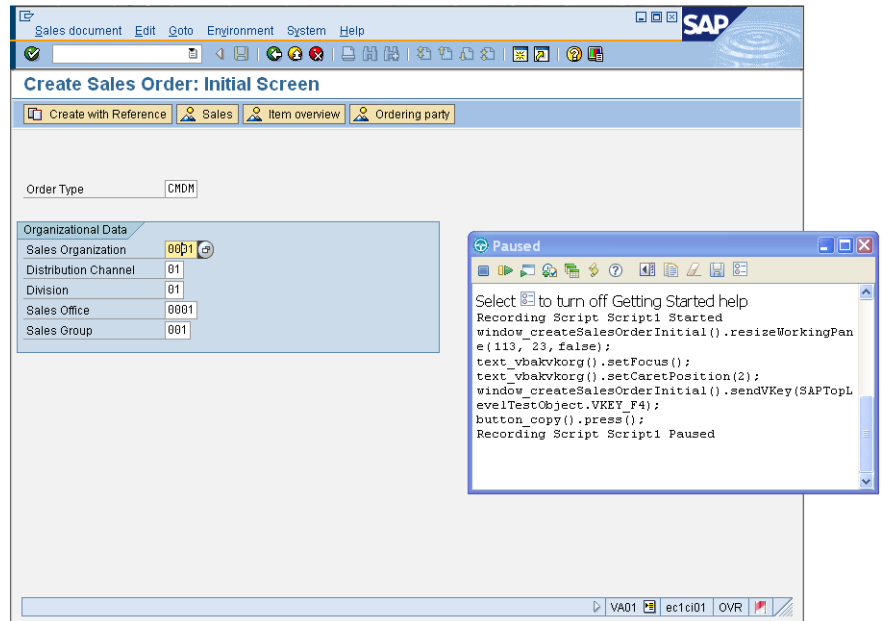


IBM Rational Functional Tester Extension for SAP solutions

Highlights

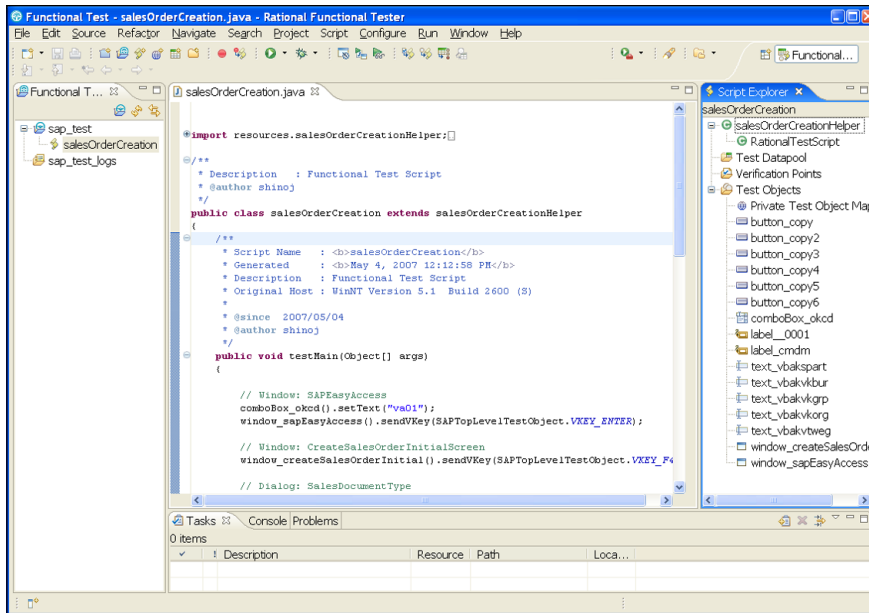
- Provides robust, SAP-certified testing support for SAP GUI-based applications
- Supports both Java and Microsoft Visual Basic .NET platforms for test script customization, editing and debugging
- Helps validate dynamic data with multiple verification points and support for regular expression pattern matching
- Helps reduce—through IBM ScriptAssure technology—script maintenance by ensuring playback even when underlying applications have changed
- Helps improve productivity by supporting version control to enable parallel development of test scripts and concurrent use by geographically distributed teams



Capturing a script with IBM Rational Functional Tester Extension for SAP solutions software

Any organization that relies on SAP development and customization to serve the needs of its business or customers recognizes that application quality is a prerequisite for success. SAP customizations rely on two fundamental elements—functionality and performance. Functionality is what the

SAP application lets its users accomplish, while performance is the system's ability to complete transactions and furnish information rapidly and accurately. Using IBM Rational® Functional Tester Extension for SAP solutions software, you can test your SAP customizations before they go live.



Editing a recorded Java script with IBM Rational Functional Tester Extension for SAP solutions software

Rational Functional Tester Extension for SAP solutions software adds SAP GUI support to the IBM Rational Functional Tester tool. It allows you to create, execute and analyze regression tests to validate the quality of your SAP customization. With Rational Functional Tester, you can better support high-quality business process implementation and execute, upgrade or modify existing processes on time and within budget.

Ensuring that customizations meet or exceed project expectations requires a level of project discipline and efficiency that can be hard to achieve. Typically the domain of quality assurance (QA) departments, functional testing verifies the successful implementation of requirements in categories such as functionality, usability and appearance. Though functional testing can be performed

using a purely manual approach, automation can deliver numerous benefits, including:

- Enabling testing for feature regression from one release to the next—without tying up tester resources
- Relieving QA departments from having to maintain and execute basic tests
- Automating nontesting activities such as test-lab machine preparation and database configuration
- Reducing the human error that can occur during test execution and results recording

Designed with a deep understanding of SAP, Java™, Web and Microsoft® Windows® Forms software-based user interface technologies, Rational Functional Tester combines a robust recorder of user actions with multiple customization options and intelli-

gent script maintenance capabilities that enable you to create a test and execution process that can adapt to constantly changing applications.

Providing guidance throughout the entire testing process

Using Rational Functional Tester Extension for SAP solutions software, you can validate and test the behavior of a business process implementation, as well as test a complete service-oriented architecture (SOA) environment including portals, Web services and SAP GUI-based applications. A regression test often includes the following steps:

- **Define the business process.** This step includes determining the optimal hardware and software platform based on the business process itself and instrumenting the Rational Functional Tester environment.
- **Develop and record the script.** This step involves developing one or more test scripts to walk the software through the actual screens and entries that will be used by the business process. The resulting test script can be in pure Java or Microsoft Visual Basic .NET language.
- **Replay and evaluate test results.** This step helps ensure that the implementation to be tested works as designed and that predefined verification points are tested for expected values.
- **Retest for validation.** This step involves rerunning the prerecorded tests using a modified implementation to validate application quality and recognize the side effects of the changes.

Supported SAP GUI versions *

SAP R/3 V4.6C/4.7

SAP GUI V6.20, patch level 52+

SAP GUI V6.40, patch level 13+

SAP GUI for HTML

Supported platforms

Microsoft Windows XP SP1 and SP2

Microsoft Windows Server 2000 SP3 and SP4

Microsoft Windows Server 2003

* All Web-based SAP solutions can be tested using Rational Functional Tester native HTML test functionality.

Lowering the cost of functional testing

The benefits of automated testing are quickly lost when you need to manually keep test scripts up to date throughout the project. Rational Functional Tester uses IBM ScriptAssure™ advanced technology to learn user interface control characteristics and share them across scripts and projects. And new, advanced object-map search and filter capabilities in the Rational Functional Tester application have made maintenance even easier.

Used to compare actual data with expected data, verification points inserted within test code support the usage of regular expressions to validate dynamic content such as an ever-changing and ever-increasing order number, or time and date stamps. This capability further reduces the need for test maintenance activities to accommodate changes in the application(s) under test.

Delivering unlimited customization potential

Test script modifications and enhancements are inevitable. So Rational Functional Tester offers users a choice of mainstream, industrial-strength languages hosted within equally robust test editors and debuggers. Rational Functional Tester (for SAP solutions) can produce test scripts using either 100 percent Java code hosted within the Eclipse Java Developer Toolkit editor or 100 percent Microsoft Visual Basic .NET code hosted within the Microsoft Visual Studio .NET editor. Users can quickly modify existing code, as well as create custom libraries that can be called by other test scripts. Coding is greatly simplified thanks to the Eclipse and Visual Studio .NET editors, both of which provide advanced editing features such as automated code completion and advanced debugging options. Customization possibilities are limitless, and communication of test scripts with development is vastly

simplified. In fact, SAP developers and other members of the development team can access Rational Functional Tester (for SAP solutions) from within their Eclipse or Visual Studio .NET code-based integrated development environments (IDEs) to create their own test scripts.

Built on open standards

The Java scripting capabilities of Rational Functional Tester software are built on top of the Eclipse architectural framework and the Test and Performance Tools Platform (TPTP), the Eclipse test, trace and monitoring extension. Both technologies provide shared, open source services across tooling environments that target application development, testing, deployment and monitoring. Using an open source platform can help you eliminate proprietary data store formats and enable support for both internal and third-party customizations. Further, investing in open source-based tools can help you avoid vendor lock-in and encourage future innovation.



Seamlessly integrated with the IBM Rational Software Delivery Platform

IBM Rational Functional Tester software is an integral component of the IBM Rational Software Delivery Platform—a complete and powerful solution for software system creation and application lifecycle management. Providing automation support for all aspects of software development, the platform unites team members by enabling them to share information effectively with one another and with others' tools. Integration into the Rational Software Delivery Platform is designed to ensure access to various software development lifecycle assets such as application requirements, and it enables a shared user experience across team disciplines. From the perspective of functional testing, this allows developers and testers to build, share and analyze functional tests from within the same user interface they use to construct, test, deploy and monitor their applications using other tools within the Rational Software Delivery Platform.

Additionally, IBM Rational quality management solutions offer software testers leading-edge support for performance testing, functional and regression testing, manual testing, developer testing and test management. With Rational solutions, QA teams can easily manage application functionality, usability, reliability, scalability and performance.

IBM Rational services

IBM offers a variety of services to complement IBM Rational tools and best practices. Rational services are available for large and small projects to help you build team skills, reduce time to productivity when implementing a new solution, and maximize the return on your investment in IBM Rational tools. The IBM Rational worldwide staff of professional services consultants brings years of experience to help you lay a solid foundation for successful software development projects.

For more information

To learn more about IBM Rational Functional Tester Extension *for SAP solutions* software, please contact your IBM representative, or visit:

ibm.com/software/awdtools/tester/functional/ext/sap

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Somers, NY 10589
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