sigtest

SigTest

The SigTest open source project is a collection of tools based on Oracle's commercial SigTest tools product. The SigTest tools can be used to compare APIs and to measure the test coverage of an API. The tools were originally created to assist in the creation of Java technology compatibility test suites (TCKs), but are also useful in the creation of other types of test suites and in the software development process. The SigTest project consists of the following tools.

The **Signature Test tool** makes it easy to compare the signatures of two different implementations or different versions of the same API. When it compares different implementations of the same API, the tool verifies that all of the members are present, reports when new members are added, and checks the specified behavior of each API member. When it compares different versions of the same API, the tool checks that the old version can be replaced by the new one without adversely affecting existing clients of the API.

The **API Coverage tool** can be used to estimate the test coverage a test suite provides for an implementation of a specified API. It does this by determining how many public class members the test suite references within the API specification. The tool uses a signature file representation of the API specification as the source of specification analysis. It does not process a formal specification in any form.

The SigTest open source project was created in order to develop a community that will improve it, further its development, and use it to develop test suites. We encourage you to browse, download, contribute, and get involved.

News and Announcements

SigTest 4.0 Milestone Release (May 12, 2017)

The SigTest 4.0 release is based on Oracle's SigTest signature testing and API conformance tool. With SigTest 4.0, we are adapting the tools for new JDK 9 language features. SigTest 4.0 also includes numerous bug fixes. We encourage you to browse, download, contribute, and get involved.

The SigTest project moved to OpenJDK (March 4, 2014)

SigTest 3.0 Milestone Release (March 4, 2014)

The SigTest 3.0 release is based on Oracle's SigTest signature testing and API conformance tool. With SigTest 3.0, we are adapting the tools for new JDK 8 language features. SigTest 3.0 also includes numerous bug fixes. The SigTest project continues to expand its community, with SigTest's introduction into the OpenJDK CodeTools project. We encourage you to browse, download, contribute, and get involved.

SigTest 2.2 Milestone Release (March 24, 2011)

The SigTest 2.2 release is based on Oracle's SigTest signature testing and API conformance tool. With SigTest 2.2, we are expanding the SigTest project to include other tools based on the same signature testing technology as the SigTest to itself. SigTest now includes API Check tool functionality, a static analysis tool used to analyze APIs. SigTest 2.2 also adds Maven wrappers, as well as support for upcoming JDK 8 features. SigTest also includes numerous bug fixes. The SigTest project continues to develop a community that will improve it, further its development, and use it to develop test suites. We encourage you to browse, download, contribute, and get involved.

SigTest 2.1 Milestone Release (March 05, 2009)

The SigTest 2.1 milestone release is based on Oracle's SigTest signature testing and API conformance tool. With SigTest 2.1, we are expanding the SigTest project to include other tools based on the same signature testing technology as the SigTest tool itself. SigTest now includes API Coverage tool functionality, a static analysis tool used to analyze code coverage of a program or API. SigTest 2.1 also includes a new analysis mode for migration compatibility. This allows users to determine whether an application that uses a given API can safely migrate to a later version of that API (typically, a superset of the same functionality). The SigTest project continues to develop a community that will improve it, further its development, and use it to develop test suites. We encourage you to browse, download, contribute, and get involved.

Related Projects and Links

This section contains links to technologies and blogs that are related to the SigTest project.

Development Tools

AsmTools	Assemblers and Disassemblers for producing .class files

JCov	A code-coverage tool, useful for describing test coverage of an API

JT Harness Testing Harness and Extensions

JT Harness	The JT harness is a flexible test harness that can be used to control and execute test suites.
ME Framework	The ME Framework is an open source set of JT harness plugins that supports the Java ME platform. Test suite architects use the JT harness and the ME Framework to construct test suites for Java ME technologies.
jtreg	The jtreg test harness is used by the JDK test framework. This framework is intended primarily for regression tests. It can also be used for unit tests, functional tests, and even simple product tests.

Blogs

Java Compatibility Tools Blog	This blog provides topics of general interest for people writing tools to test Java platform compatibility and conformance.
Jaroslav Tulach	The NetBeans architect blogs about SigTest. He also maintains an excellent Wiki about API design and evolution.