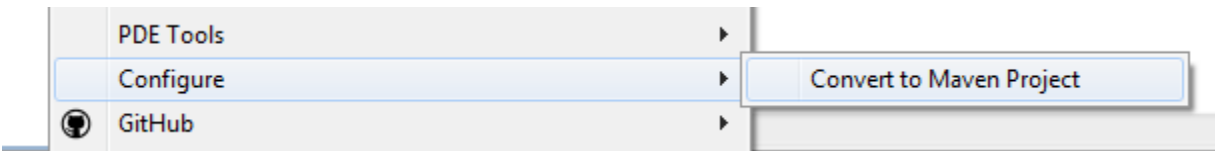


# Building a Plugin using Maven Tycho

Step 1. Create a plugin project with required functionality.

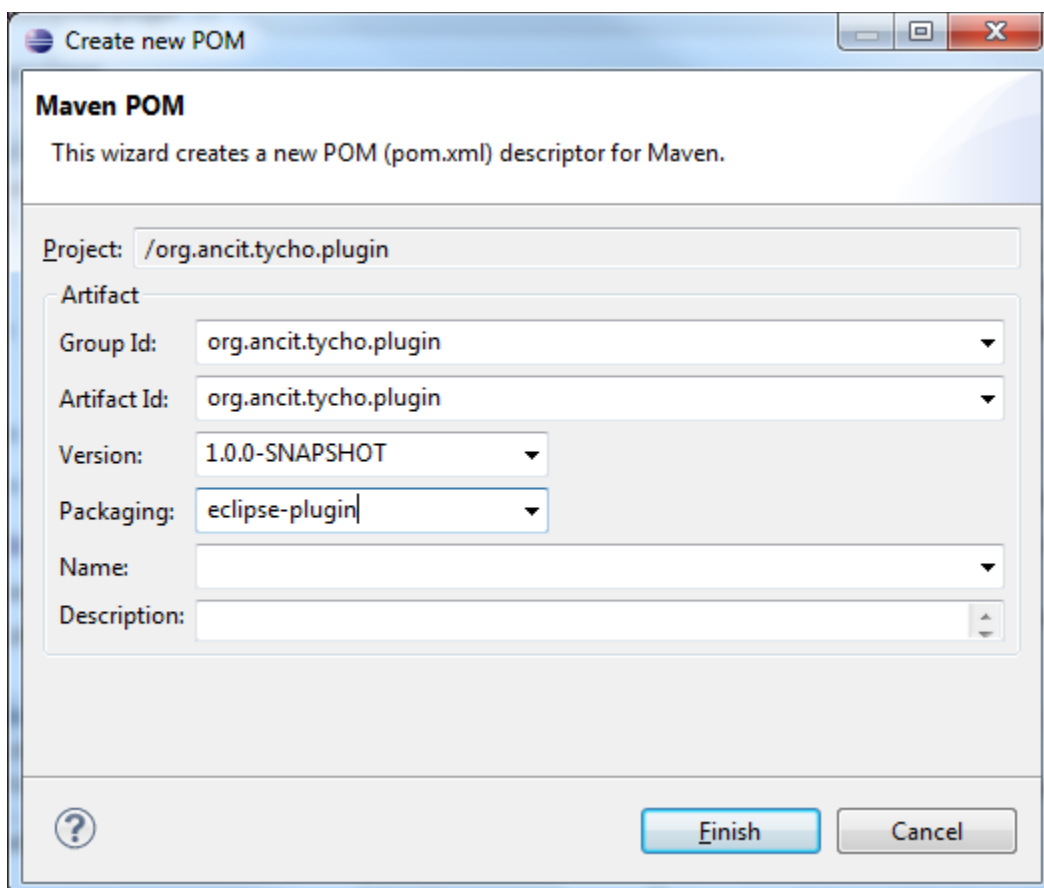
Step 2. Convert the Plugin Project to Maven Project

- a. Right Click on the Plugin Project > Select Configure > Convert to Maven Project



Step 3. Wizard to create pom.xml would Open. Configure the same as mentioned below

- a. Change the version from 0.0.1-SNAPSHOT to 1.0.0-SNAPSHOT
- b. Change Packaging from jar to eclipse-plugin. This option is not available in the dropdown.



Step 4. Pom.xml on creation would look as shown below

- a. As we would be using tycho, we need to delete maven-compiler-plugin.

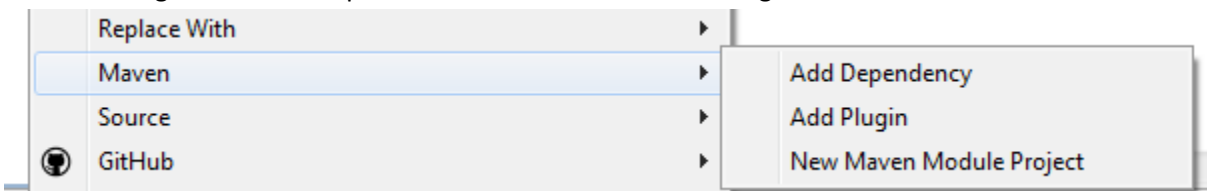
```
<project xmlns="http://maven.apache.org/POM/4.0.0" xmlns:lr
  <modelVersion>4.0.0</modelVersion>
  <groupId>org.ancit.tycho.plugin</groupId>
  <artifactId>org.ancit.tycho.plugin</artifactId>
  <version>1.0.0-SNAPSHOT</version>
  <packaging>eclipse-plugin</packaging>
  <build>
    <sourceDirectory>src</sourceDirectory>
    <plugins>
      <plugin>
        <artifactId>maven-compiler-plugin</artifactId>
        <version>2.3.2</version>
        <configuration>
          <source>1.7</source>
          <target>1.7</target>
        </configuration>
      </plugin>
    </plugins>
  </build>
</project>
```

- b. After deletion pom.xml should look like as shown below

```
<project xmlns="http://maven.apache.org/POM/4.0.0"
  <modelVersion>4.0.0</modelVersion>
  <groupId>org.ancit.tycho.plugin</groupId>
  <artifactId>org.ancit.tycho.plugin</artifactId>
  <version>1.0.0-SNAPSHOT</version>
  <packaging>eclipse-plugin</packaging>
</project>
```

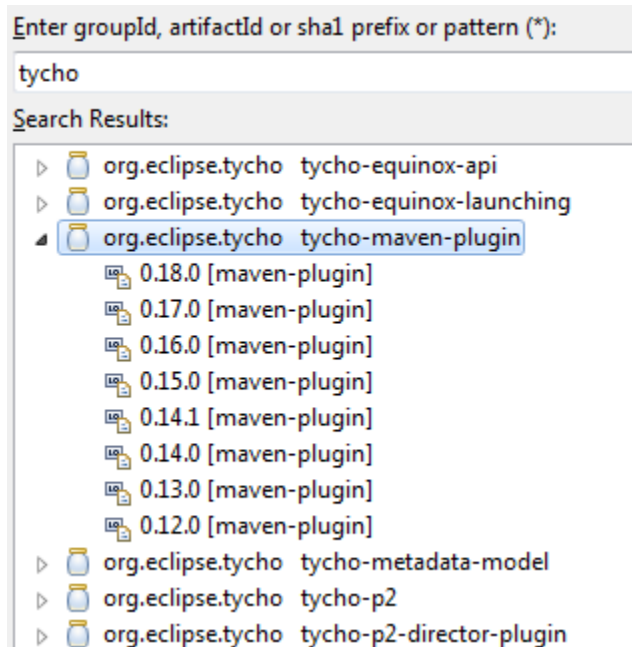
Step 5. pom.xml editor would still be with Errors. To fix these errors follow the steps below

- a. eclipse-plugin is a packaging structure not understood by Maven. To resolve this we need to add a Maven Plugin called tycho-maven-plugin.
- b. Right Click on the pom.xml > Select Maven > Add Plugin



Step 6. In the Add Plugin Dialog, type tycho in the textBox as shown below

- a. Select org.eclipse.tycho tycho-maven-plugin



- b. Open the pom.xml and it would look as shown below

```
<project xmlns="http://maven.apache.org/POM/4.0.0" xmlns:
  <modelVersion>4.0.0</modelVersion>
  <groupId>org.ancit.tycho.plugin</groupId>
  <artifactId>org.ancit.tycho.plugin</artifactId>
  <version>1.0.0-SNAPSHOT</version>
  <packaging>eclipse-plugin</packaging>
  <build>
    <plugins>
      <plugin>
        <groupId>org.eclipse.tycho</groupId>
        <artifactId>tycho-maven-plugin</artifactId>
        <version>0.18.0</version>
      </plugin>
    </plugins>
  </build>
</project>
```

- c. Now finally after this, we need to manually alter the pom.xml to have a new tag called as `<extensions>true</extensions>` after versions as shown below. Errors from the pom.xml file should be all resolved now.

```
<project xmlns="http://maven.apache.org/POM/4.0.0" xmlns:
  <modelVersion>4.0.0</modelVersion>
  <groupId>org.ancit.tycho.plugin</groupId>
  <artifactId>org.ancit.tycho.plugin</artifactId>
  <version>1.0.0-SNAPSHOT</version>
  <packaging>eclipse-plugin</packaging>
  <build>
    <plugins>
      <plugin>
        <groupId>org.eclipse.tycho</groupId>
        <artifactId>tycho-maven-plugin</artifactId>
        <version>0.18.0</version>
        <extensions>true</extensions>
      </plugin>
    </plugins>
  </build>
</project>
```

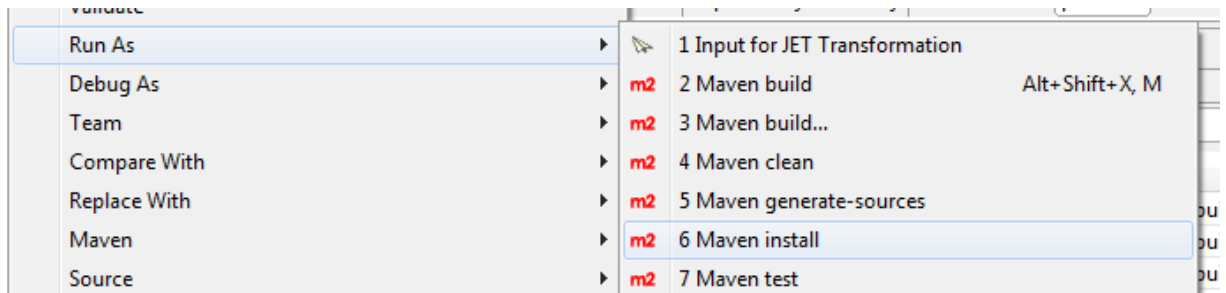
#### Step 7. Adding Repository for dependencies resolution

```
<project xmlns="http://maven.apache.org/POM/4.0.0" xmlns:xsi="http
  xsi:schemaLocation="http://maven.apache.org/POM/4.0.0 http://m
  <modelVersion>4.0.0</modelVersion>
  <groupId>org.ancit.tycho.plugin</groupId>
  <artifactId>org.ancit.tycho.plugin</artifactId>
  <version>1.0.0-SNAPSHOT</version>
  <packaging>eclipse-plugin</packaging>

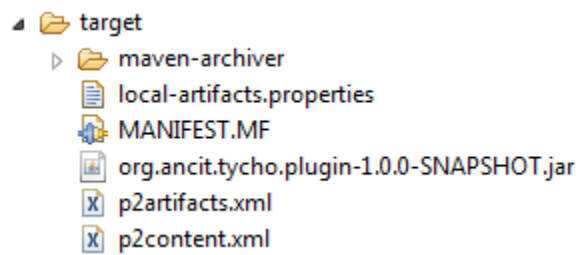
  <repositories>
    <!-- add Juno repository to resolve dependencies -->
    <repository>
      <id>Juno</id>
      <layout>p2</layout>
      <url>http://download.eclipse.org/releases/juno</url>
    </repository>
  </repositories>

  <build>
    <plugins>
      <plugin>
        <groupId>org.eclipse.tycho</groupId>
        <artifactId>tycho-maven-plugin</artifactId>
        <version>0.18.0</version>
        <extensions>true</extensions>
      </plugin>
    </plugins>
  </build>
</project>
```

Step 8. Now select the pom.xml and right on the same to run > maven install



Step 9. On Successful build > the Target folder would be updated as shown below



References to read

1. <http://codeandme.blogspot.in/2012/12/tycho-build-1-building-plug-ins.html>
2. <http://www.vogella.com/articles/EclipseTycho/article.html>