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* [Groovy DSL Reference](http://docs.google.com/dsl/)
* [Gradle API Javadoc](http://docs.google.com/javadoc/)
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# Dependency Management Terminology

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Dependency management comes with a wealth of terminology. Here you can find the most commonly-used terms including references to the user guide to learn about their practical application.

[Configuration](#4d34og8)

A configuration is a named set of [dependencies](#2s8eyo1) grouped together for a specific goal: For example the implementation configuration represents the set of dependencies required to compile a project. Configurations provide access to the underlying, resolved [modules](#3rdcrjn) and their artifacts. For more information, see [Managing Dependency Configurations](http://docs.google.com/managing_dependency_configurations.html#managing_dependency_configurations).

| **✨** | The word "configuration" is an overloaded term and has a different meaning outside of the context of dependency management. |
| --- | --- |

[Dependency](#2s8eyo1)

A dependency is a pointer to another piece of software required to build, test or run a [module](#3rdcrjn). For more information, see [Declaring Dependencies](http://docs.google.com/declaring_dependencies.html#declaring_dependencies).

[Dependency constraint](#17dp8vu)

A dependency constraint defines requirements that need to be met by a module to make it a valid resolution result for the dependency. For example, a dependency constraint can narrow down the set of supported module versions. Dependency constraints can be used to express such requirements for transitive dependencies. For more information, see [Dependency Constraints](http://docs.google.com/managing_transitive_dependencies.html#sec:dependency_constraints).

[Module](#3rdcrjn)

A piece of software that evolves over time e.g. [Google Guava](https://github.com/google/guava). Every module has a name. Each release of a module is optimally represented by a [module version](#lnxbz9). For convenient consumption, modules can be hosted in a [repository](#35nkun2).

[Module metadata](#26in1rg)

Releases of a [module](#3rdcrjn) can provide metadata. Metadata is the data that describes the module in more detail e.g. the coordinates for locating it in a repository, information about the project or required [transitive dependencies](#44sinio). In Maven the metadata file is called .pom, in Ivy it is called ivy.xml.

[Module version](#lnxbz9)

A module version represents a distinct set of changes of a released [module](#3rdcrjn). For example 18.0 represents the version of the module with the coordinates com.google:guava:18.0. In practice there’s no limitation to the scheme of the module version. Timestamps, numbers, special suffixes like -GA are all allowed identifiers. The most widely-used versioning strategy is [semantic versioning](https://semver.org/).

[Repository](#35nkun2)

A repository hosts a set of [modules](#3rdcrjn), each of which may provide one or many releases indicated by a [module version](#lnxbz9). The repository can be based on a binary repository product (e.g. Artifactory or Nexus) or a directory structure in the filesystem. For more information, see [Declaring Repositories](http://docs.google.com/declaring_repositories.html#declaring_repositories).

[Resolution rule](#1ksv4uv)

A resolution rule influences the behavior of how a [dependency](#2s8eyo1) is resolved. Resolution rules are defined as part of the build logic. For more information, see [Customizing Dependency Resolution Behavior](http://docs.google.com/customizing_dependency_resolution_behavior.html#customizing_dependency_resolution_behavior).

[Transitive dependency](#44sinio)

A [module](#3rdcrjn) can have dependencies on other modules to work properly, so-called transitive dependencies. Releases of a module hosted on a [repository](#35nkun2) can provide [metadata](#26in1rg) to declare those transitive dependencies. By default, Gradle resolves transitive dependencies automatically. However, the behavior is highly customizable. For more information, see [Managing Transitive Dependencies](http://docs.google.com/managing_transitive_dependencies.html#managing_transitive_dependencies).

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