

# Getting Osate 2 sources

From AadlWiki

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## Introduction

This page presents a step-by-step procedure to get the sources of Osate 2 from the Git repository into an Eclipse workspace. This tutorial supposes that you have access to Internet to download the tools and data.

## Getting the Eclipse and XText environment

- Prerequisite: Java 8 (jre or jdk) installed
- Install the Eclipse bundle named **Eclipse Modeling Tools** from the Luna (4.4) download site (<https://web.archive.org/web/20150907231340/http://www.eclipse.org/downloads/>) .
- When starting for the first time, Eclipse asks for the location of the workspace to be used. Provide the location you want (this will contain all osate sources)

## Install required additional Eclipse features

- Clone the following git repository: <https://github.com/osate/development.git>, e.g., using the eclipse git client
- In eclipse: File -> Import -> Install -> Install Software Items from File -> Next -> Brows -> select file "installed-features.p2f" from the just checked out git repo -> Open -> uncheck "Install latest version of selected software" -> Next -> Next -> Accept license -> Finish

## XDoc Documentation System

The XText people have built XDoc as a tool to produce Eclipse help, HMTL pages for a website, and a pdf version of documentation from the same source. They use it for all their documentation. You can get XDoc by installing it from [1] (<https://web.archive.org/web/20150907231340/http://master.dl.sourceforge.net/project/xtext-xdoc/updates-2.7>) .

Sources and documentation are available at [2]

(<https://web.archive.org/web/20150907231340/https://github.com/RvonMassow/xDoc>) .

## Mac OSX Complete Instructions

*These were tested on mavericks and yosemite*

### Prep the System

- Download and install JDK 8 from here  
(<https://web.archive.org/web/20150907231340/http://www.oracle.com/technetwork/java/javase/downloads/jdk8-downloads-2133151.html>)
- Download and untar/gzip Eclipse Modeling Tools [[http://www.eclipse.org/downloads/download.php?file=/technology/epp/downloads/release/luna/SR2/eclipse-modeling-luna-SR2-macosx-cocoa-x86\\_64.tar.gz](http://www.eclipse.org/downloads/download.php?file=/technology/epp/downloads/release/luna/SR2/eclipse-modeling-luna-SR2-macosx-cocoa-x86_64.tar.gz) Mac OS X>
- Move the unzipped directory to your applications folder
- Download and install SourceTree.
  - If you are behind a corp. proxy server, edit ~/.gitconfig

```
[http]
proxy = <proxy server>:<port>
```

- Clone OSATE repo in sourcetree from here  
(<https://web.archive.org/web/20150907231340/https://github.com/osate/development.git>) .

### Set Up Eclipse

- Fire up eclipse and create workspace
- If you sit behind a corporate proxy:
  - Eclipse -> Preferences -> General -> Network Connections -> Edit the HTTP and HTTPS proxy entries to read <your proxy> port: <your port>
  - **IMPORTANT:** Set the drop down list to 'Manual' on the proxy config page
- In Eclipse: File -> Import -> Install -> Install Software Items from File -> Next -> Browse -> select file "installed-features.p2f" from the just checked out git repo -> Open -> uncheck "Install latest version of selected software" -> Next -> Next -> Accept license -> Finish

### Install XDoc

- in Eclipse, Help -> Install Software,
- Click Add
  - enter <http://master.dl.sourceforge.net/project/xttext-xdoc/updates-2.7> for the url,
  - give it any name,
  - click ok
  - select xdoc from the checkboxlist
  - follow the wizard
- Set the default JRE to use. Eclipse -> Preferences -> Java -> Installed JREs -> Search, Java SE 8 should be found, check it
- Set the workspace compiler compliance to java 8. Eclipse -> Preferences -> Java -> Compiler, change to 1.7
- Import all osate sources: File -> Import -> Team -> Team Project Set -> select file "osate2.psf" from the cloned development git repository -> Open -> Finish -> (wait)

### Running OSATE

- In the Eclipse tool, open menu Run > Run Configurations.... A dialog window appears.
- In the left hand side list, right-click on Eclipse Application and select New;

- In the Main tab, set the following option values:

```
Name: Osate 2 product
Workspace Data Location: ${workspace_loc}/../runtime-osate2
Run a product: org.osate.branding.osate2
```

In the Arguments tab, set the following option values:

```
VM Arguments: -XX:MaxPermSize=256m -Xmx1200m
```

- Click `Run`.
- Osate 2 starts!

## Sirius Graphical User Interface Builder

Eclipse Sirius is a graphical user interface builder that takes advantage of EMF based model representations. See [3] (<https://web.archive.org/web/20150907231340/http://eclipse.org/sirius/>) for details. Sirius synchronizes with Xtext based model representations.

If you want to use it to build nicer frontends to AADL models, Annex models, or other DSL representations, Here is how to install it. Sirius 1.0 comes with the Eclipse Modeling build.

If you want to use the new Sirius 2.0 release you have to do a couple of steps.

- Update EcoreTools by going to the update site [4] (<https://web.archive.org/web/20150907231340/http://download.eclipse.org/ecoretools/updates/nightly/2.0.x/luna>) to get some bugfixes that make your installation work with Sirius 2.0.
- Get Sirius 2.0 from the update site [5] (<https://web.archive.org/web/20150907231340/http://download.eclipse.org/sirius/updates/releases/2.0.3/luna>)

Have fun.

## SVN Support

You may maintain some models or sources on SVN. we found Subversive a reasonable Eclipse plugin to interface with an SVN server. You can get Subversive by installing it from the Eclipse baseline installation, e.g., by opening Eclipse Luna and then searching for Subversive. Install it and after restart Eclipse will prompt you to install some connector components. You may need to switch to the SVN Perspective to get Eclipse to prompt. Select the SVN kit according to the SVN server version (1.8 works for us). We use the Native Java implementation.

Subversive behaves a little better than Subclipse. Subclipse is not well synchronized with the Navigator and you keep seeing temporary files and have to do a manual refresh.

## Getting the sources of Osate 2

This assumes that you have cloned the repository [6] (<https://web.archive.org/web/20150907231340/https://github.com/osate/development.git>) to your machine.

- Import all osate sources: File -> Import -> Team -> Team Project Set -> select file "osate2.psf" from the cloned development git repository -> Open -> Finish -> (wait)
- This retrieves all sources that are used to build osate, including sources of features not created by the SEI, e.g., the ocarina plugin, error model and behavior annex plugins, analysis plugins, resolute, and agree
- The sources are grouped in eclipse working sets
- To contribute to osate you need to create an account on github

## Running Osate 2

Running Osate from the sources require the definition of a new *run configuration*.

- In the Eclipse tool, open menu **Run > Run Configurations....** A dialog window appears;
- In the left hand side list, right-click on **Eclipse Application** and select **New**;
- In the *Main* tab, set the following option values:
  - *Name*: **Osate 2 product**
  - *Workspace Data Location*: **\${workspace\_loc}/../runtime-osate2**
  - *Run a product*: **org.osate.branding.osate2**
- In the *Arguments* tab, set the following option values:
  - *VM Arguments*: **-XX:MaxPermSize=256m -Xmx1200m**
- Click **Run**. Osate 2 starts.

See Editing a first AADL model for more information on how to use Osate 2.

## Regenerating From the Grammar

You can invoke the XText generation process to regenerate the sources from the grammars. We have a separate grammar for property associations, so it can be used as basis for the aadl2 core language as well as annexes that make use of properties.

- We have a separate grammar for property associations in the project *org.osate.xtext.aadl2.properties*. You find it in the *org.osate.xtext.aadl2.properties* package together with the generation script with the extension *mwe2*. You regenerate by selecting the file and then invoking **Run as**.
  - If it gives you an error message about running out of *perm space* or *heap space*, select **Run configuration..** and then set *VM Arguments* to **-XX:MaxPermSize=256m -Xmx768m** in the *mwe2* configuration for the grammar before running it.
- The *aadl2* grammar is in the project *org.osate.xtext.aadl2*. It builds on the *properties* grammar. To regenerate invoke the script with **Run as**.
  - If it gives you an error message about running out of *perm space* or *heap space*, select **Run configuration..** and then set *VM Arguments* to **-XX:MaxPermSize=256m -Xmx768m** in the *mwe2* configuration for the grammar before running it.

## Known issues & see also

- If you are using a proxy, you might need to configure the network preferences of Eclipse and specify your proxy setup/configuration before trying to connect to the git repository.
- Check the Help section available within OSATE. Part of it is also available online at this address: <http://www.aadl.info/aadl/osate/osate-doc/>
- Editing a first AADL model: Tutorial to create a new AADL model with Osate 2;
- Update the local sources: Update the sources you got with the last changes in the repository;
- Reporting a bug: Explanation on how to submit bugs.

Retrieved from "[https://aadl-wiki.sei.cmu.edu/aadl/index.php/Getting\\_Osate\\_2\\_sources](https://aadl-wiki.sei.cmu.edu/aadl/index.php/Getting_Osate_2_sources)"

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