



# Developers Guide

# IWA

## Instant Web Application

Date: August 12th 2011  
Version: 1.0  
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### 1 Change Log

| Version | Change        | Date       | Autor           |
|---------|---------------|------------|-----------------|
| 1.0     | First Version | 12.08.2011 | Mischa Christen |

## 2 Content

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This guide has been tested with the following configuration:

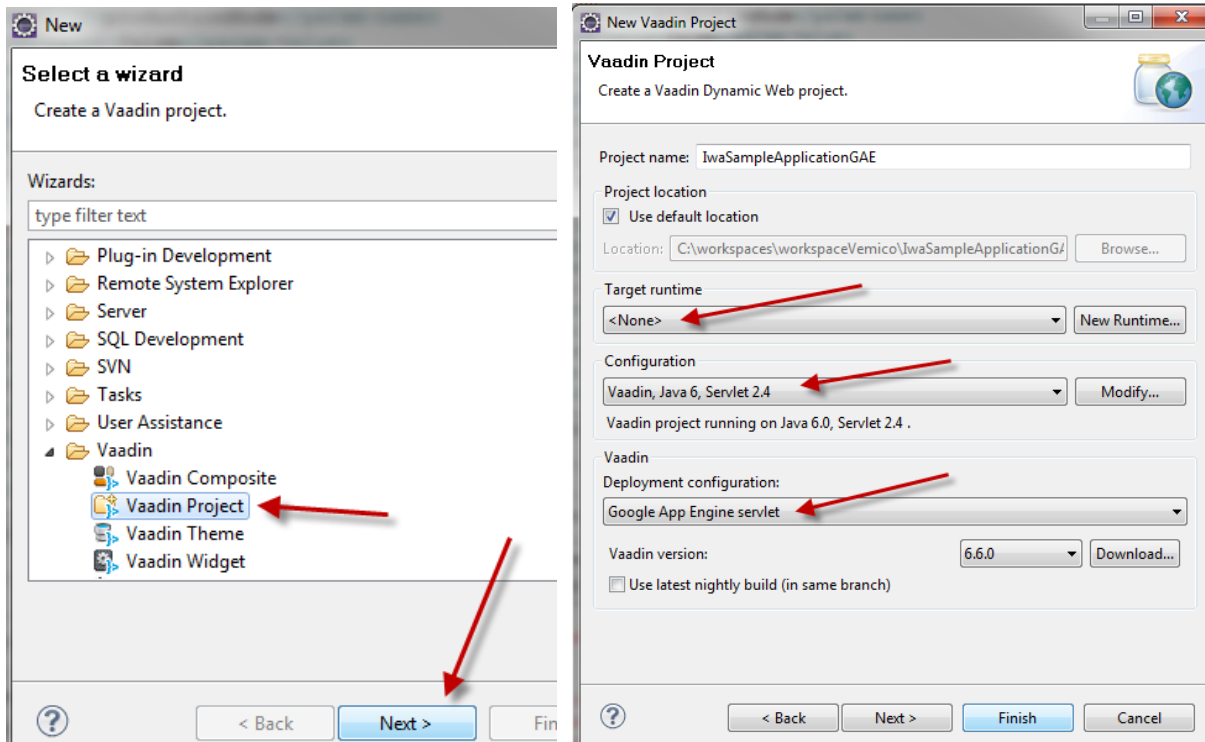
- Java 1.6.0\_25
- Eclipse 3.6 Helios
- AppEngine SDK 1.5.2
- GWT 2.3
- Vaadin 6.6
- Tomcat 6
- MySQL 5.5.13
- Datanucleus (JPA Provider) 1.1.5

### 3 Create an IWA based application that runs in Google App Engine

#### 1. Prerequisites:

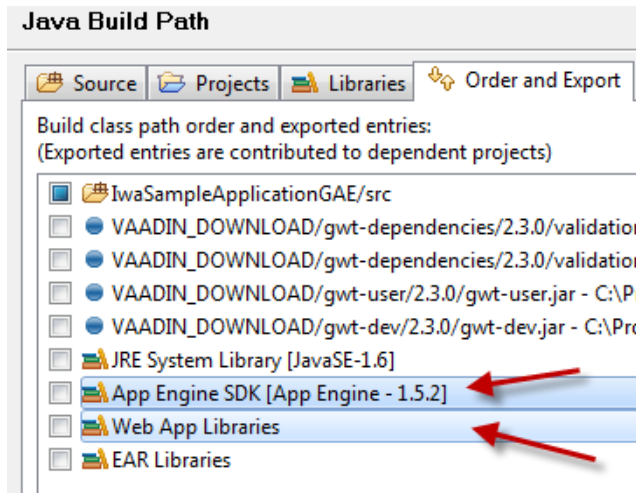
- Install Eclipse (Java EE Version)
- Install Google Plugin (Eclipse Helios Update Site: <http://dl.google.com/eclipse/plugin/3.6>)
- Install Vaadin Plugin (Eclipse Update Site: <http://vaadin.com/eclipse>)

#### 2. Create a new Vaadin Project

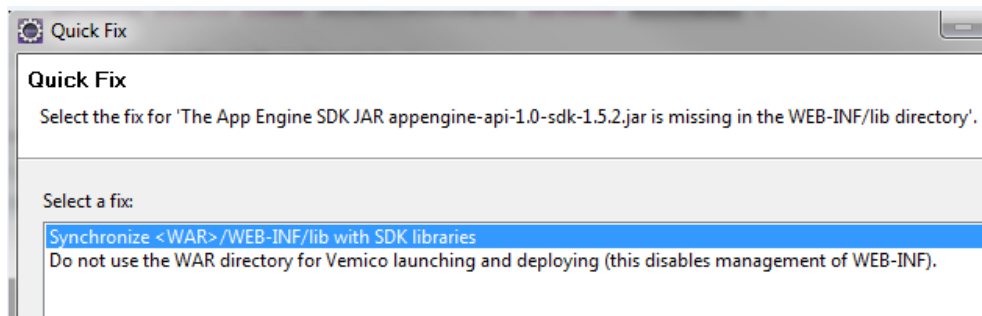


- Target Runtime: None
  - Configuration: Vaadin, Java6, Servlet 2.4
  - Deployment Configuration: Google App Engine Servlet (this will also create appengine-web.xml, logging.properties and make sure the directory structure meets the App Engine requirements (output folder is "war" instead of "WebContent")
3. Check that your project uses UTF-8 encoding
  4. Right Click project, Google | App Engine Settings: "Use Google App Engine"

5. Move the AppEngine SDK above the web libraries in the build path order:



6. Synchronize the missing jars (will become a problem once you deploy your App to the GAE):



7. Also add the following jars (from the Iwa Downloads Website) to your war/WEB-INF/lib directory:

- xom-1.2.6.jar
- confirmdialog-1.1.1.jar

8. Add the folder VAADIN (from the IWA Download page) to war/WEB-INF

- To serve these files statically, add the following lines to appengine-web.xml:

```
<static-files>
  <include path="/VAADIN/**" />
</static-files>
```

- Complete appengine-web.xml file:

```
<?xml version="1.0" encoding="utf-8"?>
<appengine-web-app xmlns="http://appengine.google.com/ns/1.0">
  <application>MyFirstVaadinAppForAppEngine</application>
  <version>1</version>

  <!-- Configure java.util.logging -->
  <system-properties>
    <property name="java.util.logging.config.file" value="WEB-INF/logging.properties"/>
  </system-properties>

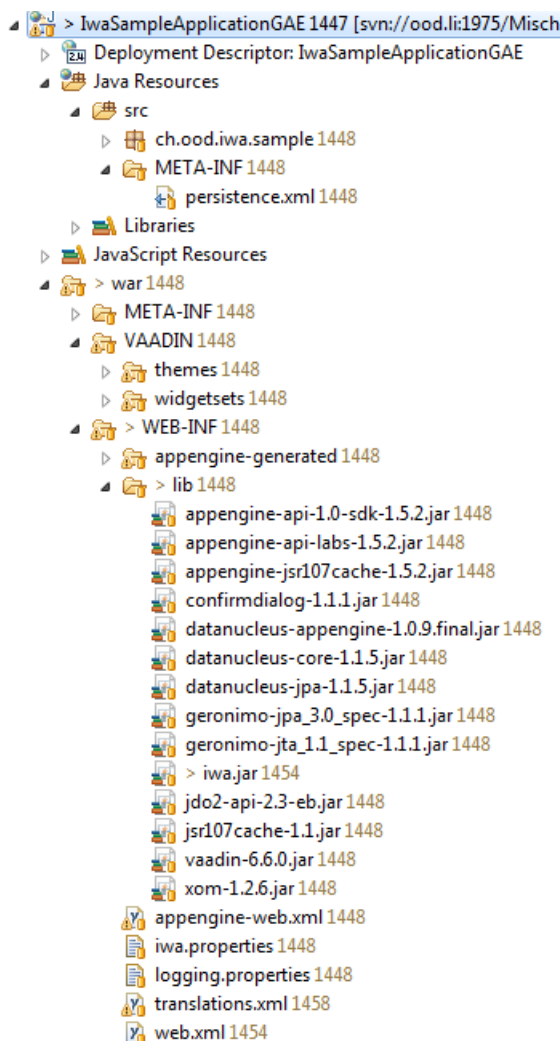
  <static-files>
    <include path="/VAADIN/**" />
  </static-files>

  <sessions-enabled>true</sessions-enabled>
</appengine-web-app>
```

- The following files can be taken from the IWA Download page:
  - Add the JPA config file persistence.xml to src/META-INF
  - Add the translations.xml file to war/WEB-INF
  - Add the iwa.properties to war/WEB-INF
- 9. Add the IwaContextListener to the war/WEB-INF/web.xml:

```
<listener>
    <listener-class>ch.ood.iwa.IwaContextListener</listener-class>
</listener>
```

- 10. Your directory structure should now look something like this:



Links for additional hints:

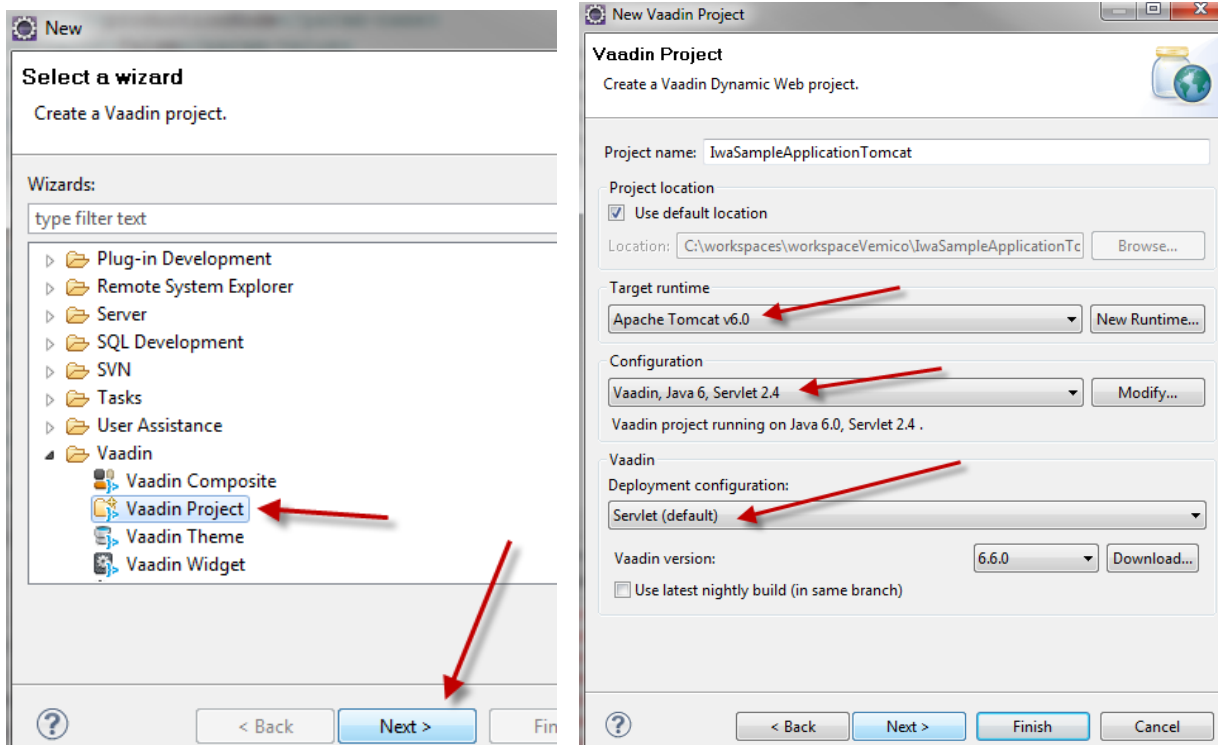
- Vaadin Quickstart with Eclipse: <http://vaadin.com/book/-/page/getting-started.first-project.html>
- Vaadin in App Engine: <http://vaadin.com/wiki/-/wiki/Main/Google%20AppEngine%20HOWTO>

## 4 Create an IWA based application that runs with Apache Tomcat and MySql

### 1. Prerequisites:

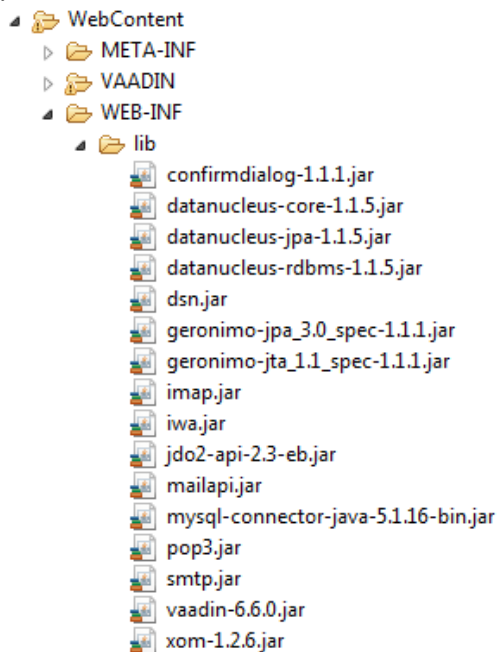
- Install Eclipse (Java EE Version)
- Install Apache Tomcat 6 (<http://tomcat.apache.org/download-60.cgi>)
- Install MySql (<http://www.mysql.com/downloads/mysql/5.5.html#downloads>)
- Install Vaadin Plugin (Eclipse Update Site: <http://vaadin.com/eclipse>)
- Install Datanucleus Plugin (Eclipse Update Site: <http://www.datanucleus.org/downloads/eclipse-update>)

### 2. Create new Vaadin Project



- Target Runtime: Tomcat 6
- Configuration: Vaadin, Java6, Servlet 2.4
- Deployment Configuration: Servlet

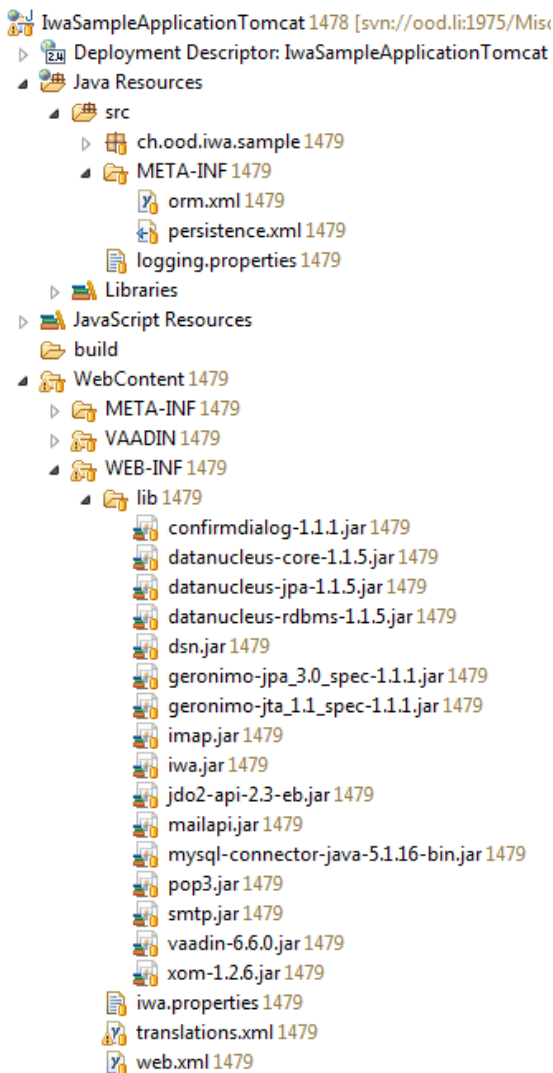
3. Add the following jars (from the Iwa Download Website) to your WebContent/WEB-INF/lib directory:



4. Add the folder VAADIN (from the IWA Download page) to WebContent/WEB-INF
5. The following files can be taken from the IWA Download page:
  - Add the JPA config file persistence.xml and orm.xml to src/META-INF
  - Add the logging.properties file to src
  - Add the translations.xml file to WebContent /WEB-INF
  - Add the iwa.properties to WebContent /WEB-INF
6. Add the IwaContextListener to the WebContent /WEB-INF/web.xml:

```
<listener>
  <listener-class>ch.ood.iwa.IwaContextListener</listener-class>
</listener>
```

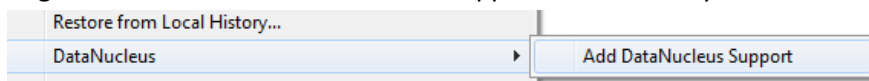
7. Your directory structure should now look something like this:



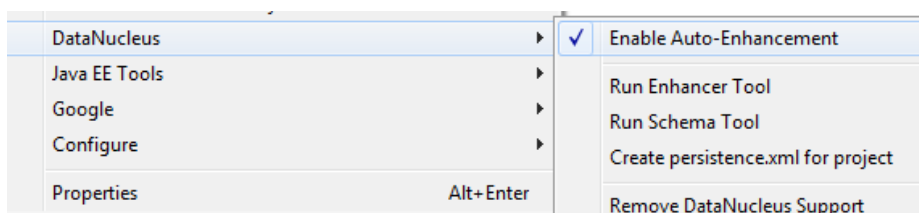
8. Create a schema “iwa” with a user “iwa” (Password “iwa”) in your MySQL instance, make shure the settings in src/META-INF/persistence.xml match your environment

9. Datanucleus Settings

- Datanucleus uses Byte-code enhancement. If you wish to add your own entity classes, you might want to add the “Datanucleus Support” to enhance your classes.



- Be aware that the Datanucleus menu ist only available in the “Package Explorer” view!







10. Create new new Tomcat Server Runtime in Eclipse (see <http://www.eclipse.org/webtools/jst/components/ws/1.5/tutorials/InstallTomcat/InstallTomcat.html> for hints on this if you are not familiar with it)