Directory Ingest Service 1.2

Current released version

Diringest **1.2** is the currently released version.

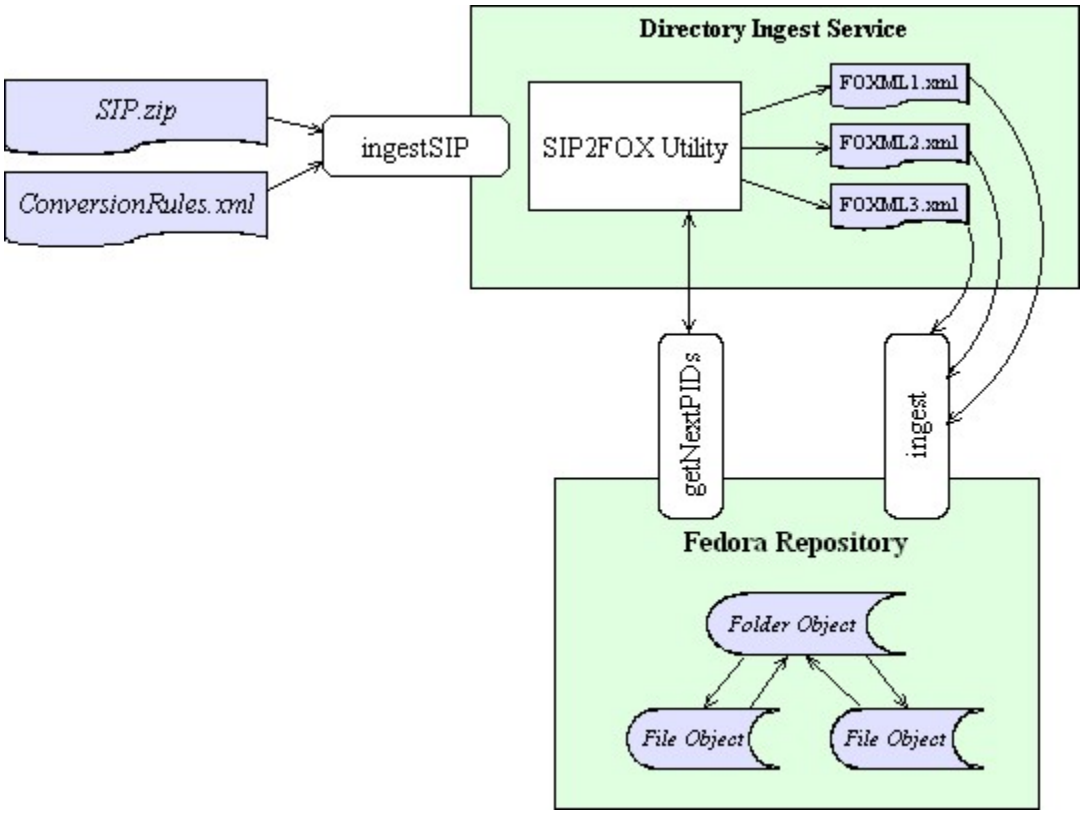
Compatibility

Compatible with Fedora Version 3.0-3.3.

1. Overview

This service is part of the Fedora Service Framework. It constructs Fedora objects from uploaded Submission Information Packages ("SIPs") and ingests those objects into a Fedora repository. It is exposed as a REST-style web service that accepts input via HTTP POST and (if successful) returns an XML document with the list of PIDs of the ingested objects.

The following diagram illustrates:



2. Installation

2.1 Prerequisites

- A running Fedora repository, version 3.0.
- A servlet container that supports the Servlet API v2.3+

2.2 Setup

Note: These instructions are written assuming you are using Tomcat. Web application deployment may differ for your servlet container.

First, copy the diringest.war file to the "webapps" directory and re-start Tomcat. The war file should be deployed into "webapps/diringest" by the Application Server.

Edit the "WEB-INF/classes/diringest.properties" file, changing the values to what is appropriate for your installation.

```
#
# Required settings for remote Fedora repository.
# These are used for the pid generation and ingest functions.
#
fedora.baseURL = http://localhost:8080/fedora/
fedora.user    = fedoraAdmin
fedora.pass    = fedoraAdmin
#
# Optional preferred namespace part for PIDs.
# Comment this out to use the default from the target Fedora repository
#
pid.namespace = demo
```

Optional: If desired, modify the default conversion rules file in this directory (crules.xml). See the section below on specifying conversion rules.

Optional: If desired, modify the logging configuration file in this directory (log4j.xml).

Finally, ensure that your Fedora server is running, and re-start Tomcat.

3. Using the Service

Once installed, the service will be exposed from your servlet container at "diringest/ingestSIP". For example:

```
http://localhost/diringest/ingestSIP
```

Navigating the URL above using your browser will present a simple HTML form where you can upload a SIP file, an optional rules file (if you want to use non-default conversion rules). Select "Submit". A successful submission will result in an XML file that contains a list of the PIDs of the objects that were ingested.

The service accepts, via HTTP POST, the following parameters:

- *sip* - The SIP file. See *Preparing a SIP* for format details.
- *rules (optional)* - A custom conversion rules file. See *Specifying Conversion Rules* for format details.

A successful response will return a 200 (OK) HTTP status code and a simple XML file containing PIDs, such as the one below:

```
<?xml version="1.0" encoding="UTF-8"?>
<pidList>
  <pid>demo:42</pid>
  <pid>demo:43</pid>
  <pid>demo:44</pid>
  <pid>demo:45</pid>
</pidList>
```

4. Using the SIP2FOX Utility

The "SIP2FOX" utility is useful for command-line testing of SIPs and conversion rules. It is included in the distribution's "sip2fox" directory. To invoke it, change to that directory and type:

```
sip2fox sipFile.zip outputDir [fedoraHost fedoraPort fedoraUser fedoraPass [pidNamespace]]
```

If you only specify a SIP file and an output directory, the program will use a test PID generator for creating the objects. If you specify Fedora Repository login information, that repository's PID generator will be used instead. To use a PID namespace other than the default for a repository, specify it as the last parameter.

The SIP2FOX utility uses the rules that reside in the *config/crules.xml* when it runs.

5. Preparing a SIP

A SIP file is a ZIP file containing metadata and content for a set of to-be-created Fedora objects.

It consists of a single "Manifest.xml" file in METS format (actually a subset of METS), and 0 or more datastream files that are referenced from the METS file.

Sample SIP files and a readme.txt file with descriptions of each are included in the sip2fox/samples directory in the diringest distribution.

6. Specifying Conversion Rules

A conversion rules file is used by the service (or sip2fox) in deriving RELS-EXT relationships from the hierarchical structure (the structMap) in the SIP.

The XML schema for conversion rules is included in the diringest distribution's sip2fox/config/ directory. There you can also find the default crules.xml file, which illustrates the use of several templates.

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