Overtarget Documentation

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Chapter 1. Introduction

Overtarget is an eclipse plug-in that helps you managing your target platform files with dependencies across project boundaries.

This documentation should help you getting familiar with Overtarget and its functionalities.

Chapter 2. Creating a tmodel file

In an existing project create a new file and add the file extension ".tmodel".

2.1. Writing a tmodel file

A tmodel file always starts with the keyword "Target" followed by the name of the tmodel. Within the curly brackets you can define your tmodel the way you like. A target file is automatically generated when saving the tmodel file.

```
 1  Target virsat {
 2      OperatingSystem win32
 3      WorkingSystem win32
 4      Architecture x86_64
 5      Locale de_DE
 6      TargetJRE JavaSE-1.8
 7
 8      RepositoryLocation Nebula url "https://download.eclipse.org/nebula/releases/2.2.0/"{
 9          Unit org.eclipse.nebula.widgets.gallery.feature.feature.group version 1.0.0.201907151344;
10          Unit org.eclipse.nebula.widgets.tablecombo.feature.feature.group version 1.2.0.201907151344;
11      }
12
13      RepositoryLocation EclipseOrbit url "https://download.eclipse.org/tools/orbit/downloads/drops/R20190602212107/repository/"{
14          Unit org.antlr.runtime version 3.2.0.v201101311130;
15          Unit org.apache.commons.io version 2.6.0.v20190123-2029;
16          Unit org.apache.commons.io.source version 2.6.0.v20190123-2029;
17      }
18
19      // Purely named Eclipse. The name is important for target models having this one as
20      // super model. Then this name can be referenced to explicitly exclude
21      // certain features from the target model
22      RepositoryLocation Eclipse url "http://download.eclipse.org/releases/2019-06"{
23          Unit org.eclipse.emf.compare.ide.ui.feature.group version 3.3.7.201905300200;
24          Unit org.eclipse.emf.edapt.runtime.feature.feature.group version 1.4.0.201902190757;
25          Unit org.eclipse.emf.sdk.feature.group version 2.18.0.v20190528-0845;
26          Unit org.eclipse.emf.transaction.sdk.feature.group version 1.12.0.201805140824;
27          Unit org.eclipse.equinox.executable.feature.group version 3.8.400.v20190515-0925;
28          Unit org.eclipse.graphiti.sdk.feature.feature.group version 0.16.0.201906041401;
29          Unit org.eclipse.jdt.source.feature.group version 3.18.0.v20190605-1800;
30          Unit org.eclipse.ocl.all.sdk.feature.group version 5.9.0.v20190603-1146;
31          Unit org.eclipse.pde.source.feature.group version 3.14.0.v20190605-1800;
32          Unit org.eclipse.platform.sdk version 4.12.0.I20190605-1800;
33          Unit org.eclipse.swtbot.eclipse.feature.group version 2.8.0.201906121535;
34          Unit org.eclipse.swtbot.eclipse.gef.feature.group version 2.8.0.201906121535;
35          Unit org.eclipse.swtbot.feature.group version 2.8.0.201906121535;
36          Unit org.eclipse.swtbot.forms.feature.group version 2.8.0.201906121535;
37          Unit org.eclipse.swtbot.generator.feature.feature.group version 2.8.0.201906121535;
38          Unit org.eclipse.swtbot.ide.feature.group version 2.8.0.201906121535;
39          Unit org.eclipse.xtext.sdk.feature.group version 2.18.0.v20190528-0716;
40          Unit org.eclipse.gef.feature.group version 3.11.0.201606061308;
41          Unit org.eclipse.egit.feature.group version 5.4.0.201906121030-r;
42      }
43
44      RepositoryLocation Subversion url "https://download.eclipse.org/technology/subversive/4.0/update-site/" {
45          Unit org.eclipse.team.svn.feature.group version 4.0.5.I20170425-1700;
46      }
47
48      RepositoryLocation SubversionConnector url "http://community.polarion.com/projects/subversive/download/eclipse/6.0/update-site/" {
49          Unit org.polarion.eclipse.team.svn.connector.feature.group version 6.0.4.I20161211-1700;
50          Unit org.polarion.eclipse.team.svn.connector.source.feature.group version 6.0.4.I20161211-1700;
51          Unit org.polarion.eclipse.team.svn.connector.sources.feature.group version 6.0.4.I20161211-1700;
52          Unit org.polarion.eclipse.team.svn.connector.svnkit18.feature.group version 6.0.4.I20161211-1700;
53          Unit org.polarion.eclipse.team.svn.connector.svnkit18.sources.feature.group version 6.0.4.I20161211-1700;
54      }
55  }
```

Example tmodel of virsat

💡 Using content assist (ctrl + spacebar) will suggest the next possible keywords/steps.

2.2. Extending/Importing a tmodel file

It is possible to extend a tmodel by using the keyword "extends". That is especially useful for downstream projects which use the same dependencies as their main project in a tmodel. When a main project makes changes in a the tmodel, the tmodel of the downstream project which extends the main tmodel obtains these changes automatically.

The same principle is applicable when importing a tmodel, using the keyword "Import".

Chapter 3. Generating a target file

3.1. Saving the tmodel file

A target file can be generated in different ways. The easiest way would be by saving the tmodel file. The Overtarget generator then automatically generates a target file.

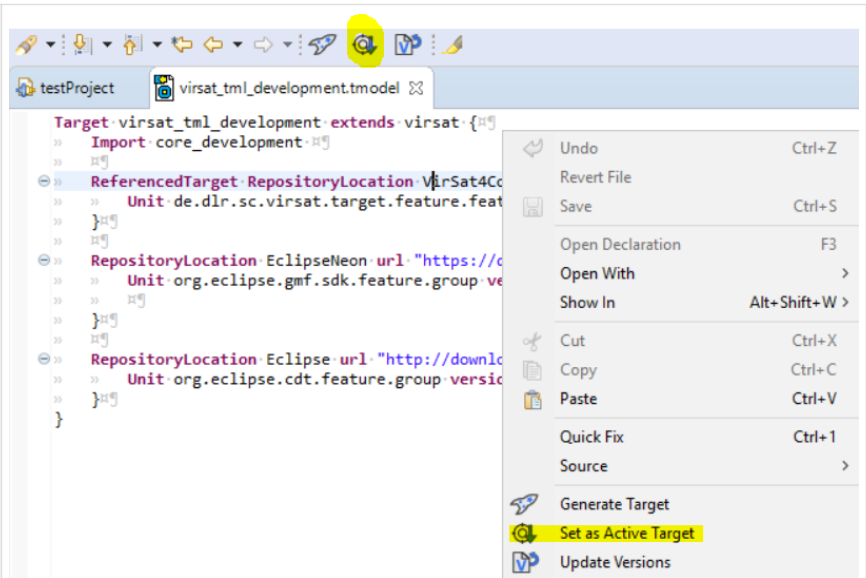> ℹ️ Generating a target file by saving the tmodel file only works when changes have been applied.

3.2. Using the button/context menu "Generate Target"

Another option to generate a target is using the button "Generate Target" in the editor toolbar or in the context menu. A target file will be generated, also when no changes have been applied to the tmodel file.

Options to generate a target (highlighted)

Chapter 4. Setting a target file as active target

There are different ways to set a target as active target in eclipse. The usual way is to open the target file which opens the eclipse target editor. Here you can click on "Set as Active Target Platform". However, Overtarget serves you with a much more comfortable option to set a target. If you want to set your target directly from the tmodel editor you can use the button "Set as Active Target" in the editor toolbar or in the context menu. The target will be automatically loaded and set as the active target platform.
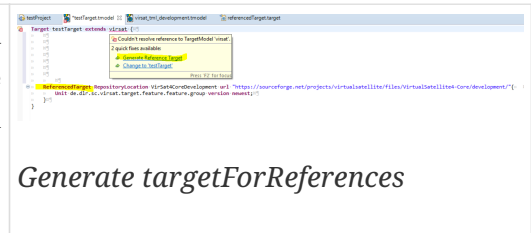

Set as Active Target

Chapter 5. Other useful stuff

5.1. Solving unresolved references in a tmodel

Sometimes when extending or importing another target, Eclipse cannot resolve the references and shows errors. It is not possible to generate a target with unresolved references. Overtarget solves the problem by generating a targetForReferences. This target includes the repository locations which lead to the unresolved references. By setting this target as active target, the references are then resolved. In order to generate a targetForReferences, the repositoryLocation to the unresolved target has to be added with the keyword "ReferencedTarget".

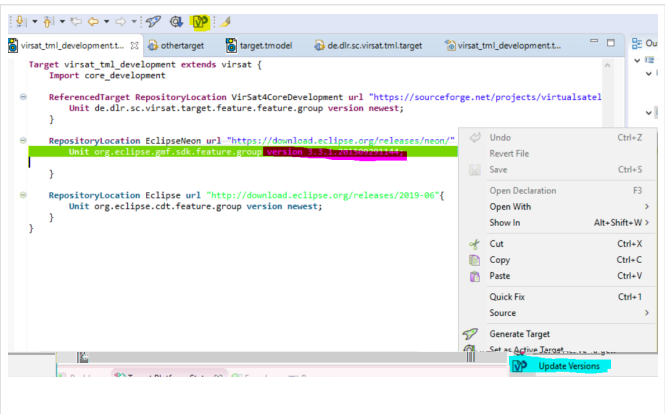|	
There is a quick fix which suggests to generate a targetForReferences. Executing that quick fix will generate a targetForReferences. The target will also be set as an active Target to resolve all references.	*Generate targetForReferences*

Now there should no longer be problems with unresolved references in the actual target. It can now be generated without complications and then be set as the active target platform.

> **ℹ** If there are still unresolved references, please check if you need to add dependencies to the manifest file.

5.2. Updating versions

Another nice feature Overtarget provides, is updating the versions of units in a repository location automatically in the tmodel file. To do that, you have to select the entire line of a unit with its version and then either click the button "Update Versions" in the toolbar or use the context menu.	

Chapter 6. Your ideas to improve Overtarget

Overtarget is still in development. So if you have any ideas, how to improve the handling with target platforms, please let us know. The easiest way to do that, is to add an issue in github. We are happy to consider your suggestions.