PIM4SOA to WSDL

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1. Description

This Eclipse plugin takes a PIM4SOA model instance and transforms it into a description of a Web Service in the Web Service Description Language (WSDL). The generated WSDL contains an XSD schema representing the information elements for the Web Service. The information for the WSDL is taken from the Services and Information segments of the PIM4SOA metamodel.

2. Datasheet

Name of result	PIM4SOA to XSD and WSDL, Transformations
Contact	Tor Neple
Contributors	SINTEF
Relationships to other projects	
Result type	Model transformation
Software deployment	Sources included
Publicly available	Sources available
Status	Demonstrator
Subversion URL	http://svn.sourceforge.net/viewcvs.cgi/pim4soa/org.athena_ip.trans
Summary of functionality	This Eclipse plugin takes a PIM4SOA model instance and transforms it into a description of a Web Service in the Web Service Description Language (WSDL). The generated WSDL contains an XSD schema representing the information elements for the Web Service. The information for the WSDL is taken from the Services and Information segments of the PIM4SOA metamodel.
Benefits and contributions to interoperability	This result connects the PIM4SOA metamodel to a widely used SOA platform, Web Services. The benefit to interoperability is there when more similar transformations are written to support other SOA platforms.
Validation and demonstration activitities	The transformations have been used on the ATHENA e-procurement scenario.
Standardisation links	http://www.w3.org/TR/ws-arch/
Requirements and dependencies	The plugin runs under Eclipse and requires that

	the PIM4SOA plugin and the Eclipse Web Tools plugins (with prerequisites) are installed
Comments	

3. Installation guide

3.1. Requirements

The PIM4SOA to XSD and WSDL transformation tool has been implemented as an Eclipse plugin. This means that one needs to have Eclipse installed in order to run the transformations. Below is a list of prerequisites:

- The Eclipse platform it self, in version 3.1 downloadable from:

  - http://www.eclipse.org/downloads

- The Eclipse Webtools project in version 0.71 or higher downloadable from:

  - http://www.eclipse.org/downloads/download.php?file=/webtools/downloads/drops/M-0.7.1-2005092
  - This plugin has own prerequisites that are defined at this location:
    - http://download.eclipse.org/webtools/downloads/drops/M-0.7.1-200509270720/
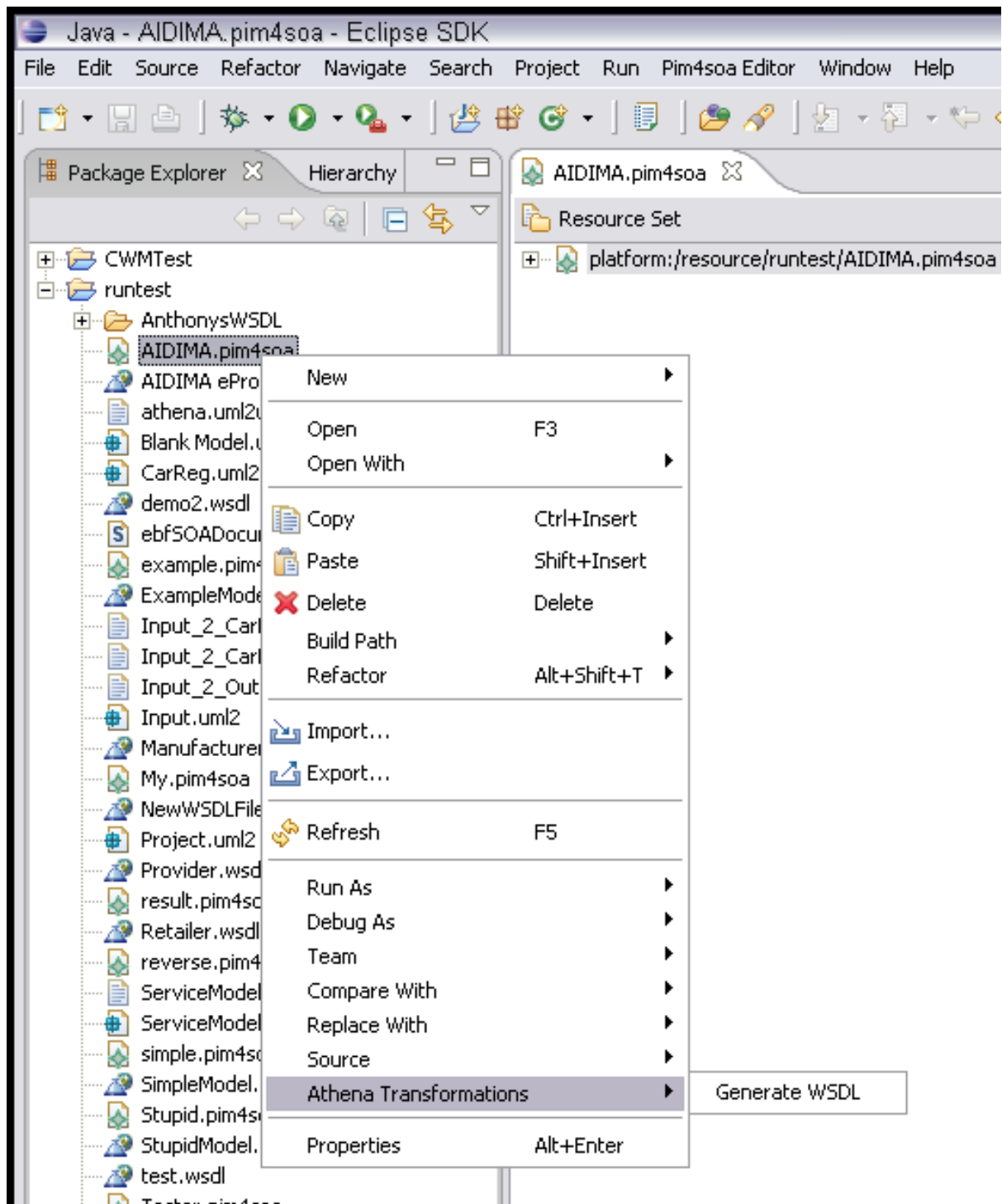
3.2. Update manager site

Follow the instructions described here.

4. User guide

In order to run a PIM4SOA to WSDL transformation one must have a PIM4SOA model (an instance of the PIM4SOA metamodel). The model file (with file extension .pim4soa has to be present in an open project in the Eclipse workspace.

1. Create a new empty project in the Eclipse workspace
2. Copy the example file found at:
   - http://athena.troux.com/Team/Repository/Projects/Project_223/Upload/Attachments/Tools/A6/PIM4S
     to the new project.
   - This can be done by unzipping the file to the folder that contains the project, or by unzipping the file to a temporary location and then dragging it from the temporary folder to the project in the Eclipse navigator.

The PIM4SOA to XSD and WSDL transformation is invoked using the context menu on a pim4soa file in the explorer window of Eclipse. This is shown in the figure below.

Invoking the transformation