



## OpenRide Installation Guide



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## (Re-) Deployment

Steps for deployment:

1. apply database dump initially (see below for details on setting up the database)
2. copy .ear file to %glassfish\_home%/domains/domain<i>/autodeploy
3. copy a routing Graph file to %glassfish\_home%/domains/domain<i>/routingGraph.hh or to %glassfish\_home%/domains/domain<i>/config/routingGraph.hh (glassfishes seem to be different)

## Database Installation and Setup

At first one has to be aware of the possibility to use remote databases too. That would mean, one could jump to the next part concerned with the installation of glassfish. Otherwise follow these instructions.

<http://www.postgresql.org/> : version: 8.3.7-1(<http://www.enterprisedb.com/getfile.jsp?fileid=485>)

PostGis: <http://postgis.refractory.net/>

Admin tool: pgAdmin : <http://www.pgadmin.org/> (should be installed during postgres installation otherwise it can be postinstalled)

After the **installation** of Postgres Version 8.3.7-1 one can use the “Stack-Builder”-GUI to install the PostGIS Plugin (1.3.6).

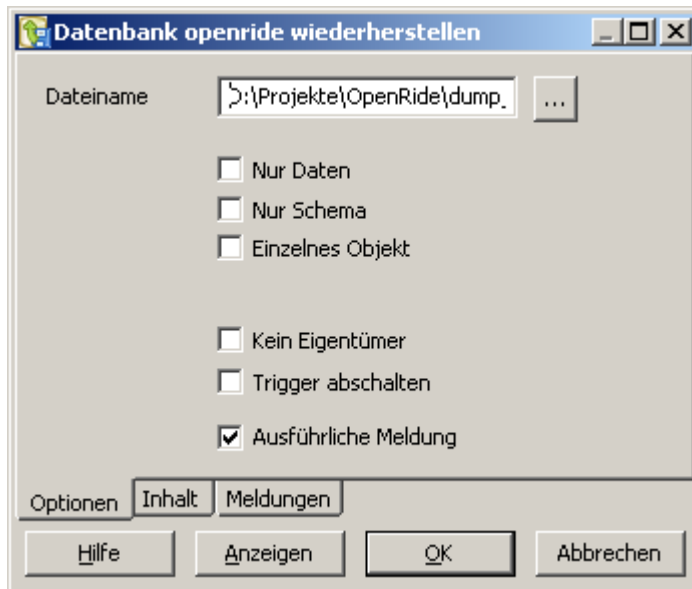
## Database setup

- At first one has to create a new user (use pgAdmin) with the following parameters:
  - Username: „openride“ (as an example – choose your own)
  - Password: „\$1openride“(as an example – choose your own)
  - Katalog Ändern: Ja
  - Datenbank erzeugen:Ja
  - Kann einloggen: Ja
  - Superuser:ja
- Now one has to create the database:
  - DB name: “openride” (as an example – choose your own)
  - DB owner: “openride” (as chosen in step 1)

## Restoring the database from a dump

- Connect to DB server
- Select „openride“ DB (as named above)

- Right click and restore (wiederherstellen)
- dump\_openride.sql (search @: %openrideSVN%/documents/OpenRideDB/)

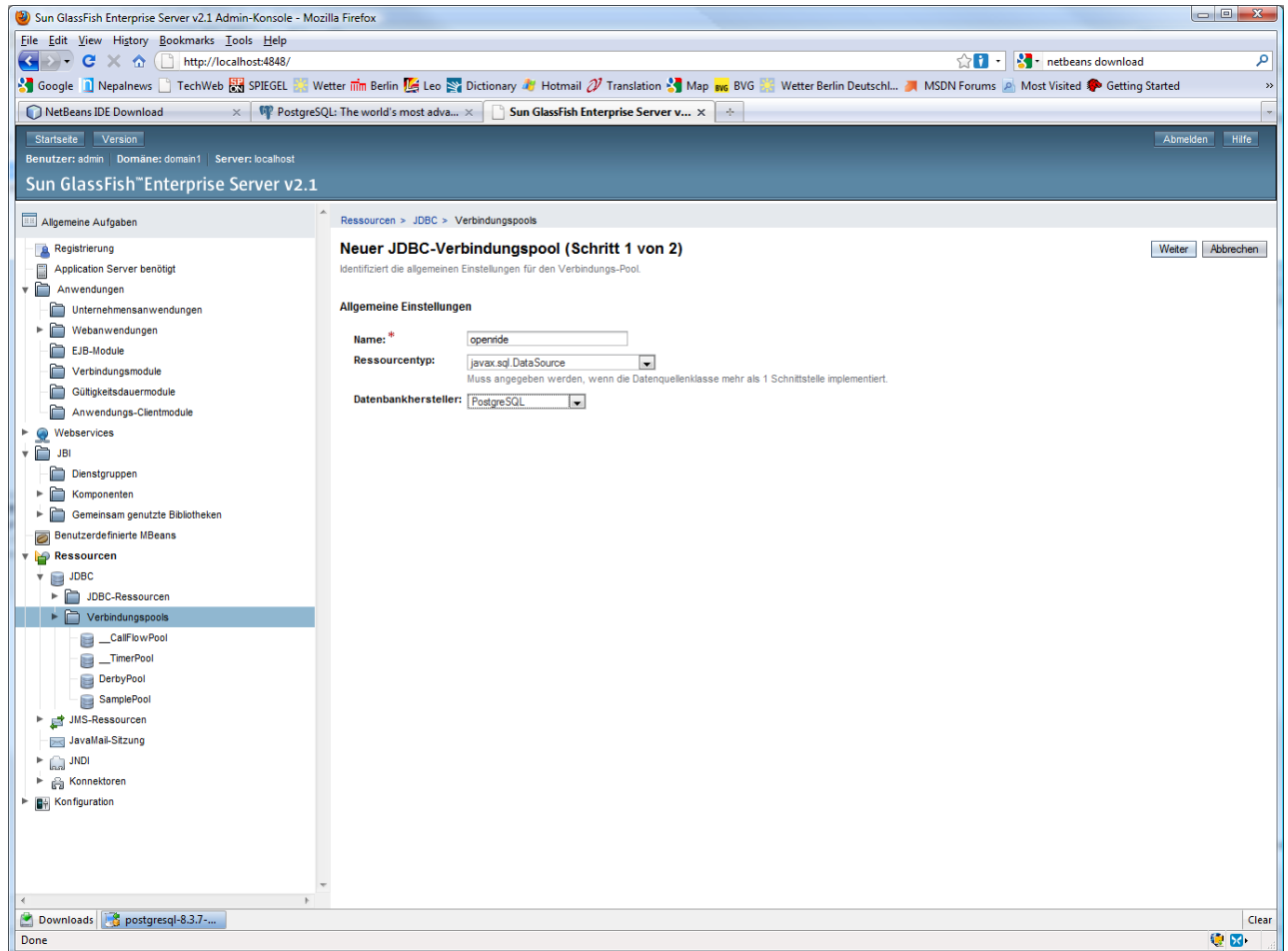


- 
- Select sql dump & OK (Exitcode 1 may be ignored...)
- **NOTE: remove all tables if update is not correct.**

## Glassfish Setup (Version 3.01)

One has to configure a Connection-Pool with the following information:

- Name: “openride” (as an example – choose your own)
- Resource type: “javax.sql.DataSource”
- Database Vendor: “PostgreSQL”

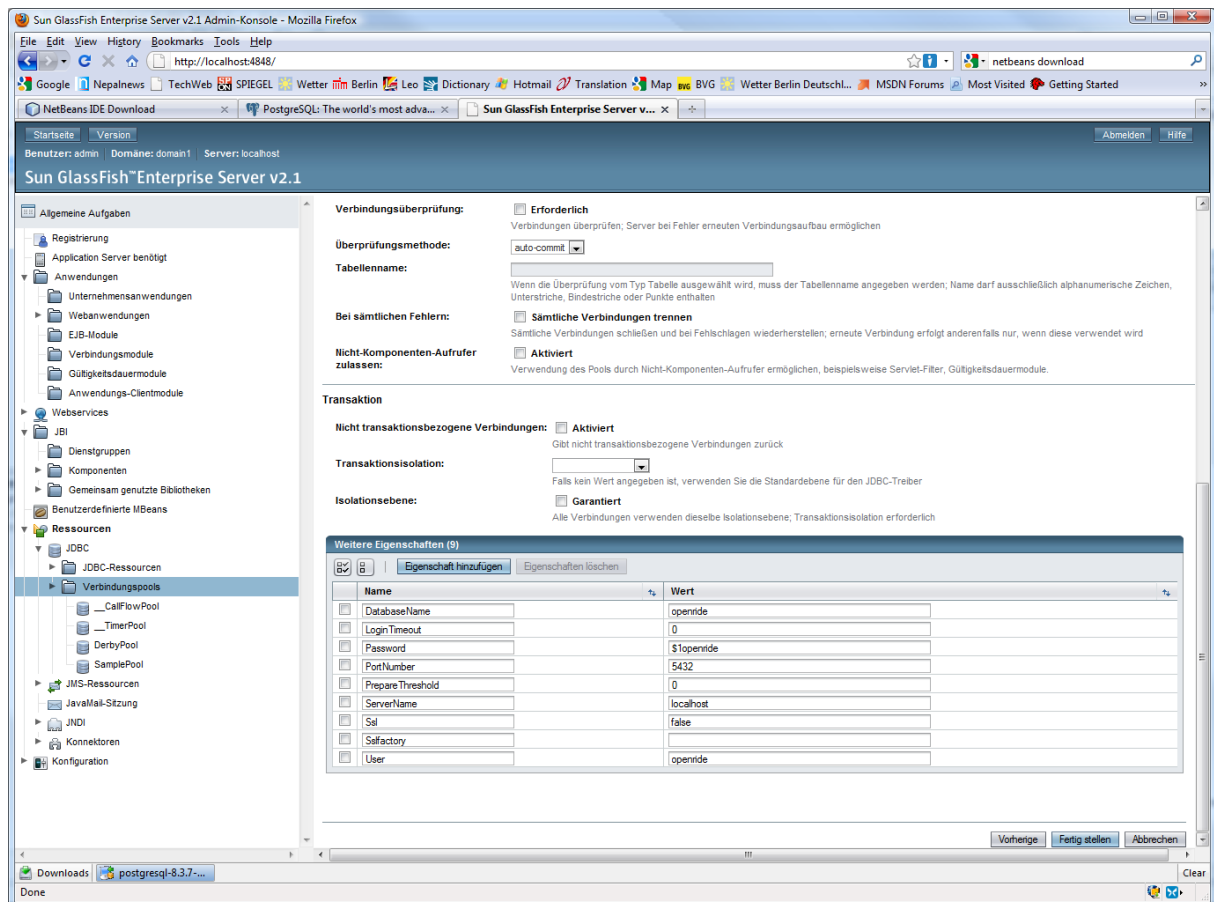


- Classname of Datasource: “org.postgresql.ds.PGSimpleDataSource”
- User: “openride” (as chosen during database setup)
- portNumber: “5432”
- databaseName: “openride” (as chosen during database setup)
- Password: “\$1openride” (as chosen during database setup)
- serverName: “localhost” (if not using a remote database)

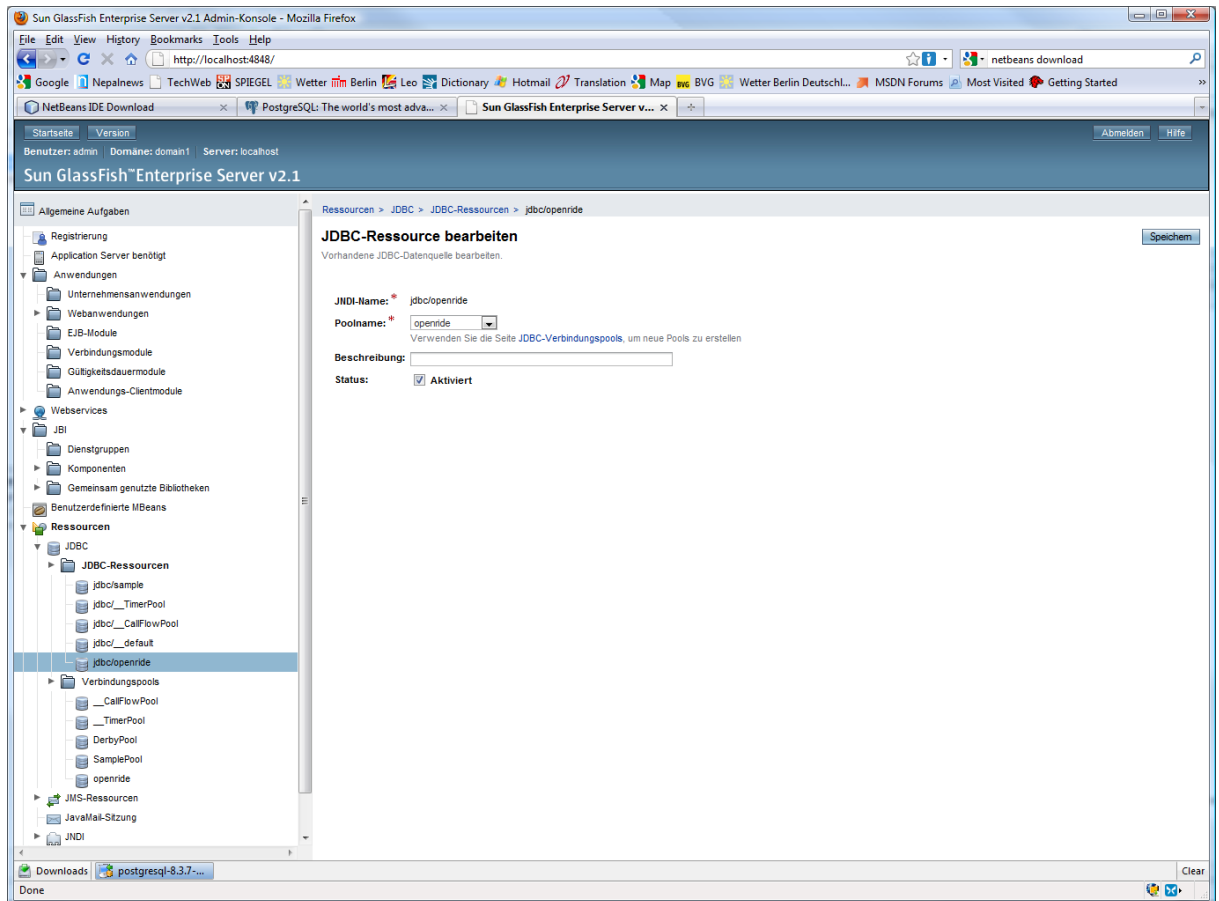
At this point it is important to be aware of the possibility to choose a **remote database**. In order to use the remote database connection it's necessary to configure the remote database to allow you to connect. For this you have to start pgAdmin on the server, connect to the server, click on the database and choose Tools -> Serverconfiguration -> pg\_hba.conf. There you have to add a new entry with your ip mask. Let's say your ip is 10.147.66.XXX, and then your entry should look like this:

Host    all        all        10.147.66.0/24        md5

Save this and reload the configuration with the green play button. That's it!



Aftwerwards one has to apply to the name of the pool to one JDBC-Ressource named "jdbc/openride".



If you've done things successfully till this point you have to copy the file named "postgresql-8.3-603.jdbc3.jar" to the domains (e.g. %glassfish%/domains/domain1/lib) lib directory (this file is normally added to the ejb-Project at "root/libs" folder).

Since you've done that you can start the **deployment** of the "OpenRideServer.ear" file. For example by putting the file in the autodeploy directory or going via commandline to %glassfish%/bin using the asadmin tool.

## Hints

ATTENTION: If you get the following error:

```
{
  CLI171 Command deploy failed : Deploying application in domain failed;
  Internal Exception: java.sql.SQLException: This pool is not registered with the
  runtime environment : null
  Error Code: 0
}
```

This means, you have not set the right Connection-Pool in the ejb-Project at the persistence.xml file. Normally this should be jdbc/openride. Only in case of deployment on robusta as developer Version you should use jdbc/openride\_dev, to separate developer and customer versions of the application.

Hint:

To start glassfish in verbose-mode (see all the logs on the console), type the following to the console:

*asadmin start-domain -verbose domain2* (e.g.)

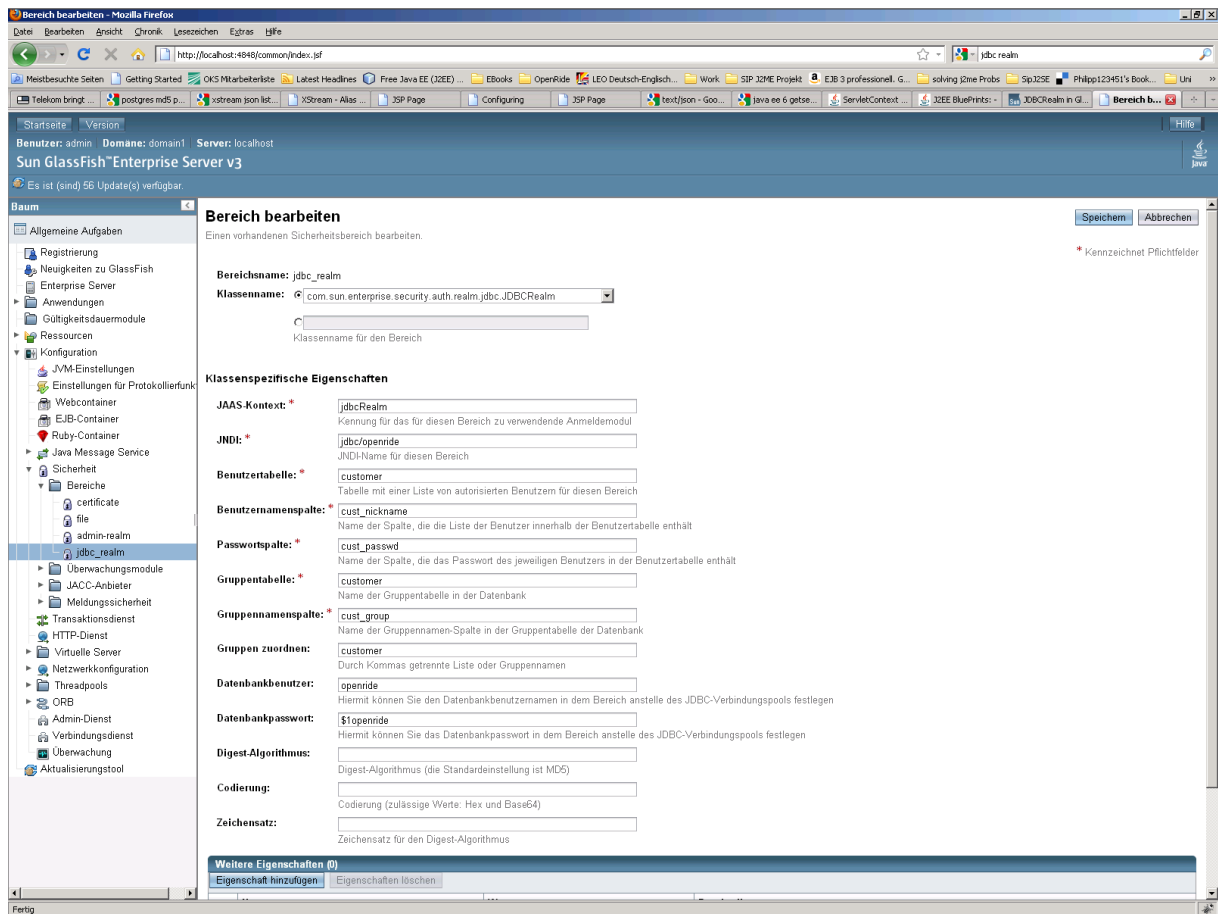
To stop glassfish, type:

*asadmin stop-domain domain2* (e.g.)

If the application gets slower, stop the domain, restart the db and restart the domain afterwards.

## JDBC-Realm

Configure the JDBC-Realm as follows:



**Bereich bearbeiten**  
Einen vorhandenen Sicherheitsbereich bearbeiten.

Benutzer: admin Domäne: domain1 Server: localhost  
Sun GlassFish™ Enterprise Server v3  
Es ist (sind) 56 Update(s) verfügbar.

**Bereich:** jdbc\_realm  
Klassenname: com.sun.enterprise.security.auth.realm.jdbcRealm  
Klassenname für den Bereich

**Klassenspezifische Eigenschaften**

**JAAS-Kontext:** jdbcRealm  
Kennung für das für diesen Bereich zu verwendende Anmeldemodul

**JNDI:** jdbc/openride  
JNDI-Name für diesen Bereich

**Benutzertabelle:** customer  
Tabelle mit einer Liste von autorisierten Benutzern für diesen Bereich

**Benutzernamenspalte:** cust\_nickname  
Name der Spalte, die die Liste der Benutzer innerhalb der Benutzertabelle enthält

**Passwortspalte:** cust\_password  
Name der Spalte, die das Passwort des jeweiligen Benutzers in der Benutzertabelle enthält

**Gruppentabelle:** customer  
Name der Gruppentabelle in der Datenbank

**Gruppennamenspalte:** cust\_group  
Name der Gruppennamen-Spalte in der Gruppentabelle der Datenbank

**Gruppen zuordnen:** customer  
Durch Kommas getrennte Liste oder Gruppennamen

**Datenbankbenutzer:** openride  
Hiermit können Sie den Datenbankbenutzernamen in dem Bereich anstelle des JDBC-Verbindungspools festlegen

**Datenbankpasswort:** \$!openride  
Hiermit können Sie das Datenbankpasswort in dem Bereich anstelle des JDBC-Verbindungspools festlegen

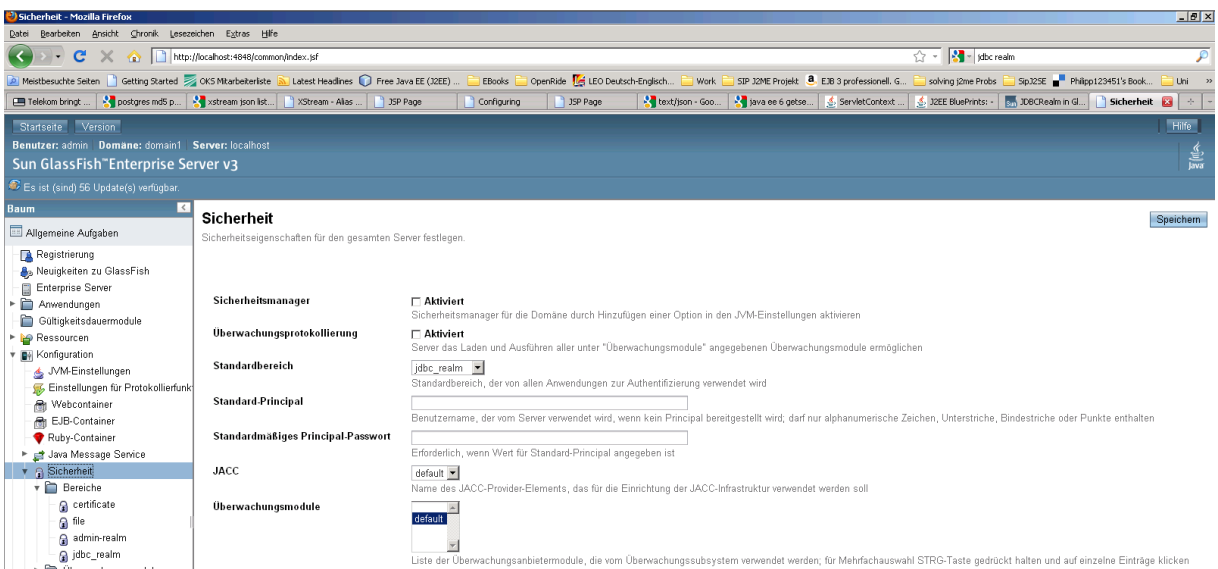
**Digest-Algorithmus:**  
Digest-Algorithmus (die Standardeinstellung ist MD5)

**Codierung:**  
Codierung (zulässige Werte: Hex und Base64)

**Zeichensatz:**  
Zeichensatz für den Digest-Algorithmus

**Weitere Eigenschaften (0)**  
Eigenschaft hinzufügen Eigenschaften löschen

Afterwards set the Realm as default:



**Sicherheit**  
Sicherheitseigenschaften für den gesamten Server festlegen.

Benutzer: admin Domäne: domain1 Server: localhost  
Sun GlassFish™ Enterprise Server v3  
Es ist (sind) 56 Update(s) verfügbar.

**Sicherheitsmanager**  
☐ Aktiviert  
Sicherheitsmanager für die Domäne durch Hinzufügen einer Option in den JVM-Einstellungen aktivieren

**Überwachungsprotokollierung**  
☐ Aktiviert  
Server das Laden und Ausführen aller unter "Überwachungsmodule" angegebenen Überwachungsmodule ermöglichen

**Standardbereich:** jdbc\_realm  
Standardbereich, der von allen Anwendungen zur Authentifizierung verwendet wird

**Standard-Principal:**  
Benutzername, der vom Server verwendet wird, wenn kein Principal bereitgestellt wird; darf nur alphanumerische Zeichen, Unterstriche, Bindestriche oder Punkte enthalten

**Standardmäßiges Principal-Passwort:**  
Erforderlich, wenn Wert für Standard-Principal angegeben ist

**JACC:** default  
Name des JACC-Provider-Elements, das für die Einrichtung der JACC-Infrastruktur verwendet werden soll

**Überwachungsmodule:** default  
Liste der Überwachungsanbietermodule, die vom Überwachungssystem verwendet werden; für Mehrfachauswahl STRG-Taste gedrückt halten und auf einzelne Einträge klicken

## Routing Graph

Copy a routingGraph file to %glassfish\_home%/domains/domain<i>/routingGraph.hh or to

%glassfish\_home%/domains/domain<i>/config/routingGraph.hh (glassfishes seem to be different)



## Setting up the development environment

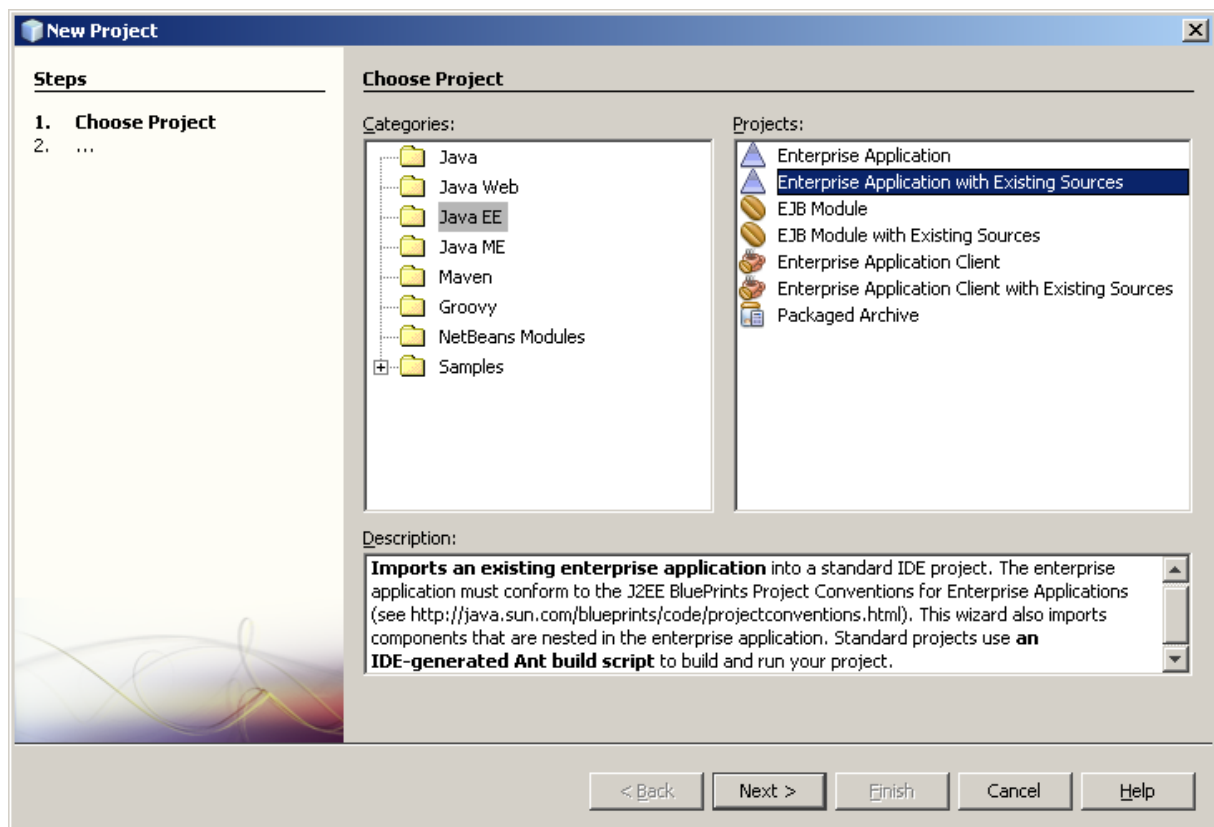
### Netbeans:

Version 6.9.1

[www.netbeans.org](http://www.netbeans.org)

Install the Netbeans IDE. Then connect your Netbeans IDE with your Glassfish domain. To do this click on the “server” tab on the left side and then make a right-click on “Servers”. In the upcoming windows choose “Glassfish Server 3” and click next. Fill in the Glassfish home directory and click next. Register domain1 and finish the connection. That's it.

After checking out the root folder of the project (%OpenRide SVN%/src/OpenRideServer/OpenRideServer) create a new project as enterprise project with existing sources.



Choose the connected Glassfish Server as Application Container.

Then do a right click on the project and click „open required projects”.

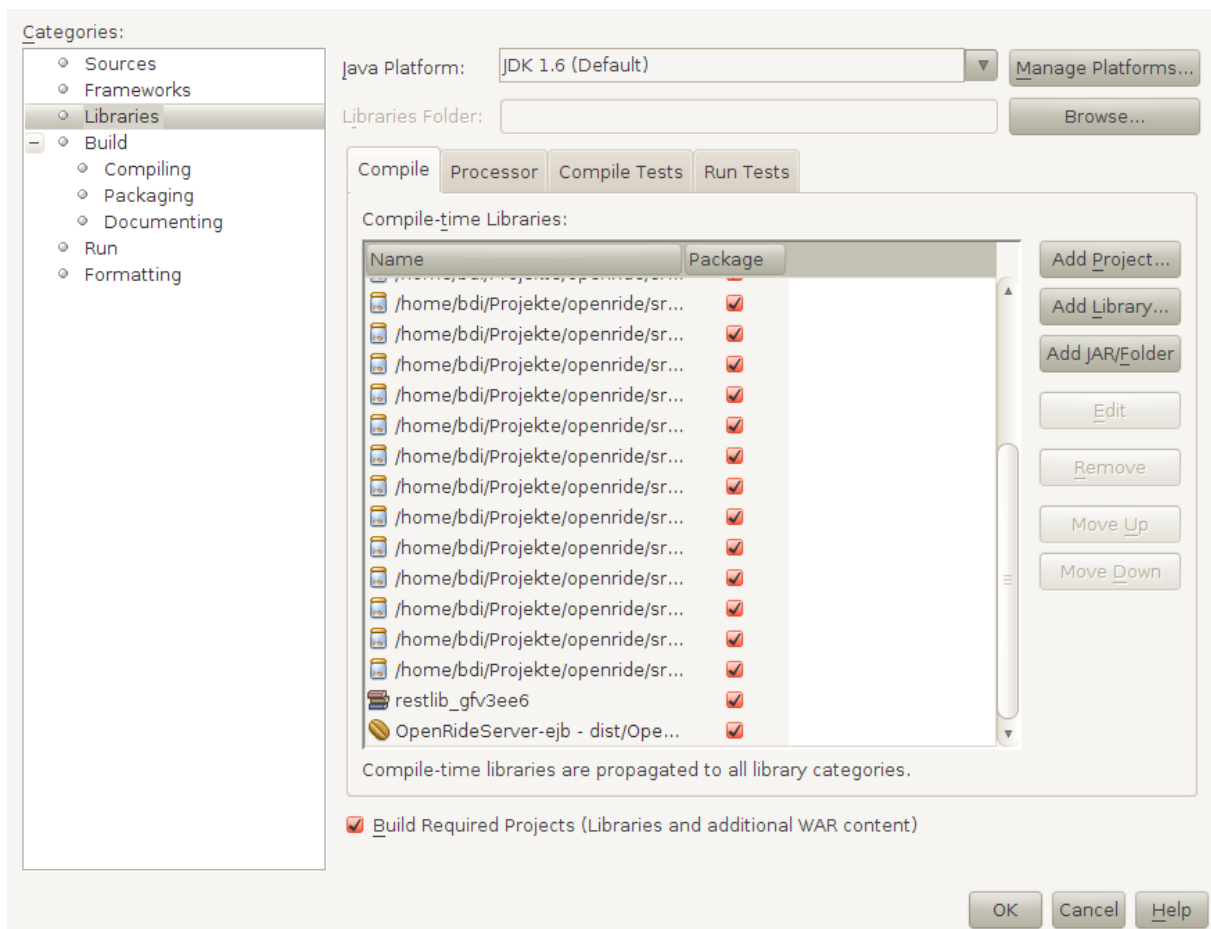
Required projects are: OpenRideServer-RS, OpenRideServerWeb, OpenRideAdmin.

Create another project with existing sources in the .../OpenRideServer/OpenRideServer-ejb directory. Select OpenRideServer for the Enterprise Application.

(If asked for configuration, source and test package folders, specify “config”, “src”, and “test” within OpenRideServer-ejb.)

Delete the setup/sun-resources.xml in the projects OpenRideServer-RS and OpenRideServer-ejb.

Add the OpenRideServer-ejb project as dependency to OpenRideServer-RS, OpenRideServerWeb, OpenRideAdmin (you may need to remove any existing references to the OpenRideServer-ejb project first, then add them again). Also add all libraries of the OpenRideServer-ejb/libs directory as



dependencies to OpenRideServer-RS, OpenRideServerWeb, OpenRideAdmin.

## Testing frameworks and tools

### JUnitEE

JUnitEE (<http://www.junitee.org/>) allows testing enterprise beans running in their container through a servlet interface. A short overview can also be found here:

[http://www.ibm.com/developerworks/rational/library/07/0102\\_woldemichael/](http://www.ibm.com/developerworks/rational/library/07/0102_woldemichael/)

To add JUnitEE support conduct the following steps:

Add **junit.jar** to the EJB module. Add both **junit.jar** and **junit.jar** to the Web Client module. The **web.xml** file in the WEB-INF folder already contains the **JUnitEE TestServlet**. Please note that there seems so far to be no support for JUnit 4.x in JUnitEE, only JUnit 3.x is supported.

The TestServlet is now locally accessible through the URL:

<http://localhost:8080/OpenRideServer-war/TestServletEE>

Type the name of a JUnit compliant test class (e.g. *de.fhg.fokus.openride.rating.junittests.RatingBeanTest*) and hit "Run". The result of the test is listed for each of the test methods in the test class.

In the EJB module JUnit tests can be generated automatically like this: In the Properties dialog / Sources add the location of a test package folder (usually *test*). You should select JUnit 3.x because 4.x is not supported by JUnitEE so far. Now right click on a source code package or a class -> choose Tools -> choose Create JUnit Tests. Unfortunately the generated code will not be packaged into the ejb jar (or is it possible and how?) and will not be accessible to the test servlet. Therefore it is necessary to manually copy the generated code into the source folder of your project. The test code should be placed into the appropriate package extended with .junittests, e.g. *de.fhg.fokus.openride.rating.junittests.RatingBeanTest*.

### JUnitEE how to test EJB's + DB

The whole project consists of the following projects.

-OpenRideServer+

```
|
-> OpenRideServer-RS
|
-> OpenRideServer-ejb
|
-> OpenRideWeb
|
-> OpenRideAdmin
|
->OpenRideTest-war
```

The WebProject: OpenRideTest-war contains all needed configuration files and is structured so that one can add new JUnit-Tests or JUnit-Testsuites via the following steps using Netbeans 6.8:

1. right-click on the package/class in the OPENRIDESEVER-EJB project you want to test. Select Tools->Create JUnit Tests.
2. The generated Tests can be found in a directory of the OPENRIDESEVER-EJB PROJECT named TEST.
3. One can **edit(!!)** the files now.
4. Copy the test(s) to the OPENRIDETEST-WAR/SOURCE-PACKAGE.
5. Now you have to add the packagename+classname of the new test class to the so called testCases.txt, which is located at OPENRIDETEST-WAR/WEB-PAGES/WEB-INF/TESTCASES.TXT.
6. If you now deploy the application a Test-Servlet can be found under the following URL:  
<host>:<port>/OpenRideTest-war/TestServletEE. This is the place where you can start the tests.

## DBUnit

DBUnit is a JUnit extension targeted at database-driven projects that, among other things, puts your database into a known state between test runs: <http://www.dbunit.org/howto.html>

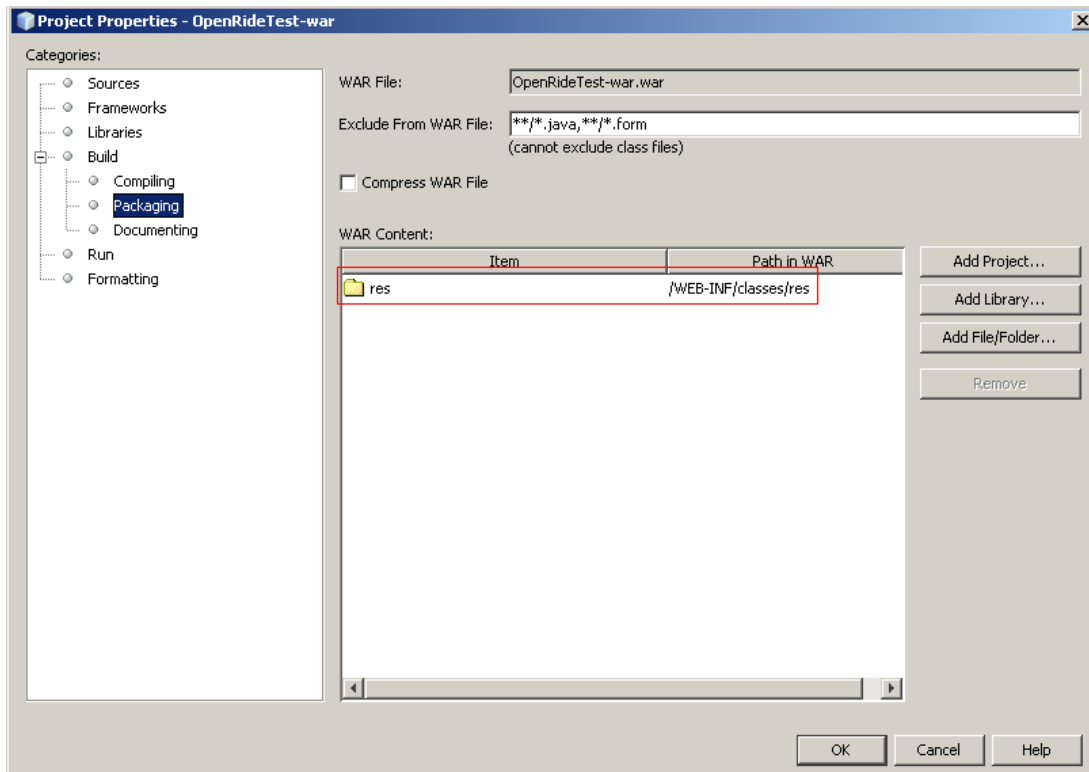
Libs necessary: dbunit.jar, slf4j-api-\*.jar, slf4j-nop-\*.jar

To run DBUnit inside the same Application container as the EJBS, DBUnit tests can be run via OpenRideTest-war/TestServletEE as described in the JUnitEE section. Like the JUnitEE Testcases, DbUnit-Testcases should be located in OpenRideTest-war project.

In many (Test)Cases it is required to put the Database to a known initial state. This can be done e.g. via import of an xml file holding the initial state. These Xmls can be coded by hand or be exported a database. For exporting, use the class 'dbunit. DatasetExporter'. I suggest locating all xml exports required by TestCases in the subtree of 'OpenRideTest-war/res'. The project will be configured to include the files into the deployable war-file.

Setting up the Project:

1. Create a new Database named 'openride\_test' and import an actual dump from svn
2. Add Connection-Pool and Jdbc Resource to Glassfish using 'jdbc/openride\_test' as jndi-name
3. Configure 'OpenRideTest-ejb' to use the Resource 'jdbc/openride\_test' instead of 'jdbc/openride'
4. Setup packaging



Implementing a DBUnit Test Case :

1. If steps are not clear, check : `'dbunit.sample.CustomerControllerTest'` or `'de.fhg.fokus.openride.rating.junittests.RatingBeanDBTest'`
2. Extend `'dbunit.AbstractOpenRideDbUnitTestCase'`
  - a. or use a subclass of `DatabaseTestCase` e.g. `JndiBasedDBTestCase`
  - b. or subclass `DatabaseTestCase` directly
3. To implement the Method `getDataSet()` (represents the initial db state)
  - a. Create a XML by hand or by using the exporter class: `'dbunit.DatasetExporter'`
  - b. Copy the XML to a subdir of `'OpenRideTest-war/res'`
  - c. Return a `FlatXmlDataset` using the respective xml file.
4. Add the class to `'TestCases.txt'` located at WEB-INF
5. Implement DBUnit related Methods e.g. `'getSetUpOperation()'`
6. Implement test Methods analog to JUnit test cases
7. Run Test case via `OpenRideTest-war/TestServletEE`

TODO:

- How to export / import non standard sql datatypes like postgis geometries?

### **soapUI – Netbeans integration**

Install the Netbeans soapUI plugin as drescribed here:

<http://www.soapui.org/netbeans/installation.html>

(Downloadable from <http://sourceforge.net/projects/soapui/files/soapui-netbeans-plugin/3.5/com-eviware-soapui-netbeans-module-3.5.nbm/download>)

Once the plugin has been installed, the project „OpenRideServer-RS-Testing“ will be recognized and may be opened as a soapUI project.

### **RESTful Webservices**

Open the OpenRideServer-RS project and Netbeans will ask you how the RESTful Services shall be configured. You should choose the first alternative: Netbeans will generate a subclass from “...” . Afterwards you can deploy the project and the webservices will be available.

More informations on the type of services can be found in the SVN in the document Actionnames.pdf

## Android Client Installation

- eclipse installieren

- android sdk unter

[http://developer.android.com/sdk/download.html?v=android-sdk\\_r05-windows.zip](http://developer.android.com/sdk/download.html?v=android-sdk_r05-windows.zip)

runterladen und in einen beliebigen ordner entpacken.

Im entpackten ordner die datei „SDK setup.exe“ ausführen, es erfolgen dann einige updates.

- Dann eclipse öffnen(e.g. Galileo version), unter windows->preferences->android den pfad zum sdk eingeben.

- eclipse-plugin: in eclipse unter help->install new software->add einen beliebigen namen und die url <https://dl-ssl.google.com/android/eclipse/> eingeben, installation des plugins abschließen.

- treiberinstallation htc hero:

das programm htcsynch unter

[http://www.htc.com/de/SupportDownload.aspx?p\\_id=283&cat=3&dl\\_id=852](http://www.htc.com/de/SupportDownload.aspx?p_id=283&cat=3&dl_id=852) downloaden und die exe installieren → reboot. Falls da bei der installation ein fehler kommt bezgl xp-treiber nicht gefunden, keine ahnung, worans liegt, einfach ignorieren. Danach (htc sollte sich nach dem neustart selbst gestartet haben, sonst htc starten) mal ein gerät per usb anschließen. Falls htc das gerät nicht erkennt oder die windows-treiber-installation kommt, für den windows installationsdialog den pfad zum ordner „usb\_driver“ im hauptordner des android sdk angeben, htc sollte das gerät nun erkennen.

Im projekt im ordner res->values in der datei strings.xml den key (tag debug\_apikey) durch den eigenen ersetzen. wenn man ihn nicht mehr hat: <http://code.google.com/intl/de-DE/android/add-ons/google-apis/mapkey.html>.

wenn man beim offenen eclipse nun ein gerät anschließt und dann auf rechtsklick->run as->run configurations (hier im tab "target" auf radiobutton "manual" klicken)->run geht, sollte ein dialog kommen, wo man das gerät sieht, dann ok und er sollte es auf dem gerät installieren und starten.

## Help with Android devices

### HTC HERO rooting, backup and costum ROMs

This chapter is for information on how to root a HTC HERO.

First of all, read this: <http://forum.xda-developers.com/showthread.php?t=622228>

Then download a custom ROM of your choice: <http://forum.xda-developers.com/forumdisplay.php?f=512>

→ Follow the installation instructions of the custom ROM

## Kundendeployment

### Standortbezogene Default Favoriten

Für jeden Kunden sollen standortbezogene Favoriten vorhanden sein, die jedem Benutzer direkt nach der Anmeldung zur Verfügung stehen. Hierzu gibt es für jedes Kundensystem einen Template-Benutzer. Für diesen Benutzer werden vor dem Rollout die entsprechenden Favoriten eingetragen. Anschließend bekommt jeder neue Benutzer bei seiner Registrierung automatisch auch alle Favoriten des Template-Benutzers. Die Favoriten des Template-Benutzers können im nachhinein geändert werden. Diese Änderungen gelten dann für alle neuen Benutzer, welche sich nach der Änderung registrieren. Der Template-Benutzer sollte als erster Nutzer mit folgenden Daten registriert werden.

Logindaten des Template-Benutzers:

- Name: template\_user
- Passwort: \$or\_template\_user1

Siehe auch Dokument Customization.