# RCP Application Build with Tycho and Gradle

# Prerequisites

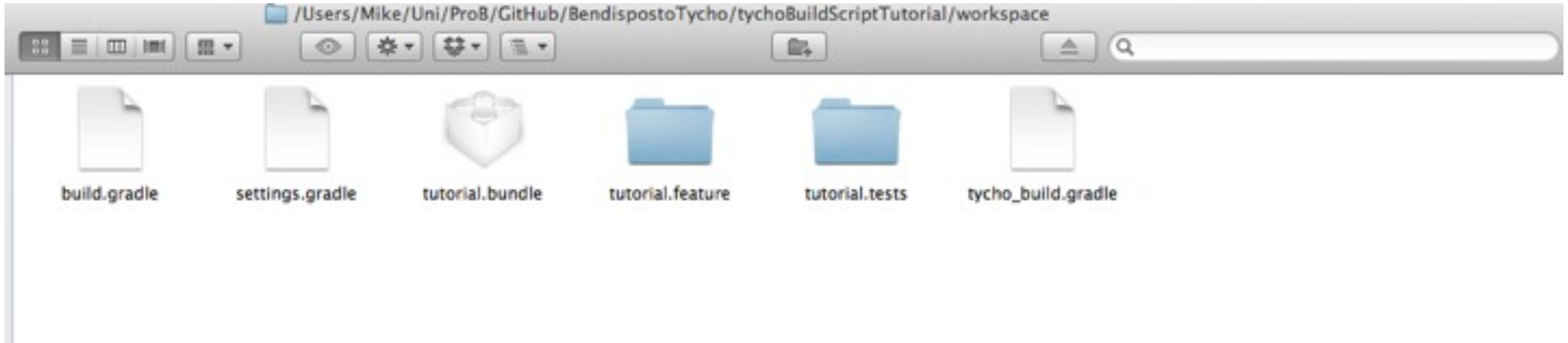
Please make sure you have a recent version of gradle and maven 3 installed on your machine

Download Gradle: http://gradle.org/

Download Maven: http://maven.apache.org/download.html

**You will need a repository where your target definition file lays, this build does not support local target files!**

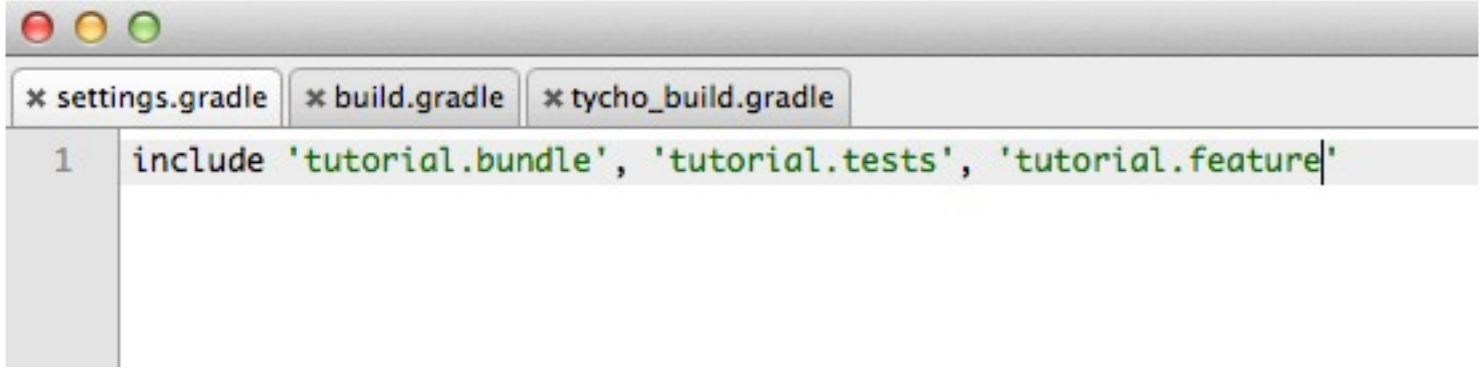
# Setting up the script



Copy the build.gradle, tycho_build.gradle and settings.gradle in your workspace

# Setting up the script

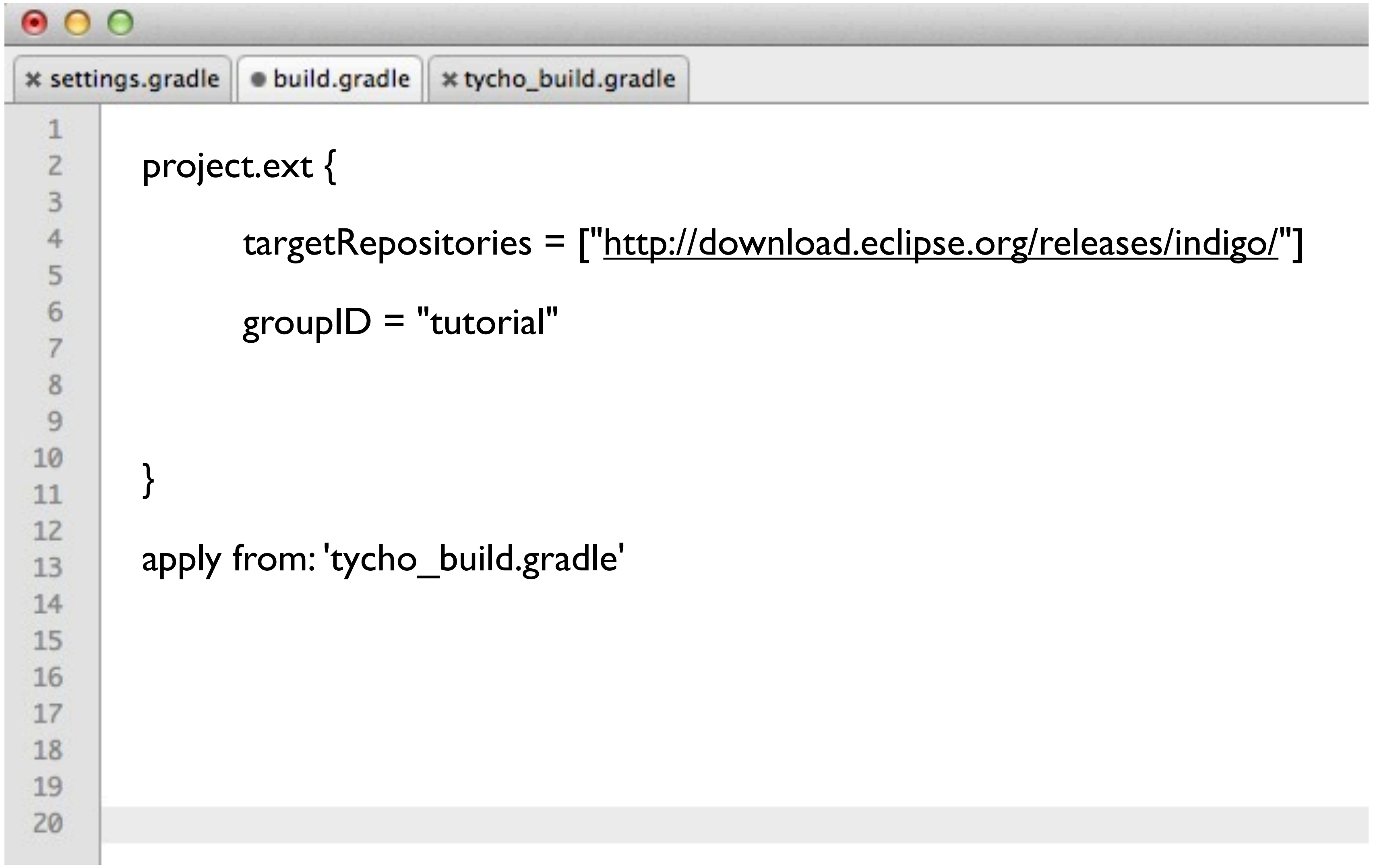
Add all your projects in the settings.gradle file.



```
include 'tutorial.bundle', 'tutorial.tests', 'tutorial.feature'
```

Every project ending with '.feature' will be handled as feature and every project ending with '.tests' will automatically trigger its tests with every tycho build.

# Setting up the script



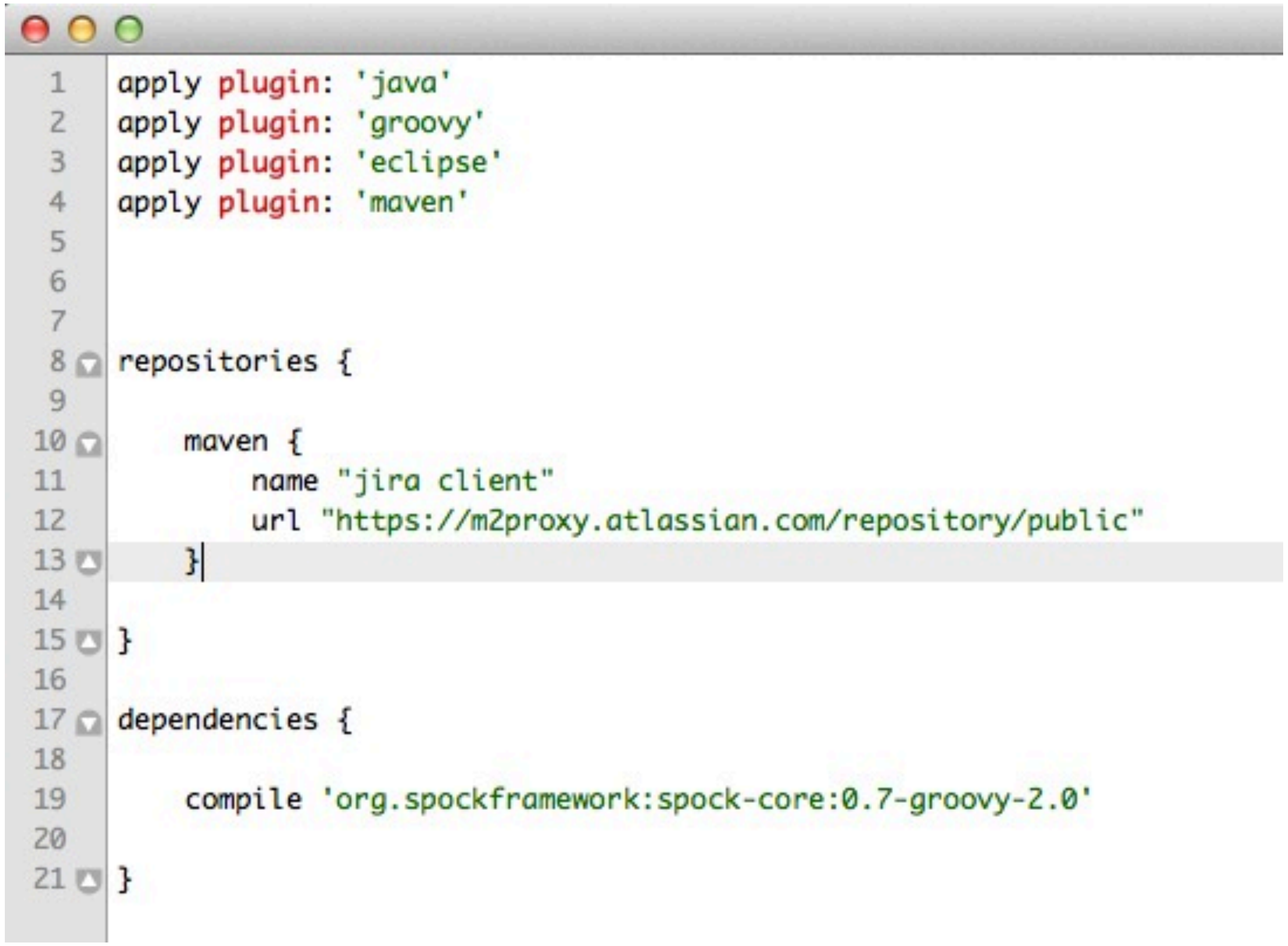
```

project.ext {

        targetRepositories = ["http://download.eclipse.org/releases/indigo/"]

        groupID = "tutorial"


}

apply from: 'tycho_build.gradle'
```

Now we have to define a group ID and reference the tycho_build.gradle script in our main build.gradle script.

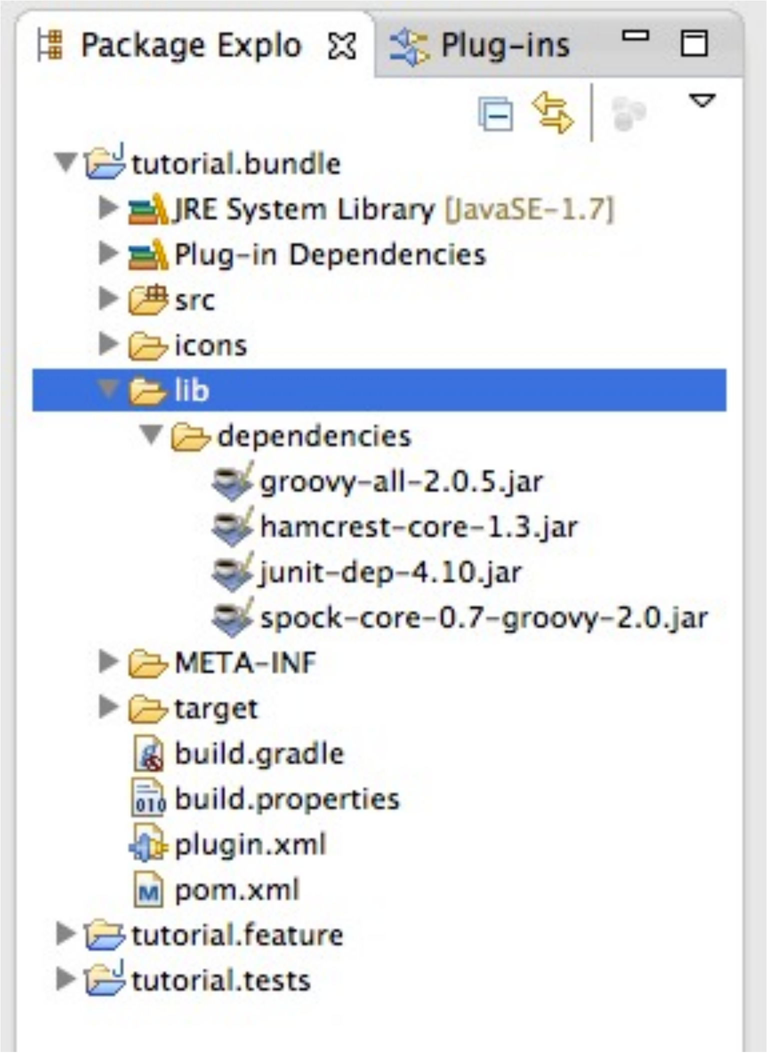
# Additional script properties:

dependencyFolder = “yourOwnFolder”

With this property you can define the folder where your dependencies from the build.gradle script will be downloaded.
By default this will be libs/dependencies in each subproject.



```
apply plugin: 'java'
apply plugin: 'groovy'
apply plugin: 'eclipse'
apply plugin: 'maven'



repositories {

    maven {
        name "jira client"
        url "https://m2proxy.atlassian.com/repository/public"
    }

}

dependencies {

    compile 'org.spockframework:spock-core:0.7-groovy-2.0'

}
```

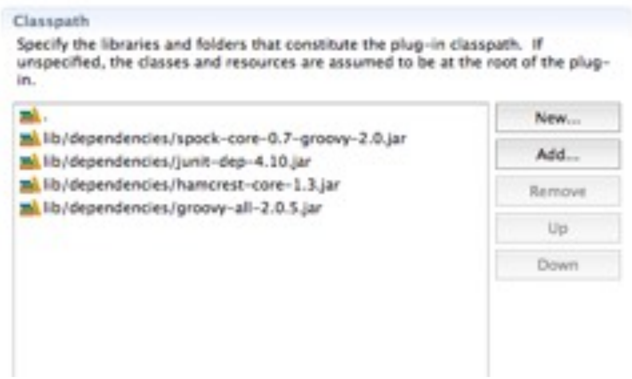


# Additional script properties:

excludeFromTychoBuild = ['nameOfProjectToExclude']

With this property you can define a list of projects which will be excluded from the tycho build but can still be listed in the settings.gradle file.

excludeFromClassPath = [ 'noChangesInDotClassPathFile.projects' ]


Classpath

Specify the libraries and folders that constitute the plug-in classpath. If unspecified, the classes and resources are assumed to be at the root of the plug-in.

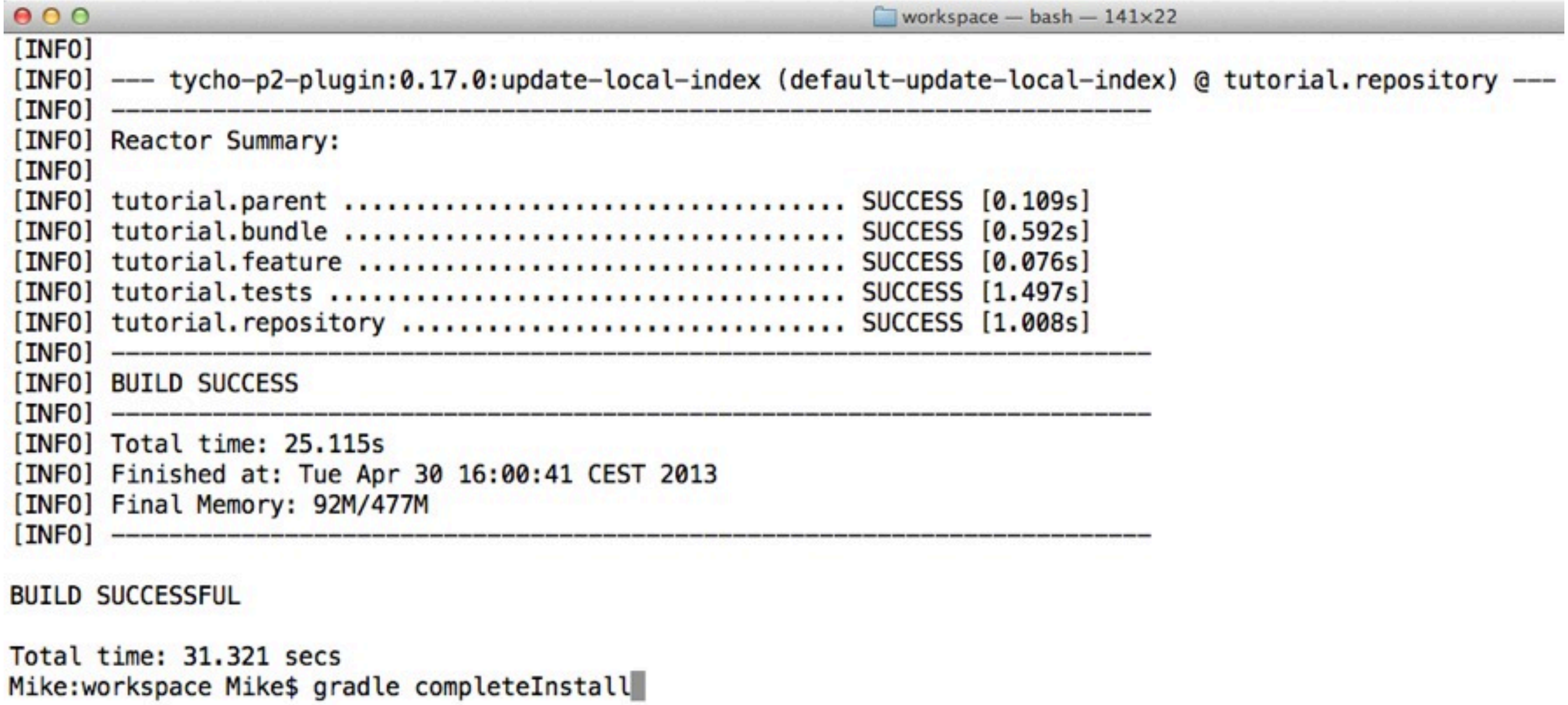
.
lib/dependencies/spock-core-0.7-groovy-2.0.jar
lib/dependencies/junit-dep-4.10.jar
lib/dependencies/hamcrest-core-1.3.jar
lib/dependencies/groovy-all-2.0.5.jar

With this property you can define a list of projects where the .classpath file will not be changed during ‘completeInstall’ or ‘setClassPath’.
‘gradle setClassPath’ will usually add your current libraries of the lib/dependencies folder automatically to the MANIFEST.mf file, remove old ones and add the current libraries to the .classpath file.
However all projects listed in this property will skip this both changes to the .classpath and the MF file.

excludeManifestClassPathDelete = ['noCHangesInMFFile.projects]

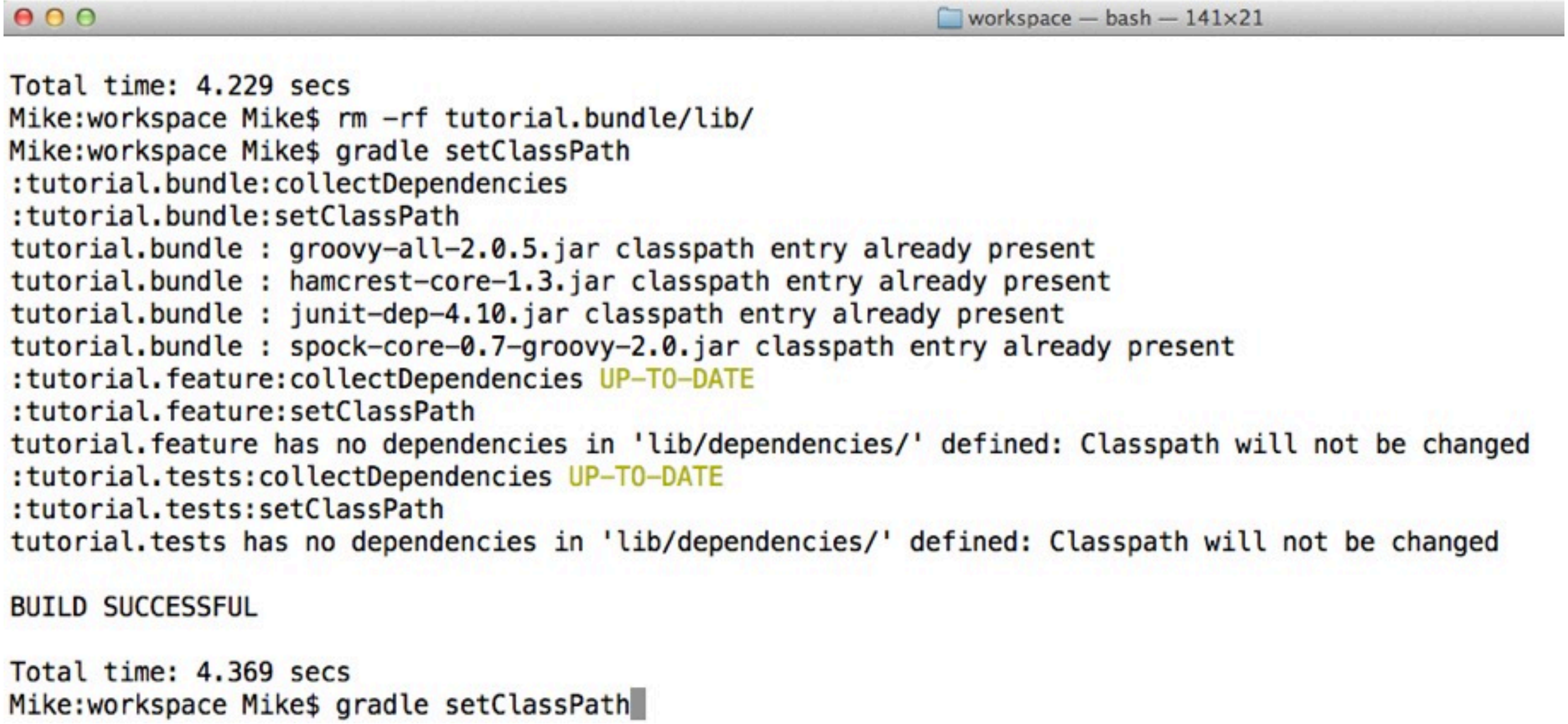
With this property you can define a list of projects where the MANIFEST.mf file will not be changed during ‘gradle setClassPath’.
Libraries will still be added to the .classpath file

# Running the script



```
[INFO]
[INFO] --- tycho-p2-plugin:0.17.0:update-local-index (default-update-local-index) @ tutorial.repository ---
[INFO] ------------------------------------------------------------------------
[INFO] Reactor Summary:
[INFO]
[INFO] tutorial.parent ................................... SUCCESS [0.109s]
[INFO] tutorial.bundle ................................... SUCCESS [0.592s]
[INFO] tutorial.feature .................................. SUCCESS [0.076s]
[INFO] tutorial.tests .................................... SUCCESS [1.497s]
[INFO] tutorial.repository ............................... SUCCESS [1.008s]
[INFO] ------------------------------------------------------------------------
[INFO] BUILD SUCCESS
[INFO] ------------------------------------------------------------------------
[INFO] Total time: 25.115s
[INFO] Finished at: Tue Apr 30 16:00:41 CEST 2013
[INFO] Final Memory: 92M/477M
[INFO] ------------------------------------------------------------------------

BUILD SUCCESSFUL

Total time: 31.321 secs
Mike:workspace Mike$ gradle completeInstall
```

# Running the script



```
Total time: 4.229 secs
Mike:workspace Mike$ rm -rf tutorial.bundle/lib/
Mike:workspace Mike$ gradle setClassPath
:tutorial.bundle:collectDependencies
:tutorial.bundle:setClassPath
tutorial.bundle : groovy-all-2.0.5.jar classpath entry already present
tutorial.bundle : hamcrest-core-1.3.jar classpath entry already present
tutorial.bundle : junit-dep-4.10.jar classpath entry already present
tutorial.bundle : spock-core-0.7-groovy-2.0.jar classpath entry already present
:tutorial.feature:collectDependencies UP-TO-DATE
:tutorial.feature:setClassPath
tutorial.feature has no dependencies in 'lib/dependencies/' defined: Classpath will not be changed
:tutorial.tests:collectDependencies UP-TO-DATE
:tutorial.tests:setClassPath
tutorial.tests has no dependencies in 'lib/dependencies/' defined: Classpath will not be changed

BUILD SUCCESSFUL

Total time: 4.369 secs
Mike:workspace Mike$ gradle setClassPath
```

# Additional Notes

You can clone the example from https://github.com/birkhoff/tychoBuildScriptTutorial.git
Feel free to edit the scripts as you see fit.

shell tasks:

gradle collectDependencies downloads your dependencies from your gradle script in the lib/dependencies folder
gradle setClassPath downloads your dependencies and also adds them to your classpath and Manifet Files

gradle tycho triggers a tycho build

gradle completeInstall does all the above

gradle eclipse makes it possible to import the projects into eclipse