SOURCE

Tutorial

Project Generator

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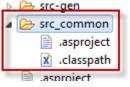
Tutorial	Actifsource Tutorial – Project Generator
Required Time Prerequisites	 30 Minutes Actifsource Tutorial – Installing Actifsource Actifsource Tutorial – Simple Service
Goal	Generate Eclipse Projects using actifsource
Topics covered	 Create a project to generate eclipse projects Generate the project settings Create and distribute non-generated files Generate .projectconfig files to enable project creation
Notation	 To do Information Bold: Terms from actifsource or other technologies and tools <u>Bold underlined</u>: actifsource Resources <u>Underlined</u>: User Resources <u>UnderlinedItalics</u>: Resource Functions Monospaced: User input Italics: Important terms in current situation
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Overview

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



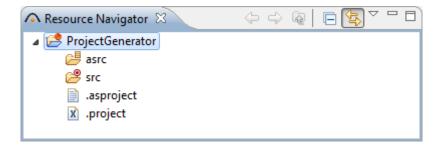
• Place non-generated files



• Generate .projectconfig files to enable project creation

염 Project	T ProjectConfigTemplate	
🖺 :Build 🕨	Build.allProject:Project	
Selector	Build.allProject Brea	k 🗖
	, ,	
E E	Project.name/.projectconfig	*
1	xml version="1.0"?	
2	<project name="Project.name"></project>	
3	<dir name="src"></dir>	
4	<dir name="bin"></dir>	
5	<dir name="asrc"></dir>	
6	<file dst=".project" overwrite="true" src="src/Project.name/.project"></file>	

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

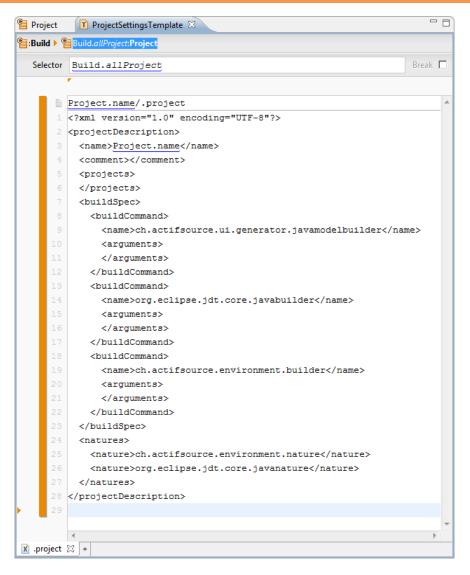
New Resource Wizard		
Create Resou Creates a new ac	rce tifsource resource of some type in the specified package.	
<u>R</u> esource Folder:	/ProjectGenerator/asrc	Browse
<u>P</u> ackage:	com.actifsource.projectgenerator.spec	Browse
<u>N</u> ame:	Project	
<u>Т</u> уре:	ch.actifsource.core.Class	Browse
M <u>o</u> difiers:	Abstract 🔲 Final	
<u>S</u> ubclass:	ch.actifsource.core.NamedResource	Browse
?	<u> </u>	Cancel

Create a new Class named "Project" in the package "com.actifsource.projectgenerator.spec" using the New Resource Wizard **Create Project Data**

New Template		
Template	g selected.	T
Resource <u>F</u> older	/ProjectGenerator/asrc	Browse
<u>P</u> ackage	com.actifsource.projectgenerator.spec	Browse
Template <u>N</u> ame:	ProjectSettingsTemplate	
<u>B</u> uildConfig:		Browse
Base <u>T</u> ype:	com.actifsource.projectgenerator.spec.Project	Browse
?	<u> </u>	Cancel

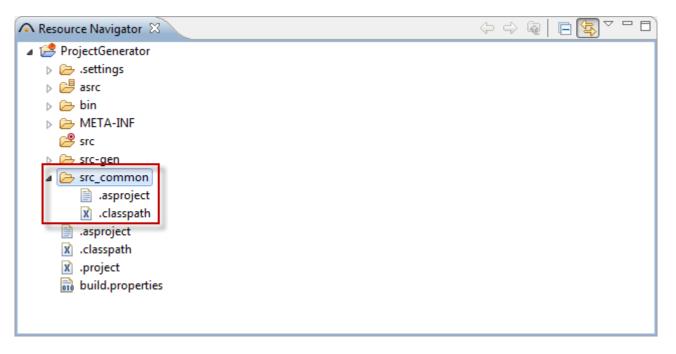
- Screate a new **Template** named "ProjectSettingsTemplate" by right clicking the newly created class <u>Project</u> and selecting the *New Template Wizard*.
- Since you clicked on the resource <u>Project</u> actifsource automatically fills in the *base type*, meaning the template is executed for each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

Create Project Data



- ♥ 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.

Part II: 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.

Add non generated files

Project 🗊 ProjectSettingsTemplate 📄 .asproject 🖾 🕅 .classpath	
xml version="1.0" encoding="UTF-8"?	A
<projectsettings></projectsettings>	
<version format="4.2.0"></version>	
<resourcepaths></resourcepaths>	
<path>asrc</path>	
<pre><builtin>core</builtin></pre>	
 <builtin>diagram</builtin>	
<templatepaths></templatepaths>	
<targetpatha></targetpatha>	
<targetpath></targetpath>	
<pre><path>grc</path></pre>	
4	•

염 Project	ProjectSettingsTemplate	asproject 📄	.classpath 🖾	
xml</td <th>version="1.0" encoding=</th> <th>"UTF-8"?></th> <th></th> <td>A</td>	version="1.0" encoding=	"UTF-8"?>		A
<clas< td=""><th>spath></th><th></th><th></th><td></td></clas<>	spath>			
<cl< td=""><th>asspathentry kind="con"</th><th>path="org.ecl</th><th>e.jdt.launching.JRE_CONTAINER/org.eclipse.jdt.internal.deb</th><td><pre>>ug.ui.launcher.StandardVMType/JavaSE-1.6"/></pre></td></cl<>	asspathentry kind="con"	path="org.ecl	e.jdt.launching.JRE_CONTAINER/org.eclipse.jdt.internal.deb	<pre>>ug.ui.launcher.StandardVMType/JavaSE-1.6"/></pre>
<cl< td=""><th>asspathentry kind="src"</th><th>path="src"/></th><th></th><td></td></cl<>	asspathentry kind="src"	path="src"/>		
<c1< td=""><th>asspathentry kind="outpu</th><th>t" path="bin"</th><th></th><td></td></c1<>	asspathentry kind="outpu	t" path="bin"		
<th>sspath></th> <th></th> <th></th> <td></td>	sspath>			
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Part III:

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.

Create Project Configuration

Project	T ProjectConfigTemplate 🛛	
📲:Build 🕨 💡	Build.allProject:Project	
Selector	Build.allProject Bre	ak 🗖
	r	_
	Project.name/.projectconfig	*
1	xml version="1.0"?	
2	<project name="Project.name"></project>	
3	<dir name="src"></dir>	
4	<dir name="bin"></dir>	
5	<dir name="asrc"></dir>	
6	<file dst=".project" overwrite="true" src="src/Project.name/.project"></file>	
7	<file dst=".classpath" overwrite="false" src="src_common/.classpath"></file>	
8	<file dst=".asproject" overwrite="false" src="src_common/.asproject"></file>	
9	<workingset name="Project.name"></workingset>	
10		
• 11		
		Ŧ
	•	•
.projectc	ionfig 🔀 +	

- Solution 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

filewith 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
with attribute name to add the project to a specific workingset

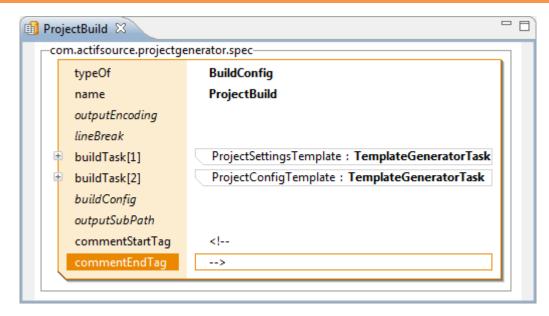
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Part IV:

Setup BuildConfig and Targetfolder

New BuildConf	ig Wizard	
	Create BuildConfig Creates a new BuildConfig in the specified package.	
Resource Folder:	/ProjectGenerator/asrc	Browse
Package:	com.actifsource.projectgenerator.spec	Browse
Name:	ProjectBuild	
Templates:	 ProjectSettingsTemplate - com.actifsource.projectgenerator.spec ProjectConfigTemplate - com.actifsource.projectgenerator.spec 	
?	Finish	Cancel

🤄 Create a **BuildConfig** named "ProjectBuild" using the *New BuildConfig Wizard* and including all templates.



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

New Package Wiz	ard	
Create Package This wizard creates	a new actifsource package in the selected resource folder.	
resourceContainer:	/ProjectGenerator/asrc	Browse
packageName:	com.actifsource.projectgenerator.usage	Browse
?	Finish	Cancel

✤ Create a new package "com.actifsource.projectgenerator.usage".

New Resource Wizard			X	
	Create Resource Creates a new actifsource resource of some type in the specified package.			
<u>R</u> esource Folder:	/ProjectGenerator/asrc		Bro	owse
<u>P</u> ackage:	com.actifsource.projectgenerator.usage		Bro	owse
<u>N</u> ame:	TestProject			
<u>Т</u> уре:	com.actifsource.projectgenerator.spec.Project		Bro	owse
Modifiers:	Abstract Final			
<u>S</u> ubclass:	ch.actifsource.core.NamedResource		Bro	owse
?	<u> </u>		Canc	el

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

Properties for ProjectGenerator	
type filter text	actifsource $\Leftrightarrow \bullet $
Resource actifsource Builders Java Build Path Java Code Style Java Compiler Java Editor Javadoc Location Plug-in Development Project References Run/Debug Settings Task Repository Task Tags Validation WikiText	Resource Paths Femplate Folders Folders Project Dependencies Huit-in Dependencies
?	OK Cancel

- ✤ 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 <u>ProjectBuild</u>
- ♦ Add the package <u>com.actifsource.projectgenerator.usage</u>.
- Now actifsource will generate the xml files with current xml-comment and the project builder creates a new project.

Part IV: 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.



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