

OpenArchitectureWare 4.1 UML2 Adapter

Sven Efftinge, sven@efftinge.de, www.efftinge.de

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Introduction

The UML2Adapter for oAW is available since version 4.1. It is based upon Eclipse's UML2 2.0 framework and provides a type mapping from the UML 2.1 metamodel implementation to the oAW type system. Hence one can access the whole UML2 metamodel from Check, Xtend and Xpand. Additionally and more important the adapter dynamically maps stereotypes applied to model elements to oAW types and TaggedValues to oAW properties. You don't have to implement additional Javaclasses anymore. Just export your models and applied profiles. That's all!

Installation

First you need to install the UML2 feature from eclipse.org.

<http://download.eclipse.org/tools/uml2/updates/site-interim.xml>

The oAW uml2adapter is available from the oAW updatesite

<http://www.openarchitectureware.org/updatesite/milestone/site.xml>.

(Go to the project's homepage and find the current location if either of the sites don't work)

Restart your Eclipse workbench when eclipse asks you to do so.

Setting up Eclipse

You need to configure your project (or the whole workspace) to use the UML2Adapter.

Right click on the project and choose 'properties' from the pop-up menu. Therein open the 'openArchitectureWare'-tab, activate the checkboxes (nature and specific metamodel contributors) and add the UMLProfiles metamodel contributor.

Profiles in Eclipse

If you want eclipse to register (be aware of) your specific profile in order to provide static type checking and code completion in the editors, the profiles (*.profile.uml or *.profile.uml2) need to be on the project's classpath (e.g. are contained in a src folder)

Runtime Configuration

At runtime you just need the org.openarchitectureware.uml2.adapter-4.1.0...jar. You can use Eclipse's dependency mechanism from the PDE (as described in the installation section on the getting started page), or copy or reference the respective jar directly. It doesn't matter, you just have to take care that it is on the classpath.

Workflow

If you have written some Check, Xtend or Xpand files and now want to execute them you have to provide the right configuration.

You need to configure the UML2 metamodel and a profile metamodel for each profile you used directly. A typical configuration looks like this:

```
<workflow>
  <bean class="oaw.uml2.Setup" standardUml2Setup="true"/>
  <component class="oaw.emf.XmiReader">
    ...
  </component>

  <component class="oaw.xpand2.Generator">
    <metaModel class="oaw.uml2.UML2MetaModel"/>
    <metaModel class="oaw.uml2.profile.ProfileMetaModel">
      <profile value="myProfile.profile.uml2"/>
    </metaModel>
    ...
  </component>
</workflow>
```

!!Note the bean configuration in the second line. It statically configures the XmiReader to use the right factories for *.uml and *.uml2 files. This is very important!!

If you are invoking several oAW components, you should use the id / idRef mechanism:

```
<workflow>
  <bean class="oaw.uml2.Setup" standardUml2Setup="true"/>
  <component class="oaw.emf.XmiReader">
    ...
  </component>
  <component class="oaw.xpand2.Generator">
    <metaModel id="uml" class="oaw.uml2.UML2MetaModel"/>
    <metaModel id="profile"
      class="oaw.uml2.profile.ProfileMetaModel">
      <profile value="myProfile.profile.uml2"/>
    </metaModel>
    ...
  </component>

  <component class="oaw.xpand2.Generator">
    <metaModel idRef="uml"/>
    <metaModel idRef="profile"/>
    ...
  </component>
</workflow>
```

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