

Setup OAI-PMH Provider

This guide will help you setup the OAI-PMH provider for Fedora 4 on Tomcat 7. For further details, please refer to the [project's documentation on GitHub](#).

Setting up Tomcat7

Install [Tomcat](#). Use the appropriate package manager (e.g. yum, portage) to install Tomcat (on Xubuntu, for example, setting up Tomcat is accomplished by a simple command:

```
sudo apt-get install tomcat7
```

Alternatively, visit the [Apache Tomcat project documentation](#) for more installation options. Once Tomcat is installed and running, you should see the Tomcat welcome screen when you visit <http://localhost:8080>.

Setting up Fedora Repository

Use either the [pre-packaged WAR file](#) or [build Fedora from source](#) to get a WAR file. Copy the WAR to the Tomcat root directory <CATALINA_HOME>/webapps. Start/restart Tomcat, and <http://localhost:8080/<fcrepo>/rest> should display the Fedora repository front page.

<fcrepo> is the name of the .war file minus the .war extension and the exact file name can vary on build/release number.

Install the fcrepo-oaiprovider library dependencies

The OAI-PMH provider in fcrepo4-oaiprovider relies on JAXB, so download the following JAR files from:

```
http://central.maven.org/maven2/com/sun/xml/bind/jaxb-impl/2.2.7/jaxb-impl-2.2.7.jar
```

```
http://central.maven.org/maven2/com/sun/xml/bind/jaxb-core/2.2.7/jaxb-core-2.2.7.jar
```

and move them to <CATALINA_HOME>/webapps/<fcrepo>/WEB-INF/lib

Building fcrepo-oaiprovider

1. Obtain and build the fcrepo-oaiprovider source code:

```
git clone https://github.com/fcrepo4-labs/fcrepo4-oaiprovider.git
cd fcrepo4-oaiprovider
mvn package
```

2. Move the generated JAR to Tomcat's lib folder:

```
cp target/fcrepo4-oaiprovider-4.0.0-beta-05-SNAPSHOT.jar <CATALINA_HOME>/webapps/<fcrepo>/WEB-INF/lib
```

3. Copy the oai.xml file to the fcrepo config directory:

```
cp fcrepo4-oaiprovider/src/main/resources/spring/oai.xml /<CATALINA_HOME>/webapps/<fcrepo>/WEB-INF
/classes/spring/
```

4. Edit the fcrepo **master.xml** file in <CATALINA_HOME>/webapps/<fcrepo>/WEB-INF/class/spring/master.xml to paste the following <import> declaration after other <import> declarations:

```
<import resource="classpath:/spring/oai.xml"/>
```

5. You may have to add the following namespace element to fcrepo-kernel-impl/src/main/resources/fedora-node-types.cnd in the fcrepo4 project and rebuild it, or reference your .cnd file in [repository.json](#), if necessary.

```
<oai = 'http://www.openarchives.org/OAI/2.0/'>
```

6. Restart Tomcat. Go to <http://localhost:8080/<fcrepo>/rest/oai?verb=Identify>. If everything is in order, you should see an XML file outlining the default configuration for the OAI-PMH provider.

Common errors are the OAI-PMH provider generating either 4xx HTTP error codes or producing default values mentioned below. The 4xx HTTP status codes indicate an undefined namespace (Step 5 above). If default values appear instead of the properties you populated, this means the properties are not available or defined incorrectly.

Configuring the OAI-PMH provider

The OAI Provider relies on four properties being present in the main repository for the IDENTIFY verb. The properties and the corresponding default values are:

Property	Default
oai:repositoryName	"Fedora 4"
oai:description	"An example repository description"
oai:version	<build version>
oai:adminAddress	"admin@ example.com "

These properties have to be populated manually for now (with the exception of oai:version, which is populated automatically to reflect the build version), using SPARQL/Update queries of the pattern:

```
INSERT {<> oai:repositoryName "exciting repository name here"}
```

```
INSERT {<> oai:description "exciting description here"}
```

```
INSERT {<> oai:adminEmail "your.email@here.org"}
```

As an example:

```
echo "insert data {<> oai:repositoryName coolrepo } " | curl -X PATCH --upload-file - http://localhost:8080/fcrepo/rest
```