

# Gradle





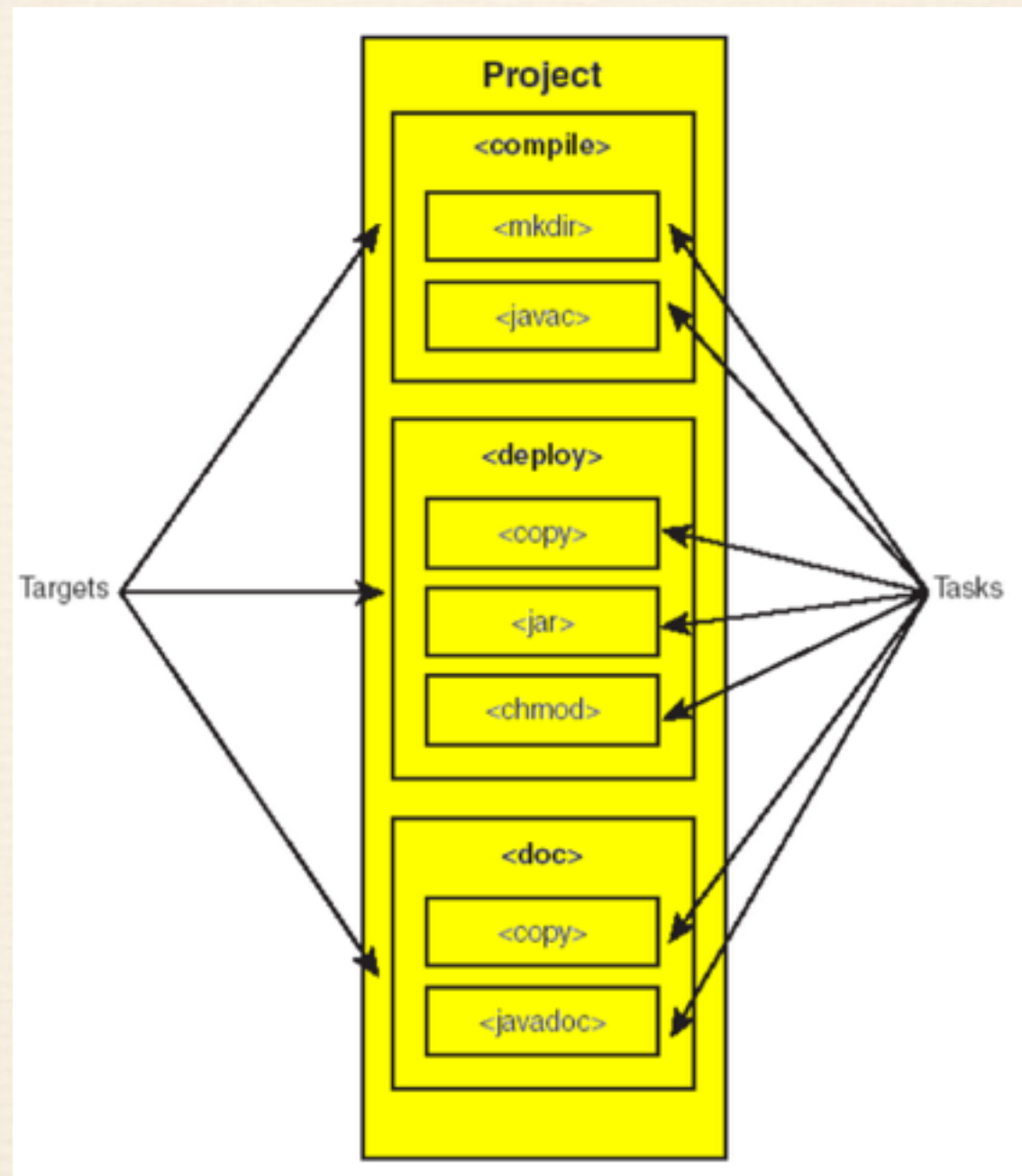
# Build

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- ❖ clean
- ❖ javac
- ❖ test (java org.junit.runner.JUnitCore [test class name])
- ❖ packaging (jar, war, ear)
- ❖ deploy

# Ant

<http://ant.apache.org/manual/index.html>





# Ant Example

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```
<project name="MyProject" default="dist" basedir=". ">
  <description>
    simple example build file
  </description>
  <!-- set global properties for this build -->
  <property name="src" location="src" />
  <property name="build" location="build" />
  <property name="dist" location="dist" />

  <target name="init">
    <!-- Create the time stamp -->
    <tstamp/>
    <!-- Create the build directory structure used by compile -->
    <mkdir dir="${build}" />
  </target>

  <target name="compile" depends="init"
    description="compile the source">
    <!-- Compile the java code from ${src} into ${build} -->
    <javac srcdir="${src}" destdir="${build}" />
  </target>

  <target name="dist" depends="compile"
    description="generate the distribution">
    <!-- Create the distribution directory -->
    <mkdir dir="${dist}/lib" />

    <!-- Put everything in ${build} into the MyProject-${DSTAMP}.jar file -->
    <jar jarfile="${dist}/lib/MyProject-${DSTAMP}.jar" basedir="${build}" />
  </target>

  <target name="clean"
    description="clean up">
    <!-- Delete the ${build} and ${dist} directory trees -->
    <delete dir="${build}" />
    <delete dir="${dist}" />
  </target>
</project>
```



# Maven

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- ❖ mvn [options] [<goal(s)>] [<phase(s)>]
- ❖ <http://maven.apache.org/guides/getting-started/maven-in-five-minutes.html>
- ❖ <http://maven.apache.org/guides/introduction/introduction-to-the-lifecycle.html>

# Maven

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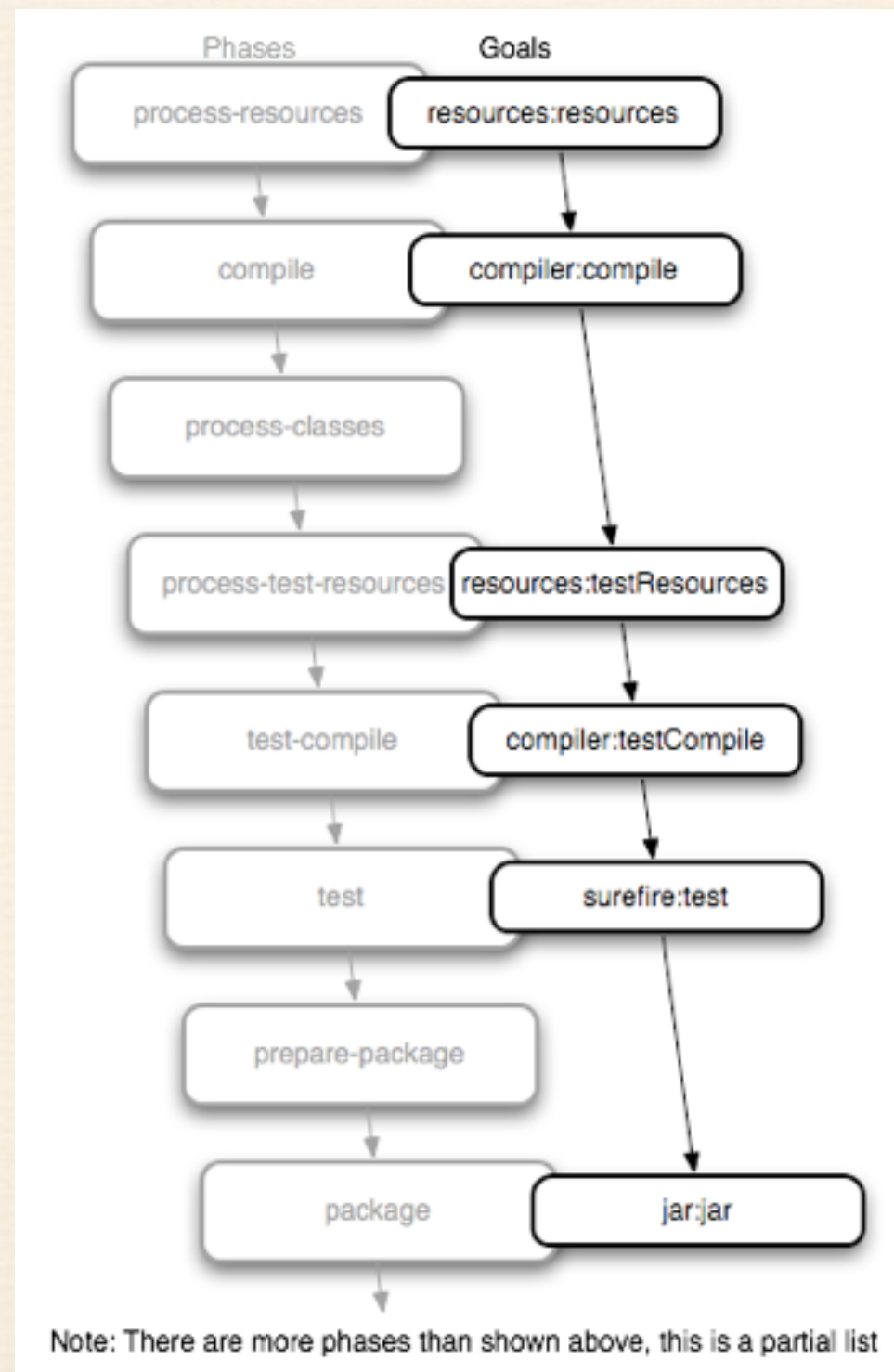
| Clean Lifecycle |
|-----------------|
| pre-clean       |
| <b>clean</b>    |
| post-clean      |

| Default Lifecycle       |                       |
|-------------------------|-----------------------|
| validate                | test-compile          |
| initialize              | process-test-classes  |
| generate-sources        | test                  |
| process-sources         | prepare-package       |
| generate-resources      | <b>package</b>        |
| process-resources       | pre-integration-test  |
| <b>compile</b>          | integration-test      |
| process-classes         | post-integration-test |
| generate-test-sources   | verify                |
| process-test-sources    | <b>install</b>        |
| generate-test-resources | <b>deploy</b>         |
| processs-test-resources |                       |

| Site Lifecycle |
|----------------|
| pre-site       |
| <b>site</b>    |
| post-site      |
| site-deploy    |



# Maven



# Maven

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- ❖ <dependency>

- ❖ scope

- ❖ compile

- ❖ provided

- ❖ runtime

- ❖ test

- ❖ system



# Gradle

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- ❖ Groovy Based (Language)
- ❖ Easy Extension
- ❖ Wrapper (Remove Gradle Dependency)
- ❖ Support Maven, Ant, Ivy



# Java Plugin

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