

Introduction to Fedora

Overview, examples, and core features

David Wilcox, DuraSpace
@d_wilcox



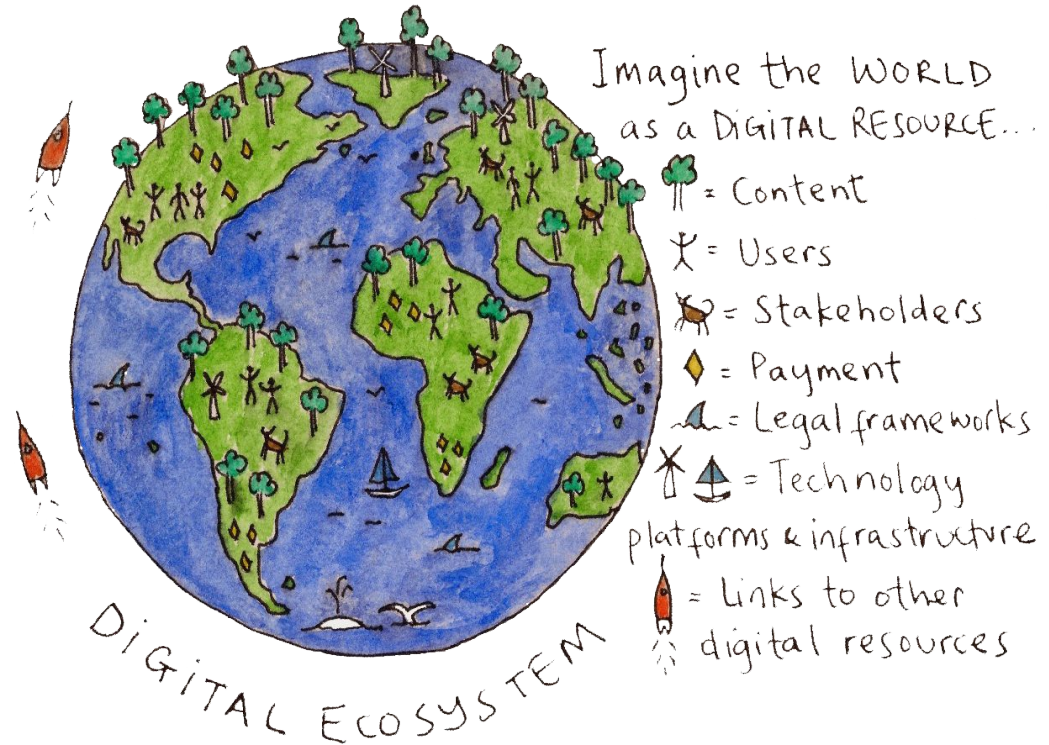
Learning Outcomes

Understand the purpose of a Fedora repository

Learn what Fedora can do for you

Understand the key capabilities of the software

**Our community
is part of an
interconnected,
worldwide, scholarly
ecosystem.**



Source: The Digital Ecosystem in the Balanced Value Impact Model (illustrated by Alice Maggs);
<http://simon-tanner.blogspot.com/2014/09/do-you-understand-your-digital-ecosystem.html>

DuraSpace open source projects



FedoraTM



DURASPACETM

DuraSpace services



DURACLOUD™

D SPACE DIRECT

@archivesDIRECT

FedoraTM

Flexible **E**xtensible **D**urable **O**bject **R**epository **A**rchitecture

Concept

Implementation

Community

Fedora...

Stores, preserves, and provides access to digital objects

Supports flexible and complex content models for objects

Supports complex semantic relationships between objects inside and outside the repository using RDF

Supports millions of objects, both large and small

Interoperates with other applications and services

Why use Fedora?

Fedora is **flexible**: it can handle both simple and complex use cases

Content in Fedora is **durable**: Fedora supports long-term preservation

Fedora powers successful digital repository and DAM applications

Fedora is **standards-based**

Fedora is backed by a **thriving community**

Fedora Front-Ends

Fedora is *middleware*

You can build a custom framework, or join a broader community:



Fedora in Production



Institutional Repository

The screenshot shows the GW ScholarSpace website. At the top, there is a dark blue header with the GW logo, the text "Libraries GW ScholarSpace", and navigation links for "Home", "About", "Help", and "Contact". A search bar is located on the right side of the header. Below the header is a large banner area with a dark background on the left and a lighter background on the right. The left side of the banner contains the text: "Join the nexus of research at GW", "Preserve your work", "Raise the impact of your research", and "Browse the scholarly works of The George Washington University". The right side of the banner features a "Share Your Work" button and a "Terms of Use" link. Below the banner, there are two tabs: "Featured Works" and "Recently Uploaded". The "Featured Works" tab is active, showing two featured works. The first is "The George Washington... GWU Pre-Law Student Association Journal", with a sub-description "Pre-Law, Student works, Undergraduate works". The second is "Privileged Place: Race,...", with a sub-description "Squires, Gregory". To the right of the featured works, there is a "Featured Researcher" section. It includes a link "View other featured researchers" and a banner for the "PROJECT ON MIDDLE EAST POLITICAL SCIENCE". Below the banner, there is a paragraph describing the project: "The Project on Middle East Political Science, POMEPS, is a collaborative network designed to enhance the broader Middle East's political science field and its engagement with the broader academic discipline, public policy, and the public sphere. POMEPS seeks to shape innovative new approaches to the political science of the region, support the field's publication in leading academic journals, and ultimately build the number of tenured political scientists specializing on the Middle East. It also aims to increase their contribution to the public foreign policy debate and to the policy-making process, in order to allow their expertise to have more of an impact on vital decisions about the Middle East." Below this paragraph is a link "Browse the POMEPS Collection".

GW Libraries GW ScholarSpace

Home About Help Contact

Enter search terms All ▾

Join the nexus of research at GW
Preserve your work
Raise the impact of your research
Browse the scholarly works of The George Washington University

Share Your Work
Terms of Use

Featured Works Recently Uploaded

Featured Works

The George Washington...
GWU Pre-Law Student Association
Journal
Pre-Law, Student works, Undergraduate works

Privileged Place: Race,...
Squires, Gregory
Other
Public policy

Featured Researcher
View other featured researchers

PROJECT ON MIDDLE EAST POLITICAL SCIENCE

The Project on Middle East Political Science, POMEPS, is a collaborative network designed to enhance the broader Middle East's political science field and its engagement with the broader academic discipline, public policy, and the public sphere. POMEPS seeks to shape innovative new approaches to the political science of the region, support the field's publication in leading academic journals, and ultimately build the number of tenured political scientists specializing on the Middle East. It also aims to increase their contribution to the public foreign policy debate and to the policy-making process, in order to allow their expertise to have more of an impact on vital decisions about the Middle East.

Browse the POMEPS Collection

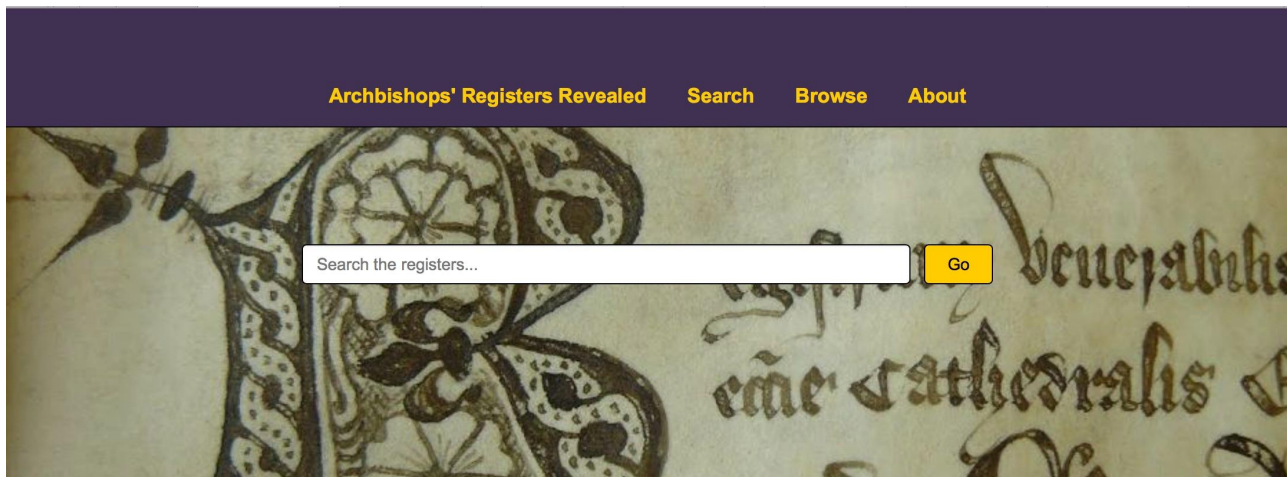
<https://scholarspace.library.gwu.edu/>

Research Data

The screenshot shows the homepage of the University of Alberta Libraries' ERA (Education & Research Archive). The header includes the University of Alberta Libraries logo and a 'Login' button. The main banner features a large 'ERA' title with the subtitle 'education & research archive'. Below the title, there are two main sections: a search area on the left with a text input field labeled 'enter search terms', a 'Search ERA' button, and a link to 'Advanced Search'; and an 'Upload Your Research' button on the right. At the bottom of the banner, there are two links: 'Browse communities, subjects, or item types' and 'Get more information about this service or contact us'. The footer contains two information icons on a dark background.

<https://era.library.ualberta.ca/>

Manuscripts



York's Archbishops Registers Revealed provides free access to over 20,000 images of Registers produced by the Archbishops of York, 1225-1650, in addition to a growing searchable index of names, subjects, places and organisations. The registers are a valuable, and in many cases, unexploited source for ecclesiastical, political, social, local and family history - covering periods of war, famine, political strife and religious reformation in the Archdiocese of York and the wider Northern Province.

You can browse images using the options below, or search the **2688** indexed entries via the search interface. Further information, guidance and supporting material relating to the registers will be added to the site as time goes on.

Pilot imaging and development, as well as the indexing of the register of Archbishop Neville

<https://archbishopsregisters.york.ac.uk>

Archives and Special Collections

BARNARD

Barnard Digital Collections

Historical materials from the Barnard Archives and Special Collections, at your fingertips. Learn more [about](#) the digital collections.



[Browse all materials](#) [Browse collections](#)
[Newspaper](#) [Yearbook](#) [Photos](#) [Exhibits](#)

<http://digitalcollections.barnard.edu>

Basic Concepts



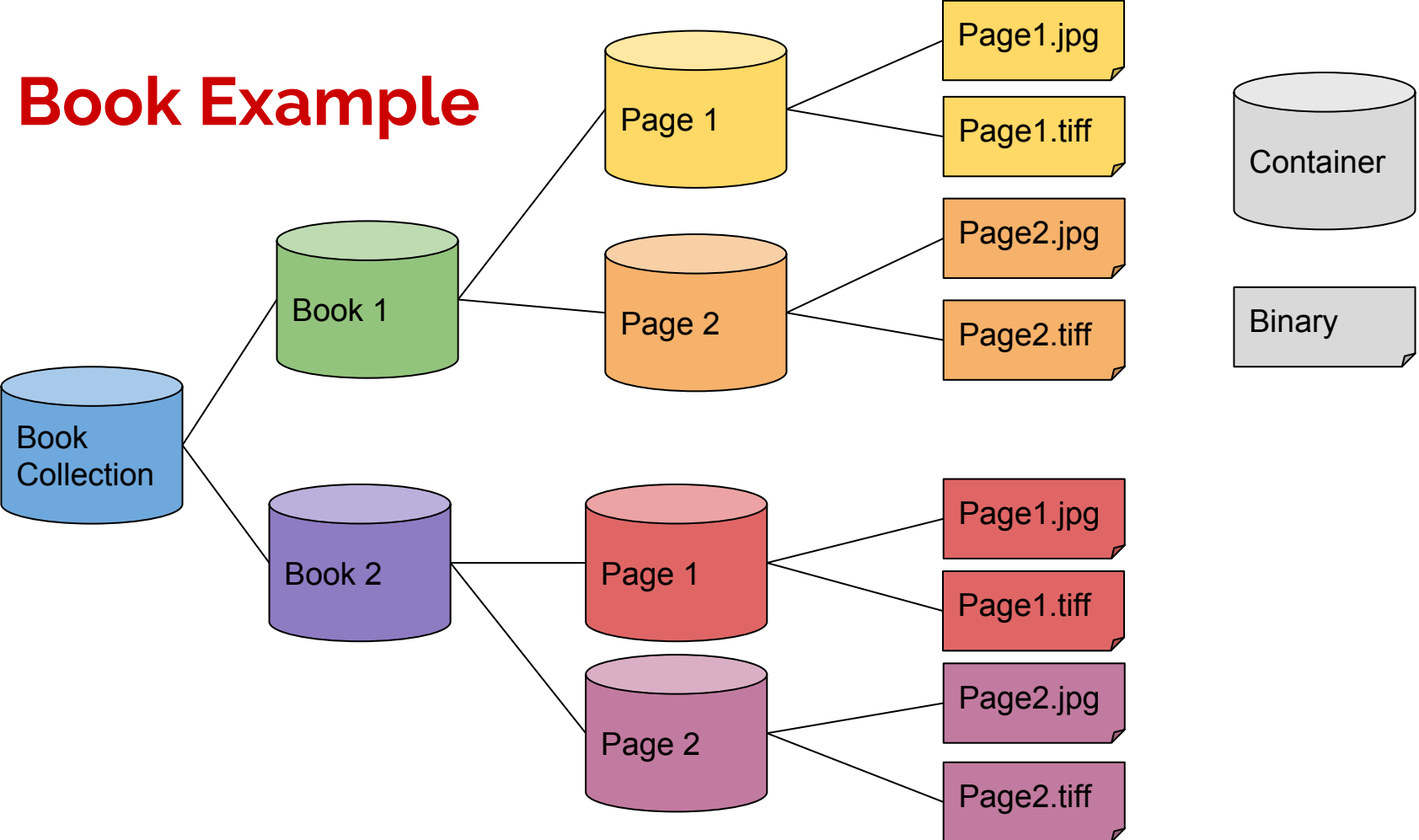
Web Resources

Everything is a **web resource with a URI**

Resources have properties expressed as **RDF triples**

Resources can contain other resources (containers) or files (binaries)

Book Example



RDF Properties

Fedora 4 Home Types Transactions ▾

http://localhost:8080/fcrepo/rest/david-wilcox/book-collection/book1

[Home](#) / [david-wilcox](#) / [book-collection](#) / [book1](#)

Created at

2016-05-16T19:06:02.475Z by fedoraAdmin

Last Modified at

2016-05-16T19:06:02.475Z by fedoraAdmin

Children 0

Properties

fedora: **created**
2016-05-16T19:06:02.475Z

fedora: **createdBy**
fedoraAdmin

fedora: **exportsAs**
<http://localhost:8080/fcrepo/rest/david-wilcox/book-collection/book1/fcr:export?format=jcr/xml>

fedora: **hasAccessRoles**
<http://localhost:8080/fcrepo/rest/david-wilcox%2Fbook-collection%2Fbook1/fcr:accessroles>

fedora: **hasParent**
<http://localhost:8080/fcrepo/rest/david-wilcox/book-collection>

fedora: **lastModified**

Create New Child Resource

Type

container

Identifier

page1

Add

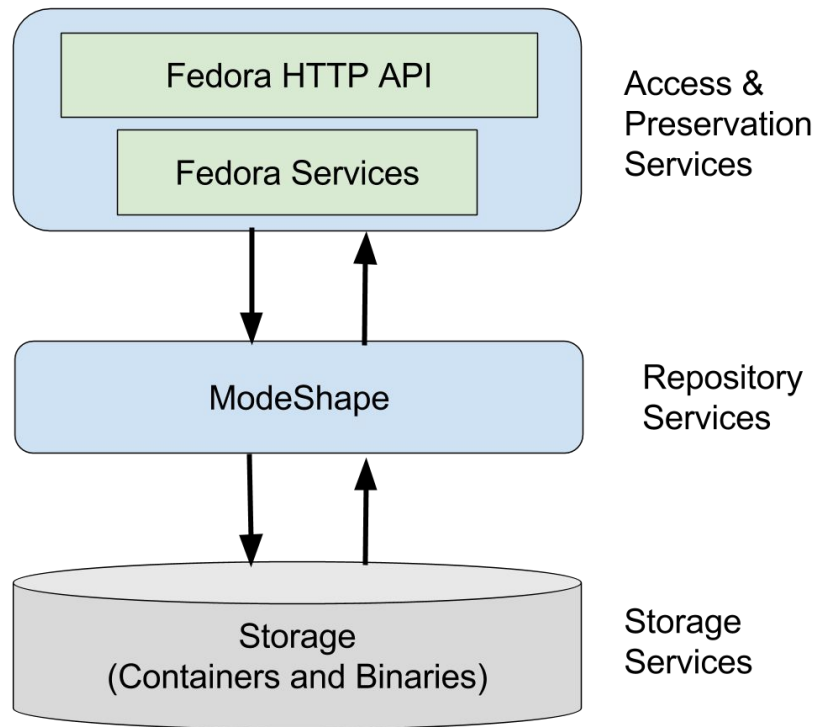
Update Properties

PREFIX premis:
<<http://www.loc.gov/premis/rdf/v1#>>
PREFIX image:
<<http://www.modeshape.org/images/>>

Core Features



Fedora system architecture



Standards

Focus on **existing standards**

Fewer customizations to maintain

Opportunities to participate in **related communities**

Core Services and Standards

1. **Create/Read/Update/Delete** - Linked Data Platform ✓
2. **Versioning** - Memento
3. **Authorization** - Web Access Control ✓
4. **Fixity** - <http://tools.ietf.org/html/rfc3230#section-4.3.2> ✓ ½
5. **Messaging** - Activity Streams 2.0 ✓

Hands-on: CRUD

`http://localhost:8080/fcrepo/rest/
user/pass: fedoraAdmin/secret3`

Available Operations via HTML UI

- **GET**/~~HEAD~~/~~OPTIONS~~ (Retrieval)
- **POST**/~~PUT~~ (Creation)
- **PATCH** (Update)
- **DELETE** (Removal)

HTML Interface Cheatsheet

Fedora 4 Home Transactions -

<http://localhost:8080/fcrepo/rest/basic/collection>

Home / basic / collection

Created at
2016-11-26T20:01:00.599Z by bypassAdmin
Last Modified at
2016-11-26T20:01:00.599Z by bypassAdmin
Children 1

Properties

```
fedora: created
2016-11-26T20:01:00.599Z
fedora: createdBy
bypassAdmin
fedora: hasParent
http://localhost:8080/fcrepo/rest/basic
fedora: lastModified
2016-11-26T20:01:00.599Z
fedora: lastModifiedBy
bypassAdmin
fedora: writable
true
rdf: type
http://fedora.info/definitions/v4/repository#Container
http://fedora.info/definitions/v4/repository#Resource
http://www.w3.org/ns/ldp#Container
http://www.w3.org/ns/ldp#RDFSResource
```

Other Resources

GET

URL / REST Endpoint

Create New Child Resource

Type

Identifier

Slug

POST

Update Properties

```
PREFIX premis:
<http://www.loc.gov/premis/rdf/v1#>
PREFIX image:
<http://www.modeshape.org/images/
1.0>
PREFIX sv:
<http://www.jcp.org/jcr/sv/1.0>
PREFIX test: <info:fedora/test>
PREFIX nt:
<http://www.jcp.org/jcr/nt/1.0>
```

PATCH

Create Version Snapshot

DELETE

Delete Resource

Step 1a: RDF Resource Creation (POST)

1. Go to <http://localhost:8080/fcrepo/rest> (root node)
2. In “**Type**” select field choose “**container**” (default)
3. In “**Identifier**” text field enter “**basic**”
4. Press “**add**” button

This will create a new RDF Resource (LDP Basic Container) and redirect us to our next slide!

Username: **fedoraAdmin**

Password: **secret3**

The screenshot shows the Fedora 4 web interface. At the top, there is a navigation bar with "Fedora 4", "Home", and "Transactions -". Below this, the URL "http://localhost:8080/fcrepo/rest/" is displayed. The main content area is divided into several sections:

- Home**: A button to return to the home page.
- Created at**: A section showing the creation date and time: "2016-11-26T20:09:08.874Z by".
- Last Modified at**: A section showing the last modification date and time: "2016-11-26T20:09:08.874Z by".
- Children**: A section showing a list of children resources, with one entry: "1. http://localhost:8080/fcrepo/rest/audit".
- Properties**: A section with a plus sign, indicating that properties can be added.
- Other Resources**: A section for listing other resources.
- Create New Child Resource**: A form for creating a new child resource. It includes a "Type" dropdown menu set to "container", an "Identifier" text field containing "basic", and an "Add" button.
- Update Properties**: A section for updating properties, containing a text area with the following content:

```
PREFIX premis:
<http://www.loc.gov/premis/rdfl/v1#>
PREFIX image:
<http://www.modeshape.org/images/
1.0>
PREFIX sv:
<http://www.jcp.org/jcr/sv/1.0>
PREFIX test: <info:fedora/test/>
PREFIX nt:
<http://www.jcp.org/jcr/nt/1.0>
```

Step 1b: RDF Resource Creation (POST)

1. You will be redirected to <http://localhost:8080/fcrepo/rest/basic>
2. In “**Type**” select field choose “**container**” (default)
3. In “**Identifier**” text field enter “**collection**”
4. Press “**add**” button

This will create a new RDF Resource (LDP Basic Container) and redirect us to our next slide. This way we matched what we had in our cheat sheet!

The screenshot displays the Fedora 4 web interface. At the top, there is a navigation bar with 'Fedora 4', 'Home', and 'Transactions'. Below this, the URL <http://localhost:8080/fcrepo/rest/basic> is shown. The main content area is titled 'Home / basic'. It contains a 'Created at' field with the value '2016-11-29T12:37:05.604Z by bypassAdmin', a 'Last Modified at' field with the same value, and a 'Children' section with a count of 0. Below this is a 'Properties' section listing various metadata fields: 'fedora: created' (2016-11-29T12:37:05.604Z), 'fedora: createdBy' (bypassAdmin), 'fedora: hasParent' (http://localhost:8080/fcrepo/rest/), 'fedora: lastModified' (2016-11-29T12:37:05.604Z), 'fedora: lastModifiedBy' (bypassAdmin), 'fedora: writable' (true), and 'rdfs: type' (http://fedora.info/definitions/v4/repository#Container, http://fedora.info/definitions/v4/repository#Resource, http://www.w3.org/ns/ldp#Container). To the right of the main content is a 'Create New Child Resource' form. It has a 'Type' dropdown menu set to 'container', an 'Identifier' text field containing 'collection', and an 'Add' button. Below the form is an 'Update Properties' section with a text area containing PREFIX definitions for 'premis', 'image', 'sv', and 'test'.

Step 1c: RDF Resource Creation (POST)

1. You will be redirected to <http://localhost:8080/fcrepo/rest/basic/collection>
2. Use “breadcrumb” to go back to <http://localhost:8080/fcrepo/rest/basic>
3. In “**Type**” select field choose “**container**” (default)
4. In “**Identifier**” text field enter “**images**”
5. Press “**add**” button

<http://localhost:8080/fcrepo/rest/basic/collection>

[Home](#) / [basic](#) / [collection](#)

Fedora 4 Home Transactions -

<http://localhost:8080/fcrepo/rest/basic>

[Home](#) / [basic](#)

Created at

2016-11-29T12:37:05.604Z by bypassAdmin

Last Modified at

2016-11-29T12:37:35.904Z by bypassAdmin

Children

1. <http://localhost:8080/fcrepo/rest/basic/collection>

Properties

fedora: **created**
2016-11-29T12:37:05.604Z
fedora: **createdBy**
bypassAdmin
fedora: **hasParent**
<http://localhost:8080/fcrepo/rest/>
fedora: **lastModified**
2016-11-29T12:37:35.904Z
fedora: **lastModifiedBy**
bypassAdmin
fedora: **writable**
true
ldp: **contains**
<http://localhost:8080/fcrepo/rest/basic/collection>
rdfs: **type**
<http://www.fedora.info/definitions/1.0/terms/#Container>

Create New Child Resource

Type

container

Identifier

images

Add

Update Properties

```
PREFIX premis:
<http://www.loc.gov/premis/rd/1#>
PREFIX image:
<http://www.modeshape.org/images/
1.0>
PREFIX sv:
<http://www.jcp.org/jcr/sv/1.0>
PREFIX test: <info:fedora/test/>
PREFIX rdfs:
```

This will create a new RDF Resource (LDP Basic Container) and redirect us to our next slide!

Step 2: Resource Retrieval (GET)

1. Every time you got redirected after creating a Container you were using GET.
2. Retrieval is accessed directly via the LDP Path that defines a resource and contains user and some server managed RDF triples.

The image displays two screenshots of a web interface for managing resources. The top screenshot shows the 'rest/' resource page. The page title is 'http://localhost:8080/fcrepo/rest/'. The page content includes a 'Created at' field, a 'Last Modified at' field, and a 'Children' field. A 'Properties' section is visible, and a 'Create New Child Resource' sidebar is on the right. The sidebar has a 'Type' dropdown set to 'container', an 'Identifier' input field containing 'basic', and an 'Add' button. Below the sidebar is an 'Update Properties' section with a list of PREFIX statements.

The bottom screenshot shows the 'basic' resource page. The page title is 'http://localhost:8080/fcrepo/rest/basic'. The page content includes a 'Created at' field, a 'Last Modified at' field, and a 'Children' field. A 'Properties' section is visible, and a 'Create New Child Resource' sidebar is on the right. The sidebar has a 'Type' dropdown set to 'container', an 'Identifier' input field containing 'collection', and an 'Add' button. Below the sidebar is an 'Update Properties' section with a list of PREFIX statements.

Step 3: Binary Resource Creation (POST)

1. Go to <http://localhost:8080/fcrepo/rest/basic/images>
2. In “**Type**” select field choose “**binary**”
In “**Identifier**” text field enter “**hotdog**”
3. In “**File**” choose any small image
4. Press “**add**” button

This will create a new Binary Resource (LDP Non RDF Source) and redirect us to our next slide!

<http://localhost:8080/fcrepo/rest/basic/images>

The screenshot shows the Fedora Commons web interface for creating a new binary resource. The URL is <http://localhost:8080/fcrepo/rest/basic/images>. The page displays the following information:

- Created at:** 2016-11-29T12:38:20.267Z by bypassAdmin
- Last Modified at:** 2016-11-29T12:38:20.267Z by bypassAdmin
- Children:** 0

The **Properties** section shows the following details:

- fedora: created:** 2016-11-29T12:38:20.267Z
- fedora: createdBy:** bypassAdmin
- fedora: hasParent:** <http://localhost:8080/fcrepo/rest/basic>
- fedora: lastModified:** 2016-11-29T12:38:20.267Z
- fedora: lastModifiedBy:** bypassAdmin
- fedora: writable:** true
- rdfs: type:** <http://fedora.info/definitions/v4/repository#Container>, <http://fedora.info/definitions/v4/repository#Resource>, <http://www.w3.org/ns/ldp#Container>, <http://www.w3.org/ns/ldp#RDFSource>

The **Create New Child Resource** form is visible on the right side, with the following fields:

- Type:** binary
- Identifier:** hotdog
- File:** Choose File hotdog.jpg
- Add:** Button

The **Update Properties** section shows the following XML snippet:

```
PREFIX premis:
<http://www.loc.gov/premis/rdf/v1 #>
PREFIX image:
<http://www.modeshape.org/images/
1.0>
PREFIX sv:
<http://www.jcp.org/jcr/sv/1.0>
PREFIX test: <info:fedora/test>
PREFIX nt:
<http://www.informatica.com/nt/1.0>
```

Other Resources

Step 4: Binary Resource Retrieval (GET)

1. You will be redirected to <http://localhost:8080/fcrepo/rest/basic/images/hotdog/fcr:metadata>
2. Notice the fcr:metadata part!
 - a. Image is LDP contained in “/hotdog”
 - b. Its metadata (rdf properties you can manipulate) in a virtual subpath named /fcr:metadata

Why? That way you can keep operations separated and you can also directly describe via RDF properties binary content.

<http://localhost:8080/fcrepo/rest/basic/images/hotdog>

Home / basic / images / hotdog

Created at 2016-11-29T12:41:01.155Z by bypassAdmin
Last Modified at 2016-11-29T12:41:01.155Z by bypassAdmin
Children 0

[Download Content](#)

[Fixity](#)

Update Content

File
 No file chosen

Update Properties

PREFIX premis: <http://www.loc.gov/premis/rd/1.1#>
PREFIX image: <http://www.modeshape.org/image/1.0>
PREFIX svc: <http://www.jcp.org/jcr/nv/1.0>
PREFIX test: <info:fedora/test/>
PREFIX rtt: <http://www.jcp.org/jcr/n1/1.0>

Create Version Snapshot

Delete Resource

Properties

ebucore:filename hotdog.jpg
ebucore:hasMimeType image/jpeg
fedora:created 2016-11-29T12:41:01.155Z
fedora:createdBy bypassAdmin
fedora:hasFactivityService http://localhost:8080/fcrepo/rest/basic/images/hotdog/fcr:fixity
fedora:hasParent http://localhost:8080/fcrepo/rest/basic/images
fedora:lastModified 2016-11-29T12:41:01.155Z
fedora:lastModifiedBy bypassAdmin
fedora:writable true
http://www.iana.org/assignments/relations/ describedby http://localhost:8080/fcrepo/rest/basic/images/hotdog/fcr:metadata
premis:hasMessageDigest urn:sha1:1d87a79824afe4333be73a4dfe643c388f1bde
premis:hasSize 1541998
rdfs:type http://fedora.info/definitions/v4/repository#Binary
http://fedora.info/definitions/v4/repository#Resource
http://www.w3.org/ns/ldp#NonRDFSource

Content Properties [Download](#)

ebucore:filename hotdog.jpg
ebucore:hasMimeType image/jpeg
fedora:created 2016-11-29T12:41:01.155Z
fedora:createdBy bypassAdmin
fedora:hasFactivityService http://localhost:8080/fcrepo/rest/basic/images/hotdog/fcr:fixity
fedora:hasParent http://localhost:8080/fcrepo/rest/basic/images
fedora:lastModified 2016-11-29T12:41:01.155Z
fedora:lastModifiedBy bypassAdmin
fedora:writable true
http://www.iana.org/assignments/relations/ describedby http://localhost:8080/fcrepo/rest/basic/images/hotdog/fcr:metadata
premis:hasMessageDigest urn:sha1:1d87a79824afe4333be73a4dfe643c388f1bde
premis:hasSize 1541998
rdfs:type http://fedora.info/definitions/v4/repository#Binary
http://fedora.info/definitions/v4/repository#Resource
http://www.w3.org/ns/ldp#NonRDFSource

Access

<http://localhost:8080/fcrepo/rest/images/hotdog/>
directly to download binary!

Step 5: Update RDF Properties (PATCH)

1. Navigate to <http://localhost:8080/fcrepo/rest/basic/collection>
2. We will add an “pcdm:Object” property using “Update Properties”
 - a. Make sure “PREFIX pcdm” is there
 - b. At the end rewrite “DELETE...” to

DELETE {}

INSERT { <> ebucore:width "100" }

WHERE {}

- c. Press “**Update**”

The screenshot shows the REST API interface for updating an RDF resource. The main area contains a green 'Download' button. Below it, the request and response are displayed in a code editor. The request is a PATCH operation with an INSERT clause. The response shows the same request with the 'ebucore' prefix expanded to its full URI. Below the code editor, there is a blue 'Update' button and a 'Create Version Snapshot' section with a text input field containing '(auto-generated name)' and a 'Create Version' button.

```
DELETE {}
INSERT { <> ebucore:width "100" }
WHERE {}
```

```
<http://www.w3.org/XML/1998/namespace>
PREFIX audit:
<http://fedora.info/definitions/v4/audit#>
PREFIX jcr: <http://www.jcp.org/jcr/1.0>
PREFIX ebucore:
<http://www.ebu.ch/metadata/ontologies/ebucor
e/ebucore#>
PREFIX idp: <http://www.w3.org/ns/idp#>
PREFIX xs:
<http://www.w3.org/2001/XMLSchema>
PREFIX fedoraconfig:
<http://fedora.info/definitions/v4/config#>
PREFIX mix: <http://www.jcp.org/jcr/mix/1.0>
PREFIX prov: <http://www.w3.org/ns/prov#>
PREFIX foaf: <http://xmlns.com/foaf/0.1/>
PREFIX dc: <http://purl.org/dc/elements/1.1/>
```

DELETE {}
INSERT { <> ebucore:width "100" }
WHERE {}

Update

Create Version Snapshot

(auto-generated name)

Create Version

Last step: Delete a resource (DELETE)

1. Stay at <http://localhost:8080/fcrepo/rest/basic/images/hotdog/fcr:metadata>
2. Press “**DELETE**” (the red one)
3. You will be redirected to the parent resource after deletion.
4. Go again to <http://localhost:8080/fcrepo/rest/basic/images/hotdog>

What do you see?

Create Version Snapshot

(auto-generated name)

Create Version

Delete Resource

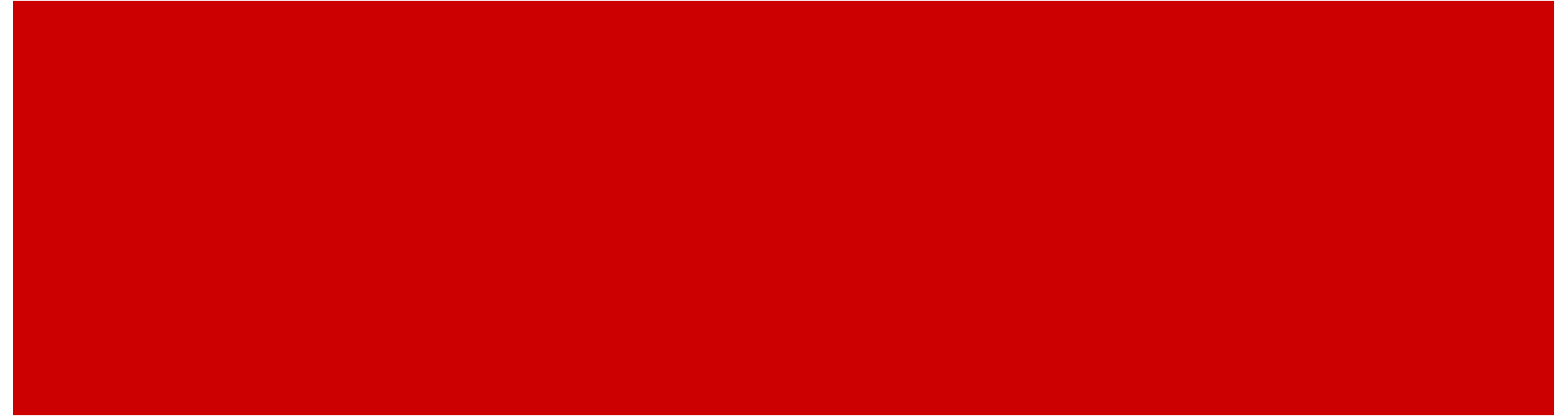
Delete

Departed

Fedora creates a tombstone resource at
“original/path/fcr:tombstone” URL, in this case
“basic/images/hotdog/fcr:tombstone”
(try that last path in your Browser)

So, to recreate a resource at that same PATH you need
to delete the tombstone placeholder first and that can
not be done via HTML UI

Authorization: Web Access Control



Authorization - Web Access Control

Authorization is **optional and pluggable**

WebAC is a **W3C** approach for managing authorization using linked data

Interoperable with other applications that implement the same approach

Implemented in Fedora 4 by community stakeholders

Versioning

Versions can be created on demand via the REST-API

A previous version can be restored via the REST-API

Hands-on: Versioning



Create a container named “Book”

Create version “v0” of “Book”

Add “dc:publisher” to “Book”

```
INSERT {
```

```
  <> dc:publisher "University Press"
```

```
}
```

```
WHERE {}
```

Create version “v1” of “Book”

Inspect and revert to v0

Fixity

Over time, digital objects can become corrupt

Fixity checks help preserve digital objects by verifying their integrity

On ingest, Fedora can verify a user-provided checksum against the calculated value

A checksum can be recalculated and compared at any time via a REST-API request

External Services



External Component Integrations

Leverages the well-supported Apache Camel project

Camel is middleware for integration with external systems

Can handle any asynchronous, event-driven workflow



External - Indexing

Index repository content for search

Indexing is configurable - could be based on any property

Solr and Elasticsearch have been tested



elastic

External - Triplestore

An external triplestore can be used to index the RDF triples of Fedora resources

Any triplestore that supports SPARQL-update can be plugged in

Fuseki, RDF4J, and BlazeGraph have been tested



Audit Service

Maintains a **history of events** for each repository resource

Both **internal** repository events and events from **external** sources can be recorded

Uses the **existing event system and an external triplestore**

Performance and Scalability



Test Plans

Testing large files, many files, and many containers

Tests are performed by community members

Have concerns about performance and scale? [Join the group!](#)

Metrics

A number of scalability tests have been run:

- Uploaded a 1 TB file via REST API

- 17 million objects via REST API

- 3.5 million files via REST API

Supporting and Sustaining Fedora



Fedora facts

Managed by DuraSpace (not-for-profit)

Funded by the **community**

Collaboratively developed by the **community**

Supported by 2 full-time staff members (not developers)



Useful Resources

Fedora 4 documentation

<https://wiki.duraspace.org/display/FEDORA4x/Fedora+4.x+Documentation>

Fedora 4 wiki

<https://wiki.duraspace.org/display/FF>

Fedora 4 mailing lists

<https://wiki.duraspace.org/display/FF/Mailing+Lists+etc>