


A decorative graphic on the left side of the slide consisting of two overlapping parallelograms. The front one is blue and the back one is a light green. They are positioned diagonally, with the blue one partially covering the green one.

MATSim Tutorial Environment setting



Environment Setting

- JDK
- Maven



git clone

- <https://github.com/matsim-scenarios/matsim-berlin>

```
<properties>
```

```
  <!-- Don't modify this, change the parent version instead! -->
```

```
  <matsim.version>${project.parent.version}</matsim.version>
```

```
  <main.class>org.matsim.run.RunOpenBerlinScenario</main.class>
```

```
  <maven.compiler.release>21</maven.compiler.release>
```

```
</properties>
```



JDK LTS 8 11 17 21

<https://www.oracle.com/java/technologies/downloads/>



Maven

<https://maven.apache.org/>

change mirror config

C:\Program Files (x86)\apache-maven-3.9.9-bin\apache-maven-3.9.9\conf\settings.xml

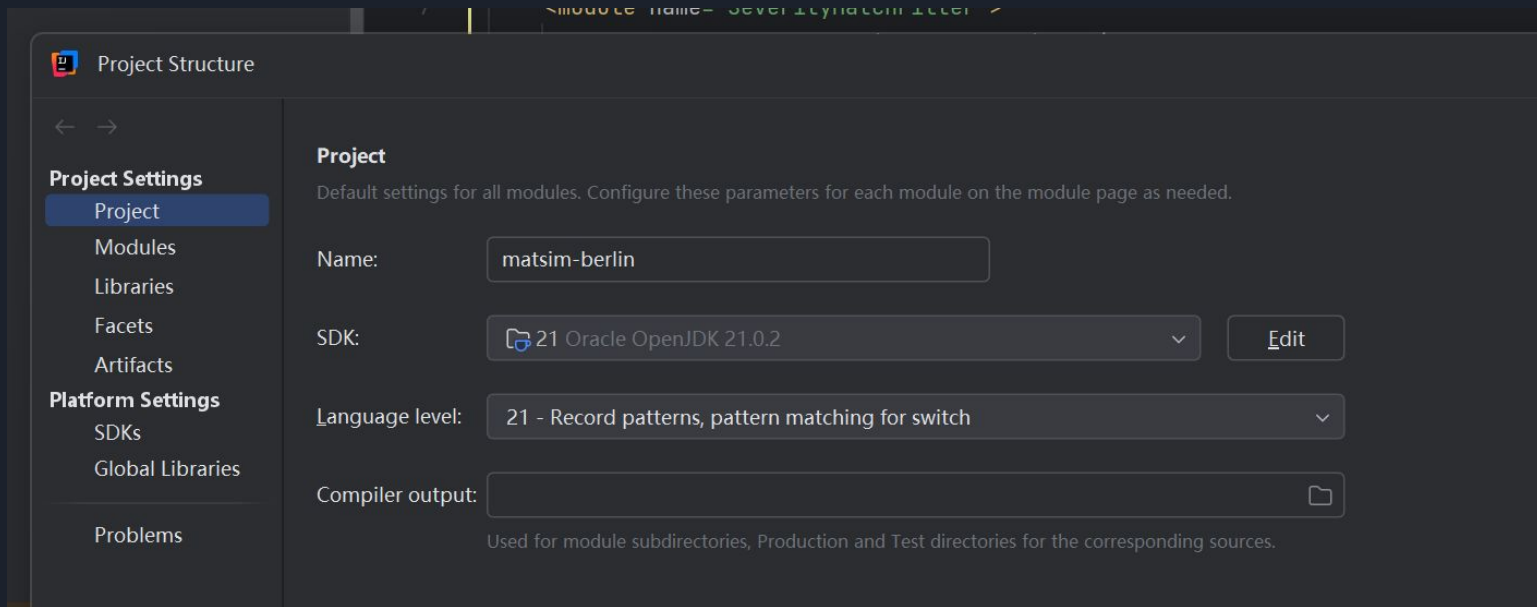
```
<mirror>
  <id>google-maven-central</id>
  <name>GCS Maven Central mirror</name>
  <url>https://maven-central.storage-download.googleapis.com/maven2/</url>
  <mirrorOf>central</mirrorOf>
</mirror>
</mirrors>
```



import into IDEA setting Maven

Output level:	Info	▼
Checksum policy:	No Global Policy	▼
Multiproject build fail policy:	Default	▼
Thread count		-T option
Maven home path:	C:\Program Files (x86)\apache-maven-3.9.9-bin\apache-maven-3.9.9	
	(Version: 3.9.9)	
User settings file:	am Files (x86)\apache-maven-3.9.9-bin\apache-maven-3.9.9\conf\settings.xml	<input checked="" type="checkbox"/> Override
Local repository:	C:\Users\Handa\.m2\repository	<input type="checkbox"/> Override
<input type="checkbox"/> Use settings from .mvn/maven.config		

IDEA JDK proj structure





maven command

<https://jenkov.com/tutorials/maven/maven-commands.html>

`mvn install`

`mvn install -Dmaven.test.skip=true`



Windows coding style check

checkstyle.xml

```
<module name="NewlineAtEndOfFile">  
  <property name="lineSeparator" value="crlf"/>  
</module>
```



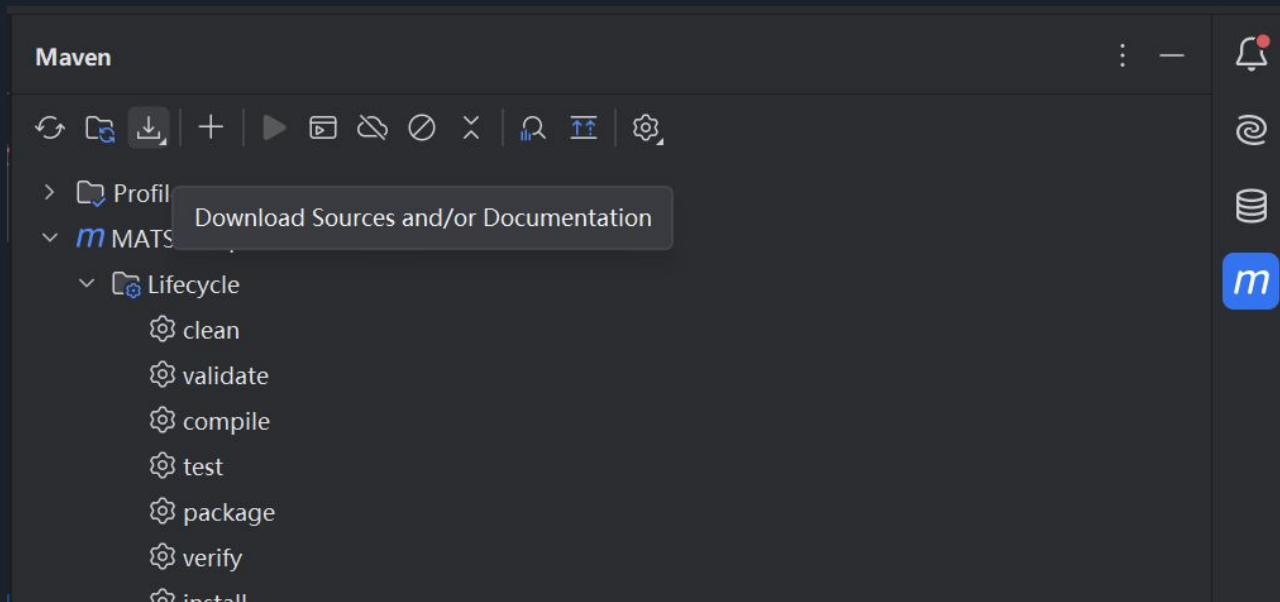
Run compiled Java Jar

folder: Targent/XXX.jar

double click

run it

Download source code for easy reading





Read source code

press ctrl and click the code

press ctrl + alt ← / → to back / forward



JMM JVM memory model

OOM -> increase Memory

```
2024-11-19T19:59:19,474 INFO PopulationImpl:107 person # 65536  
Exception in thread "main" java.lang.OutOfMemoryError: Java heap space  
    at java.base/java.util.Arrays.copyOf(Arrays.java:3482)  
    at java.base/java.util.ArrayList.grow(ArrayList.java:237)  
    at java.base/java.util.ArrayList.grow(ArrayList.java:244)
```