

Sample Applications

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Available Sample Applications

- [app-per-port](#) - Running multiple web apps on different ports
- [bank](#) - EJB sample application
- [calculator](#) - Using EJB 3.0 Functions
- [customer](#) - Simple ejb application with a JPA entity
- [dbtester](#) - DB Pool Testing sample application
- [inventory](#) - Simple Database Access Application
- [jaxws-calculator](#) - Simple Web Service with JAX-WS
- [jms-mdb](#) - JMS and MDB Sample Application
- [ldap-sample-app](#) - LDAP Sample Application
- [myphonebook](#) - Very Simple Entity EJB Example
- [mytime](#) - Very Simple Session EJB Example
- [not-in-svn](#) - Inbound JCA example
- [sendmail](#) - Using Geronimo's Default JavaMail Session
- [timereport](#) - Web Application Security Sample

Installing as Prebuilt Plugins

The recommended practice for Geronimo is to set up a workflow using geronimo plugins and maven from development through test and production. To demonstrate this, the samples are built into plugins suitable for the jetty and tomcat web containers in geronimo. Many samples require database access. This is encapsulated into a separate plugin (sample-datasource).



TODO: Demonstrate how to swap databases using plugins; see also the roller plugin

In any case, to install samples as plugins you need to build them first.

For installation you need a geronimo server with a web container installed, such as the `geronimo-jetty-minimal` or `geronimo-jetty6-javaee5` servers (or the equivalent tomcat variations).

Installing through the admin console.

If you are using one of the javaee5 server assemblies you can use the admin console to install the plugins. Go to the plugins page, push the "Show Plugins" button, find the sample(s) you want to install, and click install. Be sure to select only plugins for the web container you have installed (e.g. jetty plugins for the jetty web container). Any necessary dependencies such as the sample-datasource plugin will be installed automatically. There are equivalent command line functions (described next under Installing through gshell) if you are using one of the minimal assemblies that does not include the admin console.

Installing through gshell

For this you can use any geronimo server such as one of the minimal assemblies or even the framework assembly. After starting geronimo, run `./bin/gsh deploy/list-plugins` in another terminal window and follow the instructions. Installing a sample plugin will install the sample-datasource plugin and all other dependencies. Alternatively if you build using

```
mvn clean install -Pit
```

you can find a server with the sample installed in directories such as

```
<sample>/<sample>-jetty/target/geronimo-framework-<version>/.
```



-Pit is currently only available in the samples trunk (2.2-SNAPSHOT) and not branches/2.1 (2.1.3-SNAPSHOT) or tags/samples-parent-2.1.2 (2.1.2)

Building from Source

Downloading the Source Code

The first time building samples it is required that you build from the top level directory. After the initial build, you can do subsequent builds of specific samples as necessary.

You need svn and maven installed on your system.



Maven v 2.0.9 or later is required for building Geronimo 2.1 samples.

To check out the 2.1.2 samples:

```
svn co https://svn.apache.org/repos/asf/geronimo/samples/tags/samples-parent-2.1.2/ gsamples-2.1.2
```



Alternatively, you could choose to work with the active 2.1 branch of samples. This will allow you to work with the latest changes in samples but will also expose you to a branch that is under active development and so things may be in flux from day to day:
svn co <https://svn.apache.org/repos/asf/geronimo/samples/branches/2.1> gsamples-2.1

Depending on when you look you may find earlier or released versions of the samples under samples/branches and samples/tags. You can browse in any web browser to see what's there. The trunk for samples always contains samples for the highest level version under development <https://svn.apache.org/repos/asf/geronimo/samples/trunk>

Building the Samples

Build using

```
mvn clean install
```



If you run into the "Could not scan module for TLD files...Filename too long" problem when using Windows platform, please check out samples to a short directory (14 characters or less).

There are minimal integration tests to assure that the sample plugins can be installed on the framework server. To run this tests use

```
mvn clean install -Pit
```



The integration tests are not available prior to Geronimo Samples 2.2

Deploying the Built Samples as Java EE Artifacts

With the sample datasource installed as a plugin

After building the sample projects you can find suitable geronimo plans for a sample <sample> in

```
<sample>/<sample>-jetty/target/resources/META-INF/plan.xml
```

(or the equivalent -tomcat directory). For most samples you will need to install the sample-datasource plugin first. Samples can be deployed from the admin console "deploy new" on a suitable server or using gshell `./bin/gsh deploy/deploy`. Note that in this case you need to start with a server with all the required bits already installed, not the framework server. Since this installation method is not tested automatically it is more likely to be broken than the plugin method.

Making life even harder for yourself

You can also install the sample datasource as a javaee artifact using the plan we generate when building the plugin, install the sample datasource using the admin console using the database wizard, and run the sql by hand rather than relying on the geronimo DBInitializationGBean.

Installing the sample datasource as a javaee artifact.

Before you install any sample applications, deploy the `org.tranql/tranql-connector-derby-embed-xa/1.4/rar` connector located in the geronimo repo at `org/tranql/tranql-connector-derby-embed-xa/1.4/tranql-connector-derby-embed-xa-1.4.rar` with the plan at `sample-datasource/target/resources/META-INF/plan.xml` using the admin console "deploy new" or gshell. This will have exactly the same effect as installing the sample-datasource plugin.

Installing the sample datasource through the admin console database wizard

Create a new datasource using the admin console database wizard, selecting the derby-embed-xa type and naming the database "SampleDatabase" and the datasource "SampleTxDatasource". The admin console will come up with a module Id different from what the samples need, so you have to map them in `var/config/artifact_aliases.properties`. Insert a line like this:

```
org.apache.geronimo.samples/sample-datasource/2.1.2/car=console.dbpool/SampleDatabase/1.0/car
```

replacing 2.2-SNAPSHOT with the appropriate sample version and adjusting the right hand side as necessary. Be sure geronimo is stopped when you edit `artifact_aliases.properties`.

Manually initializing the database.

Samples that need database connectivity have the database initialized by default by using a DBInitializationGBean to run an sql script. Alternatively here we describe how to initialize the database by hand. In a production scenario most likely your db will be set up by a DBA rather than either of these methods.

1. Remove the DBInitializationGBean from the sample plan
2. In the console DB Manager page, use the Create DB function to create a database named SampleDatabase.
3. In the console DB Manager page select the SampleDatabase in Use DB, paste the script found in the sql file located in the project (ear or war) that builds the top level javaee artifact into the text box, and run it.
4. Deploy and run the application using the modified plan.

Maven Generated Site for viewing javadoc or source xref

There is a maven generated site for samples which can be used to view javadoc and source. It can be found here:

[Geronimo Samples 2.1.2](#)

To navigate to javadoc and source code (xref) for each sample do the following:

1. select "Geronimo Samples :: Samples" under Modules in the left-hand navigation
2. select a specific sample from the left-hand navigation under Modules
3. to view javadoc or source (xref) you must navigate down to a module that includes source such as a war or ejb. For example, if you are interested in viewing the servlets associated with the bank sample you would choose the following modules:
 - a. under Modules select "Geronimo Samples :: bank"
 - b. under Modules select "Geronimo Samples :: bank :: WAR"
4. once you are at a module that contains source you can then select "Project Reports" and from the information provided choose either JavaDocs or Source Xref