



Honda R&D Americas Accelerates SAP HANA Migration with Automated Business Process Testing

by Ken Murphy, Editorial Director, Data & Analytics

Honda R&D Americas, Inc. (HRA) excels and revels in second chances. In recent years, it has developed two award-winning second-generation models: the NSX supercar and Honda Ridgeline midsize truck. While the NSX racked up Road & Track's 2017 Performance Car of the Year, the Ridgeline was named 2017 North American Truck of the Year by a panel of judges at the North American International Auto Show.

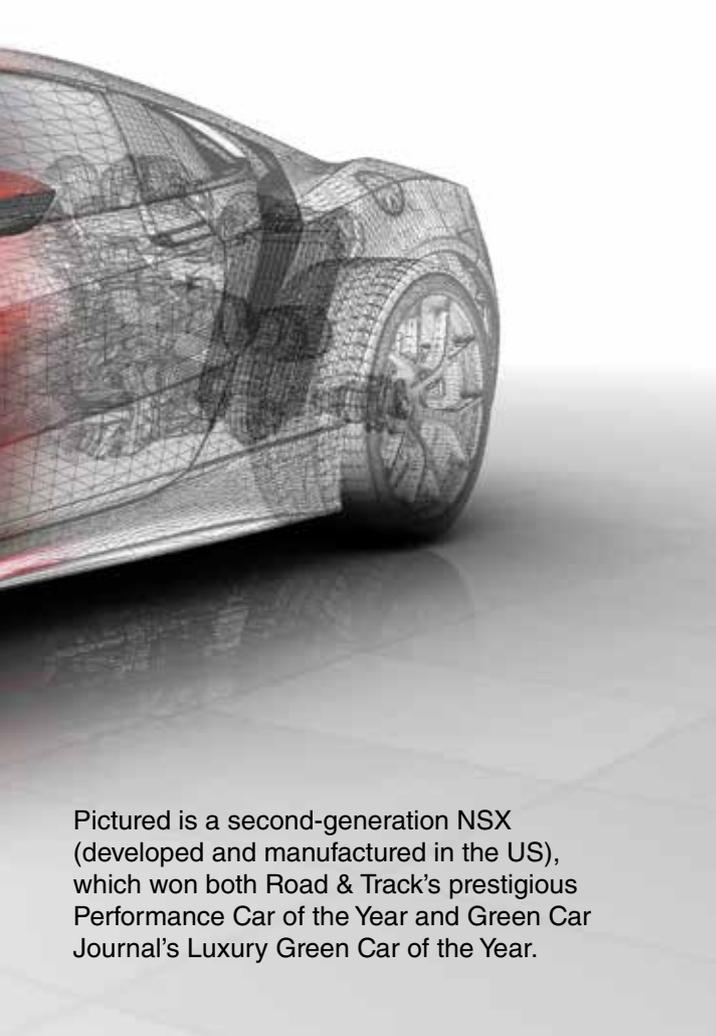
Making a successful second model also holds true for HRA's approach to automated business process testing. In 2009, HRA had its first experience using an automated regression testing tool shortly after implementing SAP ERP. The business automated hundreds of test steps in a three-month period — however, because it took about one hour of work to automate each test step, HRA could not justify a return on investment (ROI).

"If we could execute a manual test in 10 minutes and it took one hour to automate it, we'd have to run that test six times to pay it back," says Scott Sullivan, HRA Senior Systems Engineer. "We had proof that test automation worked, so that first experience was beneficial; however, the cost of automating it with that particular tool prevented us from continuing with it."

HRA's second attempt at automation came in 2015 when the company decided to become an early adopter

of SAP HANA with an implementation of SAP Business Suite powered by SAP HANA, in part to fulfill a requirement of moving off a costly database. HRA's strong commitment to continued advancement and investment in the latest technologies was the main motivation behind its strategic move to SAP HANA, which would help pave the way for a future SAP S/4HANA migration. "Knowing that we would have to perform reinstalls and migrations anyway is what drove us to an SAP HANA migration," Sullivan says. "We saw this as an opportunity to try a new tool and migrate our active directory at the same time. It was more of an IT decision than a business reason."

Because SAP HANA was still relatively new (SAP Business Suite powered by SAP HANA became available in May 2013), the product was on a three-month patch cycle. The fast support cycle made it difficult for HRA to react quickly to required support package updates, as the company's manual regression testing efforts involved a five-week process that affected nearly three dozen users. "If we had to put patches on the system every three months, we would not be able to continue manual testing," Sullivan says. "There were thousands of steps business users had to perform and they had to find the time to perform all these testing steps to confirm that their processes still worked."



Pictured is a second-generation NSX (developed and manufactured in the US), which won both Road & Track's prestigious Performance Car of the Year and Green Car Journal's Luxury Green Car of the Year.

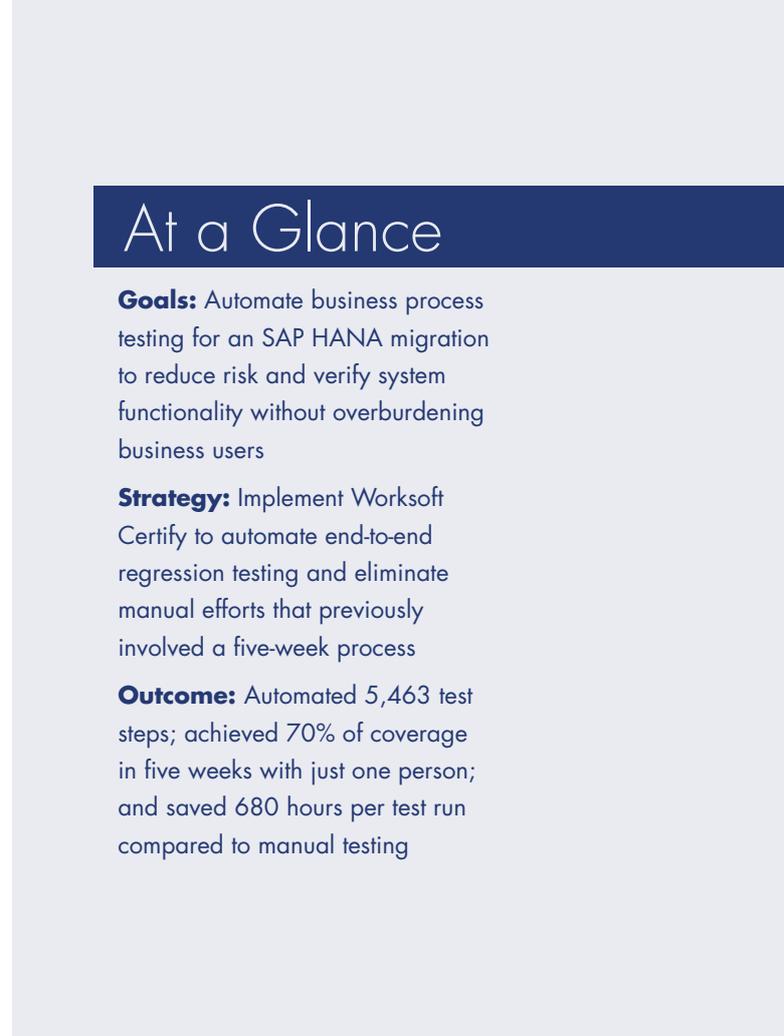
Built for Speed

After thoroughly researching several test automation tools to replace its former solution, HRA decided on Worksoft Certify, an automation platform for enterprise applications offered by Worksoft, an SAP partner that aims to accelerate SAP HANA projects and validate SAP HANA performance across multiple business processes.

HRA tested Worksoft Certify with a proof of concept for a procure-to-pay scenario across various systems in an end-to-end business flow. The business chose the procure-to-pay process because it represented a one-to-one comparison from its first foray into automated testing. Its previous regression testing software automated 277 test steps in three months.

HRA saw significant gains with the new platform, which automated 323 steps in one week. It also increased the rate of automation from one step per hour of work to 13 steps per hour. "The proof of concept was equal to what we had automated previously," says Sullivan. "It was a huge difference, and it more than justified our investment in Worksoft with our upcoming SAP HANA migration."

During the SAP HANA migration, HRA's plan was to capture test steps as users were testing them to develop an automation template; essentially, performing the regression test for the project while automating the tests



At a Glance

Goals: Automate business process testing for an SAP HANA migration to reduce risk and verify system functionality without overburdening business users

Strategy: Implement Worksoft Certify to automate end-to-end regression testing and eliminate manual efforts that previously involved a five-week process

Outcome: Automated 5,463 test steps; achieved 70% of coverage in five weeks with just one person; and saved 680 hours per test run compared to manual testing

for future use. HRA inadvertently proved an ROI for Worksoft Certify earlier than intended when an unexpected issue arose during the migration. The issue forced HRA to restart its migration in the development environment, appearing to set the timeline back about two months. "By the time we caught back up, instead of having a two-month delay, we only had a two-week delay because the second time around we were able to run the automated tests that we had previously captured," says Sullivan.

With the new automation platform, HRA automated 5,463 test steps related to its SAP HANA migration at a rate of 28 steps per hour of work. It achieved 70% coverage in five weeks with only one person. "As frequently as we needed to do regression testing for SAP HANA with the three-month patch cycle, that's a minimum of one full-time equivalent savings to the business," Sullivan says.

Beyond efficiently keeping pace with the frequent SAP HANA updates, Sullivan says that one of the key benefits of Worksoft Certify is the peace of mind it brings to users and to the business by being able to easily validate business processes without manual effort. "We're even more confident moving SAP system changes into production now, which essentially allows us to move faster, innovate more quickly, and bring value to the business faster than before," he says.



The HRA project team reviews the migration plan for the SAP HANA implementation

Honda R&D Americas, Inc.

Headquarters: Torrance, California

Industry: Automotive/Mobility

Employees: 2,000+

Company details:

- 14 Honda R&D Americas, Inc. locations in North America — with styling design located in California and engineering development in Ohio
- Honda Ridgeline named the 2017 North American Truck of the Year at the North American International Auto Show
- In addition to automotive products, HRA designs include ATVs and power sport vehicles (Honda Rubicon and Honda Pioneer) as well as snowblowers (HSS Series) and lawn mowers (HRX Series)

SAP solutions:

- SAP Business Suite powered by SAP HANA
- SAP SuccessFactors, SAP Concur, and SAP Fieldglass cloud solutions
- SAP Project and Portfolio Management
- SAP Business Planning and Consolidation
- SAP Business Intelligence solutions

Third-party solution:

- Worksoft Certify

New Feature Design

Innovative initiatives include using Worksoft Certify for robotic process automation (RPA), allowing HRA to automate mundane clerical processes that previously required the hiring of temporary headcount to complete. For example, RPA eliminates repetitive manual tasks associated with issuing and processing engineering design changes, such as copying and tracking data in and out of various systems. Using Worksoft for data entry and migrations enables HRA to keep activities on schedule and use the labor for other initiatives.

Replacing manual effort with digital labor not only helped HRA accelerate its SAP HANA migration, but automation also now helps support other strategic initiatives that SAP HANA enables. HRA is beginning to leverage the SAP HANA database to support the Internet of Things (IoT), big data projects, and real-time reporting. These projects include using SAP HANA to track National Highway Traffic Safety Administration (NHTSA) data. Before SAP HANA, it took HRA roughly 30 days to analyze one name plate versus three seconds to analyze and upload 30 name plates using SAP HANA. Swapping manual testing for automation gives team members valuable time back to focus on more visionary initiatives that have broader business impact.

“A lot of the projects we’re doing — such as big data projects, IoT projects, and even real-time reporting — require the latest support package to be applied to take advantage of certain functionality,” Sullivan says. “Because automation enabled us to confirm SAP system quality more quickly, we could achieve that value a lot faster and take advantage of some newer technologies that we hadn’t even considered initially.”

The company recently completed a project that utilized IoT and mobile technologies to create a customized app, which involved affixing sensors to prototype and test vehicles for real-time tracking and measuring utilization. HRA used that sensor data to relay information through SAP HANA as the vehicles moved throughout various HRA buildings



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Summary: How Automation Set Stage for SAP S/4HANA Migration

HRA turned to Worksoft for automated business process testing to accelerate its adoption of SAP HANA and validate performance across multiple business processes as it deployed frequent support package updates and system patches. HRA realized the value of Worksoft from an initial project where Worksoft Certify increased the rate of automation more than ten-fold, compared with a previous automation tool.

Worksoft helps HRA achieve 70% coverage for SAP HANA regression testing more quickly and with fewer resources, which offers the business more time to focus on strategic and visionary initiatives that bring greater long-term value to the company, including exploring a move to SAP S/4HANA. “Worksoft is proud to help HRA speed timelines and mitigate technology risk for SAP HANA projects, while also leading the business one step closer to a future SAP S/4HANA migration,” said Shoeb Javed, Chief Technology Officer at Worksoft. “With Worksoft automation, HRA is eliminating manual effort throughout its SAP project lifecycle, enabling faster delivery with greater confidence and reinforcing technology innovation broadly across the company.”

during the design and test cycles. With more than 1.6 million square feet of covered area at the Ohio HRA facility, the sheer magnitude of the number of vehicles to manage had been daunting, according to Sullivan. “This new capability is very helpful for our engineers and technicians to find specific vehicles quickly and check on utilization of cars based on where they are parked.”

This mobile app is just one example of the value HRA brings to the business internally due to the recent technological advances — with much more continued innovation on the horizon.

Ready for the Road

Now that they have made such strides in eliminating manual testing and significantly reducing the reliance on business users to perform testing, HRA is exploring SAP S/4HANA in an effort to invest in innovative new technologies. Worksoft Certify, Sullivan says, helped to accelerate the timelines for those initiatives, beginning with its SAP HANA migration. “From the start we knew our purpose,” he says. “For us, the purpose of automated testing with Worksoft was to mitigate risk during our SAP HANA migration and ensure that we wouldn’t experience any business disruption after the patch or upgrade. If you approach the project with a clear focus on your desired outcomes, you’re more likely to achieve it.” ■

Worksoft Helps Companies Deliver Faster SAP HANA Projects

Worksoft, an SAP partner, provides an automation platform for enterprise applications, offering automated business process discovery, documentation, compliance, testing, risk analysis, and process automation. Enterprises worldwide use Worksoft’s intelligent automation platform to innovate faster, lower technology risk, reduce costs, improve quality, and deeply understand their real end-to-end business processes.

Companies worldwide rely on Worksoft to support critical packaged applications, including SAP, Salesforce, Oracle, Workday, SAP SuccessFactors, ServiceNow, and more. Worksoft’s fifth-generation automation platform helps enterprises increase efficiency and accelerate innovation and change. For more information, contact info@worksoft.com or visit www.worksoft.com.

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