# Motu perl client

December 7, 2010

## NAME

`./motu-client.pl`

The motu perl client.

## SYNOPSIS

This program can be integrated into a processing chain in order to automate the downloading of products via the Motu.

## ALGORITHM

The communication algorithm with the MIS-Gateway is the following:

1. The program builds a URL based on parameters provided by the user to download the requested product.
2. The program sends the URL built to the Motu.
3. The Motu sends a new URL to perform the authentication server via a "Central Authentication Service" (CAS).
4. The program posts a new URL to get a "Ticket Granting Ticket" (TGT) to download the requested product.
5. The CAS server sends the ticket.
6. The program sends the first joined with ticket obtained above and download the requested product.

## CONFIGURATION FILE

The program parameters are contained in an XML file. This file is located in the following directory:

- on Unix platforms: `$HOME/motu-client/motu-client-perl.xml`
- on Windows platforms: `%USERPROFILE%\motu-client/motu-client-perl.xml`

This file may be read-only because it may contains the password use to authenticate to the CAS server.

The expected structure of the XML file is:

```
<?xml version="1.0" encoding="UTF-8"?>
<configuration>
<user>john</user>
<password>secret</password>
<verbose>0</verbose>
<mis_gateway>http://web-qt.cls.fr/mis-gateway-servlet/Motu?</mis_gateway>
<service_url>http://purl.org/myocean/ontology/service/database</service_url>
<service_name>CLS-TOULOUSE-FR-MERCATOR-MOTU-REST</service_name>
<dataset_url>http://purl.org/myocean/ontology/product/database</dataset_url>
<dataset_name>dataset-psy2v3-pgs-med-myocean-bestestimate</dataset_name>
<out_dir>C:/MIS-152/out_dir/</out_dir>
<out_name>perlTest.nc</out_name>
```

```
<date_min>2010-11-08</date_min>
<date_max>2010-11-10</date_max>
<latitude_min>-75</latitude_min>
<latitude_max>30</latitude_max>
<longitude_min>20</longitude_min>
<longitude_max>120</longitude_max>
<depth_min>0</depth_min>
<depth_max>15</depth_max>
<variable>sea_water_salinity</variable>
</configuration>
```

## INSTALLATION

Copy the script in the directory of your choice. Create a configuration file (see "CONFIGURATION FILE") to inform the user and password to use to connect to the CAS server.

Installing Perl modules which are not provided in the standard installation of Perl. The list of modules to be installed is described in section "REQUIRED MODULES".

## USAGE

Usage: `./motu-client.pl -h`

```
Usage: motu-client.pl [options]

     Options:
         --help
                               show this help message and exit
         --verbose
                               print information in stdout
         -u USER, --user=USER
                               The user name, mandatory
                               No user name ? You must register to MyOcean
         -p PWD, --password=PWD
                               The user password, mandatory
         -g GATEWAY, --mis_gateway=GATEWAY
                               The gateway to use (url), mandatory
                               Should be something like http://atoll.cls.fr/mfcglo-armor-
         -S SERVICE_URL, --service_url=SERVICE_URL
                               The service url, mandatory
                               Should be something like "http://purl.org/myocean/ontology
         -s SERVICE_NAME, --service_name=SERVICE_NAME
                               The service name, mandatory
                               Should be something like GLOBAL_REANALYSIS_PHYS_001_003_b-
         -D=DATASET_URL, --dataset_url=DATASET_URL
```

```
                      The dataset url, mandatory
                      Should be something like "http://purl.org/myocean/ontology
-d DATASET_NAME, --dataset_name=DATASET_NAME
                      The dataset to download, mandatory
                      Should be something like dataset-armor-3d-ran-v1-myocean
-o OUT_DIR, --out_dir=OUT_DIR
                      The output dir, mandatory
-f OUT_NAME, --out_name=OUT_NAME
                      The output file name
                      Can be a netCDF file or a zip file containing netCDF files
-t DATE_MIN, --date_min=DATE_MIN
                      The min date (YYYY-MM-DD)
-T DATE_MAX, --date_max=DATE_MAX
                      The max date (YYYY-MM-DD)
-y LATITUDE_MIN, --latitude_min=LATITUDE_MIN
                      The min latitude [-90 ; 90]
-Y LATITUDE_MAX, --latitude_min=LATITUDE_MAX
                      The max latitude [-90 ; 90]
-x LONGITUDE_MIN, --longitude_min=LONGITUDE_MIN
                      The min longitude [-180 ; 180]
-X LONGITUDE_MAX, --longitude_max=LONGITUDE_MAX
                      The max longitude [-180 ; 180]
-z DEPTH_MIN, --depth_min=DEPTH_MIN
                      The min depth [0 ; 2e31]
-Z DEPTH_MAX, --depth_min=DEPTH_MAX
                      The max depth [0 ; 2e31]
-v VARIABLE, --variable=VARIABLE
                      The physical variables to be extracted, you can use netCDF
                      Generic standard name table is available here:
                      http://cf-pcmdi.llnl.gov/documents/cf-standard-names/stand
```

## REQUIRED MODULES

This program requires several other modules:

- Archive::Zip
- Date::Manip
- Readonly
- XML::Simple

## BUGS AND QUESTIONS

Please refer to the documentation for information on submitting bug reports or questions to the author.

## LICENSE



## AUTHOR

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