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SAP HANA and Big Data: Maximize the Value of Both with Automated Business Process Validation

Companies can gain an enormous competitive advantage by making better decisions and achieving deeper insights from massive volumes of data in real time. An effective long-term big data strategy based on SAP HANA addresses the “three Vs” of big data: volume, variety, and velocity.

But to get there, companies need to tackle integration and technology transformation issues across multiple projects. At the same time, enterprises must ensure that critical business processes are not disrupted as changes are introduced.

So how do you achieve success in projects dealing with this much technological change and potential impact on current business processes? An important part of the answer lies in setting up automated business process validation, which can streamline projects, ensure data accuracy, and deliver faster, better technology adoption (see **Figure 1**).

Automated Business Process Validation: The New Standard

Ensuring business process integrity and data accuracy in a high-change environment requires that both data and business processes are checked for functional accuracy at a frequency that corresponds to the pace of information flow. For example, if new data and analytics enable you to go from monthly reporting to daily reporting, then you need to validate your data, business processes, and systems at least daily.

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applications is the new standard, and it’s being effectively adopted by Fortune 1000 companies worldwide.

One such company is a Fortune 50 manufacturer that faced significant reporting challenges. Its business intelligence (BI) director explains the questions the company encountered: “We have more than 150 reports with analytics that are used across the organization. Do all the reports work today? How do we audit and confirm that the reports are accurate every day? How do we ensure that the executive dashboards built on top of SAP Business Warehouse powered by SAP HANA are correct and correspond to the values in our source SAP ERP system? How do we ensure that the data in the source SAP ERP system is accurate?”

For the manufacturer, automated business process validation is the only practical answer. Using automation to get high business process coverage ensures that companies’ processes and decision making are based on sound information. What’s more, this automation can produce benefits before, during, and after the SAP HANA project. Let’s look at a typical project timeline more closely.

Before: Get Prepared

Before you begin your SAP HANA implementation, you might have to undergo several upgrade projects to ensure your current SAP applications will support SAP HANA. Upgrading requires affected business processes to be identified, documented, and tested through several iterations of the project.

Using automation to document and validate your business processes can cut the upgrade project time and costs in half compared to a manual approach. The beauty of automation is that business processes are captured once and the resulting automated tests are reusable across all subsequent implementation and maintenance projects, multiplying the benefits several-fold.

During: Accelerate Implementation

For existing SAP customers, the bulk of the work in SAP HANA projects — up to 80% — involves testing.

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SAP HANA Adoption Success: A Case Study

One Worksoft customer recently migrated a number of critical business processes to SAP HANA. While the processes weren't changing, business data was moved from the existing database to SAP HANA. The company needed to confirm that its business processes would still work after the implementation.

First, the company built its automation assets on its existing SAP system. Once that was completed successfully, the company ran that same automation on the applications and data on SAP HANA. Everything worked as expected — and verifying that took only minutes. Using automation accelerated testing for this project and saved the company a great deal of time. It didn't require special programming skills, and business users were able to engage directly.

Because SAP HANA requires changes mostly to the underlying database, there are fewer issues related to configuration or training. This means that test automation — whether it's for functional testing, security testing, or performance testing — can yield even greater benefits for SAP HANA projects relative to other SAP projects.

You need to know that when you migrate initial data from your existing database to SAP HANA, everything is transferred correctly and that your systems are functioning as designed. Automated business process testing allows you to uncover and resolve data transfer problems and system issues before production outages occur and business users are affected.

Automated business process validation ensures that all changes are reflected correctly between systems, and helps you validate BI data versus source data in your ERP system. It also allows you to verify that reports are functioning and accurate — every time.

After: Drive Ongoing Business Agility

SAP HANA is a relatively new technology, so there are frequent updates coming from SAP. Every time a new SAP HANA component or update appears, each business process and data flow needs to be tested. With a test automation suite in place, testing is easy and inexpensive. And with simple modifications, you can reuse your automation library to support ongoing updates and future projects.

Post-implementation, you'll need to set up ongoing data transfers from your existing database to SAP HANA

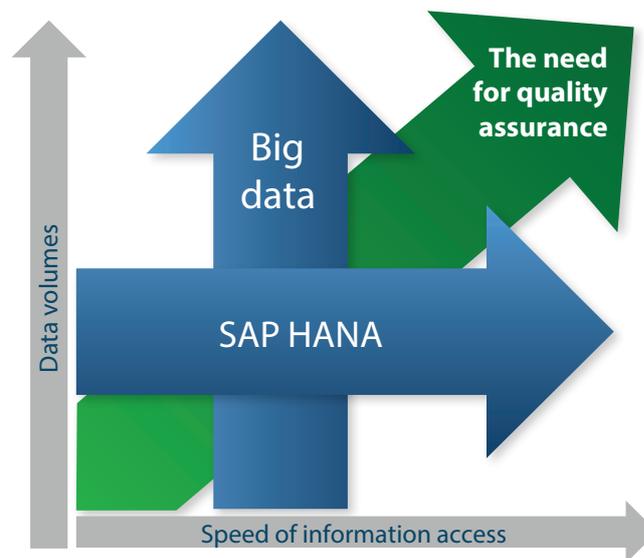


FIGURE 1 ▲ Automated quality assurance is required to handle today's greater data volumes, new analytics, and faster business processes

and ensure that all transferred business processes and reports function correctly. Regularly verifying business processes across all required systems and interfaces is critical to ensure you're getting what you want from your SAP HANA investment.

Learn More

SAP HANA and big data are transforming the way SAP customers do business, so enterprises need to find a way to accelerate adoption to capture the benefits of faster, better decision making. Automation can help you ensure success with SAP HANA and big data today, and continue that success far into the future. For more information, visit our website at

www.worksoft.com. ■