

## Fedora4.0.0-alpha3 Notes (Built on 11/18/13)

Robin Dean, [robin@coalliance.org](mailto:robin@coalliance.org)

### Running Fedora 4

I downloaded the file on my Windows 7 PC, which has Java 7 Update 45 installed. I double-clicked on the download and, after a short wait, I got the Fedora screen and this friendly Windows Firewall notice:



Once I clicked "allow" everything was fine--running it was pretty painless!

### Notes on the overview page from the wiki

<https://wiki.duraspace.org/display/FF/Navigating+the+Repository+via+HTML+interface>

### Home

I really like the initial efforts to pull a few pieces of data out of the properties and display them in a more user-friendly manner (UUID, Created, Modified, Children).

I would like the option to collapse or expand the Properties box, and I think it could start out collapsed.

### Inlined Resources

The phrase "inlined resources" didn't mean anything to me and should be explained in the documentation if it's going to be a long-standing part of the interface.

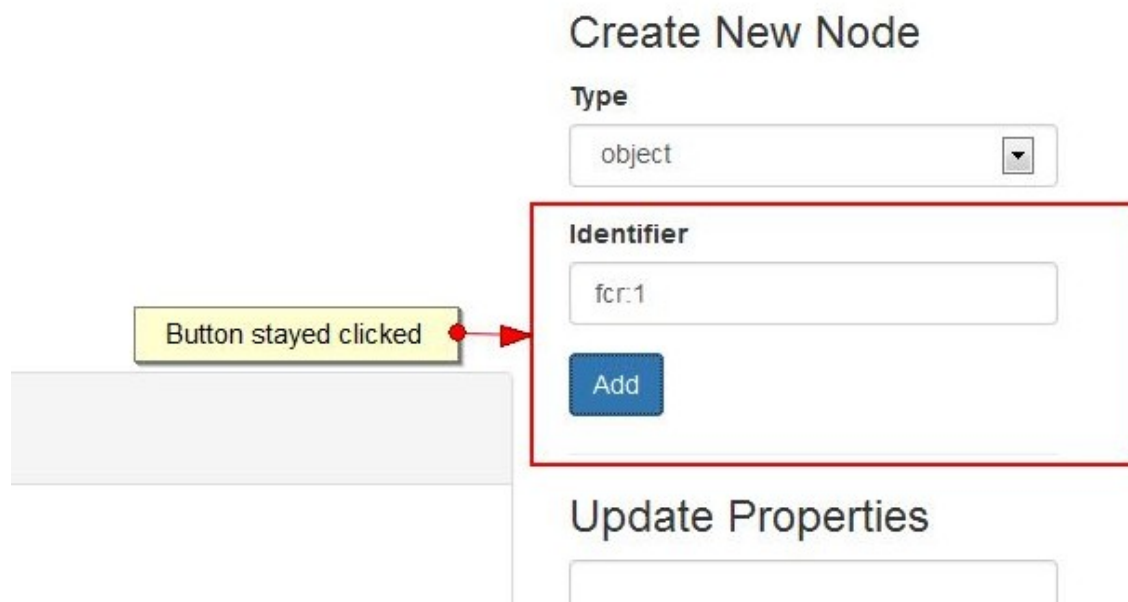
My guess was that "inlined resources" meant "resources one level up or down the hierarchy from the current resource." If that's true, I can see this section getting a

little out of control. (We have Fedora collections with 20,000 immediate child objects.)

## Ingest

"Create new node" worked well for me. I thought it was intuitive that the new node would be created under the current node, but it's good that this is mentioned in the documentation.

For identifiers, I both auto-generated an identifier and entered my own identifier successfully (I uploaded a "MODS" datastream in an object). I also unsuccessfully tried to create an object with a PID that looked like a Fedora 3 PID ("fcr:1"). I didn't get an error message, but I also didn't get a new node (the "Add" button just stayed pressed until I navigated away from the page.)



The screenshot shows a web interface for creating a new node. The title is "Create New Node". Below the title is a "Type" dropdown menu with "object" selected. Underneath is an "Identifier" input field containing the text "fcr:1". Below the input field is a blue "Add" button. A red box highlights the "Identifier" input field and the "Add" button. To the left of the "Add" button, a yellow callout box with the text "Button stayed clicked" has a red arrow pointing to the button. Below the "Add" button is a section titled "Update Properties" with an empty input field.

I want to like the UUIDs, but they made me realize how dependent we are in our current Fedora on having PIDs with meaning. We have multiple institutions in one Fedora, and each member gets their own namespace prefix (we use MARC org codes) to help intellectually separate their content. We also increment the PIDs automatically in each namespace. This is helpful because we immediately know that a PID that starts with **cogru:** belongs to UNC and that **cogru:1000** was probably created before **cogru:2000**. I'm sure there are other ways to do this with the RDF, and we'll have to think about how to handle this during migration.

The "object" and "datastream" terminology was familiar to me from Fedora 3.x, which was helpful because I wouldn't have automatically associated "node" with "ingested content." I'm assuming that "node" is Modeshape language and encompasses more than just objects and datastreams. If that's correct, this widget could use a more specific name like "Ingest Repository Content."

## Update Properties

I made an attempt at deleting the "Created By" statement just to see what would happen. (For good provenance/auditing, I was hoping I wouldn't be able to change "Created By" after the fact.)

I wrote this query:

```
DELETE { <http://fedora.info/definitions/v4/repository#> fcrepo:createdBy  
"bypassAdmin" }
```

And got this error:

```
com.hp.hpl.jena.query.QueryParseException: Line 3, column 58: Unresolved prefixed  
name: fcrepo:createdBy
```

(There may be other things wrong with my SPARQL query, but I let it go at that point!)

I had to go to the Namespaces page to see what the namespace prefix should be for <http://fedora.info/definitions/v4/repository#>. I would like to see the namespace prefix in the properties.

I read this page, but it was too generic to help me:

<https://wiki.duraspace.org/display/FF/Object+properties+and+SPARQL-UPDATE>

Some examples of complete queries using the namespaces and triples that Fedora uses would be useful in the documentation about the Update Properties widget.

## Namespaces

I was looking for the namespace that matches the URI <http://www.w3.org/ns/ldp#> to learn more about inlinedResource, but I didn't see it. I tried to register it myself using the "Register Namespace" widget here <http://localhost:8080/rest/fcr:namespaces> but nothing happened (no error, no added namespace).

I also got a "page not found" message when I tried to visit any URI that started with <http://www.jcp.org/jcr/>

## Search

I searched for the datastream I named MODS, and got results!

The search page still looks like a placeholder, but for what it's worth, I would prefer to see the results as the first thing on the page, as opposed to the block of search properties. Perhaps the search properties could be collapsed or put to one side?

## Unanswered Questions

1. What is "Update CND" on the Types page?
2. What are "transactions" and is the Transactions widget supposed to do anything yet?
3. Why are four parent (nodes? directories? pages?) created above each new object?

Fedora 4 Home Namespaces Workspaces Types Search Search

<http://localhost:8080/rest/38/29/e9/83/3829e983-d379-459c-b50e-991ee8869f24/612f6d67-cfc5-498e-abd1-d6d6c258393a>

Home 38 / 29 / e9 / 83 3829e983-d379-459c-b50e-991ee8869f24 61 / 2f / 6d / 67 612f6d67-cfc5-498e-abd1-d6d6c258393a

UUID  
cc8e885e-f65c-44fc-9425-156a430ea8e1

Created at  
2013-11-19T18:55:06.725Z by bypassAdmin

Last Modified at

Down Update

4. I understand namespaces, but what are "workspaces" and how are they different from namespaces?
5. Will there be a GUI-fied way to update some of the object properties eventually?

## Features I missed from Fedora 3

(Thought these were worth mentioning, though some of them may be "coming soon.")

1. Option to have human-readable labels in the interface for objects and datastreams
2. Ability to preserve the filename of uploaded files (all files are renamed to fcr\_content)

3. Export in something more library-friendly than jcr/xml (the standard is perhaps still METS?)
4. Content models! (Perhaps these are now "Types"?)

## Errors I encountered

### Error # 1 - fcr:fixity

HTTP ERROR 500

Problem accessing

/rest/38/29/e9/83/3829e983-d379-459c-b50e-991ee8869f24/MODS/fcr:fixity. Reason:

Server Error

Caused by:

org.apache.velocity.exception.VelocityException: Reference \$subject.getURI() evaluated to null when attempting to render at /views/node.vsl[line 56, column 64]

at

org.apache.velocity.runtime.parser.node.ASTReference.render(ASTReference.java:443)

at org.apache.velocity.runtime.parser.node.ASTBlock.render(ASTBlock.java:72)

at

org.apache.velocity.runtime.parser.node.ASTIfStatement.render(ASTIfStatement.java:87)

at org.apache.velocity.runtime.parser.node.ASTBlock.render(ASTBlock.java:72)

at org.apache.velocity.runtime.directive.Foreach.render(Foreach.java:420)

at

org.apache.velocity.runtime.parser.node.ASTDirective.render(ASTDirective.java:207)

at

org.apache.velocity.runtime.parser.node.SimpleNode.render(SimpleNode.java:342)

at org.apache.velocity.Template.merge(Template.java:356)

at org.apache.velocity.Template.merge(Template.java:260)

at

org.fcrepo.http.commons.responses.BaseHtmlProvider.writeTo(BaseHtmlProvider.java:199)

at

org.fcrepo.http.commons.responses.BaseHtmlProvider.writeTo(BaseHtmlProvider.java:79)

at

com.sun.jersey.spi.container.ContainerResponse.write(ContainerResponse.java:306)

at

com.sun.jersey.server.impl.application.WebApplicationImpl.\_handleRequest(WebApplicationImpl.java:1479)

at

com.sun.jersey.server.impl.application.WebApplicationImpl.handleRequest(WebApplicationImpl.java:1391)

at

com.sun.jersey.server.impl.application.WebApplicationImpl.handleRequest(WebApplicationImpl.java:1381)

at

com.sun.jersey.spi.container.servlet.WebComponent.service(WebComponent.java:416)

at

com.sun.jersey.spi.container.servlet.ServletContainer.service(ServletContainer.java:538)

at

com.sun.jersey.spi.container.servlet.ServletContainer.service(ServletContainer.java:716)

at javax.servlet.http.HttpServlet.service(HttpServlet.java:848)

at org.eclipse.jetty.servlet.ServletHolder.handle(ServletHolder.java:686)

at org.eclipse.jetty.servlet.ServletHandler.doHandle(ServletHandler.java:501)

at org.eclipse.jetty.server.handler.ScopedHandler.handle(ScopedHandler.java:137)

at org.eclipse.jetty.security.SecurityHandler.handle(SecurityHandler.java:557)

at

org.eclipse.jetty.server.session.SessionHandler.doHandle(SessionHandler.java:231)

```
    at
org.eclipse.jetty.server.handler.ContextHandler.doHandle(ContextHandler.java:1086)
    at org.eclipse.jetty.servlet.ServletHandler.doScope(ServletHandler.java:428)
    at
org.eclipse.jetty.server.session.SessionHandler.doScope(SessionHandler.java:193)
    at
org.eclipse.jetty.server.handler.ContextHandler.doScope(ContextHandler.java:1020)
    at org.eclipse.jetty.server.handler.ScopedHandler.handle(ScopedHandler.java:135)
    at
org.eclipse.jetty.server.handler.ContextHandlerCollection.handle(ContextHandlerCollection.java:255)
    at
org.eclipse.jetty.server.handler.HandlerCollection.handle(HandlerCollection.java:154)
    at
org.eclipse.jetty.server.handler.HandlerWrapper.handle(HandlerWrapper.java:116)
    at org.eclipse.jetty.server.Server.handle(Server.java:370)
    at
org.eclipse.jetty.server.AbstractHttpConnection.handleRequest(AbstractHttpConnection.java:489)
    at
org.eclipse.jetty.server.AbstractHttpConnection.headerComplete(AbstractHttpConnection.java:949)
    at
org.eclipse.jetty.server.AbstractHttpConnection$RequestHandler.headerComplete(AbstractHttpConnection.java:1011)
    at org.eclipse.jetty.http.HttpParser.parseNext(HttpParser.java:644)
    at org.eclipse.jetty.http.HttpParser.parseAvailable(HttpParser.java:235)
    at
org.eclipse.jetty.server.AsyncHttpConnection.handle(AsyncHttpConnection.java:82)
    at
org.eclipse.jetty.io.nio.SelectChannelEndPoint.handle(SelectChannelEndPoint.java:668)
    at
org.eclipse.jetty.io.nio.SelectChannelEndPoint$1.run(SelectChannelEndPoint.java:52)
    at
org.eclipse.jetty.util.thread.QueuedThreadPool.runJob(QueuedThreadPool.java:608)
    at
org.eclipse.jetty.util.thread.QueuedThreadPool$3.run(QueuedThreadPool.java:543)
    at java.lang.Thread.run(Unknown Source)
```

## **Error #2: Versions of data streams**

I replaced my MODS data stream with another upload, but when I tried to find the previous version and clicked on this link:

<http://localhost:8080/rest/jcr:system/jcr:versionStorage/d2/67/9d/d2679d22ba84df2a5024744bc3865e69917765e8/1.0/jcr:frozenNode/fcr:content>

I got this error:

javax.jcr.nodetype.ConstraintViolationException: This node does not allow adding the mixin type "fedora:resource" at  
org.modeshape.jcr.AbstractJcrNode.addMixin(AbstractJcrNode.java:2557) at  
org.modeshape.jcr.AbstractJcrNode.addMixin(AbstractJcrNode.java:2539) at  
org.modeshape.jcr.JcrSystemNode.addMixin(JcrSystemNode.java:33) at  
org.fcrepo.kernel.FedoraResource.(FedoraResource.java:103) at  
org.fcrepo.kernel.Datastream.(Datastream.java:77) at org.fcrepo.kernel.Datastream.  
(Datastream.java:89) at  
org.fcrepo.kernel.services.DatastreamService.getDatastream(DatastreamService.java:167)  
at org.fcrepo.http.api.FedoraContent.getContent(FedoraContent.java:252) at  
sun.reflect.NativeMethodAccessorImpl.invoke0(Native Method) at  
sun.reflect.NativeMethodAccessorImpl.invoke(Unknown Source) at  
sun.reflect.DelegatingMethodAccessorImpl.invoke(Unknown Source) at  
java.lang.reflect.Method.invoke(Unknown Source) at  
com.sun.jersey.spi.container.JavaMethodInvokerFactory\$1.invoke(JavaMethodInvokerFactory.j  
ava:60) at  
com.sun.jersey.server.impl.model.method.dispatch.AbstractResourceMethodDispatchProvide  
r\$ResponseOutInvoker.\_dispatch(AbstractResourceMethodDispatchProvider.java:205) at  
com.sun.jersey.server.impl.model.method.dispatch.ResourceJavaMethodDispatcher.dispatch(  
ResourceJavaMethodDispatcher.java:75) at  
com.codahale.metrics.jersey.InstrumentedResourceMethodDispatchProvider\$TimedRequestD  
ispatcher.dispatch(InstrumentedResourceMethodDispatchProvider.java:30) at  
com.sun.jersey.server.impl.uri.rules.HttpMethodRule.accept(HttpMethodRule.java:302) at  
com.sun.jersey.server.impl.uri.rules.ResourceClassRule.accept(ResourceClassRule.java:108)  
at  
com.sun.jersey.server.impl.uri.rules.RightHandPathRule.accept(RightHandPathRule.java:147)  
at  
com.sun.jersey.server.impl.uri.rules.RootResourceClassesRule.accept(RootResourceClassesR  
ule.java:84) at  
com.sun.jersey.server.impl.application.WebApplicationImpl.\_handleRequest(WebApplicationI  
mpl.java:1511) at  
com.sun.jersey.server.impl.application.WebApplicationImpl.\_handleRequest(WebApplicationI  
mpl.java:1442) at  
com.sun.jersey.server.impl.application.WebApplicationImpl.handleRequest(WebApplicationIm  
pl.java:1391) at  
com.sun.jersey.server.impl.application.WebApplicationImpl.handleRequest(WebApplicationIm  
pl.java:1381) at  
com.sun.jersey.spi.container.servlet.WebComponent.service(WebComponent.java:416) at  
com.sun.jersey.spi.container.servlet.ServletContainer.service(ServletContainer.java:538) at  
com.sun.jersey.spi.container.servlet.ServletContainer.service(ServletContainer.java:716) at  
javax.servlet.http.HttpServlet.service(HttpServlet.java:848) at  
org.eclipse.jetty.servlet.ServletHolder.handle(ServletHolder.java:686) at  
org.eclipse.jetty.servlet.ServletHandler.doHandle(ServletHandler.java:501) at  
org.eclipse.jetty.server.handler.ScopedHandler.handle(ScopedHandler.java:137) at  
org.eclipse.jetty.security.SecurityHandler.handle(SecurityHandler.java:557) at  
org.eclipse.jetty.server.session.SessionHandler.doHandle(SessionHandler.java:231) at  
org.eclipse.jetty.server.handler.ContextHandler.doHandle(ContextHandler.java:1086) at  
org.eclipse.jetty.servlet.ServletHandler.doScope(ServletHandler.java:428) at



org.eclipse.jetty.server.session.SessionHandler.doScope(SessionHandler.java:193) at  
org.eclipse.jetty.server.handler.ContextHandler.doScope(ContextHandler.java:1020) at  
org.eclipse.jetty.server.handler.ScopedHandler.handle(ScopedHandler.java:135) at  
org.eclipse.jetty.server.handler.ContextHandlerCollection.handle(ContextHandlerCollection.java:255) at  
org.eclipse.jetty.server.handler.HandlerCollection.handle(HandlerCollection.java:154) at  
org.eclipse.jetty.server.handler.HandlerWrapper.handle(HandlerWrapper.java:116) at  
org.eclipse.jetty.server.Server.handle(Server.java:370) at  
org.eclipse.jetty.server.AbstractHttpConnection.handleRequest(AbstractHttpConnection.java:489) at  
org.eclipse.jetty.server.AbstractHttpConnection.headerComplete(AbstractHttpConnection.java:949) at  
org.eclipse.jetty.server.AbstractHttpConnection\$RequestHandler.headerComplete(AbstractHttpConnection.java:1011) at org.eclipse.jetty.http.HttpParser.parseNext(HttpParser.java:644)  
at org.eclipse.jetty.http.HttpParser.parseAvailable(HttpParser.java:235) at  
org.eclipse.jetty.server.AsyncHttpConnection.handle(AsyncHttpConnection.java:82) at  
org.eclipse.jetty.io.nio.SelectChannelEndPoint.handle(SelectChannelEndPoint.java:668) at  
org.eclipse.jetty.io.nio.SelectChannelEndPoint\$1.run(SelectChannelEndPoint.java:52) at  
org.eclipse.jetty.util.thread.QueuedThreadPool.runJob(QueuedThreadPool.java:608) at  
org.eclipse.jetty.util.thread.QueuedThreadPool\$3.run(QueuedThreadPool.java:543) at  
java.lang.Thread.run(Unknown Source)