



CASE STUDY

PUMA AG iPad Shoe Configurator and Order System Independent QA



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I. BACKGROUND

Williams Forrest has enjoyed a long-standing relationship with Kirshenbaum Bond Senecal + Partners (KBS+P) as their go-to partner for providing Independent QA Services in support of their clients and projects.



Kirshenbaum Bond Senecal + Partners is a full service advertising agency headquartered in New York City and has over 274 employees. .



PUMA AG Rudolf Dassler Sport is a fashion and apparel company headquartered in Herzogenaurach, Germany

In mid 2010, KBS+P again turned to the Williams Forrest Independent QA Services team to partner in supporting a leading-edge interactive project that they were engaged in with PUMA AG that would be implemented globally in PUMA stores and target in-store shoppers.

The project featured a native iPad application with highly-interactive user interface that showcased all of the unique interactions available with the iPad, including multi-finger multitouch, swiping, pinching and reverse pinching. Through the use of the interactive user interface and rich CGI graphics, in-store shoppers are able to configure custom PUMA shoes using more than a billion possible color, material, and shoe style combinations and then send the custom configuration/order to the in-store POS and order fulfillment system instantly.

II. CHALLENGES

Every project has its own unique challenges associated with it - whether related to project management or the complexities of the deliverables themselves, the success of the project relies heavily upon an established methodology and services delivery framework. To address the boilerplate needs of every partnership or project, Williams Forrest employs an Independent QA Services framework called Willow™ that is used on every engagement. The Willow™ framework is a proprietary combination of project management and services delivery practices and activities derived from a number of sources including experience, the Agile methodology, and best practices for QA. The goal of the framework is to provide both the Williams Forrest Independent QA team and our partners with a highly transparent, highly collaborative, and dependable means of premium QA services delivery throughout the lifecycle of the project.

1. The primary challenge for this project was to ensure, evaluate, and verify that all of the deliverables that constitute the project were completed per the specifications of PUMA and KBS+P. This included focusing our testing on functionality, operability, usability, configuration, deployment, and product accuracy.
2. Another challenge that the Williams Forrest Independent QA team faced in the delivery of testing services in this project was the sheer magnitude (over a billion) of possible combinations in the PUMA shoe configurator application that needed to be tested for product accuracy. This effort included designing and executing test cases focused on ensuring the PUMA iPad application was allowing users to configure shoe combinations that were accurate per the product guidelines supplied by PUMA.
3. Of critical importance to the business goals of the client was the integration of the PUMA iPad application with both the in-store POS and the PUMA enterprise order fulfillment systems. Not only did the PUMA iPad application have to present shoppers with accurate and possible PUMA shoe configuration options, but the configuration orders had to be accurately sent in real-time to both the in-store POS for payment as well as to the PUMA enterprise order fulfillment system for manufacturing and ultimately delivery back to the store of origin.

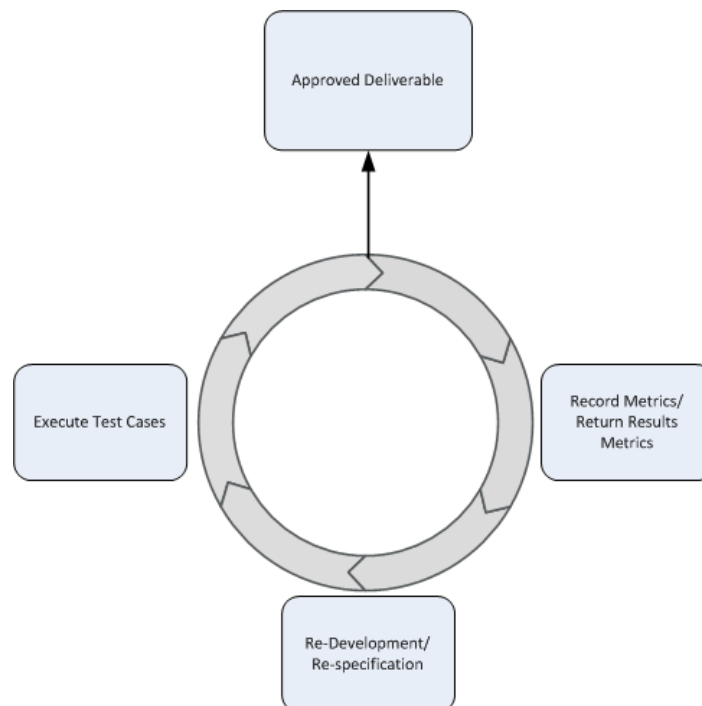
III. SOLUTIONS

The Williams Forrest Independent QA Services offering is unique in that all testing activities are designed and carried-out from the perspective of the target user of the product being tested. Therefore, Williams Forrest works with our partners to establish a clearly defined understanding of what the target user’s needs and habits are as they relate to the product. When performing functionality, operability, usability, and product accuracy aspects of a product, the Williams Forrest Independent QA team executes all test cases manually and in a manner that is identical to how the identified target user will interact with the product. This unique approach ensures that all of the testing works to uncover issues that the target user is likely to encounter and therefore has enormous value in ensuring the final product will be the most useful and relevant to its intended audience.

1. For this PUMA project, the Williams Forrest Independent QA team worked in close collaboration with the KBS+P team to design and create a test plan and test cases aimed at ensuring all project specifications and requirements for functionality, operability, usability, configuration, deployment, and product accuracy were accounted for, tested, with results metrics returned to the KBS+P team for remedy and re-testing.

As depicted in Diagram 1.0 below, the typical QA cycle includes initial execution of test cases and return of the results metrics for re-development or re-specification. This cycle continues until an approved deliverable is achieved.

Diagram 1.0 – Typical QA Cycle



2. To address the specific complexity and feasibility associated with testing over a billion possible PUMA shoe configurations, Williams Forrest in collaboration with KBS+P devised a testing approach that focused on ensuring that the PUMA iPad application was loading all of the colors, materials, and shoe

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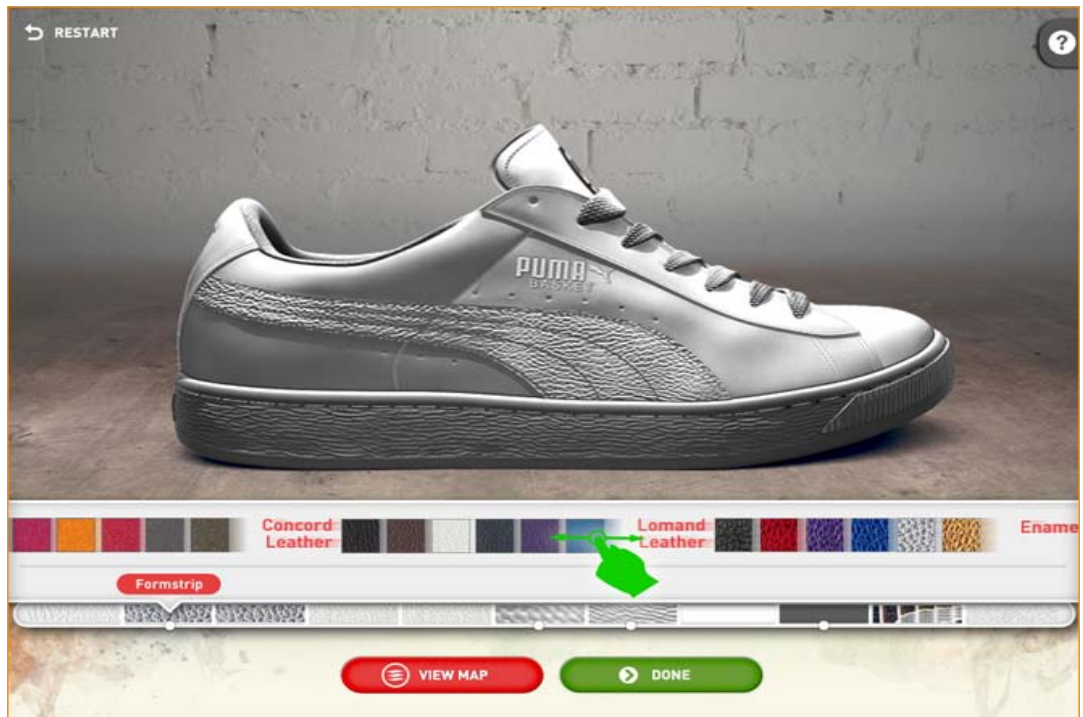
parts per the product specifications provided by PUMA. The goal of this approach focused on the concept that if the application displays the choices accurately, then the probability that all subsequent configurations using those options would also be accurate.

3. To handle the high critical volume of communication, test cases, and results metrics used throughout the project, the team utilized the Atlassian JIRA project management ticketing system for accurate reporting of all activities related to both the development and testing of all deliverables.
4. Testing the integration between the PUMA iPad application shoe configurator, the in-store POS, and the PUMA enterprise order fulfillment systems required Williams Forrest to create and ultimately execute test cases that focused entirely on the workflow process of creating a shoe configuration all the way through to manufacturing. Each step of the process/workflow was tested to ensure that each step was functioning and outputting data per specifications.

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The following screens illustrate different aspects of the project for reference.

Screen 1.0 – PUMA iPad Application



Screen 2.0 – PUMA iPad Application



IV. RESULTS

Through reliance upon the Williams Forrest Willow™ framework, the quality of test cases and services, the project was completely tested from all aspects by the Williams Forrest Independent QA team within the project timeline and within the project budget.

We consider the following quote from our partner project manager at KBS+P to be the best result metric achievable from a project such as this one:

“WILLIAMS FORREST ROCKS – PLAIN AND SIMPLE. THEY DON’T JUST GET THE JOB DONE; THEY GET IT DONE WITH AN INCREDIBLE EYE FOR DETAIL AND A NO B.S. ATTITUDE. I KNOW THAT WHEN I TURN A PROJECT OVER TO WILLIAMS FORREST THAT THEY WILL EXECUTE IT WITH VERY GOOD, CAPABLE HANDS. I NOT ONLY RECOMMEND THEM BUT I ALSO LOOK FORWARD TO WORKING WITH THEM AGAIN SOON.”

- **ALI COLE, SENIOR DIGITAL PRODUCER, kbs+p**

If you are interested in partnering with Williams Forrest for Independent QA Services or any of our premium service offerings, please contact David McNaughton by email at david.mcnaughton@williams-forrest.com or by phone at **717.517.9438**.

