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<http://athens.greenhackathon.com/>

*“A webservice API to access free data from
hydroscope and openmeteo.org projects”*

Stefanos Kozanis (S.Kozanis@itia.ntua.gr) and
Antonis Christofides (anthony@itia.ntua.gr),
National Technical University of Athens

this presentation is available at:
<http://itia.ntua.gr/1313/>

The “*Enhydris*” software

- Enhydris: A free database system for the storage and management of hydrological and meteorological data. There are many known installations of the software. We will focus on two of them.
- Project page:
<http://openmeteo.org/enhydris/>
- Trac page – hg repository:
<https://openmeteo.org/code/>
- Documentation page:
<https://openmeteo.org/doc/>

The *Hydroscope* project

- Information System with hydrological and meteorological data from several public services of Greece such as the National Meteorological service, the Electric company, several Ministries, the National Observatory, etc.
- Portal page:
<http://www.hydroscope.gr/>

The *Hydroscope* project (2)

- Hydroscope uses “*Enhydriis*” software.
- Currently (2012-12-13) the software used is to and old and unmaintained version (c2010).
- Meta data are available for the majority of stations at: <http://main.hydroscope.gr/> which is a data aggregator from several databases.
- In the service bellow: <http://kyy.hydroscope.gr/> meta data are available for several stations as well as time series data (hydrological and meteorological variables) publicly available for many stations.

openmeteo.org/db service

- openmeteo.org/db is the international, public database with free hydro-meteorological data offers anyone the possibility to upload their own data.
- Uses the “head” version of the “Enhydris” software, so it is full maintained.
- Access address:
<https://openmeteo.org/db/>
- Contains some telemetric – auto-updated stations.

Enhydris webservice API

- API is documented at:
<http://openmeteo.org/doc/enhydris/reference/web-service-api.html>
- Enhydris API can be used for both openmeteo and hydroscope databases, just you have to prefix with the correct service address such as `kyy.hydroscope.com` or `openmeteo.org/db`
- Some API services work only for `openmeteo.org/db` service such as the ability to get time series data in specific date and time.

Some examples for hydroscope.gr

- Get a list of all stations in database:
<http://kyy.hydroscope.gr/api/Station/info/>
- Get information for the station with id=200251:
<http://kyy.hydroscope.gr/api/Station/info/200251/>
- Get a full time series list:
<http://kyy.hydroscope.gr/api/Timeseries/>
- Get information for the time series with id=259:
<http://kyy.hydroscope.gr/api/Timeseries/259/>
- Get the full data for the above time series:
<http://kyy.hydroscope.gr/api/tsdata/259/> (it might need registration & authentication to get data).

Some examples for openmeteo.org/db

- A list of stations:
<http://openmeteo.org/db/api/Station/info/>
- Information about the station with id=1334:
<http://openmeteo.org/db/api/Station/info/1334/>
- Time series list:
<http://openmeteo.org/db/api/Timeseries/>
- Information about time series with id=230:
<http://openmeteo.org/db/api/Timeseries/230/>
- Request some time series values for a given time interval:
https://openmeteo.org/db/timeseries/data/?object_id=230&last=day&exact_datetime=true&date=2012-11-01&time=00:00