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SOFTWARE - SYNERGI™ WATER

WATER DISTRIBUTION NETWORK SIMULATION

Customer story - Grand Lyon

The Water department of Grand Lyon continues to receive a return on investment after 12 years of investing in Synergi Water.

Synergi Water is a simulation software package used to model and analyse closed conduit networks of pipes, regulators, valves, pumps, reservoirs, tanks, wells and boreholes.

Grand Lyon started using Synergi Water in 2002. The initial phase of this project started with a single user. Soon afterwards, two more engineers joined the Synergi users team and received training in the modelling service of the Water department.

“At that time we needed a tool to verify the models of our network operator and simulate the network of the cities which were not yet modelled,” says Serge Perdrix, engineer of studies and modelling, Water department, user of Synergi Water for 5 years.

The design and optimization of a distribution network is an intense and complicated process. Its proper running depends on a wide range of operational parameters. It’s important to have a flexible and easy-to-use software tool to model the system behaviour and increase its efficiency and reliability.

Why model the distribution networks? “To empower the engineering department, to meet the expectations of the work department and to have appropriate means to operate,” says Mr Perdrix.

“When new scripts were required, the technical support of Synergi Water were available and helped us to write them.”

Serge Perdrix, Engineer of studies and modelling, Grand Lyon

Synergi Water is highly flexible, letting you choose the detail level for your models, from simple hydraulic analysis of a single pressure zone to the twin propagation of water quality in a multi-zone system. “It enables two types of studies,” says Mr Perdrix. “So-called strategic studies and more localized and detailed studies.”

With Synergi Water, you can assess consequences of a station breakdown under the network or assess the impact of a network on another one in case of changes or suppression. Concerning localized projects, such as a new building area, you can calculate technical parameters of the system: the pipe diameter, the pressure at the discharge, etc.

Synergi Water is easy to use. “Most of the settings are on the objects. When an existing object has been clicked on, as a pump for example, all the parameters can be found on the pump, contrary to other software solutions,” he says.

A variety of additional Synergi Water modules have been developed to meet specific customer requirements, including fast and accurate analysis. Among other things, with the Subsystem Management module, it’s possible to merge several water network models. “In order to know if an existing pipe network can be rescued by another pipe network, it’s easy to merge the models with Subsystem Management module,” says Mr Perdrix.

More and more operators model their distribution network. In a short period, 10 users from the Water department at Grand Lyon will be trained in Synergi Water.

“It’s important to have a software tool which evolves with time and to have the opportunity to participate in internal and external events to share experience or to perfect our knowledge,” says Ronan Philippe at the engineering and modelling office.



GRAND LYON IN BRIEF

The Urban Community of Lyon, also known as Grand Lyon, is the intercommunal structure for the city of Lyon and some of its suburbs. Grand Lyon forms the second largest metropolitan area in France. Grand Lyon provides the community with public services such as water distribution, guaranteeing the best prices and continuity of service.

PROFILE

- Website: grandlyon.com
- Employees : 630 people working in the Water department
- Population covered : 1 300 000
- Length of the pipe network : 4000 km

BRIEF ACCOUNT

Why we chose DNV GL - Software

- Synergi Water was recommended by our operator Veolia
- Synergi Water is a leading player on the water pipe network

This is what we gained:

- Good customer service with rapid responses
 - A decision-making aid to improve our distribution network
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