

Using open source software for the supervision and management of the water resource system of Athens

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Poster download: <http://itia.ntua.gr/1201>

The *Enhydri*s system

- *Enhydri*s is one of our free software applications. It is part of an Information System, accessible through the internet, supporting the management of water resource systems and their measurement equipment (hydro-meteorological measurement networks).
- It is based entirely on free software technologies such as **PostgreSQL, PostGIS, Python, Django, jQuery, C** etc.
- The *Enhydri*s interface contains web-GIS applications. Geographical data consist of entities such as river basins, reservoirs, aqueducts, hydro-meteorological stations, etc. Each entity can store its own time series. The system also provides time series charts, automatic processing and more.
- The system is installed in many services like the “National Databank for Hydrological and Meteorological Information” of Greece. It can be installed easily and used by public or corporate services as well by individuals. It is also used in our **Free Database** of hydrometeorological information, <http://openmeteo.org/db/>
- *Enhydri*s is extensible, and new applications can be created and then installed according to the needs of each service.

The Athens Water Resource System case

- In 1999-2004 we built a decision support tool for the management of the Athens water resource system. In the framework of new a research project aiming to upgrade this tool, we decide to use our free software client-server applications such as *Enhydris* and standalone applications like *Hydrognomon*.
- We extended the *Enhydris* database and functions to include the components of the water resources system which extends over an area of 4 000 km² and comprises 4 reservoirs, 350 km of main aqueducts, 100+ boreholes and more. This software extension is already available to the public so that anyone can install and use.
- The Information System is publicly accessible through the web address: <http://itia.ntua.gr/eydap/db/>
- The Information System is connected to a measurement network of automatic hydro-meteorological stations. Data are automatically logged into *Enhydris* database and are instantly available.

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