

Motu python client

December 7, 2010

NAME

`./motu-client.py`

The motu python client. You must use python version 2.5 or later.

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 ini file. This file is located in the following directory:

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

The expected structure of file is:

```
[Main]
user=john
pwd=secret
log_level=10
proxy_server=proxy.domain.net:8080
proxy_user=john
proxy_pwd=secret
motu=http://web-qt.cls.fr/mis-gateway-servlet/Motu?service_id=http://purl.org/myocean/ontology
product_id=dataset-psy2v3-pgs-med-myoccean-bestestimate
date_min=2010-11-08
date_max=2010-11-10
latitude_min=-75.0
latitude_max=30.0
longitude_min=20.0
```

```

longitude_max=120.0
depth_min=
depth_max=
variable=
out_dir=./out_dir
out_name=test.nc
block_size=65535
socket_timeout=

```

INSTALLATION

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

USAGE

Usage: ./motu-client.py -h

Usage: motu-client.py [options]

Options:

--version	show program's version number and exit
-h, --help	show this help message and exit
-q, --quiet	prevent any output in stdout
--verbose	print information in stdout
--noisy	print more information (traces) in stdout
-u USER, --user=USER	the user name (string), mandatory
	No user name ? You must register to MyOcean
-p PWD, --pwd=PWD	the user password (string), mandatory
--proxy-server=PROXY_SERVER	
	the proxy server (url)
--proxy-user=PROXY_USER	
	the proxy user (string)
--proxy-pwd=PROXY_PWD	
	the proxy password (string)
-m MOTU, --motu=MOTU	the motu server to use (url), mandatory
	Should be something like http://atoll.cls.fr/mfcglo-armor-gate
-s SERVICE_ID, --service-id=SERVICE_ID	
	The service identifier (string), mandatory
	Should be something like " http://purl.org/myocean/ontology/ser "
-d PRODUCT_ID, --product-id=PRODUCT_ID	
	The product (dataset) to download (string), mandatory

Should be something like "http://purl.org/myocean/ontology/pro

```

-t DATE_MIN, --date-min=DATE_MIN
    The min date (string following format YYYY-MM-DD)
-T DATE_MAX, --date-max=DATE_MAX
    The max date (string following format YYYY-MM-DD)
-y LATITUDE_MIN, --latitude-min=LATITUDE_MIN
    The min latitude (float in the interval [-90 ; 90])
-Y LATITUDE_MAX, --latitude-max=LATITUDE_MAX
    The max latitude (float in the interval [-90 ; 90])
-x LONGITUDE_MIN, --longitude-min=LONGITUDE_MIN
    The min longitude (float in the interval [-180 ; 180])
-X LONGITUDE_MAX, --longitude-max=LONGITUDE_MAX
    The max longitude (float in the interval [-180 ; 180])
-z DEPTH_MIN, --depth-min=DEPTH_MIN
    The min depth (float in the interval [0 ; 2e31])
-Z DEPTH_MAX, --depth-max=DEPTH_MAX
    The max depth (float in the interval [0 ; 2e31])
-v VARIABLE, --variable=VARIABLE
    The variable (list of strings), you can use netCDF variable names
    Generic standard name table is available here:
    http://cf-pcmdi.llnl.gov/documents/cf-standard-names/standard-name-table/16/cf-standard-names
-o OUT_DIR, --out-dir=OUT_DIR
    The output dir (string), mandatory
-f OUT_NAME, --out-name=OUT_NAME
    The output file name (string), mandatory
    Can be a netCDF file or a zip file containing netCDF files, default is zip
--block-size=BLOCK_SIZE
    The block used to download file (integer expressing bytes)
--socket-timeout=SOCKET_TIMEOUT
    Set a timeout on blocking socket operations (float expressing seconds)

```

REQUIRED MODULES

No module required.

BUGS AND QUESTIONS

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

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