

JsonSchemaDSL installation tutorial

Introduction

In this tutorial we show how to install JsonSchemaDSL

The prerequisites for JsonSchemaDSL and JsonGrammar are :

- Windows 10 or 11
- Jdk 11
- Eclipse DSL 202212
 - Eclipse plugins from <https://download.eclipse.org/releases/2022-12/>
 - OCL
 - Maven
 - EMF Compare
 - ATL

In the following we show how to install all of them, to have an environment to practice.

Eclipse DSL 2022 12 package



https://www.eclipse.org/downloads/download.php?file=/technology/epp/downloads/release/2022-12/R/eclipse-dsl-2022-12-R-win32-x86_64.zip

Install jdk 11

- Open your browser at the following link:
<https://www.oracle.com/java/technologies/javase/jdk11-archive-downloads.html>
- Scroll down until finding the jdk 11.0.10 section as shown in the screenshot below

Java SE Development Kit 11.0.10		
This software is licensed under the Oracle Technology Network License Agreement for Oracle Java SE		
Product / File Description	File Size	Download

- Scroll down until finding windows versions

Windows x64 Installer	152.32 MB	 jdk-11.0.10_windows-x64_bin.exe
Windows x64 Compressed Archive	171.67 MB	 jdk-11.0.10_windows-x64_bin.zip

- You can download the installer or the compressed archive. If you are not familiar with Java, we strongly recommend using the Windows Installer.
- The following popup will open:

You must accept the [Oracle Technology Network License Agreement for Oracle Java SE](#) to download this software.

☒ I reviewed and accept the Oracle Technology Network License Agreement for Oracle Java SE
Required

You will be redirected to the login screen in order to download the file.

Download jdk-11.0.10_windows-x64_bin.exe 

- Tick the checkbox and click on download. You will be asked for your Oracle credentials, or to create a new Oracle account if you don't have it.



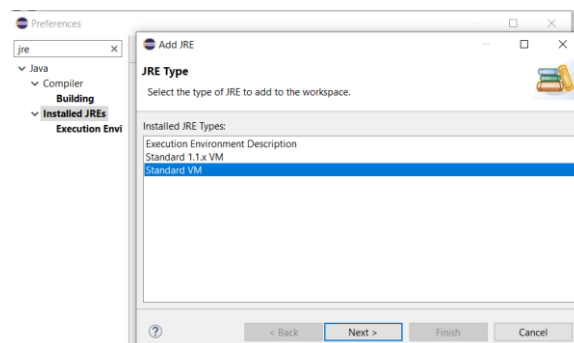
The screenshot shows the Oracle login page. At the top, it says 'Inicio de sesión en cuenta de Oracle'. Below this are two input fields: 'Nombre de usuario' and 'Contraseña', each with an information icon. A green 'Iniciar sesión' button is below the password field. A link '¿Necesita ayuda?' is below the button. At the bottom, there is a section '¿No tiene una cuenta de Oracle?' with a 'Crear una cuenta' button. The footer contains '© Oracle | Condiciones de uso | Política de privacidad'.

- After having provided the credentials the download will start.
- When the download is complete double click on the executable.
- Follow the wizard keeping the default options.

4. Add jdk 11 to eclipse and associate it to JavaSE-11 Execution Environment

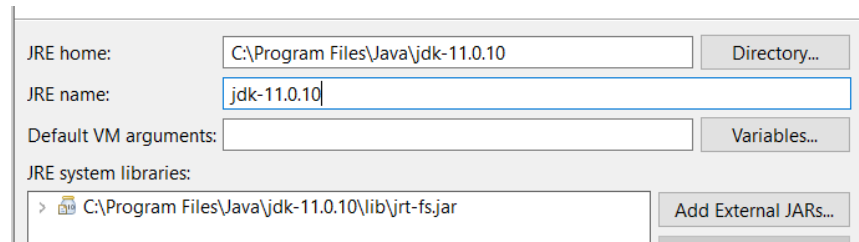
Once you have downloaded and installed jdk 11 on your PC, you have to add it to the installed JRE of Eclipse (clicking on "Installed JREs"), and associate it to JavaSE-11 in the execution environment as in the screenshot below.

- Open the Preferences by clicking Window->Preferences in the top Eclipse Menu.
- Filter by jre
- Click Installed JREs
- Click Add

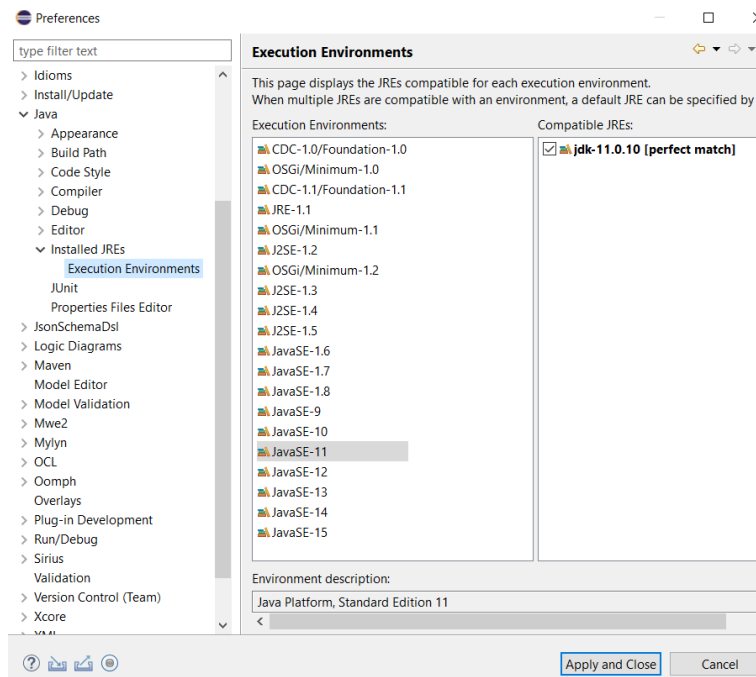


- Select Standard VM and click Next

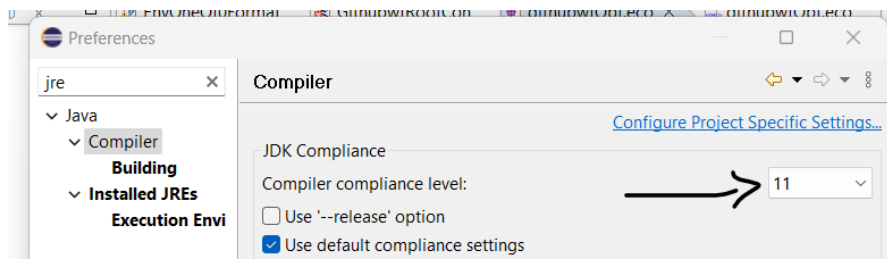
- Click on Directory and browse to the jdk home as in the screenshot below



- Click Finish
- Open again the Preferences by clicking Window->Preferences in the top Eclipse Menu
- Click on Execution Environments like in the screenshot below.
- Associate JAVASE-11 to the jdk 11.0.10 as in the screenshot below



- Open again the Preferences by clicking Window->Preferences in the top Eclipse Menu.
- Filter by jre
- Click Compiler and select 'Compiler compliance level' to 11



Once you have Eclipse IDE 2022 12 R DSL installed and running, install on it the following required dependencies.

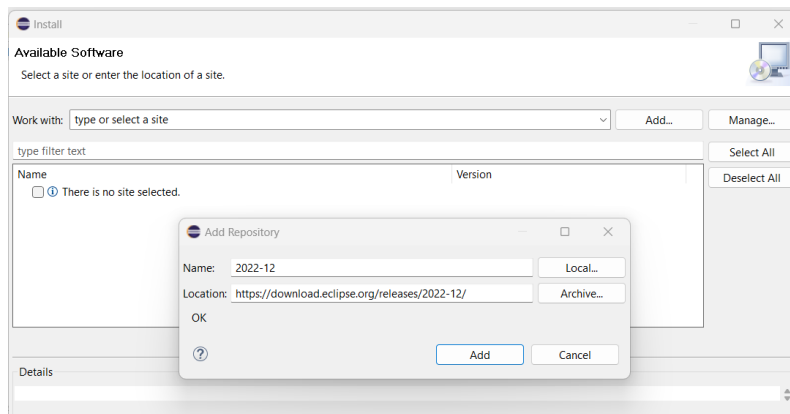
Required Eclipse plugins

All the required plugins have to be downloaded from the site

<https://download.eclipse.org/releases/2022-12/>

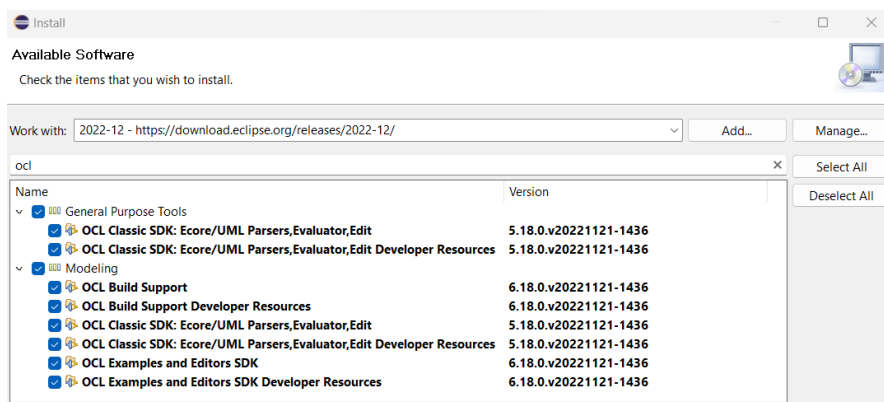
Add a site

- Open Help -> Install New Software
- Click Add and fill the dialog box as in the picture below
 - Name: 2022-1
 - Location: <https://download.eclipse.org/releases/2022-12/>
- Click Add



Install OCL

- Open Help -> Install New Software
- Select the previously added site for *work with* like in the screenshot below
- Filter by "ocl" like in the screenshot below
- Tick the checkboxes like in the figure and install.



Install Maven

- Open Help -> Install New Software
- Select the previously added site for *work with* like in the screenshot below
- Filter by “maven” like in the screenshot below
- Tick the checkboxes as in the figure and install.

Work with: 2022-12 - https://download.eclipse.org/releases/2022-12/	
maven	
Name	Version
✓ General Purpose Tools	
✓ M2E - PDE Integration	2.1.2.20221130-2134
✓ Web, XML, Java EE and OSGi Enterprise Development	
✓ m2e-wtp - Maven Integration for WTP	1.5.2.20220906-1452

Install EMF Compare

- Open Help -> Install New Software
- Select the previously added site for *work with* like in the screenshot below
- Filter by “emf” like in the screenshot below
- Tick the checkboxes as in the figure and install.

Work with: 2022-12 - https://download.eclipse.org/releases/2022-12/	
emf	
Name	Version
> General Purpose Tools	
✓ Modeling	
<input type="checkbox"/> Acceleo	3.7.12.202211151354
<input type="checkbox"/> EMF Forms SDK	1.27.0.20221109-1132
<input type="checkbox"/> EMF Model Query SDK	1.12.1.202208101410
<input type="checkbox"/> EMF Model Transaction SDK	1.13.0.202208110935
<input type="checkbox"/> EMF ODA Driver SDK	1.10.0.v202211216-0528
<input type="checkbox"/> EMF Parsley CDO	1.14.0.v20221129-1056
<input type="checkbox"/> EMF Parsley CDO Developer Resources	1.14.0.v20221129-1056
<input type="checkbox"/> EMF Parsley SDK	1.14.0.v20221129-1724
<input type="checkbox"/> EMF Parsley SDK Developer Resources	1.14.0.v20221129-1724
<input type="checkbox"/> EMF Validation Framework SDK	1.13.2.202208271102
<input type="checkbox"/> Model comparison (EMF Compare)	3.3.20.202211161457
<input checked="" type="checkbox"/> Model comparison (EMF Compare) - EGit support	3.3.20.202211161457
<input checked="" type="checkbox"/> Model comparison (EMF Compare) - Sirius support (Experimental)	3.3.20.202211161457
<input checked="" type="checkbox"/> Model comparison (EMF Compare) - UML2 support	3.3.20.202211161457
<input checked="" type="checkbox"/> OCL Classic SDK: Ecore/UML Parsers,Evaluator,Edit	5.18.0.v20221121-1436
<input checked="" type="checkbox"/> OCL Classic SDK: Ecore/UML Parsers,Evaluator,Edit Developer Resources	5.18.0.v20221121-1436

Install ATL

- Open Help -> Install New Software
- Select the previously added site for *work with* like in the screenshot below
- Filter by “atl” like in the screenshot below
- Tick the checkboxes as in the figure and install.

Work with: 2022-12 - https://download.eclipse.org/releases/2022-12/	
atl	
Name	Version
✓ Modeling	
<input checked="" type="checkbox"/> ATL - ATL Transformation Language	4.6.0.v202205021200
<input checked="" type="checkbox"/> ATL SDK - ATL Transformation Language SDK	4.6.0.v202205021200

JSON Schema DSL Installation.

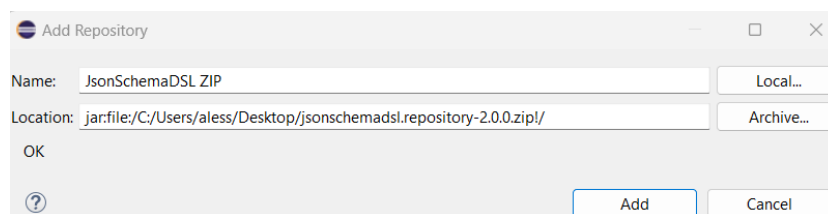
Once completed the installation of the required Eclipse and dependencies (and having restarted it), it is time to install the JSONSchemaDSL plugin.

The installable plugin can be found in the repository in the tag of the release at least after 2.0.0.

Download the zip file

jsonschemadsl.repository-2.0.0.zip (or superior versions)

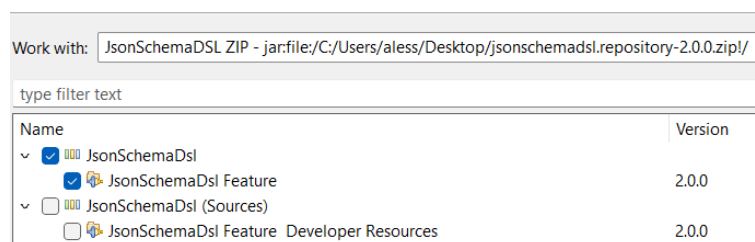
- Open Help -> Install New Software
- Click Add to add a repository
- Click Archive, and browsing to the location where you have downloaded zip file, for example as in the picture below



- Click add
- Select the added repository and
- Tick the checkboxes like in the screenshot below.

Available Software

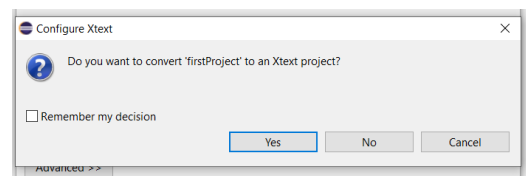
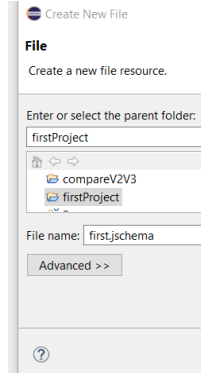
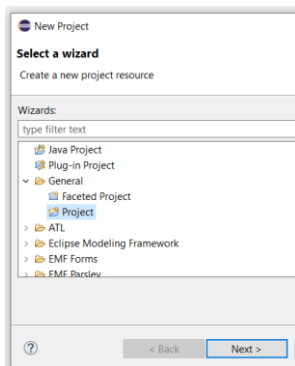
Check the items that you wish to install.



- Install it and restart Eclipse. Ignore the security warning.

13. Create your first project

- Create a new general project with the New Project wizard, as shown in the screenshot below.
- Create a file with extension *.jschema*, as shown in the screenshot below.
- Click Yes when asked if you want to convert your project to an Xtext project.



- Open your `first.jschema`, and use the context assist (CTRL+space) to better edit it.
- Open the Eclipse Problems and Properties views, to see errors and warnings details

Once completed the steps of this tutorial, you can continue on the **JsonSchemaDSL Quick Start**.