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## What is esgf-getCredentials?

A tool to retrieve user credentials from ESGF. It have one graphic interface and another command line interface.

## Getting started

### Pre-requisites

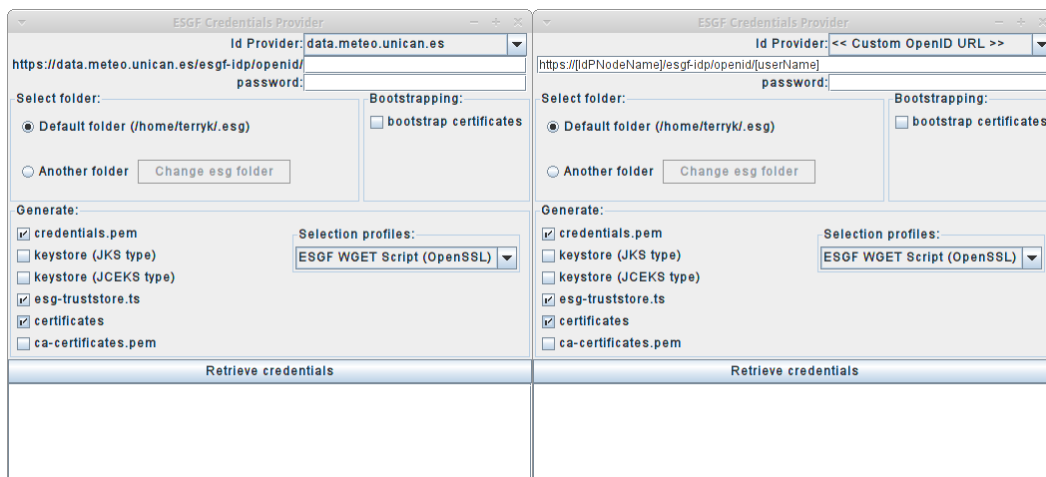
JDK or OpenJDK 6 and upper versions

### Download

Download the jar -> [getESGFCredentials-0.1.jar](#) 476.4 KB new

[Other versions..](#)

### Run it



Go to download folder:

- In Windows:
  - Open ESGFToolsUI-v0.8.jar
- Command-line interpreter:

```
java -jar ESGFToolsUI-v0.8.jar
```

## Command line UI Guide

Command line help

```
$ java -jar getESGFCredentials-0.1.jar --help
```

Basic usage

```
esgf-getcredentials --openid <openid> [other options]
```

Summary of **options**

Option	Description

}}}

To view specific use cases -->

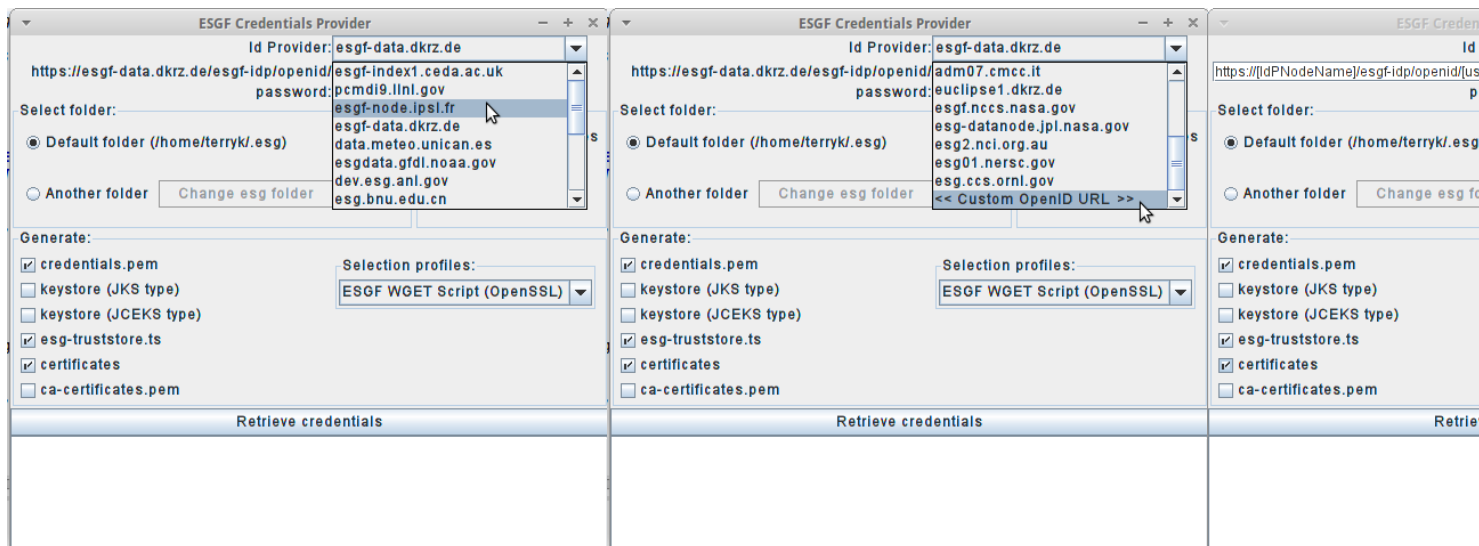
## Graphic UI Guide

- In Windows:
  - Open ESGFToolsUI-v0.8.jar
- Command-line interpreter:

```
java -jar ESGFToolsUI-v0.8.jar
```

## Setting user

You can select your IdP provider in the top drop-down list. If your IdP provider isn't in the list of providers. Select "Custom OpenID URL", with this option the GUI interface change to be able write OpenID URL's



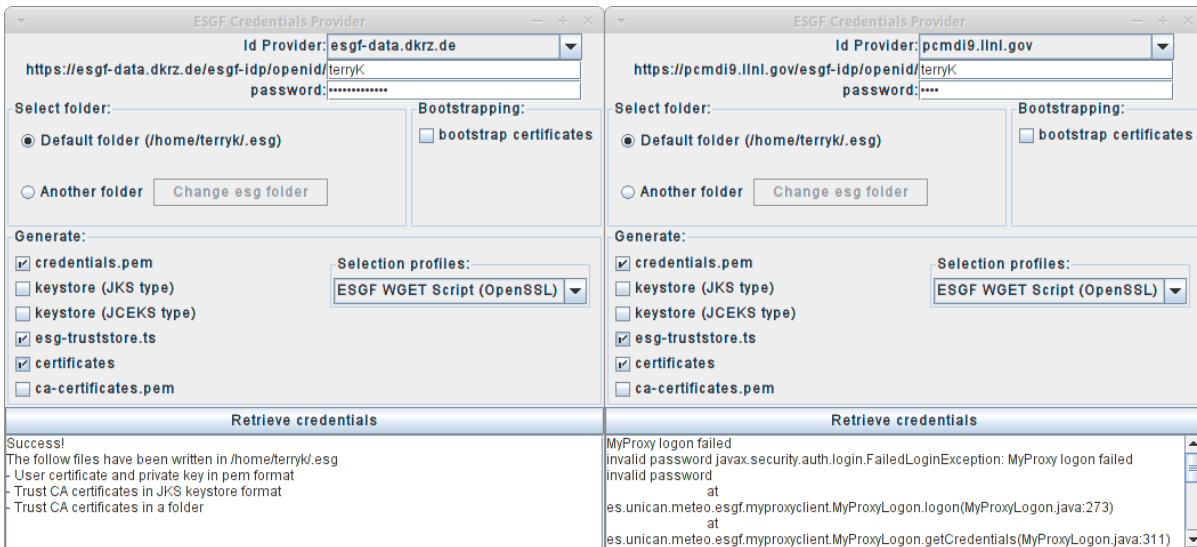
## Setting output files

You can select in "Generate" section what output files will be generated in the output folder.

credentials.pem	It's a pem file that contains the x509 user certificate and the RSA private key
keystore (JKS type)	It's a keystore in format JKS which is build with user cert, cert chain and private key
keystore (JCEKS type)	It's a keystore in format JCEKS which is build with user cert, cert chain and private key
esgf-truststore.ts	CA's certificates in keystore in format JKS
certificates	CA's certificate files and policy files in a folder
ca-certificates.pem	CA's certificates in pem format

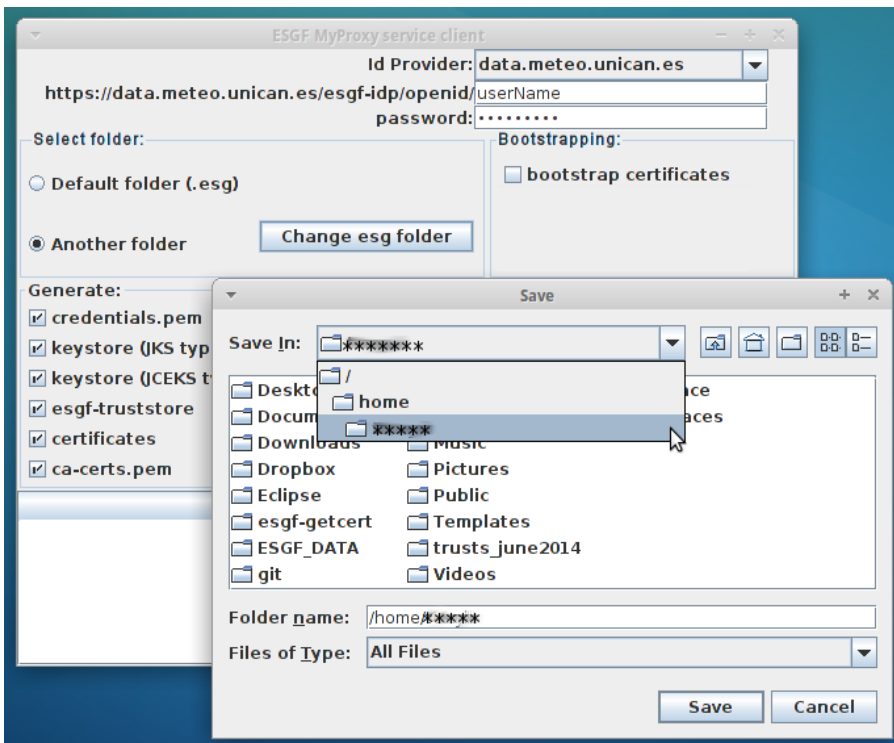
## Retrieve credentials

Click on "retrieve credentials" button. If all goes well a success message is shown. However, if some error happens then the Exception is showed



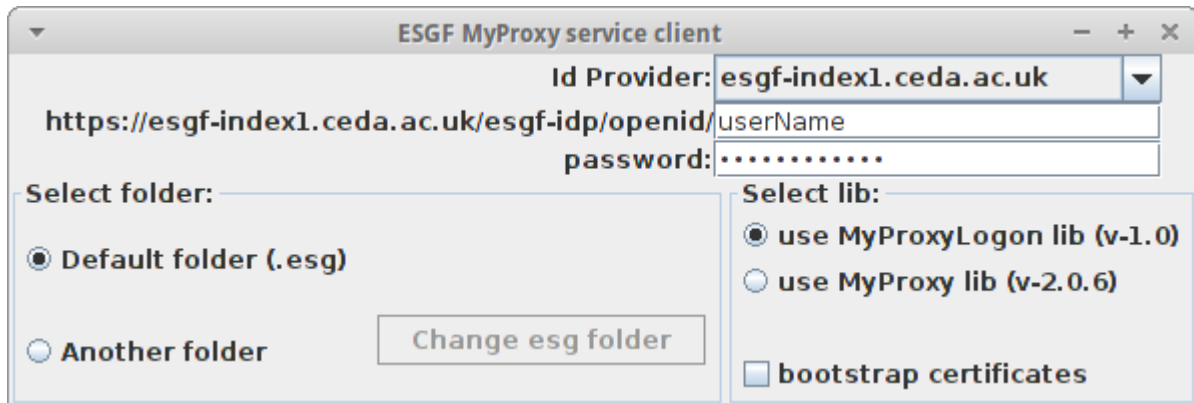
**Advanced options**

1. You can bootstrap the certificates. For that, select the check box "bootstrap certificates" in "Select Lib" section
1. You can change the output folder. The default is \$USER\_HOME/.esg



1. You can download a multilib myproxy version to select it in the "Select Lib" section
  - MyProxyLogon lib v1.0
  - MyProxy lib v2.0.6

MultiLib jar -> [getESGFCredentialsMultLib-0.1.jar](#) 2.3 MB new



## Specific use cases

### Aria2

1. Get a metalink of ESGF Files

- Download this metalink file -> [example\\_metalink](#)

For more info, ESGFToolsUI generates metalinks of ESGF files: <https://meteo.unican.es/trac/wiki/ESGFToolsUI#ExporttoMetalink>

1. Retrieve ESGF credentials in \$HOME/.esg

```
java -jar getESGFCredentials-0.1.jar --openid <openid> --password <password> --credentials --cacertspem
```

Run aria2c with credentials and **example\_metalink**

```
aria2c --private-key=$USER_HOME/.esg/credentials.pem --certificate=$HOME/.esg/credentials.pem --check-certificate=true
```

### WGET (OPENSSL)

1. Retrieve ESGF credentials in \$HOME/.esg

```
java -jar getESGFCredentials-0.1.jar --openid <openid> --password <password> --credentials --cacerts
```

Wget file

example\_file:

[?http://wdcc-esgf.dkrz.de:8080/ESGF/fileServer/cmip5/output1/IPSL/IPSL-CM5A-LR/esmrcp85/6hr/atmos/6hrPlev/r1i1p1/v20120114/ta/ta\\_6hrPlev\\_IPSL-CM5A-LR](http://wdcc-esgf.dkrz.de:8080/ESGF/fileServer/cmip5/output1/IPSL/IPSL-CM5A-LR/esmrcp85/6hr/atmos/6hrPlev/r1i1p1/v20120114/ta/ta_6hrPlev_IPSL-CM5A-LR)

```
wget -c --ca-directory=$HOME/.esg/certificates --certificate=$HOME/.esg/credentials.pem --private-key=$HOME/.esg/creden
```

### WGET (GNU TLS)

1. Retrieve ESGF credentials in \$HOME/.esg

```
java -jar getESGFCredentials-0.1.jar --openid <openid> --password <password> --credentials --cacertspem
```

Wget file

example\_file:

[?http://wdcc-esgf.dkrz.de:8080/ESGF/fileServer/cmip5/output1/IPSL/IPSL-CM5A-LR/esmrcp85/6hr/atmos/6hrPlev/r1i1p1/v20120114/ta/ta\\_6hrPlev\\_IPSL-CM5A-LR](http://wdcc-esgf.dkrz.de:8080/ESGF/fileServer/cmip5/output1/IPSL/IPSL-CM5A-LR/esmrcp85/6hr/atmos/6hrPlev/r1i1p1/v20120114/ta/ta_6hrPlev_IPSL-CM5A-LR)

```
wget -c --certificate=$HOME/.esg/credentials.pem --private-key=$HOME/.esg/credentials.pem --save-cookies=$HOME/.esg/cool
```

## ToolsUI

1. Retrieve ESGF credentials in \$HOME/.esg

```
java -jar getESGFCredentials-0.1.jar --openid <openid> --password <password> -keystorejks --cacertsjks
```

1. Start ToolsUI

```
java -Dkeystore=$HOME/keystore_jks.ks -Dkeystorepassword=changeit -Dtruststore=$HOME/.esg/esg-truststore.ts -Dtruststorepassword=changeit
```

For more: [?http://www.unidata.ucar.edu/software/thredds/current/netcdf-java/reference/Session.html](http://www.unidata.ucar.edu/software/thredds/current/netcdf-java/reference/Session.html)

## ESGF WGET Script (Linux)

```
java -jar getESGFCredentials-0.0.2.jar -o <openid> -p <password> --credentials --cacerts --cacertsjks
```

## ESGF WGET Script (cygwin)

```
java -jar getESGFCredentials-0.0.2.jar -o <openid> -p <password> --credentials --cacertspem --cacertsjks
```

## NETCDF DAP

[?https://www.unidata.ucar.edu/software/netcdf/docs/netcdf/DAP-Support.html](https://www.unidata.ucar.edu/software/netcdf/docs/netcdf/DAP-Support.html)

```
java -jar getESGFCredentials-0.0.2.jar -o <openid> -p <password> --credentials --cacerts --cacertspem --output <path>
```

## Developers Guide

### Github

[?https://github.com/SantanderMetGroup/esgf-getcredentials](https://github.com/SantanderMetGroup/esgf-getcredentials)

### Architecture

### See Also

- [ESGFToolsUI - a desktop client for ?ESGF services](#)