





# Release Testing - 4.7.5

## Testing Tickets

- RC-1
  - blocker -  [FCREPO-2664](#) - Narayana needs properties or tries to use user.home CLOSED
  - non-blocker -  [FCREPO-2666](#) - HTML UI does not update properly after binary resource reversion OPEN
  - non-blocker -  [FCREPO-2665](#) - Integration tests flap on non-virtualized windows 10 machines. OPEN
- RC-2
  - blocker -  [FCREPO-2667](#) - Fcrepo 4.7.5 RC2 defaults to file-simple modeshape config when DB one is specified CLOSED

## External Projects

### Hydra ([instructions](#))

| Project      | Tested by   | Success? RC-1 | Success RC-2 | Notes                    |
|--------------|---|---------------|--------------|--------------------------|
| ActiveFedora | <a href="#">Esmé Cowles</a><br><a href="#">Stuart Kenny</a> | ✓             | ✓            |                          |
| Hyrax        | <a href="#">Esmé Cowles</a>                                 | ✓             |              |                          |
| Sufia        | <a href="#">Jennifer Smith</a>                              | ✓             |              | Tested 7.3-stable branch |
| Valkyrie     | <a href="#">Esmé Cowles</a><br><a href="#">Stuart Kenny</a> | ✓             | ✓            |                          |
| Avalon 6.0   |   |               |              |                          |

### Islandora

| Project | Tested by                    | Success? RC-1 | Success? RC-2 | Notes |
|---------|------------------------------|---------------|---------------|-------|
| CLAW    | <a href="#">Jared Whiklo</a> | ✓             | ✓             |       |

### API-X

| Project                    | Tested by                      | Success? RC-1 | Success? RC-2 | Notes |
|----------------------------|--------------------------------|---------------|---------------|-------|
| fcrepo-api-x-integration   | <a href="#">Aaron Birkland</a> |               | ✓             |       |
| fcrepo-api-x-demo (Docker) |                                |               | ✓             |       |


## Testing Plan

```
git clone https://github.com/fcrepo4/fcrepo4
cd fcrepo4
git checkout 4.7.5-RC
```

## Sanity Builds

# Scripts

<https://github.com/awoods/fcrepo-build-scripts>

| Project                  | Command           | Platform | Tested By   | RC 1   | RC 2                            | Notes  |
|--------------------------|-------------------|----------|---|--------|---------------------------------|--|
| fcrepo4                  | mvn clean install | linux    | <a href="#">Andrew Woods</a>  | ✓      | ✓ <a href="#">Jar ed Whiklo</a> |  |
| fcrepo4                  | mvn clean install | mac      | <a href="#">Joshua Westgard</a><br><a href="#">Danny Bernstein (rc-2)</a> | ✓      | ✓                               | Frequent warning: "Unable to update victims database! Your CVE records might be out of date."  |
| fcrepo4                  | mvn clean install | windows  | <a href="#">Ben Pennell</a><br><a href="#">Aaron Birkland</a>             | ✗<br>✓ | ✓                               | <p>I wasn't able to perform a sanity build in Windows 10 due to some integration tests in fcrepo-kernel-modeshape failing. A few of them were failing because the last modified date for binaries was not updating all of the time (tests were flapping).</p> <p> <a href="#">FCREPO-2665</a> - Integration tests flap on non-virtualized windows 10 machines. <a href="#">OPEN</a></p> <p><a href="#">Danny Bernstein</a>: NB - apparently this has been an ongoing issue. Apparently Windows 10 on hyper-v works, but is failing/flapping on direct windows install. <a href="#">Aaron Birkland</a> and <a href="#">Yinlin Chen</a> worked on resolving this a while back but did not crack it.</p> |
| fcrepo-module-auth-rbac1 | mvn clean install | linux    | <a href="#">Andrew Woods</a>  | ✓      | ✓ <a href="#">Jar ed Whiklo</a> |  |
| fcrepo-module-auth-rbac1 | mvn clean install | mac      | <a href="#">Peter Eichman</a><br><a href="#">Danny Bernstein (rc2)</a>    | ✓      | ✓                               | Frequent warning: "Unable to update victims database! Your CVE records might be out of date."  |
| fcrepo-module-auth-rbac1 | mvn clean install | windows  | <a href="#">Aaron Birkland</a>  | ✓      | ✓                               |  |
| fcrepo-module-auth-xacml | mvn clean install | mac      | <a href="#">Peter Eichman</a><br><a href="#">Danny Bernstein (rc2)</a>    | ???    | ✓                               | No 4.7.5-RC branch or tag  |
| fcrepo-module-auth-xacml | mvn clean install | windows  |   |        |                                 |  |
| fcrepo-module-auth-webac | mvn clean install | linux    | <a href="#">Andrew Woods</a>  | ✓      | ✓ <a href="#">Jar ed Whiklo</a> |  |
| fcrepo-module-auth-webac | mvn clean install | mac      | <a href="#">Peter Eichman</a><br><a href="#">Danny Bernstein (rc2)</a>    | ✓      | ✓                               | Frequent warning: "Unable to update victims database! Your CVE records might be out of date."  |
| fcrepo-module-auth-webac | mvn clean install | windows  | <a href="#">Aaron Birkland</a>  | ✓      | ✓                               |  |
| fcrepo-mint              | mvn clean install | linux    | <a href="#">Andrew Woods</a>  | ✓      | ✓ <a href="#">Jar ed Whiklo</a> |  |
| fcrepo-mint              | mvn clean install | mac      | <a href="#">Peter Eichman</a><br><a href="#">Danny Bernstein (rc-2)</a>   | ✓      | ✓                               | Frequent warning: "Unable to update victims database! Your CVE records might be out of date."  |
| fcrepo-mint              | mvn clean install | windows  | <a href="#">Aaron Birkland</a>  | ✓      | ✓                               |  |

|                    |                           |         |   |   |                |   |
|--------------------|---------------------------|---------|---|---|----------------|---|
| fcrepo-audit       | mvn clean install         | linux   | Andrew Woods                            | ✓ | ✓ Jared Whiklo |   |
| fcrepo-audit       | mvn clean install         | mac     | Peter Eichman<br>Danny Bernstein (rc-2) | ✓ | ✓              | Frequent warning: "Unable to update victims database! Your CVE records might be out of date." |
| fcrepo-audit       | mvn clean install         | windows | Aaron Birkland                          | ✓ | ✓              |   |
| fcrepo-webapp-plus | mvn clean install         | linux   | Andrew Woods                            | ✓ | ✓ Jared Whiklo |   |
| fcrepo-webapp-plus | mvn clean install         | mac     | Peter Eichman<br>Danny Bernstein (rc-2) | ✓ | ✓              | Frequent warning: "Unable to update victims database! Your CVE records might be out of date." |
| fcrepo-webapp-plus | mvn clean install         | windows | Aaron Birkland                          | ✓ | ✓              |   |
| fcrepo-webapp-plus | mvn clean install -Pwebac | linux   | Andrew Woods                            | ✓ | ✓ Jared Whiklo |   |
| fcrepo-webapp-plus | mvn clean install -Pwebac | mac     | Peter Eichman<br>Danny Bernstein (rc-2) | ✓ | ✓              | Frequent warning: "Unable to update victims database! Your CVE records might be out of date." |
| fcrepo-webapp-plus | mvn clean install -Pwebac | windows | Aaron Birkland                          | ✓ | ✓              |   |

**Note (18 January 2018):** The victims database warnings are due to the victi.ms site currently returning a 503 error. Jared Whiklo has reported this issue upstream: <https://github.com/victims/victims-web/issues/155>

## One-Click Run

```
cd fcrepo-webapp; mvn clean install -Pone-click
```

| Command  | Platform | Tested By                                | RC-1 | RC-2 | Notes |
|--|----------|--|------|------|-------|
| java -jar fcrepo-webapp-<version>-SNAPSHOT-jetty-console.jar | Linux    | Andrew Woods<br>Jared Whiklo (RC 2)      | ✓    | ✓    |       |
| java -jar fcrepo-webapp-<version>-SNAPSHOT-jetty-console.jar | Mac      | Joshua Westgard<br>Danny Bernstein (rc2) | ✓    | ✓    |       |
| java -jar fcrepo-webapp-<version>-SNAPSHOT-jetty-console.jar | Windows  | Aaron Birkland                           | ✓    | ✓    |       |

## Manual Tests




All of the below should take place in the HTML UI and non-vagrant tests should run against **fcrepo-webapp-plus**.

1. Create nested containers
2. Create binary resources
3. Run fixity on binary
4. Update Properties: Perform SPARQL-Update on container
5. Update Properties: Perform SPARQL-Update on binary
6. Delete container
7. Delete binary
8. Use transactions
9. Create versions
10. View versions
11. Rollback versions

## Database Tests

With Tomcat7 deployment, run above manual tests with alternate backend databases ([Configuring JDBC Object Store](#))

| Database   | Platform | Tested by                          | Success RC1?                           | Success RC2? | Notes  |
|------------|----------|------------------------------------|--|--------------|--|
| MySQL      | osx      | Danny Bernstein<br>Joshua Westgard | ✓<br>✓                                 | ✓            | <p><b>Danny Bernstein:</b> Restoring v1 after creating v2 does not seem to work:</p> <p>Steps to reproduce: 1. Create a binary with fileA.jpg</p> <p>2. Create version v1.</p> <p>3. Update binary with fileB.jpg</p> <p>4. Create version v2.</p> <p>5. Click on versions link and click on v1 link.</p> <p>6. Click "Revert to this Version"</p> <p>7. Return to binary resource metadata page. Notice the file associated with the version fileB.jpg rather than the expected fileA.jpg. It does not appear that the version was reverted.</p> <p><b>Joshua Westgard:</b> Hey <b>Danny Bernstein</b>, when I tested the versioning I was just making changes to metadata not binaries and didn't notice any problems; after seeing your note, however, I tried with a binary and did notice that the browser cached the previous version, so after restoring it was still displaying the previous data, but upon refreshing the resource page the restored version was visible as expected. Any chance this is the same problem you were seeing?</p> <p><b>Joshua Westgard:</b> could be, though I thought I did a hard refresh. I'll try it again to conf him.</p> <p><b>Joshua Westgard:</b> I must not have done a hard refresh. So yes after a hard refresh it worked. I wonder if it should be a logged as a bug nevertheless. Ideally any refresh would not be required at all. A Command-R refresh doesn't refresh the page. Only Command-Shift-R. It seems like it could be a source of confusion. Perhaps a JIRA is warranted. Here it is:</p> <div style="border: 1px solid #ccc; padding: 5px; margin-top: 10px;">  <a href="#">FCREPO-2666</a> - HTML UI does not update properly after binary resource reversion <span style="float: right;">OPEN</span> </div> |
| PostgreSQL | osx      | Joshua Westgard                    | config successful; testing in progress |              |  |
| PostgreSQL | linux    | Kevin Ford                         | ✓                                      | ✓            | Tests were performed against fcrepo-webapp-4.7.5-RC not fcrepo-webapp- <b>plus</b> -4.7.5-RC.  |
| MySQL5.6   | linux    | Kevin Ford                         | ✓                                      | ✓            | Tests were performed against fcrepo-webapp-4.7.5-RC not fcrepo-webapp- <b>plus</b> -4.7.5-RC.  |
| PostgreSQL | linux    | Kevin Ford                         | ✓                                      | ✓            | Tests were performed against fcrepo-webapp- <b>plus</b> -4.7.5-RC.   |
| MySQL5.6   | linux    | Kevin Ford                         | ✓                                      | ✓            | Tests were performed against fcrepo-webapp- <b>plus</b> -4.7.5-RC.   |

## fcr:backup/fcr:restore Functionality

These tests are designed to ensure the proper function of the 'fcr:backup/fcr:restore' features by testing them against various Fedora configurations. The validity of the 'restore' can only be determined by crawling the repository and verifying the successful retrieval of the repository's content.

If the anticipated Fedora release is not backwards compatible with the previous version of Fedora, then the "From Fedora Version" should be the previous version. Otherwise, it is sufficient to test the fcr:backup/fcr:restore functionality using the same version.

See: [RESTful HTTP API - Backup and Restore](#)

```
# Backup
curl -X POST localhost:8080/rest/fcr:backup

# Restore
curl -X POST -d "/path/to/backup/directory" localhost:8080/rest/fcr:restore
```

## Resources

- These python scripts - [fcrepo-testing](#) - can be used to load RDF content and binary content to a Fedora repository and verify the integrity of the loaded resources. Output from the load process can be used to verify the integrity of a 'restored' repository. See the [README](#) for more info.
- This [script](#) can be used to walk your repository, failing if a non-success response is encountered.

| Tested by | Platform | Container (Tomcat /Jetty) | Database Backend | From Fedora Version | To Fedora Version | Number of RDF Resources | Number of Binaries | Size of Backup (du -h .) | Success RC1? | Success RC2? | Notes |
|-----------|----------|---------------------------|------------------|---------------------|-------------------|-------------------------|--------------------|--------------------------|--------------|--------------|-------|
|           | Linux    | Jetty                     | File-simple      | 4.7.5               | 4.7.5             |                         | 100                |                          |              |              |       |

|                |       |        |           |       |            |       |       |       |   |   |   |
|----------------|-------|--------|-----------|-------|------------|-------|-------|-------|---|---|---|
| Kevin Ford     | Linux | Tomcat | Postgres  | 4.7.1 | 4.7.5-RC   | 6400  | 6400  | 6.7 G | ✓ | ✓ | <p>Performed a GET test on all resources in 4.7.5 RC1 <b>before</b> /fcr:restore, thereby mimicking an 'in place upgrade.' All succeeded.</p> <p>RC2 test used backup of 471 from RC1 test.</p>   |
| Kevin Ford     | Linux | Tomcat | Postgres  | 4.7.3 | 4.7.5-RC   | 6400  | 6400  | 6.7 G | ✓ | ✓ | <p>Performed a GET test on all resources in 4.7.5 RC1 <b>before</b> /fcr:restore, thereby mimicking an 'in place upgrade.' All succeeded.</p> <p>RC2 test used backup of 473 from RC1 test.</p>   |
| Kevin Ford     | Linux | Tomcat | Postgres  | 4.7.4 | 4.7.5-RC   | 6400  | 6400  | 6.7 G | ✓ | ✓ | <p>Performed a GET test on all resources in 4.7.5 RC1 <b>before</b> /fcr:restore, thereby mimicking an 'in place upgrade.' All succeeded.</p> <p>RC2 test used backup of 474 from RC1 test.</p>   |
| Michael Durbin | Linux | Tomcat | Mysql     | 4.7.4 | 4.7.5-RC-1 | 79456 | 11969 | 96G   | ✓ |   | <p>Performed an fcr:export from 4.7.4. Performed an fcr:import to 4.7.5-RC-1. Performed a reindex using camel (to walk all RDF resources). I did not test every binary.</p>   |
| Kevin Ford     | Linux | Tomcat | Mysql 5.6 | 4.7.5 | 4.7.5-RC-1 | 6400  | 6400  | 6.7 G | ✓ | ✓ | <p>Performed a GET test on all resources in 4.7.5 RC1 <b>before</b> /fcr:restore, as verification. All succeeded.</p> <p>For RC2 test, the backup that was restored in this test was actually created from a postgres backend repo.</p> |
| Kevin Ford     | Linux | Tomcat | Postgres  | 4.7.5 | 4.7.5-RC   | 6400  | 6400  | 6.7 G | ✓ | ✓ | <p>Performed a GET test on all resources in 4.7.5 RC2 <b>before</b> /fcr:restore, as verification. All succeeded.</p> <p>For RC1 test, the backup that was restored in this test was actually created from a mysql backend repo.</p>    |

NB: "Success" is measured not by receiving a "204 No Content" message after the 'fcr:restore' command, but by performing a GET on every resource in the repository and receiving "200 OK" messages.

## Vagrant Tests

```
vagrant destroy
vagrant up
```

| Test steps                                     | Tested By      | Success RC2? | Notes  |
|--|----------------|--------------|--|
| FEDORA_A<br>UTH=true<br>FEDORA_A<br>UDIT=false | Bethany Seeger | ✓            | <ul style="list-style-type: none"> <li>✓ auth working</li> <li>✓ audit disabled</li> <li>✓ triplestore is staying in sync</li> <li>✓ solr</li> <li>✓ triplestore reindexing</li> </ul> |

|   |                    |   |   |
|---|--------------------|---|---|
| FEDORA_A<br>UTH=false<br>FEDORA_A<br>UDIT=false | Danny<br>Bernstein | ✓ | <ul style="list-style-type: none"> <li>✓ auth (disabled as expected)</li> <li>✓ audit disabled</li> <li>✓ triplestore is staying in sync</li> <li>✓ solr</li> <li>✓ triplestore reindexing</li> </ul>   |
| FEDORA_A<br>UTH=true<br>FEDORA_A<br>UDIT=true   | Danny<br>Bernstein | ✓ | <ul style="list-style-type: none"> <li>✓ Triple Store</li> <li>✓ Auth</li> <li>✓ Reindexing</li> <li>✓ Solr (after a "vagrant box update" and "vagrant destroy" it seems to work now).</li> </ul> <p>⚠ However, if I add an RDF triple to a node (in my case <code>&lt;= de:title "blah" &gt;</code>), I'm am not seeing the change reflected in solr. The triple is however present in fuseki.</p> <p>Is this expected behavior? ie are only some triples propagated to solr?</p> <p>The above turns out not to be an issue. Updates to solr are collected and then execute in batch operations. I just needed to wait a few seconds.</p> <ul style="list-style-type: none"> <li>✓ Audit events: with this caveat</li> </ul> <p>⚠ I am seeing this stacktrace in the karaf logs upon adding a resource. Not sure if it is a problem. Audit events are being logged properly as far as I can tell in /audit and fuseki is also receiving the audit triples.</p> <p>sudo tail -f /opt/karaf/data/log/karaf.log:</p> <p>Stacktrace</p> <pre>----- org.fcrepo.client.FcrepoOperationFailedException: HTTP operation failed invoking info:fedora/audit with statusCode: -1 and message: URI does not specify a valid host name: info:fedora/audit at org.fcrepo.client.FcrepoClient.executeRequest(FcrepoClient.java:218)[152:org.fcrepo.client.fcrepo-java-client:0.2.1] at org.fcrepo.client.FcrepoClient.executeRequest(FcrepoClient.java:204)[152:org.fcrepo.client.fcrepo-java-client:0.2.1] at org.fcrepo.client.RequestBuilder.perform(RequestBuilder.java:77)[152:org.fcrepo.client.fcrepo-java-client:0.2.1] at org.fcrepo.camel.FcrepoProducer.getMetadataUri(FcrepoProducer.java:251)[201:org.fcrepo.camel.fcrepo-camel:4.5.0] at org.fcrepo.camel.FcrepoProducer.getUri(FcrepoProducer.java:225)[201:org.fcrepo.camel.fcrepo-camel:4.5.0] at org.fcrepo.camel.FcrepoProducer.doRequest(FcrepoProducer.java:194)[201:org.fcrepo.camel.fcrepo-camel:4.5.0] at org.fcrepo.camel.FcrepoProducer.process(FcrepoProducer.java:156)[201:org.fcrepo.camel.fcrepo-camel:4.5.0] at org.apache.camel.util.AsyncProcessorConverterHelper\$ProcessorToAsyncProcessorBridge.process (AsyncProcessorConverterHelper.java:61)[58:org.apache.camel.camel-core:2.18.0] at org.apache.camel.processor.SendProcessor.process(SendProcessor.java:145)[58:org.apache.camel.camel-core:2.18.0] at org.apache.camel.management.InstrumentationProcessor.process(InstrumentationProcessor.java:77)[</pre> <ul style="list-style-type: none"> <li>ℹ I confirmed that this behavior exists in the 4.7.4</li> </ul> |
| FEDORA_A<br>UTH=false<br>FEDORA_A<br>UDIT=true  | Danny<br>Bernstein | ✓ | <ul style="list-style-type: none"> <li>✓</li> </ul>   |

## Manual Tests

Same as above, plus:

(for reference: [https://docs.google.com/presentation/d/1aU-qRVmU0IB18ywepk2AGYEmRe-HflwhUaofHgathGQ/edit#slide=id.g11caa1fd99\\_0\\_0](https://docs.google.com/presentation/d/1aU-qRVmU0IB18ywepk2AGYEmRe-HflwhUaofHgathGQ/edit#slide=id.g11caa1fd99_0_0))

1. Verify audit events are in triplestore
2. Verify resources are in triplestore
3. Verify resources are in Solr
4. Verify authorization works for the two auth-enabled configurations
5. Verify reindexing to triplestore works

```
vagrant ssh
sudo service tomcat7 stop
sudo rm -rf /etc/fuseki/databases/test_data/*
sudo service tomcat7 start
curl -XPOST localhost:9080/reindexing/ -H"Content-Type: application/json" -d '["activemq:queue:
triplestore.reindex"]'
```

## Backwards Compatibility Tests

1. Start [4.7.4 one-click](#)

2. Load [sample datasets](#) via /fcr:restore
3. Run [test scripts](#) on 4.7.4
4. Stop 4.7.4
5. Start RC one-click
6. Run [test scripts](#) on RC
7. ReStart RC
8. Run [test scripts](#) on RC

| Tested by                       | Success RC1 | Success RC2 | Notes   |
|---------------------------------|-------------|-------------|---|
| <a href="#">Kevin Ford</a>      | ✓           | ✓           | Did not run camel_toolbox_tests or authz_tests. |
| <a href="#">Danny Bernstein</a> |             | ✓           |   |

## Resources

[1] [Testing scripts](#)

[2] [Fedora 4 Release Test Suite](#)