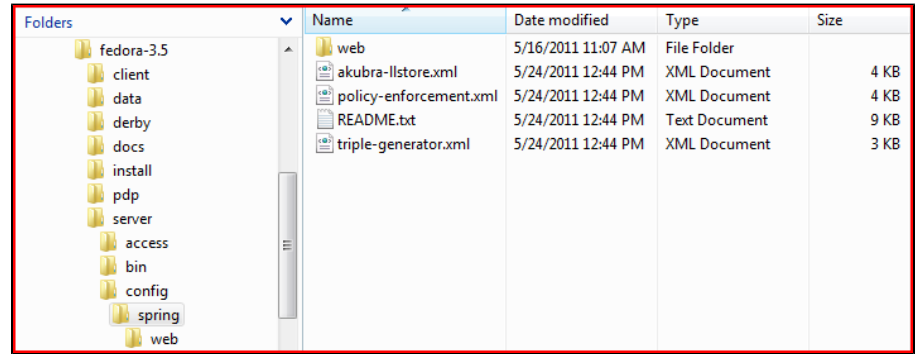


Spring Configuration

Fedora 3.5 begins shifting the management and configuration of modules and components from the legacy Fedora Configuration syntax (.fcfg files) to the Spring 3 Framework. In this transitional release, Fedora will parse the modules and datasources in the fcfg as bean definitions, and then attempt to load all xml files in the spring configuration subdirectory as xml bean definitions. Bean definitions in this subdirectory will override fcfg configurations.

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Folders	Name	Date modified	Type	Size
fedora-3.5	web	5/16/2011 11:07 AM	File Folder	
client				
data				
derby				
docs				
install				
pdp				
server				
access				
bin				
config				
spring				
web				

Configuring Modules

In the transition of 3.5, the interface of a module (also called the "role" in .fcfg files) is the name/id by which the module bean will be requested from the application context. Thus, if you are configuring the DOManager as a bean, you may write the following configuration to use the default implementation as a Spring bean:

```
<bean id="org.fcrepo.server.storage.DOManager"
  name="org.fcrepo.server.storage.DOManager"
  class="org.fcrepo.server.storage.DefaultDOManager"
  destroy-method="shutdownModule" init-method="initModule" autowire-candidate="true" lazy-init="true">
  <constructor-arg index="0">
    <bean factory-bean="org.fcrepo.server.storage.DOManagerConfiguration" factory-method="getParameters" />
  </constructor-arg>
  <constructor-arg index="1" ref="org.fcrepo.server.Server" />
  <constructor-arg index="2">
    <bean factory-bean="org.fcrepo.server.storage.DOManagerConfiguration" factory-method="getRole" />
  </constructor-arg>
</bean>
```

Take care to write and configure the shutdown/destroy methods for your module! Also note the configuration beans. It is a convention in 3.5 that a module configuration bean, if it is necessary, will be named (module name)Configuration. For example, the configuration in the example above, for **org.fcrepo.server.storage.DOManager**, is **org.fcrepo.server.storage.DOManagerConfiguration**. If you need such a configuration bean, you may use **org.fcrepo.server.config.ModuleConfiguration** bean to provide one like so:

```

<bean id="org.fcrepo.server.storage.DOManagerConfiguration"
      name="org.fcrepo.server.storage.DOManagerConfiguration"
      class="org.fcrepo.server.config.ModuleConfiguration"
      autowire-candidate="true">
<constructor-arg index="0">
<list>
<bean>
<constructor-arg type="java.lang.String" value="pidNamespace" />
<property name="value" value="changeme" />
</bean>
<bean>
<constructor-arg type="java.lang.String" value="storagePool" />
<property name="value" value="localDerbyPool" />
</bean>
<bean>
<constructor-arg type="java.lang.String" value="storageCharacterEncoding" />
<property name="value" value="UTF-8" />
</bean>
<bean>
<constructor-arg type="java.lang.String" value="defaultExportFormat" />
<property name="value" value="info:fedora/fedora-system:FOXML-1.1" />
</bean>
<bean>
<constructor-arg type="java.lang.String" value="gSearchRESTURL" />
<property name="value" value="http://localhost:8080/fedoragsearch/rest" />
</bean>
<bean>
<constructor-arg type="java.lang.String" value="gSearchUsername" />
<property name="value" value="exampleUsername" />
</bean>
<bean>
<constructor-arg type="java.lang.String" value="gSearchPassword" />
<property name="value" value="examplePassword" />
</bean>
</list>
</constructor-arg>
<constructor-arg index="1" type="java.lang.String" value="org.fcrepo.server.storage.DOManager" />
<constructor-arg index="2" type="java.lang.String" value="org.fcrepo.server.storage.DefaultDOManager" />
<constructor-arg index="3" type="java.lang.String" value="The interface to the storage subsystem." />
</bean>

```

Required Bean Configurations

As of the 3.5 release, there is only one uniformly required bean configuration: The *org.trippi.io.TripleIteratorFactory* bean must be included, with a destroy method mapped to "shutdown". If your repository has the Resource Index enabled, then you will also need an *org.fcrepo.server.resourceIndex.TripleGenerator* bean. Both of these beans are configured in \$FEDORA_HOME/server/config/spring/triple-generator.xml, which is present by default if you have run the installer.

Newly Configurable Components

TripleGenerator

When objects are created (or purged) in Fedora with the Resource Index enabled, Fedora uses a TripleGenerator to determine which triples should be added or deleted from the index. In version 3.5, this component is configurable in Spring. Editing this configuration allows the addition of new content model-to-generator mappings for the default triple generator, **org.fcrepo.server.resourceIndex.ModelBasedTripleGenerator**.

AttributeFinderModule

Beginning with version 3.5, the PolicyEnforcementPoint is configurable in Spring, allowing the configuration of new/additional AttributeFinderModules to support your XACML policy decisions.

Rebuilders

In version 3.5, the code that rebuilds Fedora's SQL database and Resource Index will look for all beans in the Spring context that implement **org.fcrepo.server.utilities.rebuild.Rebuilder**, and include them in its menu of rebuild options.

TriplestoreConnector

Version 3.5 includes changes designed to allow more flexible configuration of TriplestoreConnectors. There is an example of this configuration in `$FEDORA_HOME/server/config/spring/README.txt`.

Spring Application Contexts in Fedora 3.5

In Fedora 3.5, there are two "top level" application contexts: One manages the Spring components supporting the FESL authorization (AuthZ) filters, and the other is the Server context in which the Fedora modules (and other beans configured in `$FEDORA_HOME/server/config/spring`) are managed. These contexts are currently planned to be joined in a future version of Fedora.