

DCFUG Training - 3 Hands-on

These training archives may be out of date, but have been retained and kept available for the community's benefit in reviewing previous sessions.

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Learning Outcomes

- Deploying Fedora
- Explore core and external features
- Gain insight into content modeling (PCDM)

Prerequisites

Either

1. Vagrant setup:
 - Download and install VirtualBox: <https://www.virtualbox.org/wiki/Downloads>
 - Download and install Vagrant: <http://www.vagrantup.com/downloads.html>
 - Download the Fedora 4 VM: <https://github.com/fcrepo4-labs/fcrepo4-vagrant>
 - Note that you can either clone the repository to your desktop or just download the ZIP [2] and unzip it
 - Using a Command Line Interface, navigate to the VM folder from step 3 and run the command: *vagrant up*
 - Note that this step will take a while as the VM downloads and installs a virtual environment
 - Test the VM by opening your web browser and navigating to: <http://localhost:8080/fcrepo>
2. Or, [Standalone apps setup](#)

Explore Features

Using Google Chrome PostMan app, execute the following requests ([attached](#))

1. `curl -XPUT localhost:8080/fcrepo/rest/objects/`
2. `curl -XGET localhost:8080/fcrepo/rest/objects/`
3. `curl -XPUT -H"Content-Type: text/turtle" --data-binary @body localhost:8080/fcrepo/rest/objects/raven/`

body

```
PREFIX rdf: <http://www.w3.org/1999/02/22-rdf-syntax-ns#>
PREFIX indexing: <http://fedora.info/definitions/v4/indexing#>

<> a indexing:Indexable ;
    indexing:hasIndexingTransformation \"default\" ."
```

4. `curl -XGET localhost:8080/fcrepo/rest/objects/raven/`
5. `curl -XPUT -H"Content-Type: text/turtle" --data-binary @body localhost:8080/fcrepo/rest/objects/raven/files/`

body

```
PREFIX ldp: <http://www.w3.org/ns/ldp#>
PREFIX pcdm: <http://pcdm.org/models#>

<> a ldp:DirectContainer;
    ldp:membershipResource </fcrepo/rest/objects/raven/>;
    ldp:hasMemberRelation pcdm:hasFiles ."
```

6. curl -XGET localhost:8080/fcrepo/rest/objects/raven/files/
7. curl -XGET -H"Prefer: return=representation; include=\"http://fedora.info/definitions/v4/repository#EmbedResources\"" localhost:8080/fcrepo/rest/objects/raven/files/
8. curl -XGET -H"Prefer: return=representation; omit=\"http://fedora.info/definitions/v4/repository#ServerManaged\"" localhost:8080/fcrepo/rest/objects/raven/files/
9. curl -XPUT -H"Content-Type: application/pdf" localhost:8080/fcrepo/rest/objects/raven/files/page0
10. curl -XPATCH -H"Content-Type: application/sparql-update" --data-binary @body localhost:8080/fcrepo/rest/objects/raven/files/page0/fcr:metadata

body

```
PREFIX dc: <http://purl.org/dc/elements/1.1/>
PREFIX rdf: <http://www.w3.org/1999/02/22-rdf-syntax-ns#>
PREFIX indexing: <http://fedora.info/definitions/v4/indexing#>
DELETE { }
INSERT {
  <> indexing:hasIndexingTransformation \"default\";
  rdf:type indexing:Indexable }
WHERE { }"
```

11. curl -XPUT -H"Content-Type: application/pdf" localhost:8080/fcrepo/rest/objects/raven/files/page1
12. curl -XPATCH -H"Content-Type: application/sparql-update" --data-binary @body localhost:8080/fcrepo/rest/objects/raven/files/page1/fcr:metadata

body

```
PREFIX dc: <http://purl.org/dc/elements/1.1/>
PREFIX rdf: <http://www.w3.org/1999/02/22-rdf-syntax-ns#>
PREFIX indexing: <http://fedora.info/definitions/v4/indexing#>
DELETE { }
INSERT {
  <> indexing:hasIndexingTransformation \"default\";
  rdf:type indexing:Indexable }
WHERE { }"
```

13. curl -XPUT -H"Content-Type: text/turtle" --data-binary @body localhost:8080/fcrepo/rest/collections/

body

```
PREFIX rdf: <http://www.w3.org/1999/02/22-rdf-syntax-ns#>
PREFIX indexing: <http://fedora.info/definitions/v4/indexing#>

<> a indexing:Indexable ;
  indexing:hasIndexingTransformation \"default\" ."
```

14. curl -XGET -H"Content-Type: text/turtle" --data-binary @body localhost:8080/fcrepo/rest/collections/poe/

body

```
PREFIX rdf: <http://www.w3.org/1999/02/22-rdf-syntax-ns#>
PREFIX indexing: <http://fedora.info/definitions/v4/indexing#>

<> a indexing:Indexable ;
  indexing:hasIndexingTransformation \"default\" ."
```

15. curl -XGET localhost:8080/fcrepo/rest/collections/poe/
16. curl -XPUT -H"Content-Type: text/turtle" --data-binary @body localhost:8080/fcrepo/rest/collections/poe/members/

body

```
PREFIX ldp: <http://www.w3.org/ns/ldp#>
PREFIX pcdm: <http://pcdm.org/models#>
PREFIX ore: <http://www.openarchives.org/ore/terms/>

<> a ldp:IndirectContainer;
    ldp:membershipResource </fcrepo/rest/collections/poe/>;
    ldp:hasMemberRelation pcdm:hasMember ;
    ldp:insertedContentRelation ore:proxyFor ."
```

17. curl -XPUT -H"Content-Type: text/turtle" --data-binary @body localhost:8080/fcrepo/rest/collections/poe/members/member0

body

```
PREFIX ore: <http://www.openarchives.org/ore/terms/>
PREFIX rdf: <http://www.w3.org/1999/02/22-rdf-syntax-ns#>
PREFIX indexing: <http://fedora.info/definitions/v4/indexing#>

<> a ore:Proxy;
    ore:proxyIn </fcrepo/rest/collections/poe/> ;
    ore:proxyFor </fcrepo/rest/objects/raven/> ;
    indexing:hasIndexingTransformation \"default\";
    rdf:type indexing:Indexable ."
```

SPARQL Query

In Fuseki console (localhost:3030)

1. Select "Control Panel"
2. Select Dataset "/test"
3. Select Output "Text"
4. Select "Force the accept header text/plain regardless"
5. Query

```
prefix pcdm: <http://pcdm.org/models#>
select ?work
where {
    <http://localhost:8080/fcrepo/rest/collections/poe> pcdm:hasMember ?work .
    ?work pcdm:hasFiles ?files .
}
group by ?work
having (count(?files) > 1)
```

Using Admin Features

Transactions ([docs](#))

Versioning ([docs](#))

Create a version with a label

```
curl -XPOST http://localhost:8080/rest/item/fcr:versions/my-label
```

Import/Export ([docs](#))

Additional Resources