

Scale and Service

How Test Management for Jira (TM4J) brought dramatic improvements in Loblaw Digital's testing performance and experience.

LOBLAW DIGITAL NEEDED:

- ✓ The capacity to conduct large scale automated testing
- ✓ Processes and tools to support both automated and manual testing
- ✓ Native integration with Jira
- ✓ Powerful reporting capability

TEST MANAGEMENT FOR JIRA DELIVERS:

- ✓ The capacity to manage truly end-to-end, high-volume, automated testing from Jira
- ✓ A flexible and customisable API
- ✓ A powerful reporting engine
- ✓ Company-wide visibility of test results
- ✓ Radically increased productivity and reduced delivery times

LoblawDIGITAL



Test Management
for JIRA Server

BACKGROUND

The client

Loblaw Inc is the largest retailer in Canada with a turnover of £46.3bn. Loblaw Digital is its development shop. Working in an Agile way, it is responsible for creating and delivering omni-channel experiences across physical and digital channels, including online grocery offerings, e-commerce, loyalty, financial services, and pharmacy products. Channels and brands include Loblaw's Click & Collect for groceries, the award-winning Joe Fresh site for clothing, beautyBOUTIQUE.ca for beauty products, Shoppers Drug Mart for prescription medications and the loyalty programmes PC Plus and Shoppers Optimum.

THE CHALLENGE

Loblaw Inc employs around 200,000 people and Loblaw Digital around 200, of whom half are in the development team. These 100 individuals are supported by the Test Engineering (TE) team in a ratio of one tester to ten developers. The tester's role is to sit alongside a team of developers and ensure that code is continually tested while it's being created.

This generates a big cycle of feedback and the need for systems and processes that can manage, automate and interpret the results. Loblaw Digital wanted the capacity to run more tests and seamlessly manage the results. It needed automated testing as well as the processes that would remove bottlenecks and help scale its testing to meet the demands of large-scale Agile development.

Up to 20 builds per day, 250,000 tests per day,
regression now 2.5x shorter.

Loblaw Digital uses much of the Atlassian stack: Jira, Bamboo, Bitbucket and Confluence. It reviewed Jira-compatible test management apps and, for nearly two years, failed to find a solution that met its needs. In terms of integrated automation, feature set and extensibility, nothing the team evaluated could deliver what was required.

At that point, says Justin Commu, Loblaw Digital's Senior Manager, Test Engineering, "I think we kind of gave up. We went back to our developer roots and said, you know what, we'll build our own tool stack and leave this alone." Then the team heard about Adaptavist's Test Management for Jira (formerly known as Kanoah Tests). Commu felt it seemed to supply solutions in all the areas that had been lacking in the other products. Loblaw Digital decided to get in touch with Adaptavist.



WHAT DID LOBLAW DIGITAL WANT?

By the time TM4J came along, Loblaw Digital had established that it wanted the following features from its test management software:

- The ability to assign tests to a user. “That might seem ridiculous, but not many plugins offer it,” says Commu. “It’s important to have complete clarity on what our team is working on.”
- First class support for automated AND manual testing because manual testing did – and still does – have a place.
- An extensible API that would allow Loblaw Digital to use TM4J data in other systems as well as integrate other systems with TM4J.
- Clear visibility of what was going on at any given time, particularly visibility of the status or ‘health’ of any given sprint or targeted release on any given day.
- The ability to execute tests and immediately generate traceable artefacts (bugs/reports/logs) that are easily actionable by anyone on the TE/Development teams.

WHAT TM4J DELIVERED

Justin Commu characterises TM4J as ‘a fresh take on testing.’ “Not only does it feel tailored for the testing process, it has clearly been intelligently designed,” he says. All Loblaw Digital’s initial criteria were met. In addition, they finally had a solution where developers and test engineers alike, had a sensible way of looking at the tests. Moreover, using the Adaptavist API, Loblaw Digital could get test results uploaded and stored programmatically without human intervention.

INCREASED PRODUCTIVITY AND FASTER DELIVERY

Straight away, Loblaw Digital started seeing features that would drive increased productivity and an increased ability to get features to production more quickly and with less risk. Specifically, they found they could extend TM4J in ways that would allow them to mould it to their specific needs.

For example, TM4J gives Loblaw Digital visibility of sprint performance, plus traceability and increased coverage. “We could finally say okay here’s a sprint of 20 tickets – we don’t have tests for these three – someone needs to ensure that they have tests,” says Commu, “and as we’re going through the week we can start to see whether or not the tests are being executed and how they are trending as we start to gear up for release. We can start really having a look at the quality of the tickets and the tests.”

Moreover, TM4J’s reporting engine aggregates reports to show, for example, on an X/Y plane if tests are red or green. “Do we have patterns of red or green?” asks Commu. “Is a given test failing over many environments, or is a given environment failing over many tests? It’s a really wonderful feature for us. It exemplifies what TM4J is delivering to our team.”

“It’s important to have complete clarity on what our team is working on... [Test Management for Jira] is a fresh take on testing.”

Justin Commu | Senior Manager, Test Engineering

The power of permutations

Most importantly of all, when Loblaw Digital started to seriously scale up its testing, it was able to utilise a feature “we didn’t really imagine would be possible,” says Commu. It is the concept of permutations – made possible by TM4J’s ability to support multiple environments.

The idea is that every test case has a number of permutations. In Loblaw’s case – given the number of possible browsers, languages, devices and user agents that might be involved, multiplied by Loblaw’s different brands – the number of permutations to be tested could be up to 366.

“It makes a great case for automation,” explains Commu, “but an even better case for TM4J because if I want to run, say, a login test and I want to say I have one hundred percent coverage, we only need to write that test once and save it once. It has just one set of steps and we can use environments to see how that test is running in all 366 permutations.

“We found that no other piece of test software on the Jira side had figured this out or truly understood how to do that elegantly. We’re able to get results in faster than we could imagine by using the API to populate all the results in environments and we’re able to deliver high quality feedback to developers and management on the status of a sprint. The coverage of testing has drastically increased. Automation has unlocked extra potential for what we can actually test.”



REAPING THE BENEFITS

- **Improved planning.**

At any one time, Loblaw Digital is delivering a large number of products with the work on each split into seams. The code produced in each seam must at the end of the day come together and go out as a single product to go into production. “Now we can look at a great slice of how a seam is tracking throughout a sprint,” explains Commu, “and get a holistic view of what is going on with the entire sprint, and plan accordingly. It’s kind of unreal to get that granularity and at the same time a bird’s eye view. TM4J has become an orchestrator for us where we don’t have to have a person looking across seams. We can have a process and everyone can really exist in their seam and not have to break out. That’s a huge, fundamental change for us in how we create, run and look at tests and it allows us to focus on more important things.”

- **Increased productivity and, therefore, faster delivery to production.**

The Loblaw Digital team is seriously busy. Up to 20 builds are happening concurrently, all firing test results back to TM4J in real time, with different teams, working on different sprints within their own specific seam. Results are automatically organised and pushed into their respective buckets in real time, giving real time feedback to each specific developer without the interface getting cluttered or messy. Test automation, management and results processing can meet any timeframe or scale required, so testing will never be a bottleneck again. As it goes, Loblaw Digital is now running around 250,000 tests a day, which is speeding up the delivery of new features. One key metric is the regression period – regression being the pause before a product is released to check that it is fully tested, against every permutation, and that changes and compatibility are tested too. Regression is now 2.5 times shorter than before TM4J was implemented. What’s more, Loblaw Digital believes it will be able to make it five times faster.

- **Improved quality of work.**

TM4J is helping increase the quality of the work produced by Loblaw Digital in a number of ways. For one thing, results are uploaded in real time meaning issues can be detected more quickly. Coverage is also more comprehensive, so more issues come to light. TM4J allows Developers and Testers to closely collaborate over the course of feature implementation, allowing for continuous adjustments and improvements, resulting in higher quality code. The traceability provided by TM4J’s reporting engine ensures that no untested ticket ever goes out and nothing gets missed. TM4J is ensuring quality at a higher speed than was possible before, thus reducing risk.

- **Drives further confidence in testing.**

Because test reports and test statuses can easily be shared with anyone in the company who has access to Jira – and that’s everyone – TM4J isn’t just positively impacting the testing team. Developers and other stakeholders across the business are benefitting. It’s informing everyone about the scale and impact of what testing does, and giving them more confidence in testing’s value. Maybe more importantly, says Commu, “it’s making teams happy. When you see a sea of green in a report, people feel good”.

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Justin Commu on the Permutations feature



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At the time of writing this case study, Loblaw Digital has had TM4J for less than nine months which is a testament to how much can be achieved in a short time by TM4J. It's also an illustration of the excellent time-to-value that it delivers by propelling metrics driven engineering.

Working together, Loblaw Digital and Adaptavist are continuing to develop what Test Management for Jira can do and Commu sees plenty scope for further improvement. So far, he says, 'It's been a great experience.'

CONCLUSIONS

TM4J is giving Loblaw Digital end-to-end automated testing which Justin Commu describes as “a truly first-class test management experience.” At the same time, it’s not an insult to say that Loblaw Digital’s people barely know it’s there. “That’s fantastic,” notes Commu. “Honestly, the best test management and test reporting tool that I can imagine is the one that I don’t realise I’m using.”

A bonus is that TM4J is making teams and team members happier. “Testing is now less of a slog,” says Commu. He adds: “It does increase morale. It actually makes interacting with creating tests and running them a pleasure, which nothing has done before.”




To find out more about Test Management for Jira or start a free trial, go to www.adaptavist.com/testmanagement

See how we can help you, talk to our experts today ➤

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Adaptavist, established in 2005, is a London-headquartered IT services company providing premium professional services, support, hosting and licenced products to a wide range of national and international clients including over half of the Fortune 500 companies. Adaptavist is a Atlassian Platinum Solution Partner for the Enterprise and is widely recognised as the most technically advanced Enterprise Partner in the Atlassian ecosystem.

 For more information, visit: www.adaptavist.com

 Or email: sales@adaptavist.com



Adaptavist UK

Unit 2
Waterside
44-48 Wharf Road
London N1 7UX

T: +44 (0)20 7976 4896



Adaptavist Inc.

951 Mariners Island Blvd,
Suite 300
San Mateo, California,
CA 94404, USA

T: +1 (888) 272-4233



Adaptavist Canada

56 Temperance St
Suite 700
Toronto, Ontario
M5H3V5



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