

AUTOMATED END-TO-END BUSINESS PROCESS TESTING

REDUCE TESTING TIME, COSTS, AND RISKS

The SAP® Test Acceleration and Optimization application provides preconfigured, automated, functional test components. Used together with the SAP Quality Center application by HP, the solution enables fast, adaptive, and highly efficient testing of SAP solutions and business processes.



Organizations today face a sea of changes driven by unprecedented levels of business complexity and stakeholder demands, an ever-increasing amount of new regulations and legislation, and continuing technological advances. Businesses must keep up with and adapt to these changes. Doing this with ample speed and agility helps separate the businesses that thrive from those that merely survive. During any change event, such as an application implementation or upgrade, it is imperative that an organization's core business processes – for example, order to cash or procure to pay – continue to work as expected without any disruption. The highly secure and mission-critical nature of enterprise application data means that you need to regularly test these applications and related business processes.

The SAP® Test Acceleration and Optimization application brings together the worlds of business process knowledge and quality assurance to significantly reduce the time, costs, and risks associated with business process testing.

Fast, Adaptive, and Efficient

Testing business processes is critical, but current approaches toward end-to-end business process testing can be inefficient, ineffective, expensive, and risky. Some quality assurance professionals use customized, manual procedures – that are expensive and time consuming – to test processes and applications. In addition, subject matter experts often spend extra hours communicating the process data flow to the testers. Published research indicates that the combination of testing and data conversion account for between 35% and 38% of the duration and cost of an IT project.

SAP Test Acceleration and Optimization addresses these challenges by streamlining the creation and maintenance of business process testing. The software automatically creates test components, uploads test components to the SAP Quality Center application by HP, and then runs the automated tests, as outlined in the following table.

Test Acceleration Process

Action	Steps Involved
Generate Test Components	<ul style="list-style-type: none"> ■ Scope the transaction codes that you want to test ■ Automatically inspect, learn, and generate components for test codes ■ Consolidate components ■ Upload components to SAP® Quality Center application by HP
Compose Test Cases	<ul style="list-style-type: none"> ■ Create test suites to test target scenarios and requirements ■ Compose test cases ■ Add test data to the components
Execute Test Cases	<ul style="list-style-type: none"> ■ Select and collect all the relevant test cases ■ Build a test run set ■ Assign data sets for multiple regressions ■ Run the test set

With SAP Test Acceleration and Optimization, you can break down applications into components, which can then be assembled into test cases through a simple drag-and-drop interface. The test cases are parameterized so you can reuse a test that has updated data inputs. This functionality is easy and cost-effective to maintain, even when screens, flows, or service packs change. You can add patches, provided by SAP, so that your test cases are still valid.

Used in concert with the SAP Quality Center application by HP, SAP Test Acceleration and Optimization enables fast, adaptive, and highly efficient testing of SAP solutions and business processes.

Automated testing with SAP Test Acceleration and Optimization maximizes:

- **Deployment**
In tandem with SAP Quality Center, SAP Test Acceleration and Optimization dramatically reduces the amount of time required to build and execute test scripts. The application is fully aligned with the ASAP methodology to streamline your development and implementation efforts.
- **Reuse**
SAP Test Acceleration and Optimization eliminates the need to create new tests whenever a component changes. If one component changes in a group of tests, just replace that component and then reconsolidate the tests.



The SAP Test Acceleration and Optimization application provides pre-configured, automated, functional test components to significantly reduce the time, costs, and risks associated with business process testing.

- **Maintenance**
You can record component parameters with SAP Test Acceleration and Optimization. The software provides a Microsoft Excel spreadsheet to save parameters for reuse and maintenance. You can also move components from SAP Quality Center to SAP Test Acceleration and Optimization for additional backup possibilities.
- **Robustness**
The SAP Test Acceleration and Optimization inspection process ensures that your tests will hold up to any changes that may take place during the inspection process or as testing situations change. During the inspection process, the data content – not just the screen object behavior – within a component is examined.

Effective Test Data Management

SAP Test Acceleration and Optimization provides best practice guidance on the process integration of existing test data management applications, such as the SAP Test Data Migration Server software. With SAP Test Data Migration Server, you can take a more agile approach to automated regression, functional, and business process testing, because you can create small, easy-to-use test environments and populate them with a manageable set of up-to-date, business-relevant test data. This approach helps ensure consistency in the live software environment. It also enables you to minimize infrastructure and maintenance expenses and maximize the effectiveness and accuracy of the nonproductive systems used for testing, quality assurance, and training.

SAP Solution Manager Integration

The SAP Solution Manager application management solution speeds test preparation and execution. It provides you with a single point of access to the entire software landscape as well as central data storage so you can reuse testing materials in subsequent projects and access test results to support cross-component tests. Integrated with SAP Quality Center, SAP Solution Manager allows you to initiate testing as you configure process structures. And because it is also integrated with your issue-handling software, it helps you resolve problems efficiently.

Increase Efficiency, Reduce Risk and Cost

SAP Test Acceleration and Optimization increases testing efficiency, reduces risk, and improves total cost of operations by enabling:

- Dramatic reductions in time and resources through automatic generation of test components, unattended execution of business process testing, and increased test coverage for critical business processes
- Automated adaptations to changes by providing detailed insight into the impact of planned SAP software changes to transactions, a list of change events, and affected transactions, and by enabling automated detection and regeneration of outdated test components
- Assistance for effective test data management with best practice guidance on process integration of existing test data management applications

SAP Test Acceleration and Optimization provides best practice guidance on process integration of existing test data management applications, such as the SAP Test Data Migration Server software.

Learn More

To find out how SAP Test Acceleration and Optimization can improve your testing processes, call your SAP representative or visit us online at www.sap.com/usa/services/consulting/saptesting.epx.

Summary

Through preconfigured, automated, functional test components, the SAP® Test Acceleration and Optimization application fundamentally changes the testing paradigm from manual testing to testing by composition, significantly reducing the costs and risks for all system change events.

Challenges

- Avoid resource and time constraints caused by manual testing
- Require expert know-how for automated tests via scripting
- Create more certainty on which business processes are affected by transport orders
- Avoid damaging automated test cases through system changes
- Reduce uncertainty on test coverage of areas affected by change
- Set up a test system with most recent, relevant, and representative test data

Supported Business Processes and Software Functions

- Automated business process testing – Accelerate testing of business processes, fully aligned with the ASAP methodology, the SAP Solution Manager application management solution, and the SAP Quality Center application by HP
- Test case creation – Build test cases that are easily composed by using bulk-generated components or components generated on demand

Business Benefits

- **Lower risk** reduces security and failure risks due to better testing coverage and assurance
- **Improved testing** optimizes the testing process and realizes a faster ROI during testing cycles
- **Increased capacity** absorbs and manages change more effectively by ensuring the reliability of your applications
- **Tighter integration** seamlessly integrates testing processes with SAP Quality Center and SAP Solution Manager to speed test preparation and execution

For More Information

Call your SAP representative or visit us online at www.sap.com/usa/services/consulting/saptesting.epx.

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