

04. Working with iRODS

Basic



©CarlesBarcenaRoig

Goals of this module

- Get familiar with the different clients of iRODS: Metalnx, Webdav interface, icommands (CLI), Python iRODS Client (PRC)
- You will learn:
 - moving around iRODS
 - putting and getting data
 - adding metadata to objects and collections
 - query/search data based on metadata*
 - managing data: create collections, move data, remove data, manage permissions

Clients



metalnx

KU Leuven Portal



DAVRods



Cyberduck



PRC-Python API



Cadaver client

DAVRods

iCommands

CentOS7
Ubuntu16
Ubuntu18

PRC-Python API

metalnx

KU Leuven Portal

References:

KU Leuven portal: <https://irods-demo.t.icts.kuleuven.be/>

Metalnx: <https://irods-demo.t.icts.kuleuven.be/metalnx/>

Cyberduck: <https://cyberduck.io/>

WinSCP: <https://winscp.net/eng/download.php>

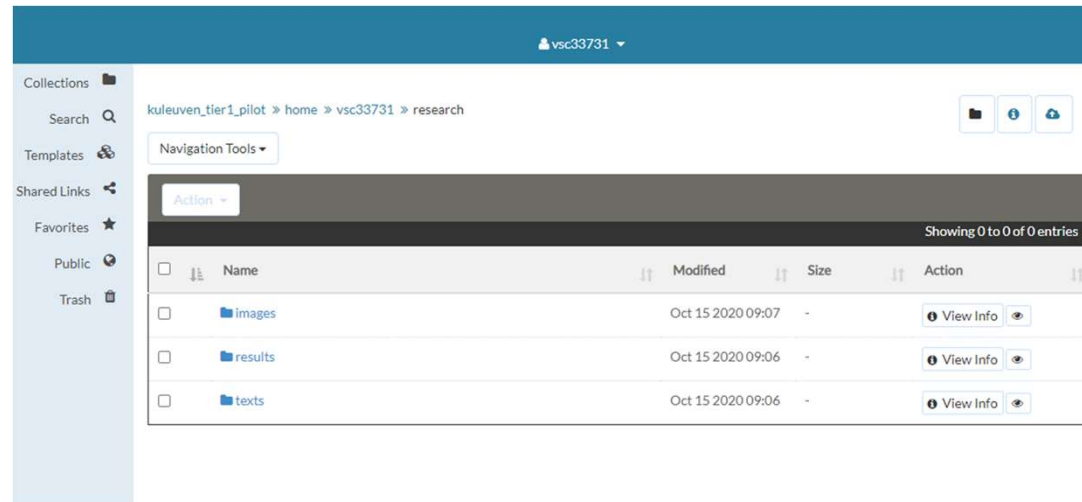
Cadaver client: <http://www.webdav.org/cadaver/>

Icommands: <https://irods.org/download/>

Python iRODS Client (PRC) : <https://github.com/irods/python-irodsclient>

Metalnx

- graphical user interface easiness
- working with data objects/collections
- adding metadata to data objects/collections
- downloading data objects
- permission
- iRODS design



WebDav client

- graphical user interface easiness
- working with data objects/collections
- adding metadata to data objects/collections
- downloading data objects
- permission
- iRODS design

icommands

`iput - iget- irsync -imeta...`

- uploading/downloading data
- adding metadata to data objects/collections
- querying based on metadata
- deleting data objects/collections
- synchronization of data
- ACLs to data objects/collections

```
vsc33731@login1 ~  
$ imkdir research  
  
vsc33731@login1 ~  
$ icd research  
  
vsc33731@login1 ~  
$ iput dataset1  
  
vsc33731@login1 ~  
$ iput dataset2  
  
vsc33731@login1 ~  
$ ils  
/kuleuven_tier1_pilot/home/vsc33731/research:  
dataset1  
dataset2
```

Python iRODS Client (PRC)

Python3, python-irodsclient

- working with data objects/collections
- adding metadata to data objects/collections
- querying based on metadata
- deleting data objects/collections
- listing the disk usage
- ACLs to data objects/collections

```
In [1]: from vsc_irods.session import VSCiRODSSession
In [2]: session = VSCiRODSSession(txt='-')
In [3]: irods_path = session.path.get_irods_home() + "/research"
In [4]: session.path.imkdir('research')
In [5]: session.path.ichdir('research')
In [6]: session.bulk.put("./dataset*", irods_path)
In [7]: for item in session.search.find(irods_path, types='f'):
...:     print(item)
...:
/kuleuven_tier1_pilot/home/vsc33731/research/dataset1
/kuleuven_tier1_pilot/home/vsc33731/research/dataset2
```