

lifis - introduction

Overview

`lifis` is a command-line tool for creating literal file systems. A literal file system is a collection of resource descriptors, which arrange their target resources in a single, logical tree. See “literal-file-systems.pdf” for details about literal file systems.

Currently, you can use `lifis` in order to create UTREE or UGRAPH descriptions of ...

- github projects
- SVN projects

Having created a UTREE or UGRAPH, you can use the `fox` script in order to navigate the resources which your system describes. If using a UTREE description, specify the folder containing your UTREE, using option `-t`. If using a UGRAPH description, specify the SPARQL endpoint exposing your UGRAPH, using option `-g`.

Preparations

- (1) Unpack the `lifis` tool on your local file system
- (2) If you want to navigate github projects, obtain a github REST API token, store it in your file system and edit the github token location file:
 - a. Obtain a token here: <https://github.com/blog/1509-personal-api-tokens>
 - b. Store the token in a text file
 - c. Edit the file `$HOME_LIFIS/github-token-location`; the only line without leading `#` must contain the fully qualified name of the file containing the token

Example for a github token location file:

```
# Fully qualified name of a file containing the github token.
# Unless the default value "/github/token" is appropriate,
# you must edit the following line (or you won't have access
# to github resources).
/github/token
```

In this example, the file `/github/token` must contain your github token.

Creating UTREE systems

The UTREE system is created by a single command-line call. Pattern:

```
lifis utree?...
```

Creating a UTREE for github projects

Assume you are interested in the github projects of organisation `oxygenxml` and you want to store your UTREE document in the folder `/utree/oxygenxml`.

Create the UTREE document launching the following command-line call:

```
$HOME_LIFIS/lifis "github?org=oxygenxml,format=utree"  
> /utree/oxygenxml/utree-oxygenxml.xml
```

Creating a UTREE for an SVN repository

Assume you are interested in the SVN project found at
<https://svn.apache.org/repos/asf/xalan/java/trunk>

Create the UTREE document launching the following command-line call:

```
$HOME_LIFIS/lifis "svn?uri=https://svn.apache.org/repos/asf/xalan/java/trunk"
```

Using a UTREE

Having created a UTREE document, you can navigate the resources which it describes, using the `fox` script. You specify the UTREE folder via option `-t`. Example:

```
fox -t /utree/oxygenxml "https://github.com/oxygenxml/*.xsl"
```

Creating a UGRAPH

- Under construction. -

Using a UGRAPH

Having created a UGRAPH and made its triples accessible via a SPARQL endpoint, you can navigate the resources which it describes, using the `fox` script. You specify the endpoint URI via option `-g`. Example:

```
fox -g http://localhost:3030//oxygenxml "https://github.com/oxygenxml/*.xsl"
```