

How to make SAP testing work for you: practical reasons to be smart and automate.



Testing is not all fun; It can be time consuming, complex, resource-heavy, and repetitive. But it doesn't always have to be.

In this paper we explore practical ways for making SAP testing efficient and stress-free through smart testing and automation.

With SAP supporting essential business processes and ensuring systems function correctly, comprehensive testing is a necessity. Many organizations struggle to simplify and automate their testing procedures and keep up with evolving business needs.



The power and practicality of SAP Codeless Test Automation

Codeless automation for SAP testing offers a multitude of benefits that can boost the testing process and address bottlenecks. Panaya's AI Automation Engine and its intuitive platform enables leveraging your existing test repository. It shows you what to test (and what not to) and what to automate. In parallel, Panaya streamlines and manages your manual testing on the same platform.

With regression testing the value is clear. Using automation enables establishing a comprehensive regression test suite – these workflows can be executed consistently, allowing Continuous Integration and Continuous Deployment (CI/CD) pipelines to seamlessly incorporate these tests. This ensures rapid testing, decreases the risk of defects in production of SAP changes, and maintains the integrity of previously validated functionalities. And when dealing with a complex SAP environment – automation becomes critical.

A screenshot of the Panaya test automation interface. The main window displays a test script for 'Create Sales Order' with 26 instructions. The instructions are grouped into sections: 'Login (4)', 'Create Sales Order (22)', and 'Properties'. The 'Create Sales Order (22)' section is expanded, showing a list of 15 instructions such as 'Launch the 'Create Sales Orders'', 'Click on 'Continue' button', and 'Click on 'General Information' button'. The interface includes a 'Play' button, a 'Record' button, and a 'Save' button. Below the screenshot, there is a teal box with a white upward-pointing arrow icon and the text: 'An AI automation engine Tailored for SAP testing with contextual interpretation of user actions.'

Reducing dependence on coders and Automation Engineers

Most automation tools in the market today rely on skilled automation engineers, straining resources and potentially causing delays and bottlenecks in the process. They are also very dependent on their business counterparts and subject matter experts to develop automation.

Panaya's Test Automation empowers users to create and execute tests, making test automation accessible to those who don't have a coding background. Panaya's platform allows business users to record and document business scenarios, visualize and validate expected results, and contribute to the automation efforts.

Panaya's AI Automation Engine deeply understands SAP UI elements, enabling smart interactions and contextual interpretation of user actions in SAP Fiori web scripts. This specific logic handles complex UI components intelligently, creating resilient scripts that reduce maintenance. With self-healing algorithms and thorough HTML component analysis, Panaya ensures robust automation and reliable performance on dynamic web pages.

Domain experts can now participate and influence with their unique perspective – enhancing the overall quality, coverage, and depth of the testing process.



Centralized platform providing clear visibility into all automated execution events, including schedules, CI/CD, and on-demand runs, for easy review

The screenshot displays the 'AUTOMATION EXECUTIONS' section of the Panaya platform. It features a table with columns for ID, TRIGGER, STATE, RUN RESULT, TOTAL RUNS, NOT RUN, RUNNING, SKIPPED, FAILED, PASSED, STATUS BREAKDOWN, START TIME, END TIME, and TO. The table lists various execution events, including schedule events and test set lists, with their respective states (e.g., Aborted, Completed, In Progress, Failed) and results. A status bar at the bottom indicates '100 items per page' and '0 selected 1 - 86 of 86 items'.

| ID | TRIGGER | STATE | RUN RESULT | TOTAL RUNS | NOT RUN | RUNNING | SKIPPED | FAILED | PASSED | STATUS BREAKDOWN | START TIME | END TIME | TO |
|-----|----------------|-----------|-------------|------------|---------|---------|---------|--------|--------|------------------|-------------------|-------------------|----|
| 264 | Schedule event | Aborted | NOT RUN | 2 | 2 | 0 | 0 | 0 | 0 | | | | 2 |
| 247 | Schedule event | Aborted | NOT RUN | 3 | 3 | 0 | 0 | 0 | 0 | | | | 2 |
| 240 | Schedule event | Aborted | NOT RUN | 3 | 3 | 0 | 0 | 0 | 0 | | | | 2 |
| 239 | Schedule event | Aborted | NOT RUN | 2 | 2 | 0 | 0 | 0 | 0 | | | | 2 |
| 253 | Schedule event | Aborted | IN PROGRESS | 3 | 1 | 0 | 2 | 0 | 0 | | 23-Jan-2024 11:15 | | 2 |
| 717 | Schedule event | Completed | PASSED | 2 | 0 | 0 | 0 | 0 | 2 | | 19-Jun-2024 17:29 | 19-Jun-2024 17:31 | 2 |
| 329 | Test tree | Completed | PASSED | 2 | 0 | 0 | 0 | 0 | 2 | | 15-Feb-2024 12:32 | 15-Feb-2024 12:36 | 1 |
| 263 | Test set list | Completed | PASSED | 6 | 0 | 0 | 0 | 0 | 6 | | 24-Jan-2024 22:12 | 24-Jan-2024 22:21 | 6 |
| 231 | Test set list | Completed | PASSED | 2 | 0 | 0 | 0 | 0 | 2 | | 11-Jan-2024 23:39 | 11-Jan-2024 23:44 | 2 |
| 205 | Test set list | Completed | PASSED | 6 | 0 | 0 | 0 | 0 | 6 | | 10-Jan-2024 01:15 | 10-Jan-2024 01:23 | 6 |
| 47 | Test tree | Completed | PASSED | 2 | 0 | 0 | 0 | 0 | 2 | | 04-Dec-2023 22:18 | 04-Dec-2023 22:18 | 1 |
| 32 | Test tree | Completed | PASSED | 2 | 0 | 0 | 0 | 0 | 2 | | 04-Dec-2023 17:52 | 04-Dec-2023 17:52 | 1 |
| 27 | Test tree | Completed | PASSED | 2 | 0 | 0 | 0 | 0 | 2 | | 04-Dec-2023 17:46 | 04-Dec-2023 17:47 | 1 |
| 20 | Test tree | Completed | PASSED | 2 | 0 | 0 | 0 | 0 | 2 | | 04-Dec-2023 16:34 | 04-Dec-2023 16:34 | 1 |
| 734 | Schedule event | Completed | FAILED | 2 | 0 | 0 | 1 | 1 | 0 | | | | 2 |
| 714 | Schedule event | Completed | FAILED | 2 | 0 | 0 | 0 | 2 | 0 | | | | 2 |
| 691 | Schedule event | Completed | FAILED | 2 | 0 | 0 | 0 | 2 | 0 | | 17-Jun-2024 11:41 | 17-Jun-2024 11:41 | 2 |
| | | | | | | | | | | | 03-Jun-2024 09:16 | 03-Jun-2024 09:28 | 2 |



Keeping up with all the (constant) changes in SAP

Cloud applications, such as S/4HANA Cloud Public Edition, continuously release upgrades and updates, at a higher frequency than ever before. Unlike traditional on-premises software systems, SAP S/4HANA Cloud Public Edition requires organizations to update and keep in-sync with connected applications. Staying up to date with mandatory updates can be a challenge, and unforeseen changes can have severe consequences for business continuity.

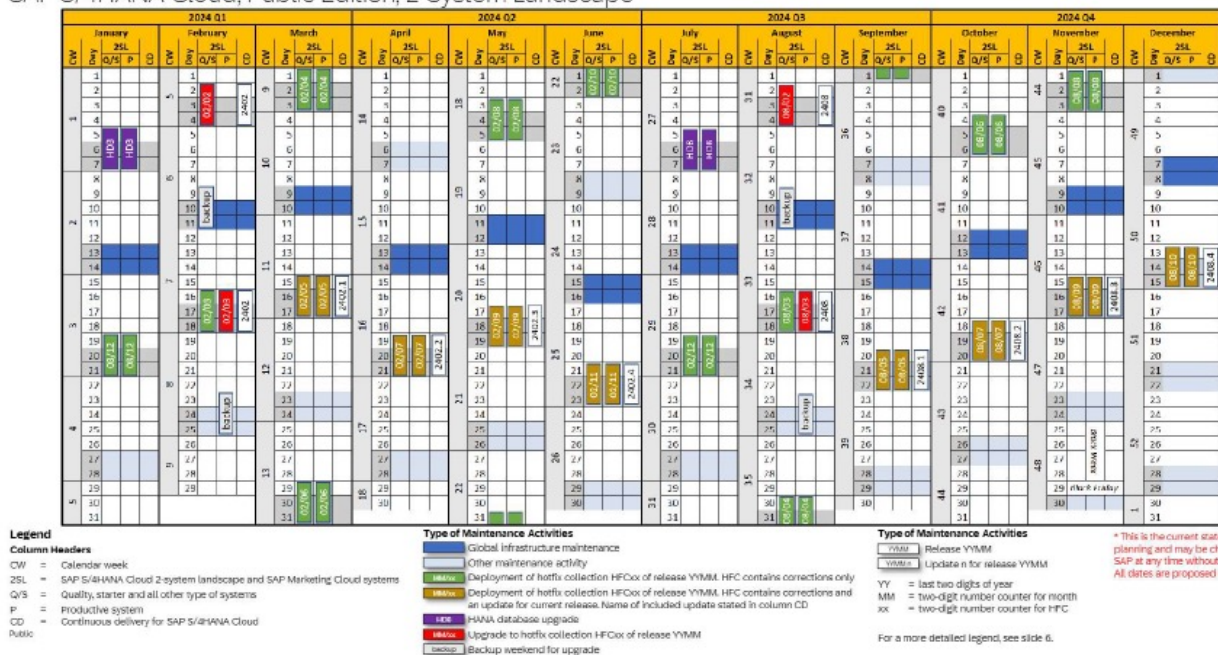
To guarantee seamless SAP deployments without affecting the performance of critical software across different departments, implementing test automation tools is essential. These tools enable comprehensive testing and validation, ensuring that all business processes function correctly after updates or changes. They allow you to keep up with cloud application updates effortlessly, reducing the risk of accidental or unplanned ERP deployments by automating repetitive and complex testing tasks. This proactive approach not only minimizes disruptions but also ensures that the systems' integrity and



SAP has released numerous updates and versions of S/4 and will continue to improve and upgrade its offering for the foreseeable future.

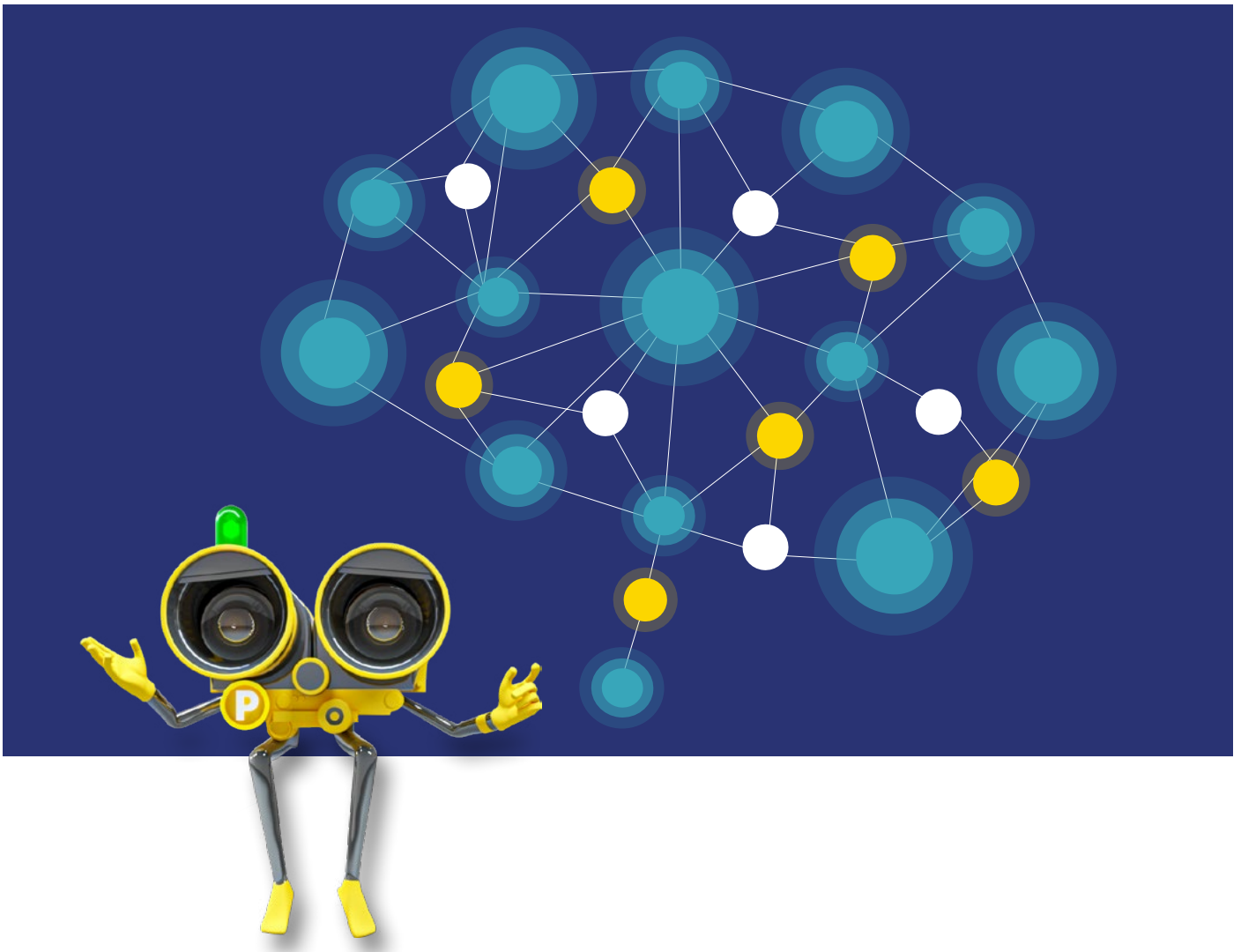
Maintenance Calendar*

SAP S/4HANA Cloud, Public Edition, 2-System Landscape



Example from SAP Community: [Click to watch Source](#)





Leveraging GenAI in test automation

GenAI is a game changer. And when combined with Panaya’s deep SAP domain expertise and solutions tailored to SAP, the impact is huge. GenAI allows organizations to step up their testing game even when facing limited resources and the ever-growing need for SAP testing. The more innovation and new processes introduced, the heavier the testing load. Under these constraints, the smarter and more efficient you can be, the more comprehensive and effective your testing activities will be.

Panaya’s GenAI features revolutionize test automation with capabilities like random data generation and complex expression validation with prompts. GenAI can answer product or best practices questions, simplifying user interactions and accelerating learning curves. It also excels in handling complex tasks such as writing and explaining code or web locators, making it easier for users to understand and create test scripts. This integration of GenAI streamlines testing processes, reduces manual effort, and enhances the overall reliability of the testing lifecycle.

Manage it all in one place.

The choice between leveraging multiple disparate tools and using one native platform can have a significant impact. Some tools may have specific benefits, but can those benefits outweigh the cumbersome integrations, patchy workflows, and the switching between systems?

Accurate information is a critical component of SAP project management. Scoping, reporting and strategic project decision making are all based on the quality of the data we have. Utilizing multiple tools often leads to integration challenges and knowledge silos. A natively developed, unified platform ensures seamless data flow and integrated processes by centralizing all functions and data and removing multiple sources of truths.

Another crucial aspect is collaboration between IT and Business teams, which is challenging to begin with. Collaboration across multiple tools makes it so much more difficult. Providing a common framework and aligning efforts towards common goals can bridge gaps as well as drive better project outcomes.

Harnessing AI and GenAI on a single platform has tremendous benefits too – allowing a more comprehensive, holistic analysis, aggregating data from all platform functions, which can be daunting with isolated tools.

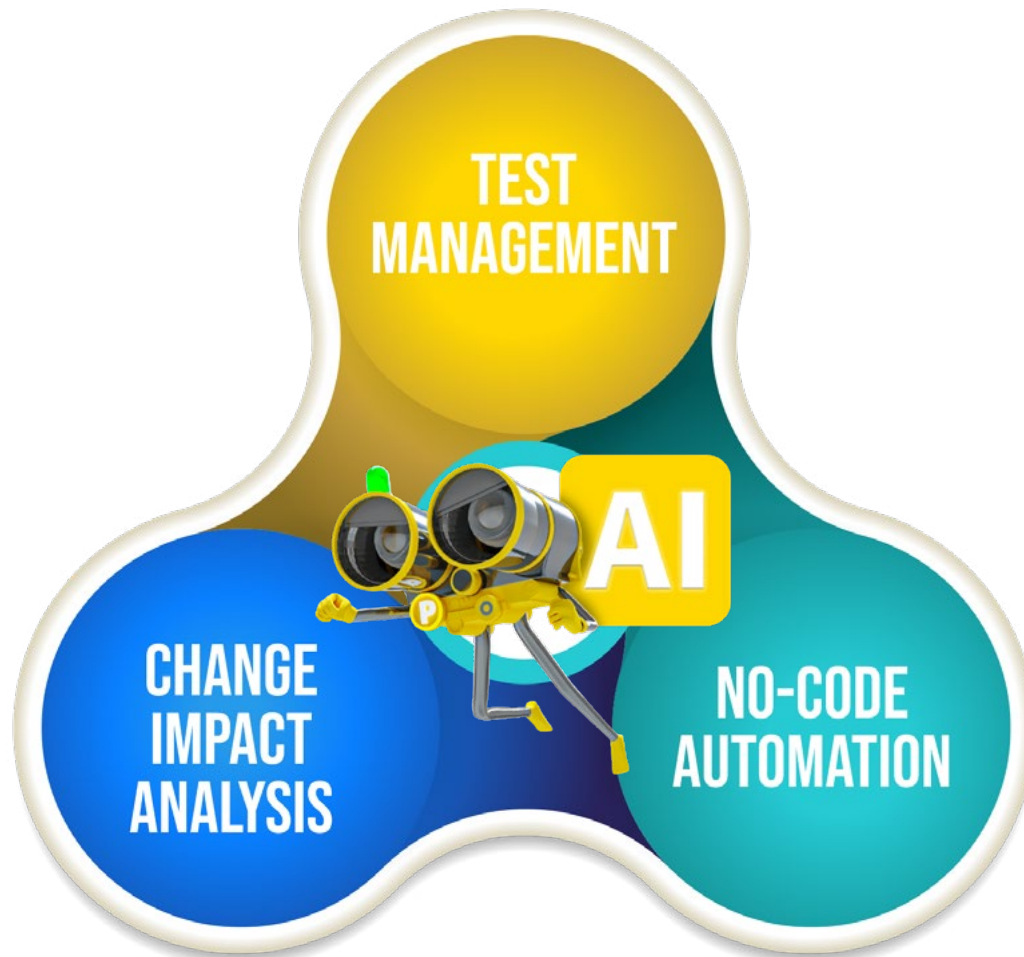
The benefits of a “one-platform” approach don’t end with accuracy, holistic data management and collaboration between IT and business with SAP projects. Combining them with seamless SAP upgrades and migrations through Change Intelligence and Impact Analysis, all on one native platform, is a huge advantage on its own.



By embracing automation in SAP testing, organizations can make SAP testing work for them – ensuring systems and processes are running smoothly and efficiently and ultimately driving better business outcomes.

One Platform

For all your SAP testing needs



Go on - Test US!

About Panaya

Panaya, a SaaS-based company certified by SAP, Oracle, and Salesforce.com, offers an all-in-one platform for Smart Testing solutions and Change Intelligence tailored for ERP, CRM, and cloud business applications. Panaya accelerates and de-risks digital landscapes with AI-powered Test Automation, Test Management, and Impact Analysis. Panaya's focus on ease of use and an intuitive interface ensures seamless collaboration between business and IT, empowering business users and IT professionals to gain real-time visibility and control over their projects. This capability enables faster releases and continuous delivery of high-quality software.

Since its founding in 2006, over 3,000 companies across 62 countries, including a third of the Fortune 500, have trusted Panaya to drive rapid, quality testing and change management in their enterprise business applications