

**POLYCHRONY**  
**A TOOLSET FOR SIGNAL**  
(AADL2SIGNAL translator)

**Polychrony AADL2SIGNAL Installation Guide on  
POLARSYS**

V1.0

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Summary	Installation Guide of the AADL-SIGNAL translator.		

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## Table of Contents

1 How to install AADL2SIGNAL from a RCP bundle.....	3
2 How to install AADL2SIGNAL from update sites.....	3
3 How to install AADL2SIGNAL from the sources.....	4
3.1 Getting the Osate V2 sources.....	4
3.2 Getting the source of the AADL behavior annex.....	4
3.3 Getting the SSME sources.....	4
3.4 Getting the AADL2SIGNAL sources from Polarsys.....	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 site<sup>1</sup> **on the Polarsys infrastructure** at the URL

<http://polarsys.org/downloads/polychrony> (“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), **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 Osate (V2) + the SSME plugins +AADL2SIGNAL plugins.

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

- **Download** the archive corresponding to your operating system from <http://polarsys.org/downloads/polychrony>
- **Unzip** into your own location.
- It is ready to use by the command **osate2/osate** or **eclipse/eclipse**.

## 2 How to install AADL2SIGNAL from update sites

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* Osate-V2 in an *Eclipse Modeling* 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](http://aadl.telecom-paristech.fr/download/osate-plugins_update-site)
- *Install* the Polychrony SSME environment. Select all the features from <http://polarsys.org/downloads/polychrony/SSME/update>
- *Install* the Polychrony AADL2SIGNAL translator (all the features) <http://polarsys.org/downloads/polychrony/AADL2SIGNAL/update>

\* 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 [Polychrony web site](#) and on the INRIA gforge (restricted access to the INRIA Espresso team).

### 3 How to install AADL2SIGNAL from the sources

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

#### Prerequisite

- Java JDK SE 6 already installed on your operating system.

To work with the source of the AADL-SIGNAL translator, it requires the importing of the sources (plugins) of

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

#### 3.1 Getting the Osate V2 sources

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](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 sources

Follow the instructions given in the *Polychrony SSME installation guide* (Getting sources section) on the Polarsys infrastructure.

#### 3.4 Getting the AADL2SIGNAL sources from Polarsys

To get the source of the AADL-SIGNAL translation, **import** the plugins from the Polarsys infrastructure of the **sub-directory AADL2SIGNAL of the Polychrony git repository** in your workspace. See the [SSME Installation Manual](#) if you need information about git.

#### 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 update sites* 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.