

Fixing a multi-module build

If you have a **multi-module build** where the aggregator pom (i.e. the one with packaging of **pom** and the **modules** section) is also the parent referenced by its child modules, and the aggregator version does not match the version specified in the parent section of the child modules, Maven will not let you build the project.

The **update-child-modules** is **designed** to try and help you fix these kind of build failures.

You know you have this kind of problem when you see output from Maven like this:

```
[INFO] Scanning for projects...
[INFO] -----
[ERROR] FATAL ERROR
[INFO] -----
[INFO] Error building POM (may not be this project's POM).

Project ID: com.foo.bar:bar-child:jar:null

Reason: Cannot find parent: com.foo.bar:bar for project: com.foo.bar:bar-child:jar:null
```

The above example was for a project structured like this:

```
/pom.xml
/bar-child/pom.xml
```

With **/pom.xml** looking like

```
<project>
  <modelVersion>4.0.0</modelVersion>

  <groupId>com.foo.bar</groupId>
  <artifactId>bar</artifactId>
  <version>2.0</version>
  <packaging>pom</packaging>

  <modules>
    <module>bar-child</module>
  </modules>

  ...

</project>
```

And with **/bar-child/pom.xml** referencing a previous version of the parent:

```
<project>
  <modelVersion>4.0.0</modelVersion>

  <parent>
```

```

    <groupId>com.foo.bar</groupId>
    <artifactId>bar</artifactId>
    <version>1.0</version>
  </parent>

  <artifactId>bar-child</artifactId>

  ...

</project>

```

In order to fix the project, you need to either update the version of the child-module, or roll-back the version of the parent module. When there is only one child module, this is easiest to do by hand. When there are many modules, some referencing the new version and some referencing old versions of the parent, this is easiest to do using the [versions:update-child-modules](#) goal.

Note: it is **essential** in this situation to run Maven with the `-N` option, as otherwise Maven will be unable to run the goal.

```
mvn -N versions:update-child-modules
```

Which produces the following output:

```

[INFO] Scanning for projects...
[INFO] -----
[INFO] Building update-child-modules
[INFO]   task-segment: [versions:update-child-modules] (aggregator-style)
[INFO] -----
[INFO] [versions:update-child-modules]
[INFO] Module: bar-child
[INFO]   Parent was com.foo.bar:bar:1.0, now com.foo.bar:bar:2.0
[INFO] -----
[INFO] BUILD SUCCESSFUL
[INFO] -----
[INFO] Total time: 3 seconds
[INFO] Finished at: Thu Nov 20 15:37:40 GMT 2008
[INFO] Final Memory: 12M/288M
[INFO] -----

```

If you have several layers of projects, and the versions are really out of whack, you may have to change directory into the child aggregator projects and re-run the [versions:update-child-modules](#) goal in order to finish fixing the project.