



Enhydris: A free database system for the storage and management of hydrological and meteorological data

Antonis Christofides (1), Stefanos Kozanis (2), George Karavokiros (3), Yiannis Markonis (4), and Andreas Efstratiadis (5)

(1) National Technical University of Athens (anthony@itia.ntua.gr), (2) National Technical University of Athens (S.Kozanis@itia.ntua.gr), (3) National Technical University of Athens (george@itia.ntua.gr), (4) National Technical University of Athens (imarkonis@itia.ntua.gr), (5) National Technical University of Athens (andreas@itia.ntua.gr)

Enhydris is a database system for the storage and management of hydrological and meteorological data. It allows the storage and retrieval of raw data, processed time series, model parameters, curves and meta-information such as measurement stations overseers, instruments, events etc.

The database is accessible through a web interface, which includes several data representation features such as tables, graphs and mapping capabilities. Data access is configurable to allow or to restrict user groups and/or privileged users to contribute or to download data. With these capabilities, Enhydris can be used either as a public repository of free data or as a fully secured – restricted system for data storage. Time series can be downloaded in plain text format that can be directly loaded to Hydrognomon (<http://hydrognomon.org/>), a free tool for analysis and processing of meteorological time series.

Enhydris can optionally work in a distributed way. Many organisations can install one instance each, but an additional instance, common to all organisations, can be setup as a common portal. This additional instance can be configured to replicate data from the other databases, but without the space consuming time series, which it retrieves from the other databases on demand. A user can transparently use this portal to access the data of all participating organisations collectively.

Enhydris is free software, available under the terms of the GNU General Public License version 3. It is developed with Python, Django, and C. Its modular design allows adding new features through the development of small applications. Enhydris is hosted by the Openmeteo project (<http://openmeteo.org/>), which aims to provide free tools and data.