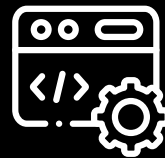**U Panviva**

Upland Software Case Study:

Continuous Integration

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How Upland Panviva improved its testing maturity and implemented a continuous integration solution when moving their SupportPoint product into the Cloud.

"Our knowledge and time was limited when it came to testing and integrating into our Continuous Integration pipeline. The Planit solution gives our developers fast feedback into the code quality and, in turn, ensures a stable and testable application."

*Harry Christodoulou
Solutions Analyst Consultant
Upland Panviva*

Background

Panviva from Upland Software is a Business Process Guidance Specialist with their key offering, SupportPoint, having the guiding principle of getting the right information, to the right people at the right time. Panviva started life in Melbourne, Australia in 1996 as a professional services company focused on content development for large organisations. The company evolved to solve the increasing information challenges faced by many businesses. The result is SupportPoint, used by significant clients world-wide including 3 of the 4 major Australian banks.

Problem

In 2012 Panviva set about a major transformation of their flagship software SupportPoint, a Business Process Guidance product. The objective being a modernised, more scalable, more manageable solution that maintained and expanded the core functions of the legacy application in a new web based package, known as SupportPoint Cloud.

Panviva faced mounting pressure on time-to-market for new software releases. With development and test resources stretched between production support and new development a paradigm shift in the quality management process was needed. Identifying a knowledge gap and time constraints within the organisation, Panviva sought an expert partner to develop testing maturity.

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KEY OUTCOMES:

• Automated CI solution that tests new code in less than 20 seconds.
• A ten-fold increase in test coverage.
• 81% reduction in test time.
• Over 10 significant performance defects identified.
• No severity 1 production incidents since introduction of automated CI solution.

DELIVERED:

• Test Automation
• Performance Testing
• Test Process Optimisation
• Test Management
• Testing Tools
• Staff Augmentation

Solution

Automation was identified as a key requirement in evolving the end-to-end software development life cycle for, the then upcoming, v9. This enabled better preparation for the transformation program to SupportPoint Cloud. Previous versions of SupportPoint did not support this capability and relied completely on manual testing. From the initial request for tender, Planit proposed a complete test automation solution that would enable non-technical resources to manage and drive automation forward across existing and future releases.

"We can rely on Planit to provide quality people, who are across their speciality, learn fast, use initiative and don't require micro management"

Geoff Gaylard, Test Manager

Continuous Integration

Planit implemented a continuous integration solution to test a core set of functions for each new code set. This test suite completes in less than 20 seconds and reduces the impact of failed deployments. With the addition of this quality gate the testing team are assured of a stable build.

Automation

Over the course of the initial 2 month engagement 70% of the 500 functional requirements defined were included in the Automation Suite. This coverage included all high and medium priority requirements. The following were also part of the complete Planit delivery:

• Installation of a new test tool
• Test Management
• Test Automation
• Test Process Improvement
• Integration of Automation Tool and Defect Management Tool
• Tool Certification
• Regression Test Suite
• Knowledge transfer and handover

The initial engagement covered v9 and despite a complete redesign to the underlying technology as part of the transformation to SupportPoint Cloud, the Planit Test Automation Methodology allowed significant reuse of the v9 test suite. The separation of business logic and technical specification allowed the team time to focus testing on the underlying architecture of the application, reducing overall testing time and increasing test coverage.

"Smoke testing as part of continuous integration is an invaluable mechanism for catching core method logic breakages before deployment"

John Charles, Development Manager

Performance

Performance testing focused on SupportPoint Cloud, as its new technology platform enabled rapid development of a performance testing solution. Planit adjusted their Performance Testing Methodology to allow a solution to be developed to deliver maximum benefits with minimal time. Performance testing used a risk based approach with focus on high volume business transactions. Within the first week of engagement, this approach led Planit to identify a memory leak and over the course of the engagement gained early detection of more than 10 significant performance defects.

Outcome

- 81% reduction in test time from v8 to v9
- 10 fold increase in test coverage
- No severity 1 production incidents since v9 launched
- Performance tuning allows Panviva to easily scale to the biggest of clients
- Performance issues identified in the new release before entering production
- Performance test support for Panviva's major clients
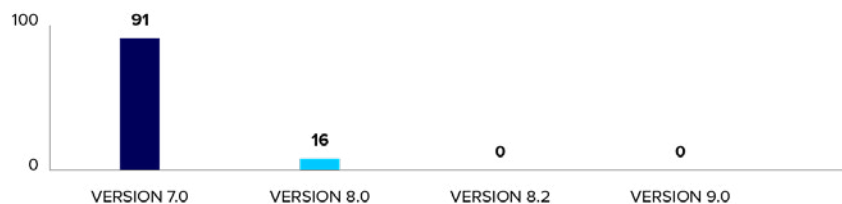
"When everyone is trying to sell you everything, one of the biggest challenges is trusting the delivery will be everything it is sold to be. This proves especially true when seeking software testing services. One of the key reasons we selected Planit, and stepped away from the other responders, was their ability to be down to earth about their strengths, weaknesses and experiences. Everyone from the Account Manager through to their Consultants are an absolute pleasure to work with."

Ben Cordeiro, Upland Panviva

The Difference

Planit engage in a uniform and proactive way to ensure quality. Our consultants are permanent resources and our Account Management team offer a consistent contact point for all our clients. We mobilise quickly to meet demand and are happy to engage additional resource to resolve issues which may arise.

"By using background load simulations on some of the largest databases, we were able to test extreme load conditions. With this mechanism in place the development team was then able to test specific enhancements and optimisations at each layer of the new SupportPoint Cloud application stack and visualise its performance impact."

Geoff Gaylard, Test Manager

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