Can re-run failed tests without human intervention
- Can start test execution from any device that has Internet connectivity

On a Build Server / Computer

![Diagram showing the integration of a Developer Computer/Build Server with a Device/Emulator, including Step Definitions, Ruby Client Library, Features, Instrumentation Test Server, and Your App.]

tavant.com/testing
Features

• Supports various application types and platforms
• Test suites categorization such as Smoke Test Suite, Regression Test Suite, etc.
• Based on Continuous Integration methodology; automatic script execution can be scheduled by Jenkins
• Enables web-based reporting for test execution reports to be archived for future references
• Cloud services allow parallel execution on multiple devices
• Works on BDD approach, letting developers script robust test cases with minimal programming knowledge

Benefits

• Reduces test execution time by 40-50%.
• Supports common gestures like multi-touch, swipe, scroll, zoom, shake, and pinch
• Verifies image by pixel-to-pixel comparison
• Failed cases reported with auto screenshot-capture
• Reduced test cycle time by 50-60%
• ROI of upto 70%
Case Studies

FIRE Web at Leading Mortgage Insurance Company for Independent QA

Tavant tested the pricing engine for a mission-critical system comprising hundreds of variables, multiple eligibility rules, and various adjustment factors. The FIRE Web implementation ensured 100% automation of Build Acceptance Testing (BAT) and successful certification by GSEs. **The productivity gain by automating 40,000 scenarios was 70%,** while the tests became easy to create, duplicate, maintain, and expand.

FIRE Analytics at The Global Leader in Next-Generation Television Services

Tavant verified 5 terabytes of data for successful processing, generated thousands of test cases, and executed them in a short span-yielding **20% defects on code validation and 80% on data validation.** The FIRE Analytics implementation included automated validation of characteristics like conformity, accuracy, duplication, consistency, validity, and data completeness. **The QE framework executed multiple dates/events at a stretch, reducing regression testing effort by 60-70%.**
FIRE Mobile at Leading American News Channel Reaching 400 Million Homes Worldwide

Tavant reduced test execution time by 40-50% and advanced the release schedule by almost 50%. The news channel achieved a return of 65% on the automation investment and drove multiple releases to online stores due to faster test execution cycles. The FIRE Mobile implementation increased the user base, which meant more sponsors per app and further increase in ROI for the channel.
About Tavant Technologies

Headquartered in Santa Clara, California, Tavant Technologies is a specialized software solutions & services provider that delivers impactful results to its customers across North America, Europe, and Asia-Pacific. Founded in 2000, the company employs over 1500 people and is a recognized top employer.