

JaCoCo Plugin

Plugin Information

View JaCoCo on the [plugin site](#) for more information.

Unfortunately JaCoCo 0.7.5 breaks compatibility to previous binary formats of the jacoco.exec files. The JaCoCo plugin up to version 1.0.19 is based on JaCoCo 0.7.4, thus you cannot use this version with projects which already use JaCoCo 0.7.5 or newer. JaCoCo plugin starting with version 2.0.0 uses JaCoCo 0.7.5 and thus requires also this version to be used in your projects. Please stick to JaCoCo plugin 1.0.19 or lower if you still use JaCoCo 0.7.4 or lower

Basic information

- Repository address: <https://github.com/jenkinsci/jacoco-plugin/>
- Mailing list: <http://groups.google.com/group/jenkins-jacoco-plugin-mailing-list>
- Issue tracking: <https://issues.jenkins-ci.org/browse/JENKINS/component/16541>
- Build and test results: <https://jenkins.ci.cloudbees.com/job/plugins/job/jacoco-plugin/>

This plugin allows you to capture code coverage report from JaCoCo. Jenkins will generate the trend report of coverage.

This plugin is fork of the [Emma Plugin](#). Big part of the code structure comes from it, however, it is completely refactored.

It also includes functionality similar to the [Emma Coverage Column](#) which allows to include a column in Dashboards which displays the latest overall coverage numbers and links to the coverage report.

- [Getting Started](#)
 - [Recording coverage for builds](#)
 - [Coverage column](#)
- [Open Tickets](#) (bugs and feature requests)
- [Build Status](#)
- [Change Log](#)

Getting Started

The plugin provides two things, a build-publisher to record and display coverage data as part of builds as well as a new column-type for dashboard views which can display coverage data in Dashboards.

Recording coverage for builds

Get coverage data as part of your build

First you need to get coverage calculated as part of your build/tests, see the [JaCoCo documentation](#) for details. You need at least one or more *.exec file available after tests are executed. Usually this means adjusting your Maven pom.xml or Ant build.xml file..

Set up coverage retrieval and publishing

In order to get the coverage data published to Jenkins, you need to add a JaCoCo publisher and configure it so it will find all the necessary information. Use the help provided via the question-mark links for more information. Basically you specify where the *.exec files are, where compiled code can be found and where the corresponding source code is located after the build is finished to let the plugin gather all necessary pieces of information..

Veröffentliche die JaCoCo Testabdeckung

Path to exec files (e.g.: **/target/**/*.exec, **/jacoco.exec) Path to class directories (e.g.: **/target/classDir, **/classes) Path to source directories (e.g.: **/mySourceFiles)

Inclusions (e.g.: **/*.class) Exclusions (e.g.: **/*Test*.class)

	Instruction	% Branch	% Complexity	% Line	% Method	% Class
	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>
	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>

Change build status according the thresholds

Löschen

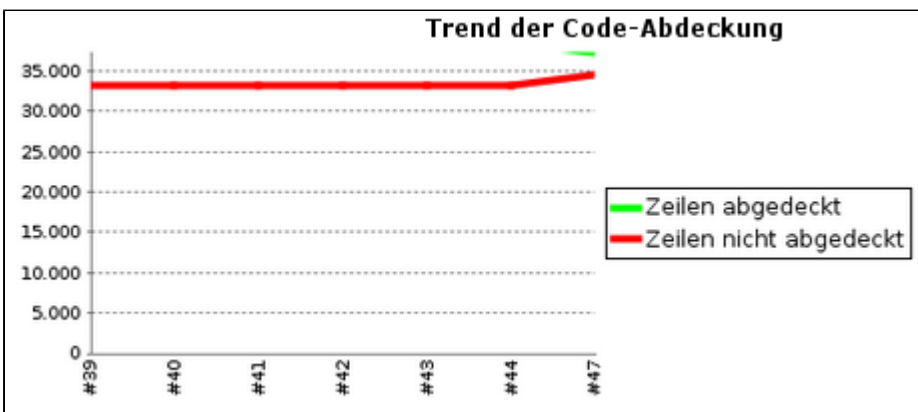
Run the job

After the job executed, the build-output will show that the JaCoCo-publisher is executed and collects the data. This output can also give hints if something goes wrong at this stage:

```
Zeichne Testergebnisse auf.
[JaCoCo plugin] Collecting JaCoCo coverage data...
[JaCoCo plugin]
build/*.exec;build/*-classes;src/java,src/*/java,src/*/src; locations
are configured
[JaCoCo plugin] Number of found exec files: 5
[JaCoCo plugin] Saving matched execfiles:
.../build/jacoco-excelant.exec .../build/jacoco-main.exec
.../build/jacoco-ooxml-lite.exec
[JaCoCo plugin] Saving matched class directories:
.../build/examples-classes .../build/excelant-classes
.../build/excelant-test-classes
[JaCoCo plugin] Saving matched source directories: .../src/contrib/src
.../src/examples/src .../src/excelant/java .../src/java
[JaCoCo plugin] Loading inclusions files..
[JaCoCo plugin] inclusions: []
[JaCoCo plugin] exclusions: [*/Test*]
[JaCoCo plugin] Thresholds: JacocoHealthReportThresholds [minClass=0,
maxClass=0, minMethod=0, maxMethod=0, minLine=0, maxLine=0,
minBranch=0, maxBranch=0, minInstruction=0, maxInstruction=0,
minComplexity=0, maxComplexity=0]
[JaCoCo plugin] Publishing the results..
[JaCoCo plugin] Loading packages..
[JaCoCo plugin] Done.
```

Look at results

If data gathering is successful, the build will include a link to the coverage results similar to the HTML report of JaCoCo itself. The job page will be enhanced with a chart with the trend of code coverage over the last builds.



Coverage column

This part of the JaCoCo plugin allows you to add a new type of column to a project-table in the Dashboard view which will show the coverage number of the last build for a job together with some color coding which allows to quickly see projects with low coverage.

Spalte hinzufügen ▾	
Build-Schaltfläche	pag
Buildbeschreibung	
JaCoCo Line Coverage	
Job Type	
Konsolenausgabe des letzten/aktuellen Builds	
Letzte Dauer	
Letzter Erfolg	
Letzter Fehlschlag	
Letzter stabiler Build	

Zeilenabdeckung	
	53.81%
Sekunden	53.89%
Sekunden	75.13%
Sekunden	75.13%
	N/A
7 Minuten	N/A
Minuten	N/A
Sekunden	76.61%
Sekunden	76.35%
	18.29%
	18.07%
Sekunden	17.79%
Sekunden	0.0%
	N/A
Sekunden	0.0%
Sekunden	0.0%
	N/A
	N/A
	77.96%
	77.82%

The fill-color in use by the column is a continuous color-range with the following points:

- **PERFECT** = 100.0
- **EXCELLENT** at 97.0
- **GOOD** at 92.0
- **SUFFICIENT** at 85.0
- **FAIR** at 75.0
- **POOR** at 50.0
- **TRAGIC** at 25.0
- **ABYSSMAL** at 0.0
- **NA** = No coverage configured

Open Tickets (bugs and feature requests)

See [https://issues.jenkins-ci.org/browse/JENKINS-42420?jql=project%20%3D%20JENKINS%20AND%20status%20in%20\(Open%2C%20%22In%20Progress%22%2C%20Reopened%2C%20%22In%20Review%22\)%20AND%20component%20%3D%20jacoco-plugin](https://issues.jenkins-ci.org/browse/JENKINS-42420?jql=project%20%3D%20JENKINS%20AND%20status%20in%20(Open%2C%20%22In%20Progress%22%2C%20Reopened%2C%20%22In%20Review%22)%20AND%20component%20%3D%20jacoco-plugin)

Build Status

Change Log

Version 3.1-SNAPSHOT (unreleased)

- N/A

Version 3.0 (February 18, 2018)

- No change upload due to problems with the release-workflow

Version 3.0 (February 18, 2018)

- Use the formatted date instead of the Calendar as the key to get the correct coverage trend per day (#88)
- Handle build abort (by not catching InterruptedException) (#86)
- Improve exception handling (#89)
- Update min Java version to Java 8, update Maven dependencies and plugins (#92)
- Fix Javadoc warnings (#93)

Version 2.2.1 (May 5, 2017)

- JENKINS-43103 Removed dependency on Joda Time
- #83 Added symbol name for better pipeline integration
- JENKINS-41515 Update Jenkins parent to 1.625.3 to be able to test with current pipeline-plugin
- JENKINS-41515 Adjust dependencies and add some exclusions to remove a number of unnecessary jars from the resulting hpi file

Version 2.2.0 (Mar 22, 2017)

- Configuration: Put checkboxes on top of threshold values in the configuration UI
- #81 New flag to enable/disable display of source files with line coverage highlights
- #80 Allow to fail the build if coverage degrades to much compared to previous build
- #79/JENKINS-25076/JENKINS-29117 Report 100% for empty Coverage objects
- #78/JENKINS-26254 Use BufferedInputStream to read .exec files
- #76 Allow usage of environment variables in threshold fields.
- JENKINS-38604: Limit copying of files to types *.java and *.class
- JENKINS-36571: Update to Java 1.7
- JENKINS-36536: Put a trend graph on the pipeline project page
- JENKINS-32847: Add warning for sub directory filter
- JENKINS-16787: Add shape and center plot for single-build-graphs

Version 2.1.0 (Sep 29, 2016)

- JENKINS-16580 Display more than only line coverage in graph, #50
- JENKINS-27120 Adding Workflow support for JaCoCo publisher, make JacocoPublisher a SimpleBuildStep, #63, #66, #70, #72, #73
- Handle Jenkins publisher case when classes directory is empty, #67
- JENKINS-32717 Multiple class directories and source directories not parsed if there is a space after comma delimiter, #68
- Use full precision when comparing coverage to thresholds, #71
- Expand the inclusion and exclusion inputs, #74

Version 2.0.1 (Jan 15, 2016)

- Fix the m2e lifecycle-mapping, #64
- Integrate automated builds via travis-ci and show the build-state on the github page
- Fix for JENKINS-31751 JaCoCo 2.0.0 plugin shows html instead of coverage report chart

Version 2.0.0 (Nov 23, 2015)

- Major version change because the jacoco.exec file from the newer JaCoCo is binary incompatible with previous builds
- Update to JaCoCo 0.7.5, this causes binary incompatibility! See #55
- Add coverage summary on build status/result page. Thanks to Felipe Brandão for the patch, see #61

Older changelog

Version 1.0.19 (Apr 7, 2015)

- Update used version of JaCoCo to 0.7.4

Version 1.0.18 (Dec 7, 2014)

- Fix JENKINS-23708 NullPointerException if older JaCoCo reports are opened

Version 1.0.17 (Nov 25, 2014)

- Fix [JENKINS-24450] JacocoPublisher serializes concurrent builds waiting for checkpoint - #45 - JacocoPublisher serializes concurrent builds waiting for checkpoint
- Fix [JENKINS-21529] add raw number metrics to the API - #42 - add raw number metrics to the API
- Fix #35 - Fix minor glitches in coverage table
- Fix [JENKINS-23623] Fix URL in JaCoCo Coverage Column in non-default views
- Set License to MIT License

Version 1.0.16 (Jun 24, 2014)

- Fix [JENKINS-23426] - Crash publishing jacoco report across all projects - #44 - set dependency of asm to 5.0.1

Version 1.0.15 (Jun 11, 2014)

- Fix [JENKINS-20440] Inspector problem
- Fix [JENKINS-22716] - Update to JaCoCo 0.7.x to support Java 8
- Fix #40 - Project Dashboard chart having data cut off

Version 1.0.14 (Nov 9, 2013)

Core JaCoCo plugin

- Fix [JENKINS-19526] Display Branch Coverage Information
- Fix [JENKINS-19539] Do not (try to) generate coverage information if build was aborted
- Fix [JENKINS-17027] Red/green ratio is wrong
- Fix [JENKINS-19661] Inconsistent complexity score on the dashboard portlet
- Fix [JENKINS-19662] Removed (always-empty) block coverage column from the dashboard portlet
- Fix [JENKINS-19789] Method parameters in the class summary table

Version 1.0.13 (Aug 22, 2013)

Core JaCoCo plugin

- Fix JENKINS-16948: Support for changing build status if expected coverage is not reached
- Fix JENKINS-15539: /jacoco.exec now serves the (possibly combined) jacoco.exec file
- Fix JENKINS-15571: plugin crashes if jacoco didn't run
- Stream output to avoid holding large amounts of data in memory

Coverage column:

- Fix JENKINS-18894: Do not include coverage column in new Dashboards by default
- Fix JENKINS-16790: Link from Dashboard to coverage report
- Fix JENKINS-16786: make coverage column show N/A as white, not black
- Fix JENKINS-16788: Update German translation
- Add some help-items for configuration items

Version 1.0.12 (Feb 22, 2013)

- Fix JENKINS-16935: The default no-name package breaks the rendering
- Fix JENKINS-15538: Show source highlighting on the whole class

Version 1.0.11 (Feb 21, 2013)

- Fix JENKINS-16777: ArrayIndexOutOfBoundsException when trying to publish the Jacoco report
- Fix JENKINS-16837: Don't change build status

Version 1.0.10 (Feb 05, 2013)

- Fix JENKINS-16096: Support for inclusions, exclusions
- Fix JENKINS-15011: Jacoco Plugin 1.0.3 - no threshold config and displays broken graphic link
- Fix JENKINS-15366: Problem displaying Jacoco coverage data in Jenkins for very large number of classes and methods.
- Fix JENKINS-15570: Coverage report includes classes that have been excluded from Jacoco analysis
- Fix JENKINS-15180: should be able to configure "coverage targets"
- Fix JENKINS-16310: Source code loses spacing/indenting due to html white space collapsing.

Version 1.0.9 (Nov 18, 2012)

- Fix JENKINS-15217: Wrong vertical scale in coverage report graph
- Fix JENKINS-15831: Switch line colors in graph
- Fix JENKINS-15366: Problem displaying Jacoco coverage data in Jenkins for very large number of classes and methods.
- Fix JENKINS-15177: main project coverage trend graph has wrong y axis

Version 1.0.8 (Okt 15, 2012)

- Fix JENKINS-15463: JaCoCo Jenkins plugin does not work on a linux slave
- Fix JENKINS-15479: Base dir not found
- Fix JENKINS-15182: improve formatting of coverage reports
- Fix JENKINS-14928: Sourcefile highlighting loses the indentation

Version 1.0.7 (Okt 8, 2012)

- Fix JENKINS-15242: org.objectweb.asm.ClassReader.accept error

Version 1.0.6 (Okt 2, 2012)

- Refactoring: There are no separate modules anymore.
- Fix JENKINS-14939: Support single jacoco.exec + multiple modules for sources and classes (based on patterns)
- Fix JENKINS-15366: Problem displaying Jacoco coverage data in Jenkins for very large number of classes and methods.

Version 1.0.5 (Sep 09, 2012)

- Fixed JENKINS-15088: When the missed count is bigger than the covered, the redbar becomes too long

Version 1.0.4 (Sep 03, 2012)

- Fixed JENKINS-14896: java.io.FileNotFoundException when saving module data

Version 1.0.3 (Aug 20, 2012)

- **New concept implemented** JENKINS-14927: Use the EXEC files instead the XMLs
- Fixed JENKINS-14279: Report "missed items" rather than coverage percentage
- Fixed JENKINS-14159: 404 when trying to see coverage on java code (implementation of sourcefile highlighting)
- New feature JENKINS-14274: Multi module reporting

Version 1.0.2 (Jul 01, 2012)

- Fixed JENKINS-14270: The report does not show the covered/all, it shows something different

Version 1.0.1 (Jun 25, 2012)

- Fixed testcases to have all the tests passed for a release
- Fixed JENKINS-14203: The total summary is double counted

Version 1.0.0 (Jun 14, 2012)

- Fixed 3 testcases to have all the tests passed for a release
- Fixed POM: making it releasabl