



End to End Functional Testing of Slot Games



Client Overview

- Client is a Leading Game publisher running social casino game services. They primarily focus on mobile and social networking platforms
- **Key requirement:** End to End functional validation of their web and mobile game applications
- **Testing Types:** Functional Testing, Regression Testing, Integration Testing, Performance Testing, Payment Gateways, Compatibility Testing, Usability Testing, Ads Testing
- **Application Modules:** Slot Machines, Daily Events, Level Progression, Events, Rewards, UI, In App purchase



Business Requirements

- To validate end to end functionality of the slot-based games
- To ensure the compatibility of the games on iOS, Android and Amazon kindles
- To capture Test metrics for all the releases
- To conduct Stand-up meetings on daily basis, bug triage and release retrospective meetings
- To provide daily status reports



Engagement

Project duration –2015 –Ongoing (Multiple Projects)

Team Size –25 per project



Key Challenges

- Ensuring Bug free releases
- Supporting QA across multiple studios
- Addressing Flexible release timelines
- Testing on multiple handsets and platforms for compatibility
- Detailed and more content to be pushed into a release cycle
- Measuring game application performance across multiple devices in the market
- Retaining old customers and acquiring new customers



Deliverables

Daily Status reports, Release retrospective report, Defect reporting



Our Solutions

- Developed Game functionality coverage matrix linking each requirement to test case for optimal test coverage
- Created Check-lists to ensure the game functionality (Game launch, Login, Re-spins on different set of reels functions, Pick and win rounds, Bonus wheel spins, Bonus play etc.)
- Authored and executed more than 82,295 test cases per release in multiple projects covering all the integration points and functionalities on 174+ devices (Android – 70, iOS – 75 and Amazon Kindle – 29)
- More than 40,424 defects were logged during the testing phase out of which 61% were categorized as critical defects
- A total of 9284 manual QA hours per release in multiple projects was required to cover the end-to-end testing of the game applications
- Covered Release cycle testing and feature testing along with sanity tickets and bug regressions
- Implemented a comprehensive reporting solution to display test execution status and defect status with most critical updates through clear graphical representation
- Implemented QA best practices for an improved visibility into the quality of the slot-based games and testing Identified bugs in the initial phases of testing which resulted in cost and time savings
- Established risk-based regression testing for subsequent sprints to ensure previous features haven't been impacted by the latest game updates



Business Impact/Benefits delivered

- 99.9% Bug free releases.
- Provided cost-effective solution and improved quality of the application
- Achieved 100% requirements coverage for all feature updates
- Performed compatibility testing on a wide range of devices which led to significant device cost savings and helped maintain rich user experience
- 100% QA ownership thereby delivering matured testing practices thereby reducing the pressure on the customer in maintaining an inhouse QA team
- Extended QA support which helped in cost saving of the customer as compared to testing by the inhouse QA team
- QA team aligned themselves in the customer's time zone which helped in effective communication between the onsite and offshore team



Tools/Technology

- Game admin tool, Test rile, Jira, Charles, Game bench



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