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Level Up Your Game Development: The Power of Game Test Automation

In the ever-evolving world of game development, delivering high-quality gaming experiences is crucial for capturing and retaining players' attention. As games become more complex and immersive, ensuring their functionality, performance, and reliability across different platforms and devices poses significant challenges for companies. This is where **game test automation** steps in as literally a 'game-changer'. Pun intended!



Being testing experts here at **T-Plan** we'll look to explore the importance of test automation in game development, its benefits, best practices, and tools to streamline the process.

The Importance of Game Test Automation:

Game test automation plays a pivotal role in the game development lifecycle by automating repetitive testing tasks, allowing developers to focus more on enhancing gameplay and features. With automation, developers can efficiently test various aspects of the game, including functionality, user interface, performance, and compatibility, ensuring a seamless gaming experience for players. Gone are the days when players would put a fault down to a 'glitch' or 'lag' and expectations on how games render have massively increased.

Benefits of Game Test Automation:

- **Increased efficiency:** Automation accelerates the testing process, enabling faster release cycles and reducing time-to-market for games.
- **Improved test coverage:** Automation facilitates comprehensive testing across different platforms, devices, and game scenarios, ensuring thorough coverage.
- **Enhanced accuracy:** Automated tests are executed consistently and accurately, minimising human errors and providing

reliable test results.

- **Cost savings:** By reducing manual testing efforts, automation helps in lowering testing costs and optimising resource.
- **Early bug detection:** Automation allows for early detection of bugs and issues, enabling developers to address them proactively and improve overall game quality ready for market.

T-Plan Game Test Automation In Ac...



T-plan's Visual UI test for Need For Speed – See who else we've worked with [here](#).

Best Practices for Game Test Automation:

- **Define Clear Test Objectives:** Identify the key functionalities, features, and performance metrics to be tested.
- **Choose the Right Automation Tools:** Select automation tools that are well-suited for game testing, considering factors such as platform compatibility, scripting capabilities, and reporting features.
- **Implement Modular Test Design:** Break

down test scenarios into modular components to facilitate reusability and maintainability of test scripts.

- **Use Realistic Test Data:** Utilize realistic game data and scenarios to simulate actual gameplay conditions and ensure accurate testing.
- **Continuous Integration:** Integrate automated tests into the development pipeline to enable continuous testing and early bug detection.
- **Monitor Test Execution:** Regularly monitor test execution and analyze test results to identify patterns, trends, and areas for improvement.

Tools for Game Test Automation:

There are a few great testing platforms out there that you can choose from but **T-Plan's** gives a unique Visual UI Testing tool that's perfect for the visual nature of Game Development.

- **T-Plan Robot** – Offering the only Visual UI Testing tool that mimics user play across any device, platform or operating system. Picking up bugs on real-time footage rather than back-end code.
- **Unity Test Framework:** A built-in testing framework for Unity games, allowing developers to create and execute automated tests within the Unity Editor.
- **Appium:** An open-source automation tool

for mobile games, supporting cross-platform testing on iOS and Android devices.

- **Selenium WebDriver:** A popular automation tool for web-based games, enabling browser-based testing across different browsers and platforms.
- **GameDriver:** A specialized automation tool for game testing, offering support for various game engines and platforms, including Unity and Unreal Engine.
- **TestComplete:** A comprehensive test automation tool that supports testing of desktop, web, and mobile games, offering robust scripting capabilities and reporting features.

To conclude:

Game test automation really will be a game-changer in the world of game development, empowering developers and QA testers to deliver high-quality games efficiently and reliably. Ultimately saving time and money and increasing brand reputation by enhancing player satisfaction and driving success in the competitive gaming industry.

Embrace automation and level up your game development journey today!

Get in touch for your **FREE** custom demo.

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 **Anna Mountford**  **March 21, 2024**

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