



Apache Maven

Beginner to Guru

Configuration of Maven Repositories



Maven Repositories Search Order

- When resolving an artifact, Maven will:
 - **First:** Check in the local repository (aka cache) located under <user home>/m2/repository/
 - **Next:** Maven Central
 - **Next:** any additional repositories configured
- Search order of additional repositories:
 - Typically not important
 - Is Alphabetical by repository id value





Repository Mirrors

- Mirrors are used to override project defined repository values
- Mirrors are configured in settings.xml.
 - Default location is in <user home>/m2 directory
- A mirror will override the URL of the repository
- Can be used to improve performance by directing to regional servers
- Or to redirect to internal repository manager
- Values set in settings.xml will apply to all Maven projects executed on system





Defining Additional Remote Repositories

- Repositories can be defined in the repositories element of the POM, or in the repositories element in the settings.xml file.
- POM definitions will be specific to the Maven project
- settings.xml definitions are system wide





Repository Element

- **id** - unique value required
- **name** - human readable name
- **url** - URL for repository
- **layout** - legacy or default (Default is generally used)
- **releases** - Repository Policy for handling downloading of releases
- **snapshots** - Repository Policy for handling downloading of snapshots





Repository Policy

- Used for release and snapshot elements of Repository definitions
- **enabled** - true / false
- **updatePolicy** - always, daily (default), interval:XXX (xxx in minutes), never
- **checksumPolicy** - What to do if verification of artifact fails
 - values: ignore, fail, warn





Example

```
<repositories>
  <repository>
    <id>spring-snapshots</id>
    <name>Spring Snapshots</name>
    <url>https://repo.spring.io/snapshot</url>
    <snapshots>
      <enabled>true</enabled>
    </snapshots>
  </repository>
  <repository>
    <id>spring-milestones</id>
    <name>Spring Milestones</name>
    <url>https://repo.spring.io/milestone</url>
    <snapshots>
      <enabled>false</enabled>
    </snapshots>
  </repository>
  <repository>
    <id>spring-releases</id>
    <name>Spring Releases</name>
    <url>https://repo.spring.io/release</url>
    <snapshots>
      <enabled>false</enabled>
    </snapshots>
  </repository>
</repositories>
```

