

Fedora 4.3.0 Release Notes

Release date: 24 July, 2015

We are proud to announce the release of Fedora 4.3.0.

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Resources

- This release has been built against Java 8
- [Downloads](#) [1]
- [Javadocs](#) [2]

Team

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Summary

The Fedora 4.3.0 release furthers several major objectives:

- Move Fedora towards a clear set of standards-based services
- Move Fedora towards runtime configurability

- Improve support tooling for upgration from Fedora 3.x to 4.x
- Improve support for participation in the semantic web
- Fix bugs

This release is 4.3.0 instead of 4.2.1 because there are two non-backwards compatible changes:



- Several properties (mimetype, filename, digest, and cnd update) no longer use the fedora namespace.
- The fcrepo-kernel and fcrepo-kernel-impl packages have been renamed to fcrepo-kernel-api and fcrepo-kernel-modeshape, respectively.

An [update utility](#) [3] has been included with the release - see the [README](#) [4] for how to run the utility to migrate the properties to their new namespaces and update the package names.

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Updates

Strategic Direction

Fedora is moving towards a tightly defined, standards-based, set of RESTful services that are supplemented with a pattern of integrating message-driven, asynchronous services for non-core capabilities. The 4.3.0 release includes several updates that move the software in that direction.

- Aligning with [LDP](#) [5] by
 - Returning a 400 response when illegal triples are not persisted
 - Advertising constraints in responses when an update request fails due to a repository constraint
 - Showing inbound references for indirectly contained resources
- Tightening the core repository services by
 - Forbidding the update of resources that are not the target of the request
 - Removing the leakage of the underlying UUID to repository clients
 - Allowing "mimeType" and "filename" properties to be mutable
- Moving towards full [OSGi](#) [6] deployability for runtime configuration and feature activation
 - Ensuring modules are properly packaged as OSGi bundles
 - Ensuring modules are importing and exporting correct dependencies and services
 - Creating a Fedora features.xml for dependable deployment into [Apache Karaf](#) [7]
- Enhancing external services with the [Apache Camel](#) [8] integration framework by
 - Adding a "reindex" endpoint
 - Adding a "fixity" invocation service
- Adding support to the REST API for the JSON-LD "Accept" header "profile" parameter

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Upgrading and Migrating

A primary focus of the ongoing Fedora effort is to facilitate the upgrade/migration of Fedora3 repositories to Fedora4. To those ends, a number of improvements have been incorporated into the "[migration-utils](#) [9]" upgration utility.

- Packaging the utility as a standalone executable application
- Using opaque identifiers for migrated resources
- Adding support for user-provided RDF namespace mappings
- Providing specific mappings of Fedora3 to Fedora4 properties
- Improving support for migrating resources with non-existent datastreams

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Audit

After the completion of the [Audit Service](#) [10] sprints this spring, there remained two items to be completed:

- 1. Aligning the identifier of internal Audit events with the identifier of that same event found in the external triplestore
- 2. Publishing Audit events for runs of the Fixity service

The 4.3.0 release includes the resolution of the first item above.

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Semantic Web

One of the primary goals of Fedora is to participate as a first-class member in the world of linked data. Two updates are included in the 4.3.0 release related to that goal:

- Cleaning the [Fedora ontology](#) [11] by removing the obsolete "fedora:Blanknode" class
- Creating a JSON-LD @context file for the [Portland Common Data Model](#) [12] ontology

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Fedora Java Client

The [Fedora Java Client library](#) [13] was updated for this release by

- Adding support for the creation of repository resources without a user-provided identifier, i.e. using the repository identifier minter
- Adding support for resource "copy", "delete", and "move" operations

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Housekeeping and Bugfixes

Numerous refactorings, bugfixes, and clean-up tasks were addressed in this release. Some of the highlights include:

- Using more Java8 idioms
- Returning a 403 response code when trying to create a resource under a PairTree element
- Returning a 400 response code when trying to create a resource with an empty element, i.e. "/"
- Updating library dependencies
- Improving wiki and source documentation

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References

- [1] <https://wiki.duraspace.org/display/FF/Downloads>
- [2] <http://docs.fcrepo.org>
- [3] <https://github.com/fcrepo4-labs/fcrepo4-upgrade-utils/releases/tag/fcrepo4-upgrade-utils-4.3.0>
- [4] <https://github.com/fcrepo4-labs/fcrepo4-upgrade-utils/blob/cc77a50b3fac62f791ce2d4fa17cc6b5cfc3ea33/README.md>
- [5] <http://www.w3.org/TR/ldp/>
- [6] <http://www.osgi.org/Technology/WhatIsOSGi>
- [7] <http://karaf.apache.org>
- [8] <http://camel.apache.org>
- [9] <https://github.com/fcrepo4-labs/migration-utils>
- [10] <https://wiki.duraspace.org/display/FEDORA43/Setup+Audit+Service>
- [11] <https://github.com/fcrepo4/ontology>
- [12] <https://github.com/duraspace/pcdm>
- [13] <https://github.com/fcrepo4-labs/fcrepo4-client>