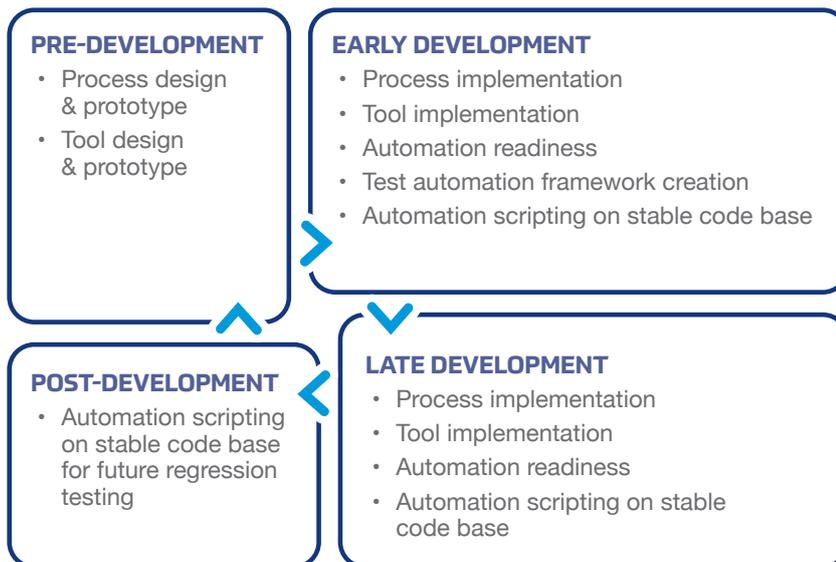**Keywords**
Functionality QA

SUCCESS STORIES:
LEADING DEVELOPER INCREASES TEST EFFICIENCY BY UP TO 20% WITH CUSTOM TOOL BUILT IN UNREAL

KEYWORDS QA ENGINEERING CREATES AN IN-GAME SOLUTION RESULTING IN STREAMLINED BUG LOGGING

The implementation of an effective testing plan throughout the development lifecycle is key to creating production efficiencies. However, you require certainty that you have covered all issues or your game may not perform at its best.

At Keywords Studios, we have collaborated with numerous clients for many years, partnering for optimal testing results.

OPTIMISING FOR SUCCESS THROUGHOUT THE DEVELOPMENT CYCLE

PRE-DEVELOPMENT
- Process design & prototype
- Tool design & prototype

EARLY DEVELOPMENT
- Process implementation
- Tool implementation
- Automation readiness
- Test automation framework creation
- Automation scripting on stable code base

POST-DEVELOPMENT
- Automation scripting on stable code base for future regression testing

LATE DEVELOPMENT
- Process implementation
- Tool implementation
- Automation readiness
- Automation scripting on stable code base

OVERVIEW

Customer Profile
US-based development studio.

Industry
Video games.

Business Challenge
A manual testing team working in Unreal Engine was spending additional hours gathering data as part of the bug submission process.

Solution
The creation of a custom tool that allowed for a single entry point for filing bugs from within the game being tested, with map and player data automatically added, as well as the game session logs, video clips and screen shots.

Results
Testers saved up to 20% of their time by using the custom tool by streamlining search and video editing activity.

The Challenge

A US-based developer had engaged Keywords Studios for manual Functionality QA (FQA) services. The client required a solution to gather feedback information to create bugs in a more time-efficient manner and commissioned the Keywords Engineering team to devise and build a tool to streamline the process.

The Keywords QA Engineering team was also tasked with ensuring certain data points were ever-present in bug entries in Jira. Testing was conducted in the Unreal Engine and there was a specific requirement that the new tool capture in-game data for bug reporting. It was essential that the bugs included the required data to help the development team find and reproduce the issues.

That data included the name of the game map where the bug was found, as well as the player character's location and point of view. Furthermore, game session log files and a short (~20 seconds) video clip of gameplay leading up to and including the bug were also required.

The Solution

Prior to the tool being completed, the bug filing process involved multiple, complex steps. A tester had to manually create the bug, find the player location information and map name and add that to the bug manually, as well as to the log file.

This solution required Jira as an endpoint, the Unreal engine and plugin framework, C++, and OBS. For the Keywords QA Engineering team to address the challenge, integration with Jira was conducted through its published REST API. This was built as an Unreal plugin that handled creating a UI for the testers to complete with a bug title and description.

Once the form was populated and the tester simply clicked the 'submit' button, the plugin packaged and sent the data to the Jira endpoint. Following issue creation, the game session log files, video and screenshots were automatically added to the issue as an attachment.

ONE BUTTON - GAME TO JIRA
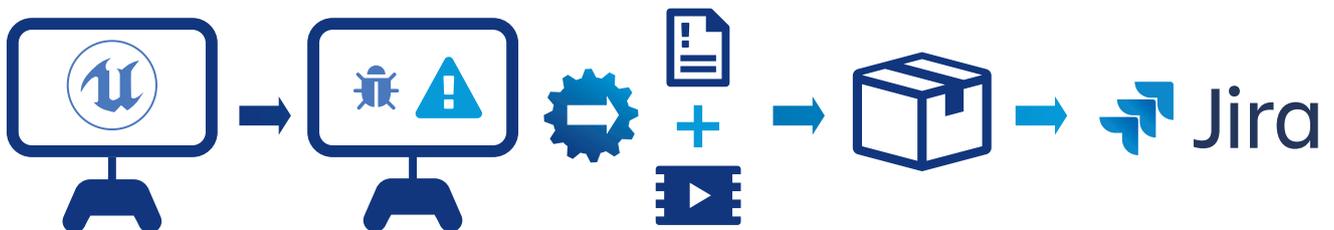
The Result

The Keywords QA Engineering 'Bug Logging Tool' created a single entry point for seamlessly filing bugs from within the game during testing, with map and player data automatically added, as well as the game session logs, video clips and screen shots.

Testers saved up to 20% of their time by using the tool and removing layers of process complexity. Editing a full video clip (not the desired ~20 seconds, but all of the gameplay for that session) to a smaller clip that contained the bug, then adding the resultant clip manually as another attachment completed the steps. The new tool gathered the required information at the touch of a button.

Other Applications

Recurrent and time-intensive tasks can be automated to free up your teams to focus on other responsibilities. The Keywords QA Engineering Bug Logging Tool is just one of many tools and capabilities that Keywords can provide to help your team increase efficiencies.

Are you ready to streamline your production processes and create efficiencies with Keywords QA Engineering? Enter your details <u>on our website</u> to get a proposal.

ABOUT KEYWORDS STUDIOS

Keywords Studios is a leading technical and creative services provider for global video games and beyond. With locations in Asia, the Americas and Europe, Keywords Studios has a breadth and depth in multiple industry-leading service lines including Art, Game Development, Audio, Functionality QA, Localization, Localization QA and Player Support. Working across all major platforms, in more than 50 different languages, Keywords Studios delivers support for its clients across the globe.