

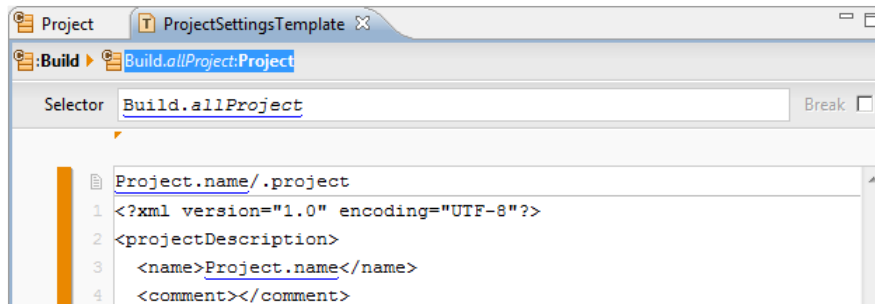


Tutorial

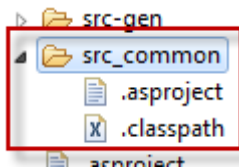
Project Generator

Tutorial	Actifsource Tutorial – Project Generator
Required Time	<ul style="list-style-type: none"> • 30 Minutes
Prerequisites	<ul style="list-style-type: none"> • Actifsource Tutorial – Installing Actifsource • Actifsource Tutorial – Simple Service
Goal	<ul style="list-style-type: none"> • Generate Eclipse Projects using actifsource
Topics covered	<ul style="list-style-type: none"> • Create a project to generate eclipse projects • Generate the project settings • Create and distribute non-generated files • Generate .projectconfig files to enable project creation
Notation	<ul style="list-style-type: none"> ☞ To do ① Information • Bold: Terms from actifsource or other technologies and tools • <u>Bold underlined:</u> actifsource Resources • <u>Underlined:</u> User Resources • <u><i>UnderlinedItalics:</i></u> Resource Functions • <code>Monospaced:</code> User input • <i>Italics:</i> Important terms in current situation
Disclaimer	<p>The authors do not accept any liability arising out of the application or use of any information or equipment described herein. The information contained within this document is by its very nature incomplete. Therefore the authors accept no responsibility for the precise accuracy of the documentation contained herein. It should be used rather as a guide and starting point.</p>
Contact	<p>actifsource GmbH Täfernstrasse 37 5405 Baden-Dättwil Switzerland www.actifsource.com</p>
Trademark	<p>actifsource is a registered trademark of actifsource GmbH in Switzerland, the EU, USA, and China. Other names appearing on the site may be trademarks of their respective owners.</p>

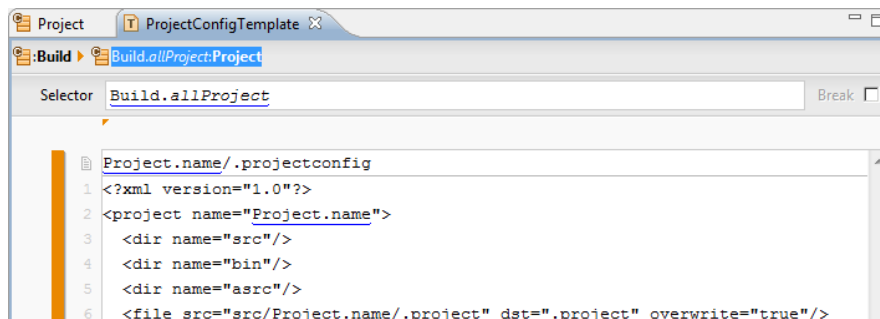
- Create an eclipse project generator project
- Generate the project settings



- Place non-generated files

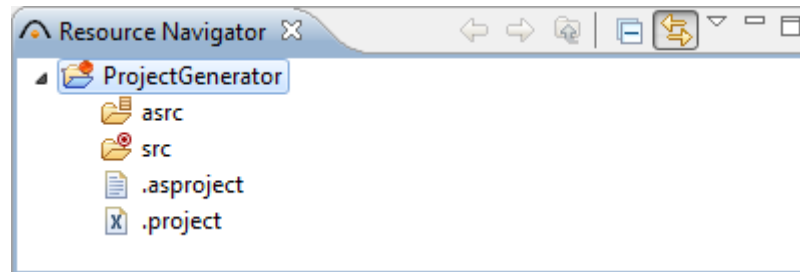


- Generate .projectconfig files to enable project creation



Part I: Preparation

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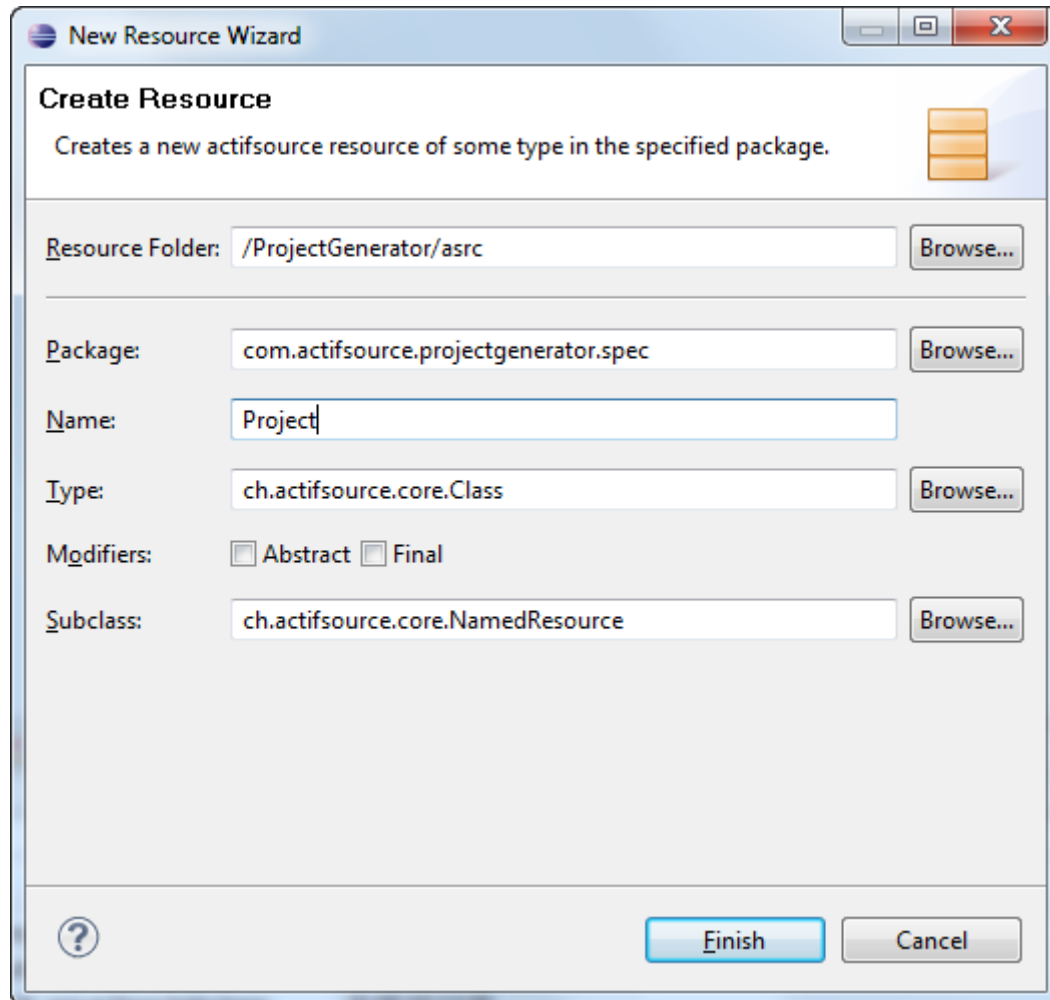


- ↳ Prepare a new **actifsource Project** as seen in the *Actifsource Tutorial – Simple Service*
 - Setup the Target Folder *src*

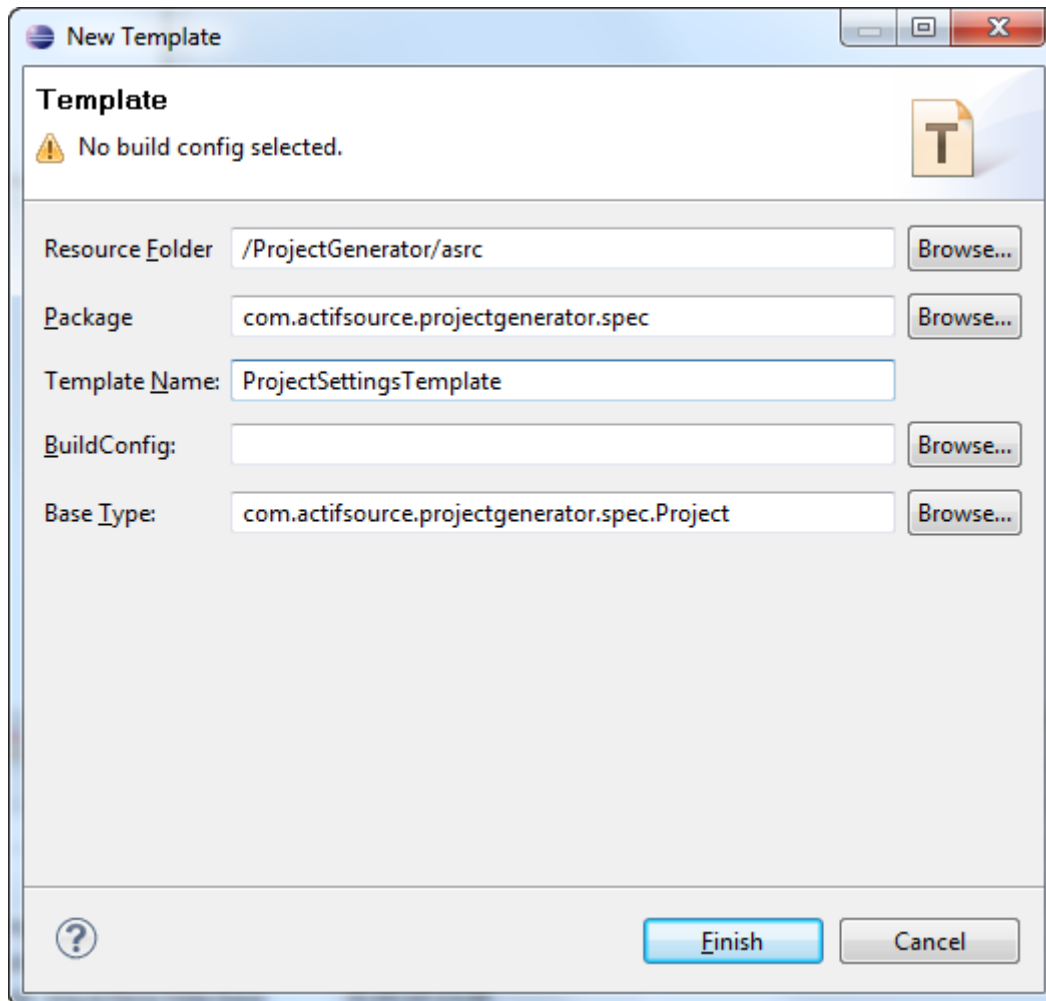
Part I:

Create Project Data

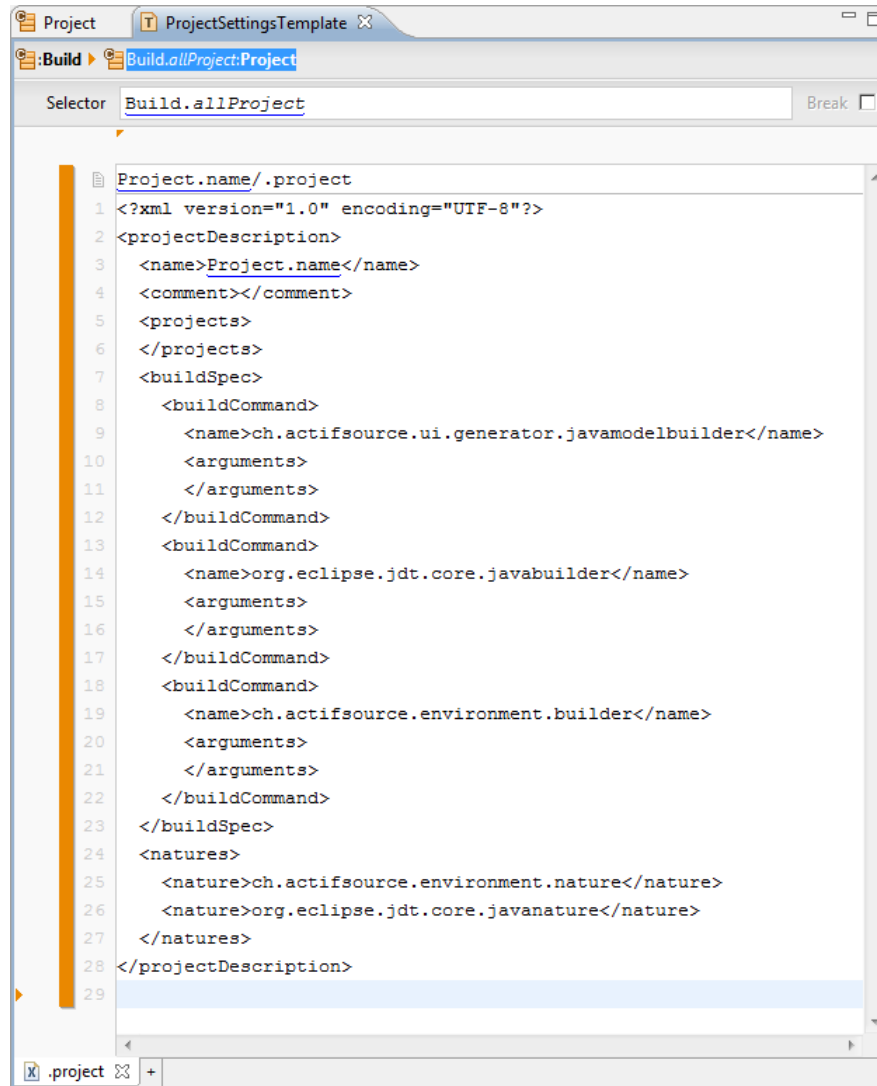
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- Create a new **Class** named “Project” in the *package* “com.actifsource.projectgenerator.spec” using the *New Resource Wizard*



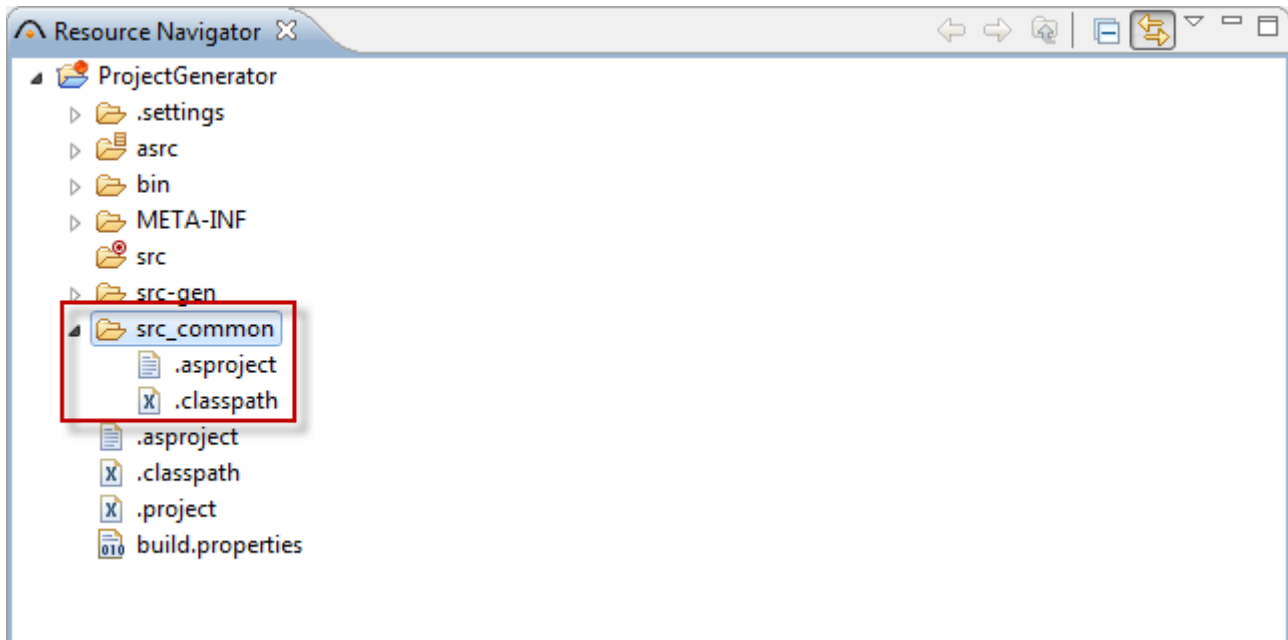
- Create a new **Template** named “ProjectSettingsTemplate” by right clicking the newly created class Project and selecting the *New Template Wizard*.
- Since you clicked on the resource Project actifsource automatically fills in the *base type*, meaning the template is executed for each *instance* of the class Project.



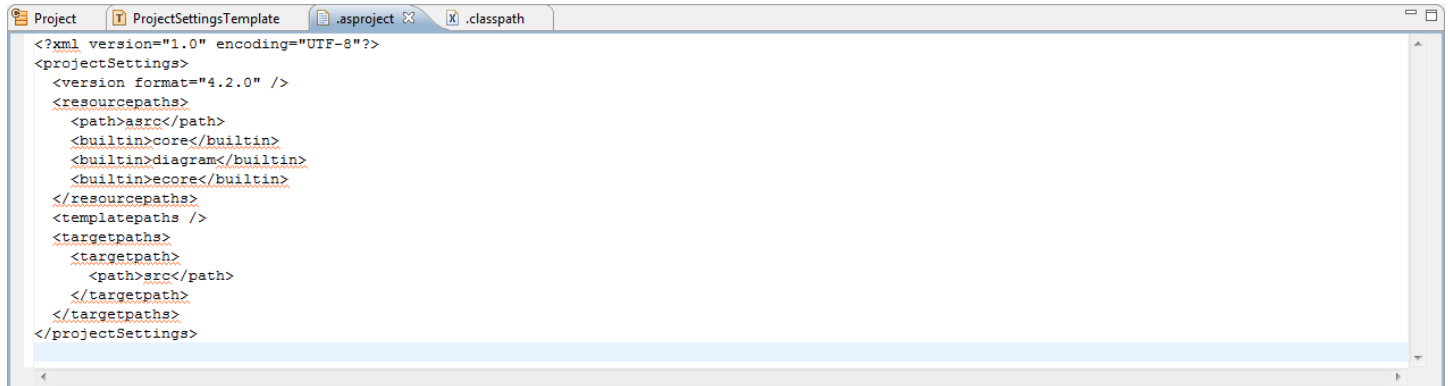
```
1 <?xml version="1.0" encoding="UTF-8"?>
2 <projectDescription>
3   <name>Project.name</name>
4   <comment></comment>
5   <projects>
6   </projects>
7   <buildSpec>
8     <buildCommand>
9       <name>ch.actifsource.ui.generator.javamodelbuilder</name>
10      <arguments>
11      </arguments>
12    </buildCommand>
13    <buildCommand>
14      <name>org.eclipse.jdt.core.javabuilder</name>
15      <arguments>
16      </arguments>
17    </buildCommand>
18    <buildCommand>
19      <name>ch.actifsource.environment.builder</name>
20      <arguments>
21      </arguments>
22    </buildCommand>
23  </buildSpec>
24  <natures>
25    <nature>ch.actifsource.environment.nature</nature>
26    <nature>org.eclipse.jdt.core.javanature</nature>
27  </natures>
28 </projectDescription>
29
```

- ✎ Write the content of the *.project* file or copy it from one of your existing eclipse project.
- ✎ Replace the variable information by linking to the actifsource model (Use Content Assist: Ctrl+Space).
- ✎ Use the project name to create a subdirectory for each project in the *target folder*.
- In this example we only generate the project name from the model, feel free to extend the model to fit your needs.

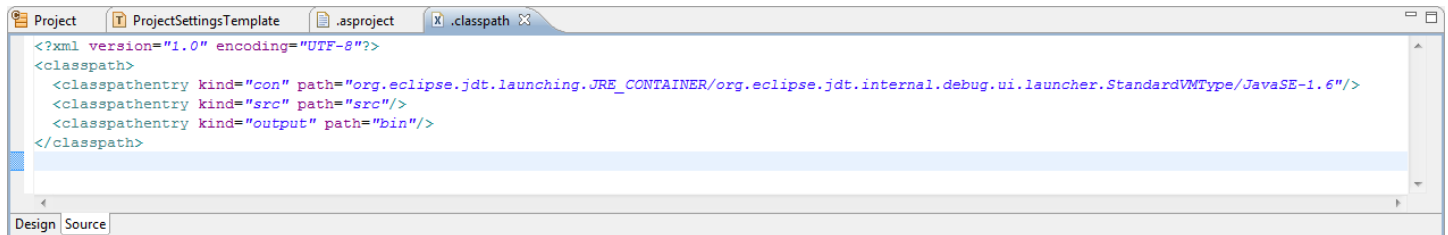
Add non generated files



- Sometimes you may have configuration files equal for all projects, in this case just put them into a folder in the generator project.
- ✎ Create a “src_common” folder and copy the .asproject and the .classpath file of a preconfigured project into it or use the ones on the following page.



```
<?xml version="1.0" encoding="UTF-8"?>
<projectSettings>
  <version format="4.2.0" />
  <resourcepaths>
    <path>src</path>
    <builtin>core</builtin>
    <builtin>diagram</builtin>
    <builtin>ecore</builtin>
  </resourcepaths>
  <templatepaths />
  <targetpaths>
    <targetpath>
      <path>src</path>
    </targetpath>
  </targetpaths>
</projectSettings>
```

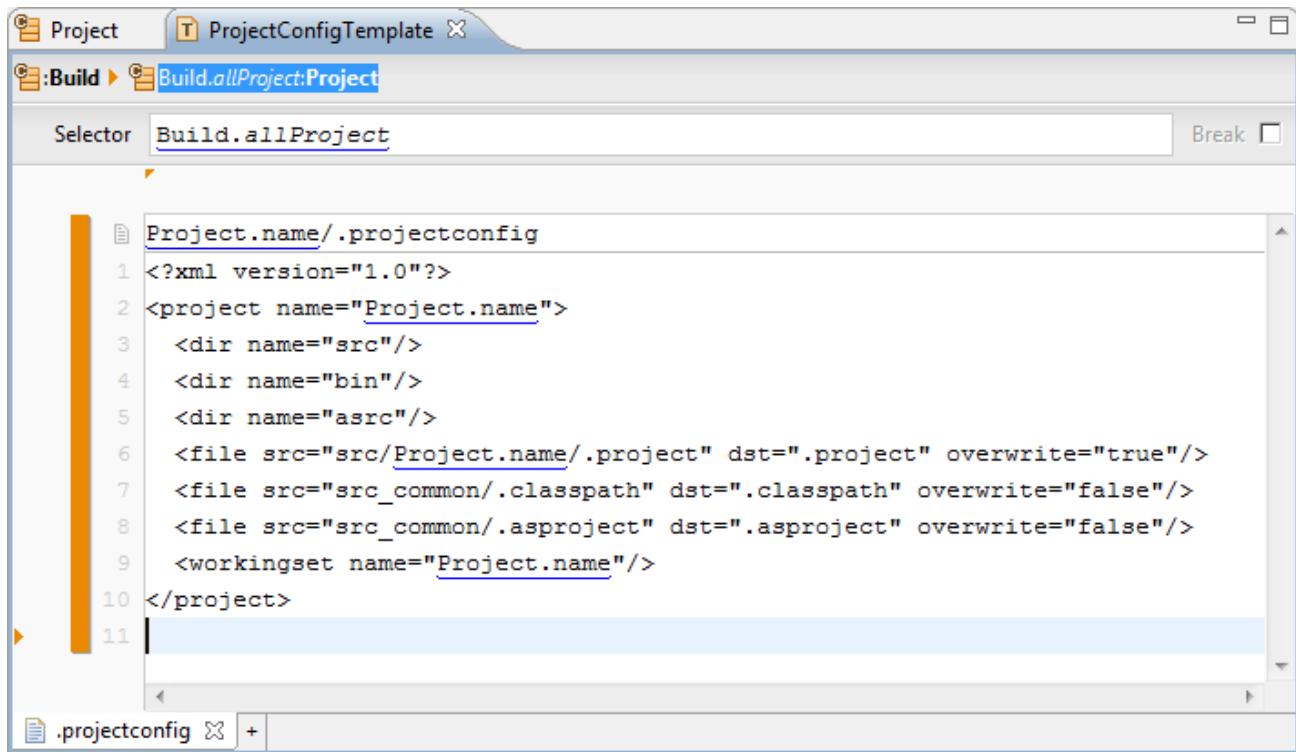


```
<?xml version="1.0" encoding="UTF-8"?>
<classpath>
  <classpathentry kind="con" path="org.eclipse.jdt.launching.JRE_CONTAINER/org.eclipse.jdt.internal.debug.ui.launcher.StandardVMType/JavaSE-1.6"/>
  <classpathentry kind="src" path="src"/>
  <classpathentry kind="output" path="bin"/>
</classpath>
```

Design Source

Create Project Configuration

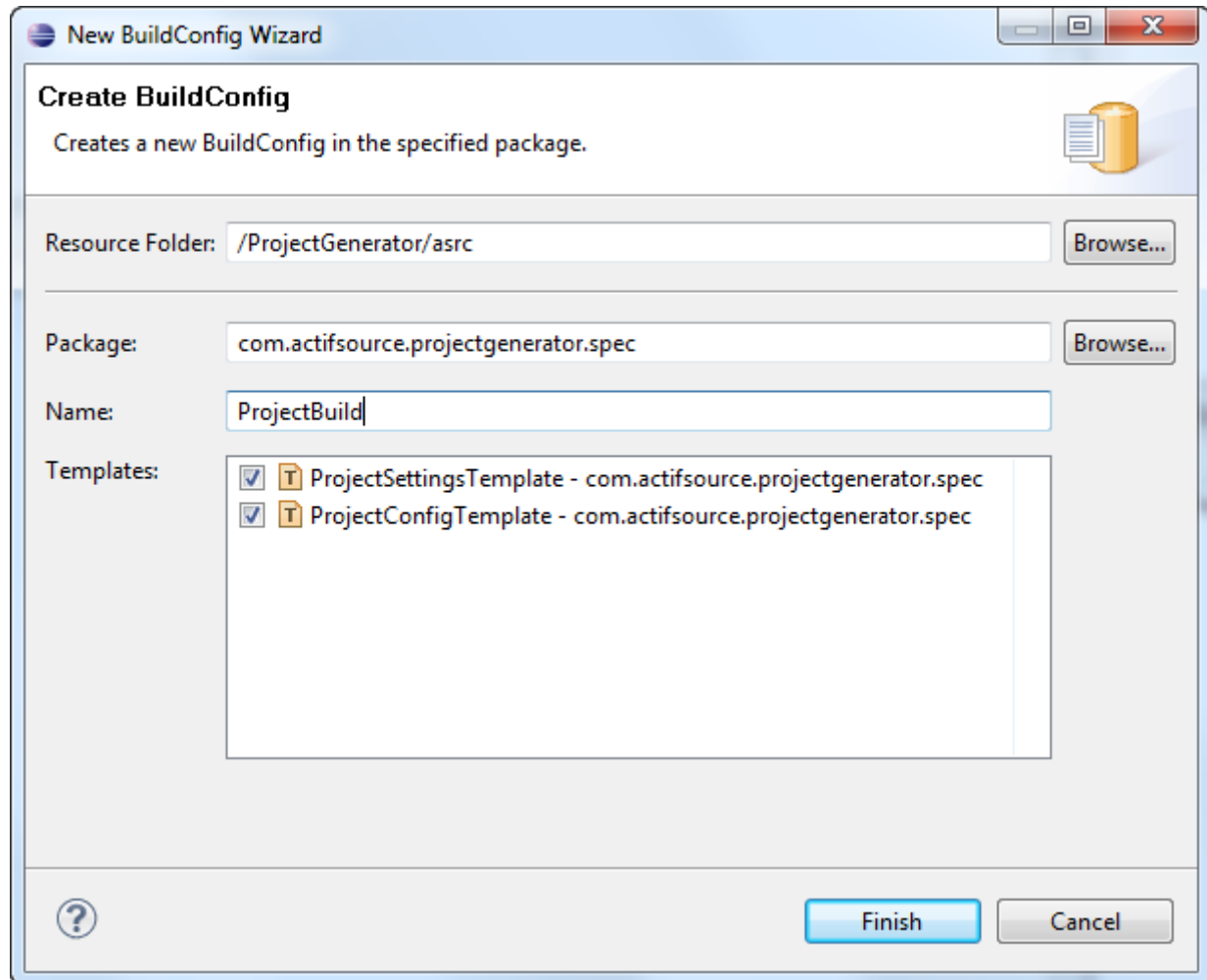
- Now after you generated and copied all project files, like the *.project*, *.classpath* and *.asproject*, you need to generate a *.projectconfig* file.
- You need to create a *.projectconfig* file for each *project*. The *.projectconfig* defines the eclipse name of the project and the initial file structure. Since all settings are stored inside the projects file structure as setting-files, this also defines the initial project setup.



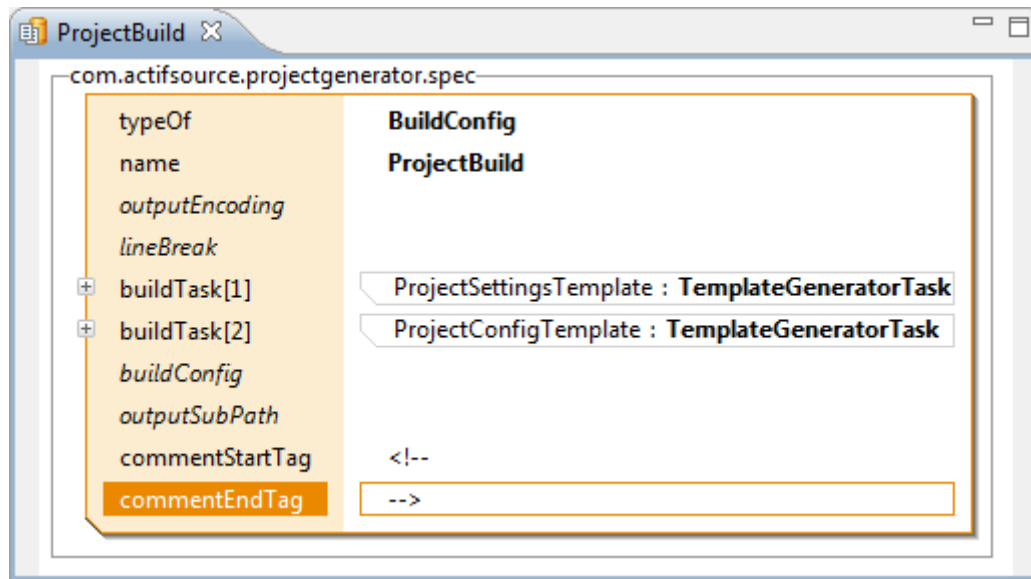
- Write a template for the *.projectconfig* file, as before use the projectname from the model.
- Actifsource provides the following elements inside the project-element.

dir	with attribute name to create a directory in project root
file	with attribute src and dst to copy a file from the generator project to the generated project use the overwrite attribute to specify if the file is overwritten each time generator runs again
workingset	with attribute name to add the project to a specific workingset

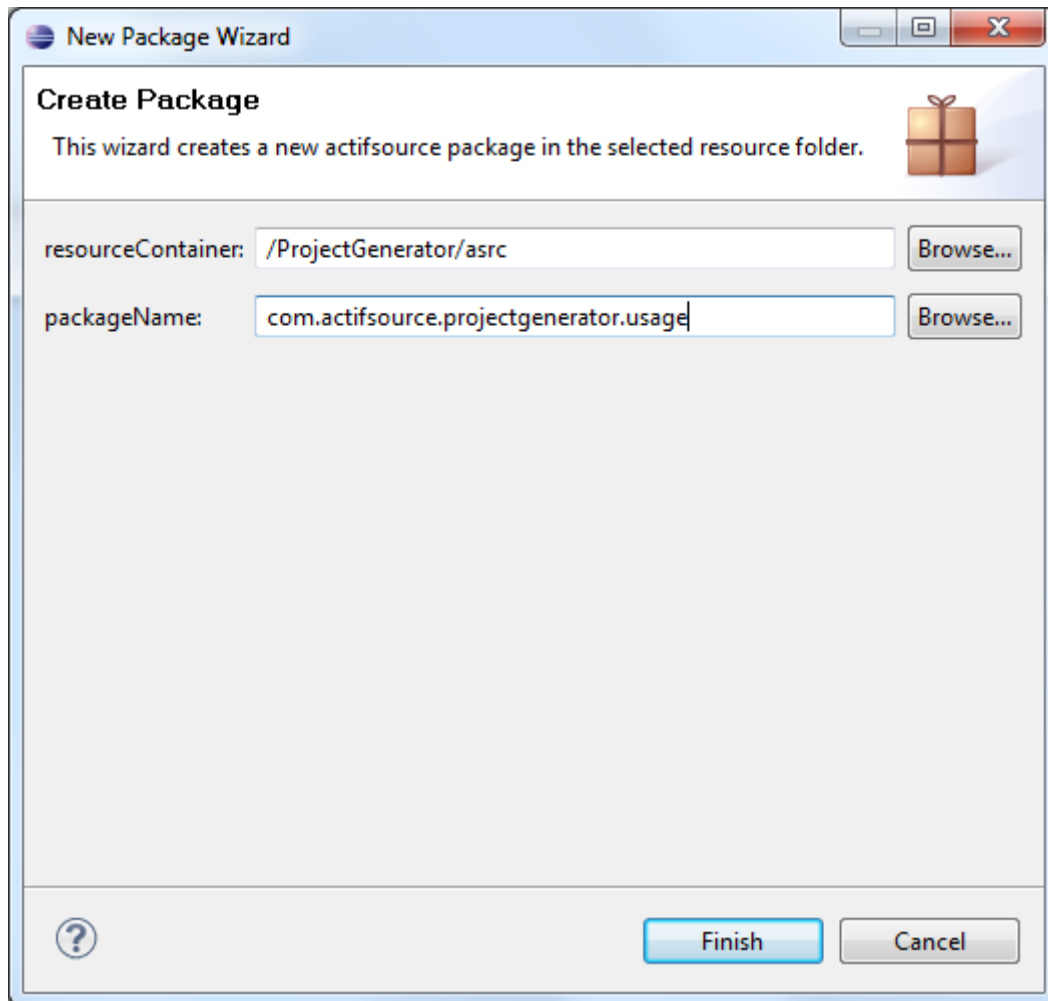
Setup BuildConfig and Targetfolder



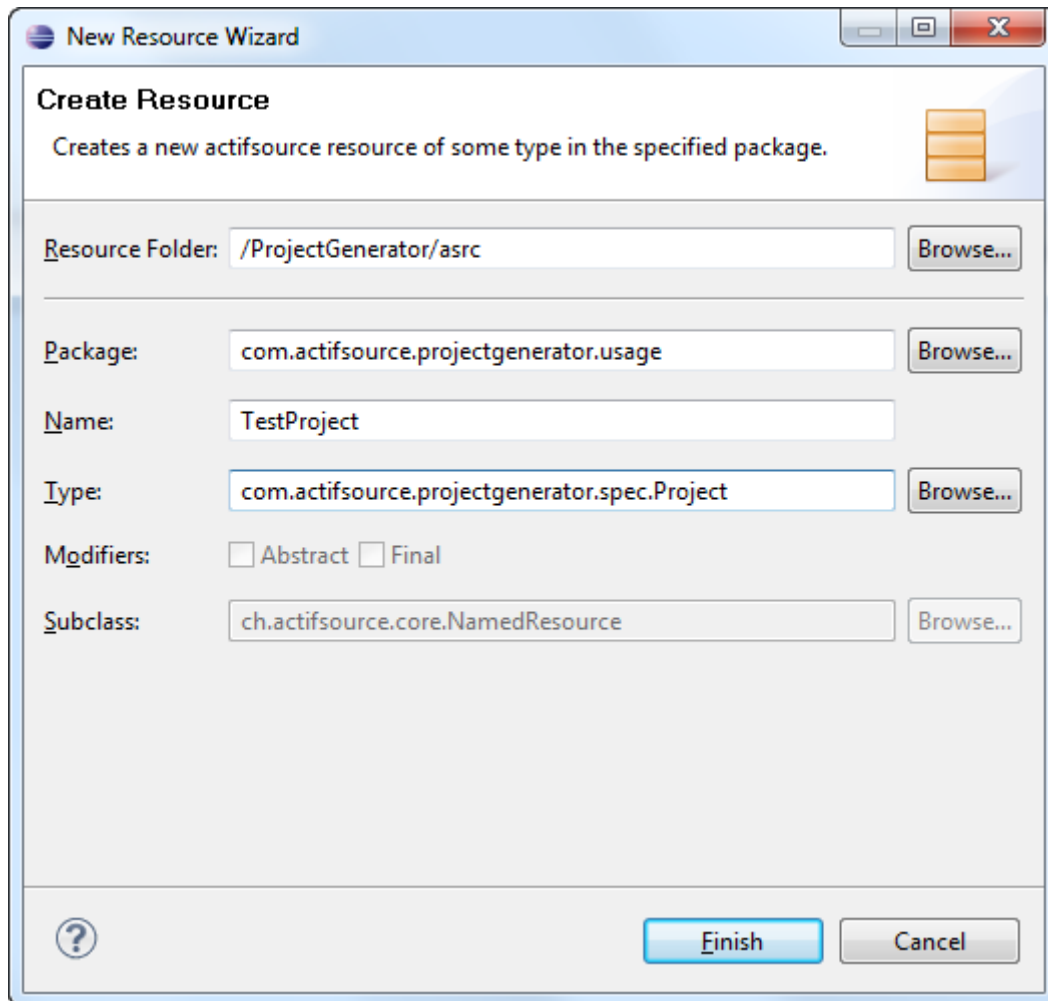
- Create a **BuildConfig** named “ProjectBuild” using the *New BuildConfig Wizard* and including all templates.



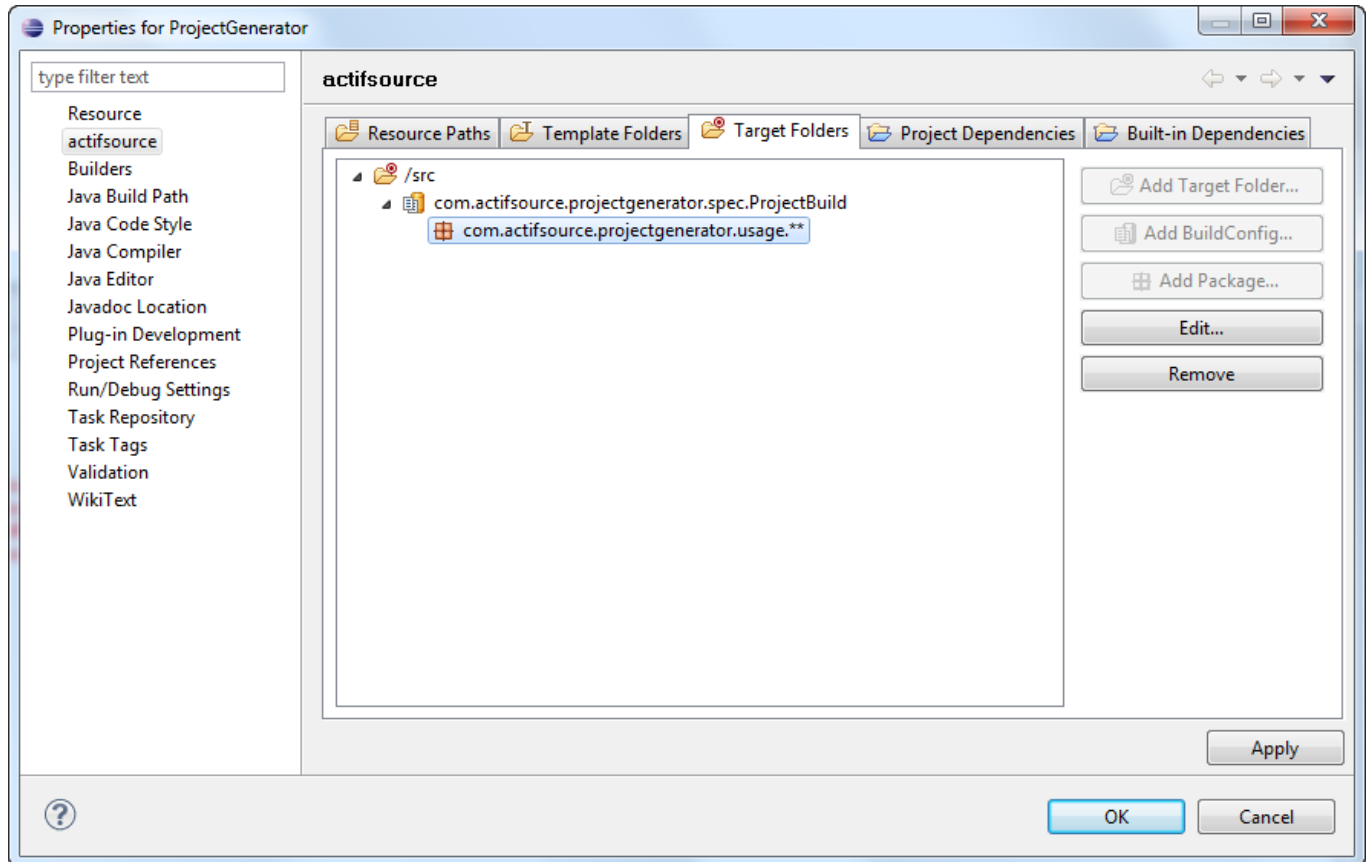
➤ Set the **commentStartTag** and **commentEndTag** as defined by xml.



➤ Create a new *package* "com.actifsource.projectgenerator.usage".



- Create an instance of the Project class in the *package* com.actifsource.projectgenerator.usage named "TestProject".
- This step will result in the first try to generate the project, but fails due to missing the buildconfig setup.



- ✚ Right click on the project and select properties
- ✚ Click on the category “actifsource”
- ✚ Goto the target folder tab and click on the src-folder
- ✚ Add the buildconfig ProjectBuild
- ✚ Add the package com.actifsource.projectgenerator.usage.
- Now actifsource will generate the xml files with current xml-comment and the project builder creates a new project.

Conclusion

- As you have seen generating projects is very similar to generating any other file, except that you have to generate the project type specific settings files and a project configuration file.
- Depending on your needs you may define the builders listed in .project files or the required libraries listed in .classpath files based on your models information.

