

Release Testing - 5.0.0

Testing Tickets

RC-1 Testing

-
-
- Unable to locate Jira server for this macro. It may be due to Application Link configuration.

Defer to 5.1

-
-
- Unable to locate Jira server for this macro. It may be due to Application Link configuration.

RC-2 Testing

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-
-
-
- Unable to locate Jira server for this macro. It may be due to Application Link configuration.

External Projects

Samvera ([instructions](#))

Project	Tested by	Success? RC-1	Success? RC-2	Success? RC-3	Notes
valkyrie	Esmé Cowles	blocked URL	blocked URL	blocked URL	Support merged into master branch

Islandora ([testing ticket](#))

Project	Tested by	Success? RC-2	Success? RC-3	Notes
CLAW	Jared Whiklo			Discovered FCREPO-2961 with regards to authentication RC-3 works once https://github.com/Islandora-CLAW/Syn/pull/14 is merged.

API-X

Project	Tested by	Success? RC-2	Success? RC-3	Notes
fcrepo-api-x-integration				
fcrepo-api-x-demo (Docker)				

Testing Plan

```
git clone https://github.com/fcrepo4/fcrepo4
cd fcrepo4
git checkout fcrepo-5.0.0-RC-3
```

```
# or pull pre-built resources from https://github.com/fcrepo4/fcrepo4/releases/tag/fcrepo-5.0.0-RC-2
```

Sanity Builds

Scripts

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

Project	Command	Platform	Tested By	RC 1	RC 2	RC 3	Notes
fcrepo4	mvn clean install	linux	Yinlin Chen	blocked URL			Build successful on Ubuntu Server 16.04 LTS (HVM)
			Andrew Woods	✓			
			Randall Floyd		✓	blocked URL	Build successful on Fedora Linux 27; openjdk version "1.8.0_191"; Maven 3.5.0 (Red Hat 3.5.0-6)
			Yinlin Chen			blocked URL	
fcrepo4	mvn clean install	mac	Yinlin Chen	blocked URL	blocked URL	blocked URL	Build successful
fcrepo4	mvn clean install	windows	Yinlin Chen			blocked URL	Build successful

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>

API-Test Suite

1. Start Fedora with the following command

```
mvn jetty:run -Dfcrepo.external.content.allowed=fcrepo-http-api/src/test/resources
/allowed_external_paths.txt -Dfcrepo.auth.webac.userAgent.baseUrl=http://example.com/ -pl fcrepo-webapp/
```

2. Run the API-Test suite with the following command

```
java -jar target/testsuite-1.0-SNAPSHOT-shaded.jar -c config-local.yml
```

- a. Where "config-local.yml" is something like the following

```

default:
rooturl: http://localhost:8080/rest/
root-controller-user-webid: http://example.com/fedoraAdmin
root-controller-user-name: fedoraAdmin
root-controller-user-password: fedoraAdmin
permissionless-user-webid: http://example.com/testuser
permissionless-user-name: testuser
permissionless-user-password: testpass
broker-url: tcp://127.0.0.1:61616
topic-name: fedora
queue-name:
implementation-name: Fedora
implementation-version: 5.0.0-RC
tomcat:
rooturl: http://localhost:8080/fcrepo/rest/
root-controller-user-webid: http://example.com/fedoraAdmin
root-controller-user-name: fedoraAdmin
root-controller-user-password: secret3
permissionless-user-webid: http://example.com/testuser
permissionless-user-name: testuser
permissionless-user-password: password1
broker-url: tcp://127.0.0.1:61616
topic-name: fedora
queue-name:
implementation-name: Fedora
implementation-version: 5.0.0-RC

```

Platform	Test Suite Version	Tested by	Results RC-2 (#pass, fail,skip)	Results RC-3 (#pass, fail,skip)	Notes
Fedora Linux 27	f3dd201	Randall Floyd	Total tests run: 238, Failures: 12, Skips: 23	Total tests run: 238, Failures: 12, Skips: 23	
Ubuntu		Andrew Woods	Total tests run: 220, Failures: 13, Skips: 16		
Mac 10.14		Yinlin Chen	Total tests run: 238, Failures: 44, Skips: 16		 testsuite-...eport.html  testng-local.xml  config-local.yml

Mac OSX 10.13.6	a40ce88	Danny Bernstein	Total tests run: 238, Failures: 12, Skips: 23		 Fedora API Test Suite Report.pdf
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One-Click Run

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

Command	Platform	Tested By	RC-1	RC-2	RC-3	Notes
java -jar fcrepo-webapp-<version>-SNAPSHOT-jetty-console.jar	Linux	Andrew Woods		✓		Ran one-click and successfully performed manual tests
java -jar fcrepo-webapp-<version>-SNAPSHOT-jetty-console.jar	Fedora Linux 27	Randall Floyd		✓	blocked URL	Built and ran one-click, successfully performed manual tests
java -jar fcrepo-webapp-<version>-SNAPSHOT-jetty-console.jar	Mac	Yinlin Chen Danny Bernstein	blocked URL	blocked URL	✓	Build and start One-Click run successfully
java -jar fcrepo-webapp-<version>-SNAPSHOT-jetty-console.jar	Windows					

Manual Tests

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

- 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

WebAC Tests

Use the following recipes to create WebAC-protected resources

Default ACL

```
# root container should be read-only by default
curl -i -u testuser:testpass -X PUT http://localhost:8080/rest/test-default
# expect 403

# create a resource with admin
curl -i -u fedoraAdmin:fedoraAdmin -X PUT http://localhost:8080/rest/test-default
# expect 201

# resources inheriting the default acl should be read-only
curl -i -u testuser:testpass -X GET http://localhost:8080/rest/test-default
# expect 200
curl -i -u testuser:testpass -X PUT http://localhost:8080/rest/test-default/child
# expect 403
```

Platform	Tested by	Success? RC-2	Success? RC-3	Notes
Mac	Danny Bernstein	✓	✓	
Fedora Linux 27	Randall Floyd	blocked URL		

Simple read-only

```
# create a resources with admin
curl -i -u fedoraAdmin:fedoraAdmin -X PUT http://localhost:8080/rest/test-read-only

curl -i -u fedoraAdmin:fedoraAdmin -X PUT http://localhost:8080/rest/test-read-only/child

# put read-only acl on parent
echo "
@prefix acl: <http://www.w3.org/ns/auth/acl#> .
@prefix foaf: <http://xmlns.com/foaf/0.1/> .

<#restricted> a acl:Authorization ;
               acl:agent 'testuser' ;
               acl:mode acl:Read;
               acl:default <http://localhost:8080/rest/test-read-only> ;
               acl:accessTo <http://localhost:8080/rest/test-read-only> .
" | curl -i -u fedoraAdmin:fedoraAdmin -d @- -X PUT -H "Content-Type: text/turtle" http://localhost:8080/rest/test-read-only/fcr:acl

# Verify expected access privileges on target and child - ie read but not write
curl -i -u testuser:testpass -X GET http://localhost:8080/rest/test-read-only/child
# expect 200
curl -i -u testuser:testpass -X POST http://localhost:8080/rest/test-read-only/child
# expect 403
```

Platform	Tested by	Success? RC-2	Success? RC-3	Notes
Mac	Danny Bernstein	✓	✓	
Fedora Linux 27	Randall Floyd	blocked URL		

Simple read-write

```

# create a resources with admin
curl -i -u fedoraAdmin:fedoraAdmin -X PUT http://localhost:8080/rest/test-read-write

curl -i -u fedoraAdmin:fedoraAdmin -X PUT http://localhost:8080/rest/test-read-write/child

# put read-only acl on parent
echo "
@prefix acl: <http://www.w3.org/ns/auth/acl#> .
@prefix foaf: <http://xmlns.com/foaf/0.1/> .

<#restricted> a acl:Authorization ;
               acl:agent 'testuser' ;
               acl:mode acl:Read, acl:Write;
               acl:default <http://localhost:8080/rest/test-read-write> ;
               acl:accessTo <http://localhost:8080/rest/test-read-write> .
" | curl -i -u fedoraAdmin:fedoraAdmin -d @- -X PUT -H "Content-Type: text/turtle" http://localhost:8080/rest/test-read-write/fcr:acl

# Verify expected access privileges on target and child - ie read and write
curl -i -u testuser:testpass -X GET http://localhost:8080/rest/test-read-write/child
# expect 200
curl -i -u testuser:testpass -X POST http://localhost:8080/rest/test-read-write/child
# expect 201

```

1. Create resource to protect
2. Create ACL on protected resource (read/write)
3. Create child of protected resource
4. Verify expected access privileges on target and child

Platform	Tested by	Success? RC-2	Success? RC-3	Notes
Mac	Danny Bernstein	✓	✓	
Fedora Linux 27	Randall Floyd	blocked URL		

External Content

Create and verify all three modes of external content handling: proxy, redirect, copy

```

#Proxy
curl -i -H"Link: <file:///local/file/storage/photo.png>; rel=\"http://fedora.info/definitions/fcrepo#ExternalContent\"; handling=\"proxy\"; type=\"image/png\"\" -XPUT -ufedoraAdmin:fedoraAdmin http://localhost:8080/rest/test_proxy_local_file

#verify that the binary is returned.
curl -i -u fedoraAdmin:fedoraAdmin -XGET -ufedoraAdmin:fedoraAdmin http://localhost:8080/rest/test_proxy_local_file

#remove the file one disk, repeat the previous command and verify that an error code is returned.

```

```
#Redirect
curl -i -H"Link: <https://duraspace.org/wp-content/themes/duraspace/assets/images/fedora/fedora-logo-black.png>; rel=\"http://fedora.info/definitions/fcrepo#ExternalContent\"; handling=\"redirect\"; type=\"image/png\"" -XPUT -ufedoraAdmin:fedoraAdmin http://localhost:8080/rest/test_redirect_remote_file
```

```
#Get the file and verify a 307 is returned
curl -i -ufedoraAdmin:fedoraAdmin http://localhost:8080/rest/test_redirect_remote_file
```

```
#Copy
curl -i -H"Link: <https://duraspace.org/wp-content/themes/duraspace/assets/images/fedora/fedora-logo-black.png>; rel=\"http://fedora.info/definitions/fcrepo#ExternalContent\"; handling=\"copy\"; type=\"image/png\"" -XPUT -ufedoraAdmin:fedoraAdmin http://localhost:8080/rest/test_copy_remote_file
```

```
#verify copied file returns 200.
```

```
curl -i -ufedoraAdmin:fedoraAdmin http://localhost:8080/rest/test_copy_remote_file
```

Handling (proxy,redirect,copy)	Platform	Tested by	Success? RC-2	Success? RC-3	Notes
proxy, redirect, copy	Mac	Danny Bernstein		✓	

Database Tests

With Tomcat8 deployment, run above manual tests with alternate backend databases ([Configuring JDBC Object Store](#))

Database	Platform	Tested by	Success RC1?	Success RC2	Success? RC-3	Notes
MySQL	macOS	James Silas Creel	blocked URL			High Sierra 10.13.6, MySQL 8.0.13
PostgreSQL	macOS	James Silas Creel	blocked URL			High Sierra 10.13.6, PostgreSQL 9.6.2
PostgreSQL	linux	Yinlin Chen	blocked URL	blocked URL		Ubuntu 16.04, PostgreSQL 9.4.20
MySQL5.6	linux	Yinlin Chen	blocked URL			Ubuntu 16.04, Mysql 5.7.24
PostgreSQL	windows					version 11.0-2
MySQL5.6	windows					

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 RC2?	Success? RC-3	Notes
Danny Bernstein	OSX 10.13.6	Jetty	File-simple	5.0.0-RC-2	5.0.0-RC-2	2821	0	500K	✓		
Danny Bernstein	OSX 10.13.6	Jetty	File-simple	5.0.0-RC-2	5.0.0-RC-2	2564	2564	2.6 GB	✓		
	Linux	Tomcat	Postgres								
	Linux	Tomcat	Postgres								
	Linux	Tomcat	Postgres								
	Linux	Tomcat	Mysql								
	Linux	Tomcat	Mysql 5.6								
	Linux	Tomcat	Postgres								

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?	Success? RC-3	Notes
FEDORA_AUTH=true				

Manual Tests

Same as above, plus:

(for reference: 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 [5.0.0 one-click](#)
2. Load [sample datasets](#) via /fcr:restore
3. Run [test scripts](#) on 5.0.0
4. Stop 5.0.0
5. Start RC one-click
6. Run [test scripts](#) on RC
7. ReStart RC
8. Run [test scripts](#) on RC

Tested by	Success RC2	Success? RC-3	Notes

Resources

[1] [Testing scripts](#)

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