

Five Ways to Elevate Your SAP Test Automation Practice

How IT leaders can enhance SAP quality with enterprise automation



Introduction

SAP customers generate 87% of total global commerce (\$46 trillion), and 99 of the 100 largest companies in the world, from investment banks to energy companies, rely on SAP as their enterprise resource planning (ERP) platform.

These organizations depend on SAP to effectively run their business. With modules for managing core business processes such as finance, human resources, inventory, and supply chain management, SAP can have a significant impact on organizations

when implemented correctly. However, these implementations are often highly customized, complex, and costly if not governed properly and tested thoroughly.

Continuous testing is essential to proactively find and fix defects before they impact customers or end users. But continuous manual testing is expensive, inefficient, and error-prone—not to mention it's one of the biggest bottlenecks to delivering new value-added features for customers.

¹SAP Corporate Fact Sheet. SAP Corporate Affairs. SAP.com, January, 2023



Manual testing can't scale to solve today's SAP challenges

72% of SAP customers still rely on manual testing, costing them as much as 30% of a typical SAP implementation budget. Why? Because the current legacy testing tools produce fragile automations that need ongoing maintenance, often requiring updates every time an element changes. To automate testing of non-SAP systems that interact with SAP, like Coupa or Salesforce, test teams often need additional tooling. Every additional tool comes with additional licensing costs, requires different scripting skillsets, and has automations that can't be reused for future projects or releases.

To accelerate test cycles and reduce the cost of testing, IT leaders should consider modernizing on a production-grade, scalable automation platform that facilitates rapid test automation. They should also ensure that the solution is certified to automate all SAP modules and supports automation of the other applications in their ERP ecosystem.

75% of ERP projects fail to stay on schedule or on budget, and two-thirds of implementations result in negative ROI.²

² Casanova, Didier, Lohiya, Swati, Loufrani, Jerome, and Peters, Peter. Agile in enterprise resource planning: A myth no more. McKinsey. August 2019.



60% of all ERP investments fail because they compromise business operations.³

By consolidating testing on one scalable automation platform, IT leaders reap a number of benefits, including:

- Automating faster with one tool and one skillset
- Executing tests more efficiently and effectively
- Accelerating SAP release cycles and migrations
- Having the ability to share and reuse any automations

These benefits lead to upstream business outcomes, such as:

- The opportunity to deliver new SAP capabilities to customers more rapidly
- Higher customer satisfaction due to improved stability of business operations
- Lower total cost of testing through improved test effectiveness and the retirement of legacy tooling
- Improved job satisfaction for test professionals

There are a variety of modern platform options to elevate testing. For SAP teams looking to maximize the benefits of automated testing, UiPath is a great option.

UiPath Test Suite empowers SAP testers to test the right things faster

Test Suite, the resilient testing solution powered by the UiPath Business Automation Platform, leverages production-grade, low-code automation and AI-powered tools to automate testing for any technology while still managing testing your way.

Test Suite offers SAP-certified capabilities that support all aspects of SAP, including SAP ECC, SAP S/4HANA, SAP SuccessFactors, SAP Ariba, and SAP Concur. It also includes a test management integration with SAP Solution Manager 7.2 and more than 40 other popular lifecycle and issue management tools.

UiPath customers have achieved over 90% automation rates and 3x increases in release velocity.

³ Guay, Mike, Saunders, Paul, and Ganly, Denise. Strategic Roadmap for Postmodern ERP. Gartner. May 2019.



Support Successful SAP Testing with Five Key Strategies

63% of developers claim testing is the number one bottleneck in software delivery.⁴

Fulfilling SAP testing wants and needs through automation while achieving business goals requires employing strategic best practices and adopting proper technology for testing workflows. Here are five ways to enhance SAP testing to address today's challenges confronted by SAP leaders:

1. Leverage production-grade automation

When managing complex ERP ecosystems, test automation is necessary to deliver new releases on time, stay within budget, and meet the quality expectations of the customer. But after 20+ years, testing vendors have failed to live up to their promise of scalable, low-maintenance automation. The reality in most organizations is that testing is a bottleneck to rapid delivery—testing is always behind.

66% of organizations say data management activities like data storage, organization, formatting, and transmission pose a significant challenge to moving into S/4HANA. 61% say that data management challenges have or will slow down their business process automation capabilities.⁵

Questions to consider when examining platform options:

- Does the platform support the automation of every technology that needs to be tested?
- Can the platform automate virtualized interfaces, like point of sale or warehouse management?
- Can automations be easily created by both technical and non-technical staff?
- How much of my team's time should be allocated to maintenance of the automations?

2. Adopt a platform that is SAP certified

Consolidating tooling into an SAP-certified test automation platform also helps maintain process quality. Certifications like SAP WinGUI, SAP API, and SAP Solution Manager provide proof of platform credibility and compliance with SAP functional standards.

Certifications demonstrate a high level of trust from SAP, with special access to internal specifications, APIs, and training. This allows organizations to build more reliable automations as they are more finely tuned to the SAP standards.

Questions to consider:

- Does the platform support automation of the right SAP systems?
- Does the platform have the right SAP certifications?
- How many SAP customers are using the platform?

⁴ A maturing DevSecOps landscape. GitLab. 2021

⁵ Gendreau, Paul. SAP S/4HANA Data Migration Success. SAP.com. April 2022

3. Scope testing with data-driven insights

Risk-based testing is a common approach to scope testing based on software complexity, business criticality, frequency of use, and probable defect areas. Traditionally, this approach relies on interviews with the business, making it subjective, resource intensive, and only as effective as the knowledge shared. Fortunately, there are new innovations available that make prioritization more objective: change impact mining and process mining.

SAP Change Impact Mining helps organizations analyze and prioritize test cases using AI and machine learning (ML) with a three-step approach:

1. First, it collects and stores information on executed transactions and detected dependencies during the run time.
2. Next, it presents real-time impact analysis so SAP testers see how changes correspond to platform-functionality risks.
3. Lastly, it allows users to prioritize test cases for highly-used platform functions rather than testing an entire regression portfolio.

Teams can also use process mining to enhance automated SAP testing. Process mining pulls activity and workflow data from SAP and other business applications into one integrated system, allowing teams to discover their actual usage and critical paths. This approach can replace more subjective risk-based approaches that rely on opinions and experience, rather than actual data on production usage.

Questions to consider:

- How do you scope your testing today?
- What efficiencies could you gain from change-impact based testing?

The process mining software market size is expected to grow from \$933.1 million in 2022 to over \$15 billion by 2029—a 49.5% compound annual growth rate (CAGR).⁶

⁶Process Mining Software Market Size, Share, and COVID-19 Impact Analysis. Fortunebusinessinsights.com. May 2022.



4. Realize the value of automation reuse

With the rise of RPA and easy-to-use low-code tools, automation is being adopted by all parts of the organization. The overall cost of automation “sprawl” is significant—redundant automations require redundant effort, including maintenance, training, and governance. Not to mention the risk presented with multiple automation tools interacting with your mission-critical SAP implementation.

Standardizing on one automation platform can facilitate reuse across the enterprise, save money, accelerate automation scaling, and drive alignment between technical teams and the business.

Questions to consider:

- Can automation components built by testing be easily reused by other automation tools or teams (such as IT and RPA)?
- What other teams could benefit from the automation components built by testing?
- How are you governing automations across the enterprise?

5. Prepare your team for the future

As you plan for modernization, it’s critical to consider your people. One of the overlooked areas when adopting new technology is training—for both your technical and non-technical team members. And as you expand your SAP automation footprint, you’ll need to find and hire resources that are trained and ready to hit the ground running.

Explore the community and training options. A robust community can reduce the anxiety of change for your team by offering a place to find answers, ask questions, and collaborate with other experts. Additionally, the community is a great place to recruit new team members.

Questions to consider:

- What is the cost of training, and is there training for every role?
- How many professionals are trained on the platform?
- How engaged is the user community?



UiPath is the way forward

UiPath Test Suite is a first-of-its-kind platform that helps maximize your testing success through resilient end-to-end automation. Test Suite reliably automates nearly any technology, including the entire SAP portfolio and any application or API in your ERP ecosystem.

Minimal learning curve

Build automated tests rapidly with low-code, visual tools and a marketplace of prebuilt components. UiPath Studio provides the right automation canvas to build great test automations—and gives organizations the right governance tools to manage them all.

Fully SAP-certified

UiPath is a multi-year SAP PartnerEdge® Silver Partner, and the first RPA company to earn full certifications in both SAP UI and SAP API automation and integration with SAP Solution Manager®. Whichever SAP user interface and underlying platform you use, UiPath can automate it all: SAP S/4HANA, SAP ECC, SAP FIORI, SAP S/4HANA Cloud, SAP WinGUI, SAP WebGUI, and SAP Business Client.

End-to-end automation capabilities

The UiPath Platform provides capabilities to support every aspect of the automation lifecycle from discovery to operations, including process, change impact, and task mining; automation idea

management; process and test automation; app development; orchestration; assistants; and analytics—all of these innovations are available for testers. UiPath also connects into your software delivery toolchain with integrations to over 40 popular lifecycle and test tools.

Enterprise-automation ready

UiPath is designed to support every automation role in the enterprise, from everyday users to citizen developers to automation architects. Because UiPath is widely used, test teams benefit by reusing components from other teams to build test automations faster, and other teams benefit from the test team's experience in automation and quality mindset.

Rapid return on investment

UiPath customers can gain measurable results from adopting Test Suite. The primary factors that lead to rapid returns are:

- reduced maintenance due to resilient automation
- rapid development due to low-code interface and reusable libraries
- streamlined licensing, training, and operational costs due to tool consolidation

In the 2022 IDC Marketscape for Cloud Testing, one customer reference estimated they saved \$2.5 million for the company by reusing components across testing and process automation teams.

UiPath customers have experienced a 40-50% reduction in test cycle times, 2-3x broader coverage for automated testing, and a 30% decrease in overhead costs.⁷

⁷ Customer Success Stories. UiPath. January, 2023 (reference calls available upon request)

Real value supported by real outcomes

UiPath customers enjoy the tangible ROI and operational benefits of switching to a low-code and end-to-end automation solution.

For example, EDF Renewables turned to UiPath Test Suite to streamline its release process by automating regression testing. The low-code testing and process analysis capabilities enabled EDF to go from 0% to 90% automation within 5 months. Plus, their testing team reused 75% of their automation components, helping EDF release its new ERP 6x faster and for 70-80% less cost.

When Pregis was making its large-scale move into SAP S/4HANA, they leveraged UiPath to accelerate migration by automating the design, data preparation, mapping, and regression testing phases. The RPA capabilities and reusable automation library supported Pregis during and after migration, reducing test cycles by 50%.

We see automation as a strategic priority that will help accelerate Orica's business transformation, value, and growth...with a proven track record of success in supporting other global organizations, we are confident that UiPath is the trusted partner that can best support our automation journey, and maximize our investments in digital transformation.⁸

— Chris Crozier
Chief Information Officer
Orica

⁸ Press Release "UiPath Announces Global Partnership with Orica to Scale Application Testing and Automation Capabilities, Deliver Enterprise-wide Process Efficiencies." UiPath.com. December, 2022

UiPath supports leaders, users, and QA teams alike

UiPath ensures a high-quality SAP deployment that allows enterprise users to get the data they need, focus on critical business workflows, boost quality, and accelerate migration.

[Learn more about the power of UiPath automation for SAP testing today.](#)

About



The UiPath Business Automation Platform is a leading, easy-to-use, scalable, and open platform that allows everyone—from RPA developers and testers to citizen developers and business users—to work alongside software robots and achieve better business outcomes.

With UI-based and API-based RPA at its core, UiPath Test Suite supports testing for more than 190 technologies, from legacy systems to mobile applications and devices, as well as virtualized systems with UiPath AI Computer Vision technology.



ASUG is the world's largest SAP user group. Originally founded by a group of visionary SAP customers in 1991, its mission is to help people and organizations get the most value from their investment in SAP technology. ASUG currently serves thousands of businesses via companywide memberships, connecting more than 130,000 professionals with networking and educational resources to help them master new challenges. Through in-person and virtual events, on-demand digital resources, and ongoing advocacy for its membership, ASUG helps SAP customers make more possible.

ASUG develops and publishes case studies regularly in partnership with its members and customers. For more information on ASUG eBook content, contact editorial@asug.com