Docs

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

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

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* [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)
  + [Dependency Types](http://docs.google.com/userguide/dependency_types.html)
  + [Repository Types](http://docs.google.com/userguide/repository_types.html)
  + [Declaring Dependencies](http://docs.google.com/userguide/declaring_dependencies.html)
  + [Declaring Repositories](http://docs.google.com/userguide/declaring_repositories.html)
  + [Inspecting Dependencies](http://docs.google.com/userguide/inspecting_dependencies.html)
  + [Managing Dependency Configurations](http://docs.google.com/userguide/managing_dependency_configurations.html)
  + [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)
  + [Dependency Cache Internals](http://docs.google.com/userguide/dependency_cache.html)
  + [Working with Dependencies](http://docs.google.com/userguide/working_with_dependencies.html)
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  + [Implementing Model Rules in a Plugin](http://docs.google.com/userguide/rule_source.html)
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  + [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/)

# The OSGi Plugin

Contents

[Usage](#4d34og8)

[Implicitly applied plugins](#2s8eyo1)

[Tasks](#17dp8vu)

[Convention object](#3rdcrjn)

The OSGi plugin provides a factory method to create an [OsgiManifest](http://docs.google.com/javadoc/org/gradle/api/plugins/osgi/OsgiManifest.html) object. OsgiManifest extends [Manifest](http://docs.google.com/javadoc/org/gradle/api/java/archives/Manifest.html). To learn more about generic manifest handling, see [more about Java manifests](http://docs.google.com/java_plugin.html#sub:manifest). If the Java plugins is applied, the OSGi plugin replaces the manifest object of the default jar with an OsgiManifest object. The replaced manifest is merged into the new one.

| **✨** | The OSGi plugin makes heavy use of the [BND tool](http://bnd.bndtools.org/). A separate [plugin implementation](https://github.com/bndtools/bnd/blob/master/biz.aQute.bnd.gradle/README.md) is maintained by the BND authors that has more advanced features. |
| --- | --- |

[Usage](#4d34og8)

To use the OSGi plugin, include the following in your build script:

[Example: Using the OSGi plugin](#26in1rg)

**build.gradle**

apply plugin: 'osgi'

[Implicitly applied plugins](#2s8eyo1)

Applies the Java base plugin.

[Tasks](#17dp8vu)

The OSGi plugin adds the following tasks to the project:

osgiClasses — [Sync](http://docs.google.com/dsl/org.gradle.api.tasks.Sync.html)

*Depends on*: classes

Copies all classes from the main source set to a single directory that is processed by BND.

[Convention object](#3rdcrjn)

The OSGi plugin adds the following convention object: [OsgiPluginConvention](http://docs.google.com/javadoc/org/gradle/api/plugins/osgi/OsgiPluginConvention.html)

[Convention properties](#lnxbz9)

The OSGi plugin does not add any convention properties to the project.

[Convention methods](#35nkun2)

The OSGi plugin adds the following methods. For more details, see the API documentation of the convention object.

Table 1. OSGi methods

| **Method** | **Return Type** | **Description** |
| --- | --- | --- |
| osgiManifest() | [OsgiManifest](http://docs.google.com/javadoc/org/gradle/api/plugins/osgi/OsgiManifest.html) | Returns an OsgiManifest object. |
| osgiManifest(Closure cl) | [OsgiManifest](http://docs.google.com/javadoc/org/gradle/api/plugins/osgi/OsgiManifest.html) | Returns an OsgiManifest object configured by the closure. |

The classes in the classes dir are analyzed regarding their package dependencies and the packages they expose. Based on this the *Import-Package* and the *Export-Package* values of the OSGi Manifest are calculated. If the classpath contains jars with an OSGi bundle, the bundle information is used to specify version information for the *Import-Package* value. Beside the explicit properties of the OsgiManifest object you can add instructions.

[Example: Configuration of OSGi MANIFEST.MF file](#1ksv4uv)

**build.gradle**

jar {  
 manifest { // the manifest of the default jar is of type OsgiManifest  
 name = 'overwrittenSpecialOsgiName'  
 instruction 'Private-Package',  
 'org.mycomp.package1',  
 'org.mycomp.package2'  
 instruction 'Bundle-Vendor', 'MyCompany'  
 instruction 'Bundle-Description', 'Platform2: Metrics 2 Measures Framework'  
 instruction 'Bundle-DocURL', 'http://www.mycompany.com'  
 }  
}  
task fooJar(type: Jar) {  
 manifest = osgiManifest {  
 instruction 'Bundle-Vendor', 'MyCompany'  
 }  
}

The first argument of the instruction call is the key of the property. The other arguments form the value. To learn more about the available instructions have a look at the [BND tool](http://bnd.bndtools.org/).

Docs

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

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