General FAQ, Fedora

go to Fedora Configuration FAQ go to Fedora Technical FAQ

General Questions about Fedora

- #What is Fedora?
- Does Fedora come as an "out of the box" solution?
- How does the license for using Fedora work?
- What is the Fedora Services Framework?
- Is Fedora "preservation ready"?
- · What is meant by the term "durable digital information?"
- What kind of search functionality is provided by Fedora?

Fedora Concepts

- What is a data object?
- · What is a persistent identifier?
- What is a content model?
- What is meant by "relationships among objects?"
- · What is a behavior of an object?
- What is a policy?

Content Modeling

- · What is the difference between the atomistic and compound approaches?
- How do I best use CModel objects?
- What is an aggregation object?
- What is an explicit aggregation?
- What is an implicit aggregation?

The Fedora Community

- · Who is using Fedora and what are they doing with it?
- What are "Solution Communities?"

What is Fedora?

The Flexible Extensible Digital Object Repository Architecture (Fedora) is set of abstractions which can be used to express a variety of long-term durable information management schemes. Fedora Commons distributes software that implements Fedora as an open source web services framework that is intended to be a foundation for the creation of durable, flexible information networks.

The Fedora software manages content as a set of digital objects that can provide one abstract view of the content to user applications, another to the backend storage systems. It provides for the stability of the meaning of the content in various contexts while assuring its integrity over the very long term as technologies change.

Does Fedora come as an "out of the box" solution?

The Fedora software that is distributed by Fedora Commons is not an out-of-the-box solution for any particular use case. It is a repository management service that is a foundation upon which many information management solutions can be built. It provides a broad, powerful set of features and services that is designed to support digital information networks that are durable over long periods of time. The Fedora Commons philosophy is that solutions for particular use cases will come from a rapidly developing set of services and applications that can be used to increasingly easily assemble the desired system.

How does the license for using Fedora work?

From the beginning of the Fedora project, the Fedora software has been provided under an open-source license that was intended to make it as easy as possible for the code to be used both for non-profit and commercial applications. As our understanding of the legal implications licensing have improved, we have changed the license. Our philosophy is that we will make Fedora as easily available as we can while retaining copyright and making sure not to compromise ourselves legally. As of version 3.0 Fedora is distributed under the Apache 2.0 license. For details, see license and copyright information.

What is the Fedora Services Framework?

The basics of the Fedora architecture are implemented in the Fedora Repository service which is the core service in a set of services that are designed to be used together. The Fedora Service Framework is the set of these services that are kept in sync by Fedora Commons as the software evolves. It includes services to provide such things as OAI service, generic searching, and batch ingest, all integrated with a messaging service that can coordinate communications among them. More information can be found here.

Is Fedora "preservation ready"?

It would be more accurate to say that Fedora is very "preservation friendly." By design, Fedora is intended to be as neutral to specific use cases as possible. It does provide a variety of features that can be used to create a very preservation ready repository. It can automatically create versions of content, calculate and track checksums, keep audit trails, listen for and act upon events that happen within the repository, and more.

Every Fedora object is represented by an XML file that is just a file in the file system, that has all of the preservation metadata about the object mentioned above registered within it. All content is managed as files in the file system. As long at the repository is backed up properly, and all of the files can be restored, a re-builder utility that is provided can completely re-build the running repository from the files. There is no dependency on a database that must be preserved.

What is meant by the term "durable digital information?"

Durable digital information is both sustainable for the very long term and in active use. While Fedora is very suitable for use in building dark archives, in which data is preserved but not used directly, it has been developed and optimized for use in building complex networks of digital information in which the history and stability of digital objects can be assured while providing them in a variety of contexts as appropriate to what is allowed by their owner.

What kind of search functionality is provided by Fedora?

The "basic search" that is supplied with Fedora was intended to provide a simple tool for a repository manager to use in running an repository. A very minimal Dublin Core record is required for each object to provide the key metadata for managing objects, not for exposing to end users of the repository. We would strongly advise that the basic search that uses this Dublin Core not be exposed to the outside world. Details can be found here.

A better solution for end-user searching is to use the Generic Search (GSearch) service to provide one or more searchable indexes of content in a repository. GSearch provides for configuring indexes that use any component of object. Conditions can be set that determine which objects to include in any index and the integration with Fedora's messaging service provides for incremental indexing. Currently Lucene, Zebra and Solr can be used, and facilities are provided that make it possible to develop plugins for other engines. Details can be found here.

What is a data object?

In a Fedora repository all data are managed as digital objects. A data object is a particular kind of object that represents one unit of content in the repository, which can be made up of any number of components of content and metadata as datastreams. The repository manages data objects as the representation of files stored in its own file system or referenced from other locations. It presents an abstract view of the files to applications, either as a simple abstract address for each one that hides the location of the actual data, or as a set of behaviors that present virtual views of the content and various transformation of it. For more information about Fedora objects go here.

What is a persistent identifier?

Each object in a Fedora repository has a formal identifier that is unique within the repository and that has been abstracted from the location or identification of any one of its components. This persistent identifier (PID) can be generated at the time of creation of the object by the repository software or provided by the user. For more information go here.

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