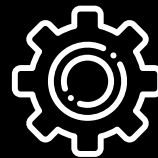# Accelerating Transformation through Automation

How test automation helped Stockland realise significant cost and time savings for their core system transformation centred around SAP and Salesforce.

Stockland

"Having the ability to run our entire automated regression suite each time we introduce changes gives us assurance that we have maintained the integrity of our production systems."

Fergal Collins
Test Manager

KEY OUTCOMES:

- 37% reduction of testing time of S/4HANA automation
- 34% reduction of testing of Salesforce through automation
- 60% reduction of regression testing through automation
- Extended testing window from offshore capability

Problem

Stockland's mix of 120+ legacy applications served its technology needs for many years, but the property development company was keen to unlock better efficiencies for itself and value for its clients. To do so, it would need a modern and more feature-packed technology environment than what it had.

SAP S/4HANA was picked as the enterprise resource planning (ERP) solution to deliver on this goal. Its ability to run in-memory and store data in columns allows for faster, near real-time analysis and processing of data.

Implementing a new and powerful ERP solution was also an opportunity for Stockland to replace its customer relationship management (CRM) system, Oracle Siebel. Salesforce was picked for its ability to better organise and manage customer data, messaging, and outreach.

Since S/4HANA and Salesforce were at the core of Stockland's business transformation, the quality of the implementation would need to be ensured for go-live. The capabilities of both systems, and the integrations points between them, would also be expanded upon, so there was also a need to reliably ensure existing functionality with every update.

With multiple releases required, Stockland sought to benefit from automating testing of complex business processes, removing manual effort, and providing cost-effective quality assurance.

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DELIVERED:

- Test Automation
- Test Management
- Functional Testing
- User Acceptance Testing
- Performance Testing
- Offshore

TECHNOLOGIES:

- SAP ABAP
- SAP PI/PO
- SAP Business Client
- SAP Fiori
- Apex for Salesforce
- Microsoft Sharepoint
- Microsoft Access

TOOLS:

- Tricentis Tosca
- Micro Focus ALM
- Azure DevOps

Solution

Stockland selected Planit as their testing partner for this project based on our track record of successfully delivering large scale quality assurance services for SAP and Salesforce applications. Our skilled and knowledgeable test automation staff, which have significant hands-on experience and results with the chosen automation tools, was another key reason for our selection.

As Stockland had forecasted, we identified that test automation would play a key role in quality assuring the complex processes of S/4HANA and Salesforce. A test regression suite would also enable the quick identification and removal of defects in system code in pre-production before it moved to production.

After the initial scope for test automation was finalised, we ran a proof of concept to help identify the best tool for the job. We determined that Tosca was the best fit in terms of capability and ROI, and subsequently created and showcased a demo for Stockland to try and evaluate.

Following the successful demo, we went on to implement a model-based framework for test automation. This meant that, instead of developing a new test automation framework, we could simply scan the application's UI and APIs to create a business-readable automation model.

Tosca enables this with building blocks that can be combined and reused to create tests. Therefore, if any part of the SAP or Salesforce applications changes, we can simply update the modules and the change will be automatically applied to all impacted tests, saving valuable development time and resources.

What we delivered was a comprehensive test automation suite and automated regression pack of key user journeys. Testing coverage consisted of:

- S/4HANA and the SAP Ariba procurement and supply chain collaboration solution it integrated with.

- Salesforce and the SAP Process Integration (PI)/Process Orchestration (PO) middleware platform it uses to interface with the SAP solutions.

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Outcome

Our contribution to Stockland was not simply assuring quality for their SAP and Salesforce environments – it was replacing complex and costly manual test cases with simple and repeatable automated ones.

To that end, we successfully delivered 160 test cases per month for a total of 1,280 by the time of go-live. Each of these test cases covered a full business requirement.

This rapid pace was achieved through a meticulously planned and implemented schedule of completing ten test cases per day. This was, in part, achieved by harnessing our offshore capability (60%) to complement our onshore one (40%) for an extended testing window.

524 of the cases were for the automated testing of S/4HANA. In an end-to-end scenario of 109 test cases, it can take 16 hours and cost $1,600 to be manually executed, but our test automation reduced the time by approximately 37% to 10 hours and completely eliminated the associated cost.

300 test automation scripts were created for Salesforce. In a scenario of 14 test cases, our test automation reduced the time by approximately 34% to only take one hour.

Approximately 500 test cases for S/4HANA and 300 for Salesforce were created for the automated regression suite. 200 from each continue to be used in the current regression suite of 924 test cases executed on a fortnightly basis.

The regression suite cut down testing time in many cases by more than 60%. Manual testing of one end-to-end scenario with 150+ test cases had the potential to take four days and cost $3,200, but with automation, this was brought down to a day and a half, and eliminated the cost.

Beyond the value we delivered with our testing, Stockland also found our close partnership with Tricentis to be very beneficial to the project. Not only did it enable the quick resolution of certain technical issues, but we also managed and maintained Stockland's Tosca license more effectively with the tool vendor.

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