Docs

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

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[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)
  + [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)
* [Publishing Artifacts](http://docs.google.com/userguide/artifact_management.html)
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  + [Rule-based Model Configuration](http://docs.google.com/userguide/software_model.html)
  + [Implementing Model Rules in a Plugin](http://docs.google.com/userguide/rule_source.html)
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  + [Building Java & JVM projects](http://docs.google.com/userguide/building_java_projects.html)
  + [Testing Java & JVM projects](http://docs.google.com/userguide/java_testing.html)
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  + [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/)

# The Feature Lifecycle

Contents

[States](#4d34og8)

[Backwards Compatibility Policy](#2s8eyo1)

Gradle is under constant development and improvement. New versions are delivered on a regular and frequent basis (approximately every 6 weeks). Continuous improvement combined with frequent delivery allows new features to be made available to users early and for invaluable real world feedback to be incorporated into the development process. Getting new functionality into the hands of users regularly is a core value of the Gradle platform. At the same time, API and feature stability is taken very seriously and is also considered a core value of the Gradle platform. This is something that is engineered into the development process by design choices and automated testing, and is formalised by [the section on backwards compatibility](#2s8eyo1).

The Gradle *feature lifecycle* has been designed to meet these goals. It also serves to clearly communicate to users of Gradle what the state of a feature is. The term *feature* typically means an API or DSL method or property in this context, but it is not restricted to this definition. Command line arguments and modes of execution (e.g. the Build Daemon) are two examples of other kinds of features.

[States](#4d34og8)

Features can be in one of 4 states:

* Internal
* Incubating
* Public
* Deprecated

[Internal](#17dp8vu)

Internal features are not designed for public use and are only intended to be used by Gradle itself. They can change in any way at any point in time without any notice. Therefore, we recommend avoiding the use of such features. Internal features are not documented. If it appears in this User Guide, the DSL Reference or the API Reference documentation then the feature is not internal.

Internal features may evolve into public features.

[Incubating](#3rdcrjn)

Features are introduced in the *incubating* state to allow real world feedback to be incorporated into the feature before it is made public and locked down to provide backwards compatibility. It also gives users who are willing to accept potential future changes early access to the feature so they can put it into use immediately.

A feature in an incubating state may change in future Gradle versions until it is no longer incubating. Changes to incubating features for a Gradle release will be highlighted in the release notes for that release. The incubation period for new features varies depending on the scope, complexity and nature of the feature.

Features in incubation are clearly indicated to be so. In the source code, all methods/properties/classes that are incubating are annotated with [Incubating](http://docs.google.com/javadoc/org/gradle/api/Incubating.html), which is also used to specially mark them in the DSL and API references. If an incubating feature is discussed in this User Guide, it will be explicitly said to be in the incubating state.

[Public](#26in1rg)

The default state for a non-internal feature is *public*. Anything that is documented in the User Guide, DSL Reference or API references that is not explicitly said to be incubating or deprecated is considered public. Features are said to be *promoted* from an incubating state to public. The release notes for each release indicate which previously incubating features are being promoted by the release.

A public feature will *never* be removed or intentionally changed without undergoing deprecation. All public features are subject to the backwards compatibility policy.

[Deprecated](#lnxbz9)

Some features will become superseded or irrelevant due to the natural evolution of Gradle. Such features will eventually be removed from Gradle after being *deprecated*. A deprecated feature will *never* be changed, until it is finally removed according to the backwards compatibility policy.

Deprecated features are clearly indicated to be so. In the source code, all methods/properties/classes that are deprecated are annotated with “@java.lang.Deprecated” which is reflected in the DSL and API references. In most cases, there is a replacement for the deprecated element, and this will be described in the documentation. Using a deprecated feature will also result in a runtime warning in Gradle’s output.

Use of deprecated features should be avoided. The release notes for each release indicate any features that are being deprecated by the release.

[Backwards Compatibility Policy](#2s8eyo1)

Gradle provides backwards compatibility across major versions (e.g. 1.x, 2.x, etc.). Once a public feature is introduced or promoted in a Gradle release it will remain indefinitely or until it is deprecated. Once deprecated, it may be removed in the next major release. Deprecated features may be supported across major releases, but this is not guaranteed.

Docs

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

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