

Command Line

Overview

opencga.sh is the officially recommended command line tool for users. It implements most of the functionality with many different *commands* and *subcommands*. These *commands* are a one-to-one mapping of *Resources* from REST web services and *subcommands* are mapping to end-points. All the operations that can be performed using the command line internally creates one or several REST calls, so access to REST machine/cluster is required.

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Correlation Between REST and CLI

In the following URL, "samples" is the resource and "search" is the endpoint:

<http://bioinfo.hpc.cam.ac.uk/opencga-demo/webservices/rest/v1/samples/search>

the corresponding command in the command line is :

```
./opencga.sh samples
```

and the corresponding subcommand is :

```
./opencga.sh samples search
```

Executing `./opencga.sh` will return the list of all available commands with a description for each of them as shown below:

```
Program:      OpenCGA (OpenCB)
Version:      2.0.0-rc1
Git commit:   01cbe42598defa2ef5a192bad1f456166487aee4
Description:  Big Data platform for processing and analysing NGS data

Usage:        opencga.sh [-h|--help] [--version] <command> [options]

Catalog commands:
  users      User commands
  projects   Project commands
  studies     Study commands
  files      File commands
  jobs       Jobs commands
  individuals Individual commands
  families   Family commands
  panels     Panel commands
  samples    Samples commands
  cohorts    Cohorts commands

Analysis commands:
  alignments Implement several tools for the genomic alignment analysis
  variant     Variant commands
  clinical    Clinical analysis commands

Operation commands:
  operations  Operations commands
```

The list of sample subcommands can be retrieved by simply executing the "samples" command without any argument as show below:

```

./opencga.sh samples

Usage:   opencga.sh samples <subcommand> [options]

Subcommands:

    create    Create a sample
    load      Load samples from a pedigree file
    info      Get samples information
    search    Search samples
    update    Update sample
    delete    Delete a sample
    stats     Sample stats
    acl       Return the acl of the resource
    acl-update Update the permissions set for a member
    annotation-sets-update Update the value of some annotations

```

```

./opencga.sh samples

Usage:   opencga.sh samples <subcommand> [options]

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CLI Session Management

Generally, unless we are pointing to a public OpenCGA installation, users will first need to log in using the "users login" command line. Once the user has successfully logged in, a session file will be generated in their home folder:

```
~/opencga/session.json
```

This session file contains the following information:

This makes easier for users to login only once and execute any number of commands till the session token is expired. Please note down, session expiration is set by OpenCGA server independently from client. Once token is expired, user have to login again and can perform desired operations as normal.

```
{
  "host" : "http://localhost:8080/opencga",
  "version" : "v2",
  "user" : "user1",
  "token" : "eyJhbGciOiJIUzI1NiJ9.eyJzdWIiOiJ1c2VyMSIsImF1ZCI6Iks9ZW5k9EgdxNlcnMiLCJpYXQiOiE1NzQxNTcyODIsImV4cCI6MTU3NDE2MDg4Mn0uamVud28oRlW5ZjVWxUvPBXBGVH0Eby-1A17pb8ox0SXXE",
  "refreshToken" : "eyJhbGciOiJIUzI1NiJ9.eyJzdWIiOiJ1c2VyMSIsImF1ZCI6Iks9ZW5k9EgdxNlcnMiLCJpYXQiOiE1NzQxNTcyODIsImV4cCI6MTU3NDE2MDg4Mn0uamVud28oRlW5ZjVWxUvPBXBGVH0Eby-1A17pb8ox0SXXE",
  "login" : "20191119095437",
  "expirationTime" : "20191119105436",
  "studies" : [ "user1@default:study1", "user1@default:study2" ]
}
```

where:

- **Line 2:** OpenCGA host against which the user has been authenticated.
- **Line 3:** API version of the OpenCGA host
- **Line 4:** Authenticated user.
- **Line 5:** Token generated when the user last logged in.
- **Line 6:** Token generated when the user last logged in to refresh token without the need to provide user credentials again.
- **Line 7:** Date when the user last logged in.
- **Line 8:** Date when the token will expire.
- **Line 9:** Studies that are accessible by the user

Authenticating is only necessary the first time. Users will have time to execute any other command line without the need to provide any more credentials until the stored token expires. Please note down that the token expiration time is set by the main OpenCGA installation. Once this token has expired, users will need to log back in again to keep working with the command line.