Positive business impact through shorter test cycles

CLIENT
TVNZ

INDUSTRY
MEDIA & ENTERTAINMENT

TTC SOLUTION
TEST AUTOMATION USING
TRICENTIS TOSCA

Inspiring New Zealanders on Every Screen

TVNZ is New Zealand's national broadcaster, operating four channels – analogue and digital — and an online "catch up TV" service called 'TVNZ OnDemand'. TVNZ's Strategic Plan, titled "Inspiring New Zealanders on Every Screen", emphasises TVNZ's strong focus on providing viewers, consumers and customers with the content and services they want and expect from New Zealand's leading television and digital media company.

About 90% of TVNZ's revenue is gained through commercial activity such as advertising, licensing, merchandising and hiring out production resources. The other 10% of revenue comes from government sources. The system used for booking and managing TV channel advertising and associated revenue is a product called MediaBook. TVNZ worked with TTC to help establish a maintainable, scalable and cost-effective test automation solution to aid in cost reductions for Mediabook Projects.

Key client challenges

The manual test suite for MediaBook consisted of 2,500+ testcases across the 16 different functional modules and 15 interfaces to internalexternal broadcasting systems, giving system coverage of close to 90%.

Many of the tests required such an extensive data set-up component prior to the start of test execution that it took 15 person-days per test cycle to prepare the data. Additionally, given the nature of the business, the data used for TV broadcasting decays over time (as soon as it is aired), so it cannot be reused.

Each new release had a test cycle which lasted 3-4 weeks. Due to the complex nature of the application, a test cycle would require 5 business users and 5 testers, to set aside blocks of time during which they would first set up the test data, and then run through the manual tests.

This had a significant negative impact on TVNZ's regular work schedules. Typically the full test suite would not be completed within the allocated time frame, resulting in a lower than desired coverage and an increased risk of undetected defects. Also, due to the amount of effort required and the disruption to business users whenever a manual test suite had to be run, TVNZ were not able to upgrade the system as frequently as they would have liked in order to benefit from newer releases.

The primary objective of automation at TVNZ was to reduce the duration and cost of a test cycle and therefore increase the frequency with which upgrades could be made. Additionally, TVNZ sought to reduce the negative impact of the extended work load on its business users, especially taking into account the extensive and inefficient "one-off test data" setup task required for every test iteration.

TTC's approach

TVNZ conducted an on-site proof of concept with TOSCA Test Suite in order to assess its ability to effectively steer the complex MediaBook application. The proof of concept successfully met all of the goals set out prior to commencement of the assessment, within the allotted period of 5 days to demonstrate the automated steering of MediaBook.

Over the course of four months an automated test suite solution was established and continues to be expanded upon, with a strong emphasis on reuse and scalability.

Implementing a reusable test case design within Tosca has enabled an expansion to the scope of existing manual test cases, and has resulted in higher risk coverage than was previously achieved.

"Implementing TOSCA will enable TVNZ business SMEs to focus on strategic goals, increase the integrity and agility of our software testing discipline, at an acceptable ROI."
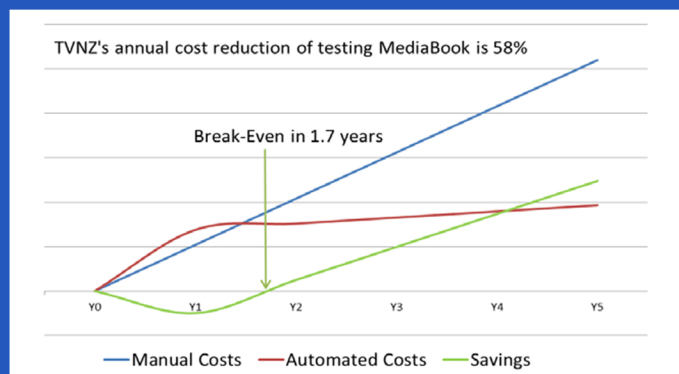
— Sales Systems Manager, TVNZ

The results speak for themselves

After four months the test artifacts produced, stood at 1,268 unique test cases, covering a total of 12,215 verification points – three to five times more than would be checked manually by the tester/business user. For all the common parts, including the data setup pre-requisites, these test cases make extensive use of the reusable test step blocks. With 521 reusable test step blocks and 3,448 instances of reuse, this indicates an average of almost seven reuses per block so far.

The first time TOSCA was used to execute test cases against a new release of MediaBook, it was in conjunction with manual testing. After an effort of 70 person-days, the manual team had executed   1,450 original non-automated tests.

To execute the automated equivalent in TOSCA (covering 3-5 times more verification points than the manual suite), a TOSCA proficient tester from TTC with absolutely no TVNZ business knowledge was brought in. TTC subsequently ran through 1,545 automated test cases - including the automated setup of test data - in only 4 days, covering large areas of the system and only calling on subject matter experts when a test failed, freeing up the business users from the bulk of the testing effort.

With such a high coverage now being achieved through automation, TVNZ is able to benefit from speedier test cycles and less use of business resource effort.

TVNZ's annual cost reduction of testing MediaBook is 58%

Break-Even in 1.7 years

— Manual Costs — Automated Costs — Savings

"TVNZ broadcast sales systems are responsible for $1m/day revenue broadcast nationally & regionally to 1/25sec precision. These deliverables required exact manual software testing managed by Technology supported by business subject matter experts. For the SME's this was unproductive and repetitive. We needed to work smarter."

– Sales Systems Manager, TVNZ

Let's talk

For more information, talk to a member of our team today.

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