Docs

[User Manual](http://docs.google.com/userguide/userguide.html)

[Guides and Tutorials](https://guides.gradle.org)

[DSL Reference](http://docs.google.com/dsl/)

[Javadoc](http://docs.google.com/javadoc/)

[Release Notes](http://docs.google.com/release-notes.html)

[Forums](https://discuss.gradle.org/)

[Training](https://gradle.org/training/)

[Try Gradle Enterprise](https://gradle.com/enterprise)

[PDF](http://docs.google.com/userguide/userguide.pdf)

* [User Manual Home](http://docs.google.com/userguide/userguide.html)
* [Release Notes](http://docs.google.com/release-notes.html)
* [Installing Gradle](http://docs.google.com/userguide/installation.html)
* [Tutorials](https://guides.gradle.org/)

### Reference

* [Groovy DSL Reference](http://docs.google.com/dsl/)
* [Gradle API Javadoc](http://docs.google.com/javadoc/)
* [Core Plugins](http://docs.google.com/userguide/plugin_reference.html)
* [Gradle & Third-party Tools](http://docs.google.com/userguide/third_party_integration.html)

### Getting Started

* [Creating New Gradle Builds](https://guides.gradle.org/creating-new-gradle-builds/)
* [Creating Build Scans](https://guides.gradle.org/creating-build-scans/)
* [Migrating From Maven](https://guides.gradle.org/migrating-from-maven/)

### Running Gradle Builds

* [Command-Line Interface](http://docs.google.com/userguide/command_line_interface.html)
* [Customizing Execution](#gjdgxs)
  + [Configuring the Build Environment](http://docs.google.com/userguide/build_environment.html)
  + [Configuring the Gradle Daemon](http://docs.google.com/userguide/gradle_daemon.html)
  + [Initialization Scripts](http://docs.google.com/userguide/init_scripts.html)
* [Directory Layout](http://docs.google.com/userguide/directory_layout.html)
* [Executing Multi-Project Builds](http://docs.google.com/userguide/intro_multi_project_builds.html)
* [Gradle Wrapper](http://docs.google.com/userguide/gradle_wrapper.html)
* [Troubleshooting](http://docs.google.com/userguide/troubleshooting.html)
* [Using Build Scans](https://docs.gradle.com/build-scan-plugin)
* [Enabling and Configuring the Build Cache](http://docs.google.com/userguide/build_cache.html)
* [Integrating Separate Gradle Builds (Composite Builds)](http://docs.google.com/userguide/composite_builds.html)

### Authoring Gradle Builds

* [Fundamentals](#30j0zll)
  + [Introducing the Basics of Build Scripts](http://docs.google.com/userguide/tutorial_using_tasks.html)
  + [Working with Tasks](http://docs.google.com/userguide/more_about_tasks.html)
  + [Learning More About Build Scripts](http://docs.google.com/userguide/writing_build_scripts.html)
  + [Working with Files](http://docs.google.com/userguide/working_with_files.html)
  + [Creating Custom Task Types](http://docs.google.com/userguide/custom_tasks.html)
  + [Using Gradle Plugins](http://docs.google.com/userguide/plugins.html)
  + [The Standard Gradle Plugins](http://docs.google.com/userguide/standard_plugins.html)
  + [Understanding the Build Lifecycle](http://docs.google.com/userguide/build_lifecycle.html)
  + [Working with Logging](http://docs.google.com/userguide/logging.html)
  + [Configuring Multi-Project Builds](http://docs.google.com/userguide/multi_project_builds.html)
* [Best Practices](#1fob9te)
  + [Authoring Maintainable Build Scripts](http://docs.google.com/userguide/authoring_maintainable_build_scripts.html)
  + [Organizing Gradle Projects](http://docs.google.com/userguide/organizing_gradle_projects.html)
  + [Optimizing Build Performance](https://guides.gradle.org/performance/)
  + [Using the Build Cache](https://guides.gradle.org/using-build-cache/)
* [Dependency Management](#3znysh7)
  + [Introduction to Dependency Management](http://docs.google.com/userguide/introduction_dependency_management.html)
  + [Dependency Management Terminology](http://docs.google.com/userguide/dependency_management_terminology.html)
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  + [Repository Types](http://docs.google.com/userguide/repository_types.html)
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  + [Managing Transitive Dependencies](http://docs.google.com/userguide/managing_transitive_dependencies.html)
  + [Dependency Locking](http://docs.google.com/userguide/dependency_locking.html)
  + [Troubleshooting Dependency Resolution](http://docs.google.com/userguide/troubleshooting_dependency_resolution.html)
  + [Customizing Dependency Resolution Behavior](http://docs.google.com/userguide/customizing_dependency_resolution_behavior.html)
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  + [Configuring Tasks Lazily](http://docs.google.com/userguide/lazy_configuration.html)
  + [Developing Parallel Tasks](https://guides.gradle.org/using-the-worker-api/)
  + [Testing Your Build with TestKit](http://docs.google.com/userguide/test_kit.html)
  + [Using Ant from Gradle](http://docs.google.com/userguide/ant.html)
* [Sample Gradle builds](#1t3h5sf)
  + [Groovy DSL Samples](https://github.com/gradle/gradle/tree/master/subprojects/docs/src/samples)
  + [Kotlin DSL Samples](https://github.com/gradle/kotlin-dsl/tree/master/samples)

### Extending Gradle

* [Writing Custom Plugins](http://docs.google.com/userguide/custom_plugins.html)
* [Plugin Development Guides](https://gradle.org/guides/?q=Plugin+Development)

[Edit this page](https://github.com/gradle/gradle/edit/master/subprojects/docs/src/docs/userguide/)

# Standard Gradle plugins

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There are a number of plugins included in the Gradle distribution. These are listed below.

[Language plugins](#4d34og8)

These plugins add support for various languages which can be compiled for and executed in the JVM.

| **Plugin Id** | **Automatically applies** | **Description** |
| --- | --- | --- |
| [java](http://docs.google.com/java_plugin.html#java_plugin) | java-base | Adds Java compilation, testing and bundling capabilities to a project. It serves as the basis for many of the other Gradle plugins. See also [this tutorial on Java projects](http://docs.google.com/tutorial_java_projects.html#tutorial_java_projects). |
| [groovy](http://docs.google.com/groovy_plugin.html#groovy_plugin) | java, groovy-base | Adds support for building Groovy projects. See also [this tutorial for Groovy projects](http://docs.google.com/tutorial_groovy_projects.html#tutorial_groovy_projects). |
| [scala](http://docs.google.com/scala_plugin.html#scala_plugin) | java, scala-base | Adds support for building Scala projects. |
| [antlr](http://docs.google.com/antlr_plugin.html#antlr_plugin) | java | Adds support for generating parsers using [Antlr](http://www.antlr.org/). |

[Incubating language plugins](#2s8eyo1)

These plugins add support for various languages:

| **Plugin Id** | **Automatically applies** | **Description** |
| --- | --- | --- |
| [assembler](http://docs.google.com/native_software.html#native_software) | - | Adds native assembly language capabilities to a project. |
| [c](http://docs.google.com/native_software.html#native_software) | - | Adds C source compilation capabilities to a project. |
| [cpp](http://docs.google.com/native_software.html#native_software) | - | Adds C++ source compilation capabilities to a project. |
| [objective-c](http://docs.google.com/native_software.html#native_software) | - | Adds Objective-C source compilation capabilities to a project. |
| [objective-cpp](http://docs.google.com/native_software.html#native_software) | - | Adds Objective-C++ source compilation capabilities to a project. |
| [windows-resources](http://docs.google.com/native_software.html#native_software) | - | Adds support for including Windows resources in native binaries. |

[Integration plugins](#17dp8vu)

These plugins provide some integration with various runtime technologies.

| **Plugin Id** | **Automatically applies** | **Works with** | **Description** |
| --- | --- | --- | --- |
| [application](http://docs.google.com/application_plugin.html#application_plugin) | java, distribution | - | Adds tasks for running and bundling a Java project as a command-line application. |
| [ear](http://docs.google.com/ear_plugin.html#ear_plugin) | - | java | Adds support for building J2EE applications. |
| [ivy-publish](http://docs.google.com/publishing_ivy.html#publishing_ivy) | - | application, distribution, java, war | Provides a new DSL to support publishing artifacts to Ivy repositories, which improves on the existing DSL. |
| [maven-publish](http://docs.google.com/publishing_maven.html#publishing_maven) | - | application, distribution, java, war | Provides a new DSL to support publishing artifacts to Maven repositories, which improves on the existing DSL. |
| [maven](http://docs.google.com/maven_plugin.html#maven_plugin) | - | java, war | Adds support for publishing artifacts to Maven repositories using the *original* publishing mechanism available in Gradle 1.0. See also [Legacy Publishing](http://docs.google.com/artifact_management.html#artifact_management). |
| [osgi](http://docs.google.com/osgi_plugin.html#osgi_plugin) | java-base | java | Adds support for building OSGi bundles. |
| [war](http://docs.google.com/war_plugin.html#war_plugin) | java | - | Adds support for assembling web application WAR files. |

[Incubating integration plugins](#3rdcrjn)

These plugins provide some integration with various runtime technologies.

| **Plugin Id** | **Automatically applies** | **Description** |
| --- | --- | --- |
| [distribution](http://docs.google.com/distribution_plugin.html#distribution_plugin) | - | Adds support for building ZIP and TAR distributions. |
| [java-library-distribution](http://docs.google.com/java_library_distribution_plugin.html#java_library_distribution_plugin) | java, distribution | Adds support for building ZIP and TAR distributions for a Java library. |

[Software development plugins](#26in1rg)

These plugins provide help with your software development process.

| **Plugin Id** | **Automatically applies** | **Works with** | **Description** |
| --- | --- | --- | --- |
| [announce](http://docs.google.com/announce_plugin.html#announce_plugin) | - | - | Publish messages to your favourite platforms, such as Twitter or Growl. |
| [build-announcements](http://docs.google.com/build_announcements_plugin.html#build_announcements_plugin) | announce | - | Sends local announcements to your desktop about interesting events in the build lifecycle. |
| [checkstyle](http://docs.google.com/checkstyle_plugin.html#checkstyle_plugin) | java-base | - | Performs quality checks on your project’s Java source files using [Checkstyle](http://checkstyle.sourceforge.net/index.html) and generates reports from these checks. |
| [codenarc](http://docs.google.com/codenarc_plugin.html#codenarc_plugin) | groovy-base | - | Performs quality checks on your project’s Groovy source files using [CodeNarc](http://codenarc.sourceforge.net/index.html) and generates reports from these checks. |
| [eclipse](http://docs.google.com/eclipse_plugin.html#eclipse_plugin) | - | java,groovy, scala | Generates files that are used by [Eclipse IDE](http://eclipse.org), thus making it possible to import the project into Eclipse. See also [this tutorial for Java projects](http://docs.google.com/tutorial_java_projects.html#tutorial_java_projects). |
| [eclipse-wtp](http://docs.google.com/eclipse_plugin.html#eclipse_plugin) | - | ear, war | Does the same as the eclipse plugin plus generates eclipse WTP (Web Tools Platform) configuration files. After importing to eclipse your war/ear projects should be configured to work with WTP. See also [this tutorial for Java projects](http://docs.google.com/tutorial_java_projects.html#tutorial_java_projects). |
| [findbugs](http://docs.google.com/findbugs_plugin.html#findbugs_plugin) | java-base | - | Performs quality checks on your project’s Java source files using [FindBugs](http://findbugs.sourceforge.net) and generates reports from these checks. |
| [idea](http://docs.google.com/idea_plugin.html#idea_plugin) | - | java | Generates files that are used by [Intellij IDEA IDE](http://www.jetbrains.com/idea/index.html), thus making it possible to import the project into IDEA. |
| [jdepend](http://docs.google.com/jdepend_plugin.html#jdepend_plugin) | java-base | - | Performs quality checks on your project’s source files using [JDepend](http://clarkware.com/software/JDepend.html) and generates reports from these checks. |
| [pmd](http://docs.google.com/pmd_plugin.html#pmd_plugin) | java-base | - | Performs quality checks on your project’s Java source files using [PMD](http://pmd.sourceforge.net) and generates reports from these checks. |
| [project-report](http://docs.google.com/project_report_plugin.html#project_report_plugin) | reporting-base | - | Generates reports containing useful information about your Gradle build. |
| [signing](http://docs.google.com/signing_plugin.html#signing_plugin) | base | - | Adds the ability to digitally sign built files and artifacts. |

[Incubating software development plugins](#lnxbz9)

These plugins provide help with your software development process.

Table 1. Software development plugins

| **Plugin Id** | **Automatically applies** | **Works with** | **Description** |
| --- | --- | --- | --- |
| [build-dashboard](http://docs.google.com/build_dashboard_plugin.html#build_dashboard_plugin) | reporting-base | - | Generates build dashboard report. |
| [cunit](http://docs.google.com/native_software.html#native_software) | - | - | Adds support for running [CUnit](http://cunit.sourceforge.net) tests. |
| [jacoco](http://docs.google.com/jacoco_plugin.html#jacoco_plugin) | reporting-base | java | Provides integration with the [JaCoCo](http://www.eclemma.org/jacoco/) code coverage library for Java. |
| [visual-studio](http://docs.google.com/native_software.html#native_software) | - | native language plugins | Adds integration with Visual Studio. |
| [java-gradle-plugin](http://docs.google.com/java_gradle_plugin.html#java_gradle_plugin) | java |  | Assists with development of Gradle plugins by providing standard plugin build configuration and validation. |

[Base plugins](#35nkun2)

These plugins form the basic building blocks which the other plugins are assembled from. They are available for you to use in your build files, and are listed here for completeness. However, be aware that they are not yet considered part of Gradle’s public API. As such, these plugins are not documented in the user guide. You might refer to their API documentation to learn more about them.

| **Plugin Id** | **Description** |
| --- | --- |
| base | Adds the standard lifecycle tasks and configures reasonable defaults for the archive tasks. See [Base Plugin](http://docs.google.com/base_plugin.html#base_plugin). |
| java-base | Adds the source sets concept to the project. Does not add any particular source sets. |
| groovy-base | Adds the Groovy source sets concept to the project. |
| scala-base | Adds the Scala source sets concept to the project. |
| reporting-base | Adds some shared convention properties to the project, relating to report generation. |

[Third party plugins](#1ksv4uv)

You can find a list of external plugins at the [Gradle Plugins site](http://plugins.gradle.org/).

Docs

* [User Manual](http://docs.google.com/userguide/userguide.html)
* [DSL Reference](http://docs.google.com/dsl/)
* [Release Notes](http://docs.google.com/release-notes.html)
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