

# Austin Install-Fest - Filesystem Federation

A powerful feature of fedora 4 is projection or federation, in which large swaths of data from external sources can be treated and exposed as repository content

To easily test this feature during the install fest, we've built a sample war file that exposes a federation over the home directory of the user account under which the application is running.

## Quick View:

1. [Download](#) an executable jar file for the release
2. Launch the jar file by double-clicking on it or typing "java -jar *filename*" in the command line

## Install in Tomcat:

1. [Install tomcat](#)
2. [Download](#) a pre-built war file for the file system federation
3. Copy that war file into the webapps directory of your tomcat installation
4. When tomcat's running you can browse your home directory online at: <http://localhost:8080/fcrepo-webapp-home-directory-federation-4.0.0-alpha-3-SNAPSHOT/rest/home>

## Build from source:

Currently the configuration (which specifies which files to expose at what path) can only easily be edited before the application is compiled. The following instructions explain the process of configuring, building

Requires Git, Maven 3, Java 7.

Get the source code:

```
git clone https://github.com/futures/fcrepo4.git
```

Update the repository configuration (`fcrepo4/fcrepo-http-commons/target/classes/config/rest-sessions/repository.json`) to include the following lines after the node-types definition (add a comma):

```
"externalSources" : {
  "home-directory" : {
    "classname" : "org.modeshape.connector.filesystem.FileSystemConnector",
    "directoryPath" : "${user.home}",
    "projections" : [ "default:/home => /" ],
    "readOnly" : true,
    "addMimeTypeMixin" : true
  }
}
```

- The `directoryPath` parameter specifies the base directory of the filesystem that is accessible to fedora.
- The `projections` parameter creates one or more mappings from a repository path to a filesystem path (relative to the base directory specified in `directoryPath`).

Install the `fcrepo-jcr` artifacts to your local maven repository:

```
cd fcrepo4/fcrepo-jcr
mvn clean install
```

Run the web application in jetty:

```
cd fcrepo/fcrepo-webapp
mvn clean jetty:run
```

Browse your home directory through fedora at <http://localhost:8080/rest/home>