

POLYCHRONY
A TOOLSET FOR SIGNAL
(AADL2SIGNAL translator)

Polychrony AADL2SIGNAL Installation Guide

V1.0

This guide describes the installation of the AADL to Signal translator from the Polychrony web site (<http://www.irisa.fr/espresso/polychrony>)

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Table of Contents

1	How to install AADL2SIGNAL from a RCP bundle.....	3
2	How to install AADL2SIGNAL from the update site.....	3
3	How to install AADL2SIGNAL from the source.....	4
3.1	Getting the Osate V2 source.....	4
3.2	Getting the source of the AADL behavior annex.....	4
3.3	Getting the SSME source.....	4
3.4	Getting the AADL-SIGNAL source.....	4
3.5	Testing the environment.....	4
4	How to create the update site of the AADL-SIGNAL translator.....	4
4.1	Testing the generated site.....	5

This guide describes the installation of the **AADL to SIGNAL** translator from the Polychrony web site¹ (<http://www.irisa.fr/espresso/polychrony/download.php> “AADL to SIGNAL translator” paragraph). It describes how to install the translator from the RCP bundles(section 1), the update site (section 2) and from the sources (section 3).

The AADL-SIGNAL translator can be possibly used with any platform running Eclipse 3.6.x (Helios), Eclipse 3.7.x (Indigo), **error for Eclipse 3.8.x (Juno)** and has been tested with Linux (Fedora), windows (XP, 7), macOS.

1 How to install AADL2SIGNAL from a RCP bundle

The RCP contains the [Osate](#) plugins, the behavior annex plugins from [Telecom Paris-Tech](#), the SSME plugins and the AADL2SIGNAL plugins.

Let suppose that you have already installed a Java Run-time Environment, then:

- **Download** the archive corresponding to your operating system from the web site.
- **Unzip** into your own location.
- It is ready to use by the command **eclipse/eclipse**.

2 How to install AADL2SIGNAL from the update site

If you need information about installing Eclipse, please refer to <http://www.eclipse.org>. If you need information about installing plugin under Eclipse, see below*.

Let suppose a JVM already installed:

- *Install* the Osate environment in an *Eclipse Modeling version* by installing
 - xtext (Select xtext 2.2.1) from <http://download.itemis.de/updates/releases>
 - osate2 (all the features) from <http://aadl.sei.cmu.edu/aadl/osate/updates/2.0>
- *Install* the AADL behavior annex. Select the features (*ramses* is not required) from http://aadl.telecom-paristech.fr/download/osate-plugins_update-site
- *Install* the Polychrony SSME environment. Select the SSME part from <http://www.irisa.fr/espresso/polychrony/update>
- *Install* the Polychrony AADL2SIGNAL translator. Select the AADL2SIGNAL part from <http://www.irisa.fr/espresso/polychrony/update>

To *To install plugins from a site, under Eclipse

- click on “**Help -> Install New Software**”,
- click on **Add** and put the name of the site (and, but not necessary, an associated name)
- select the plugins,
- follow the installation.

¹ The sources are also available on the Polarsys infrastructure (not yet available for the users) and on the INRIA gforge (restricted access to the INRIA Espresso team).

3 How to install AADL2SIGNAL from the source

Prerequisite

- Java JDK SE 6 (or greater) is already installed on your operating system.

To work with the source of the AADL-SIGNAL translator, it requires the import of the sources of

- Osate V2
- The AADL behavior annex developed at Telecom ParisTech.
- SSME, the front-end to the SIGNAL ToolBox under Eclipse.
- The AADL-SIGNAL translator

3.1 Getting the Osate V2 source

To get the Osate V2 sources, follow the instructions given in the following document:

https://wiki.sei.cmu.edu/aadl/index.php/Getting_Osate_2_sources

3.2 Getting the source of the AADL behavior annex

Follow the instructions given at <http://penelope.enst.fr/aadl/wiki/BAFEInstallationSources>

3.3 Getting the SSME source

Follow the instructions given in the installation guide of the SSME platform (Getting sources section) on the Polychrony web site.

3.4 Getting the AADL-SIGNAL source

To get the source of the AADL-SIGNAL translator from the Espresso team website:

- *Download* the archive of the translator from the Polychrony web site.
- *Unzip* it in your environment in a new directory.
- *Import* (under Eclipse) all the plugins from the created directory by the command "**File->Import->General->Existing Projects into workspace**" and follow the instructions.

3.5 Testing the environment

You can test your created environment by running it as an *Eclipse application*. A new Eclipse is created in which the AADL2SIGNAL plugins are installed.

You can test it using the examples provided in the Polychrony web site and consult the user guide.

4 How to create the update site of the AADL-SIGNAL translator

The *fr.inria.espresso.aadl.aadl2ssme.site* plugin defines the update site of the translator. Before building the site, you have to delete (if any) the *feature* and *plugins* directories and the *artifacts.jar* and *contents.jar* files of this plugin. Then, you have to use the **Build all** button in the *site.xml* file of this plugin.

4.1 Testing the generated site

You can test your created site by using a fresh Eclipse installation: you just have to follow the *How to install AADL2SIGNAL from the update site* part of this tutorial. Instead of entering the Polychrony AADL2SIGNAL update site address, use the site you've just generated by clicking on **Local**.

Then you can test your installation with the examples provided on the Polychrony web site.