



ControlMaestro

Supervision of water networks, drinking water and wastewater treatment plants

ControlMaestro™ is a new generation SCADA platform capable of providing real time and detailed analysis of your network, facilities and equipment. Going beyond the traditional SCADA system, ControlMaestro brings an effective response to issues specific to the industry. In this way it transforms into a real decision making tool and an essential tool for the evolution of your system.

HMI / SCADA:

Supervisory Control, Data Acquisition and Business Intelligence Solution for Water Systems Management.

- Control and monitoring of installations,
- Optimisation of equipment operations,
- Improvement of network Performances,
- Security of network and equipment,
- etc...

ControlMaestro, an adapted solution to reduce operating costs and manage site(s).





A SCADA system for the energy and water quality management may contribute to cost reductions of up to 20% with the introduction of an appropriate control and monitoring production solution. ControlMaestro is THE open SCADA and remote processing system, integrating all necessary the tools and can be adapted to the specific needs of your unique environment. This allows network performance and equipment optimisation whilst at the same time saving money.

From the capture acquisition of the pressure data to the control of transportation of water through the distribution network to the different consumers and the accounting of the cost water consumed, Many data elements have to be collected and made available, whether to control the system or to analyze its performance.

Drinking water production plants, wastewater treatment plants, sanitation and zoning (or sectorization) for Water Distribution ... data environment are collected, centralized and the various connected devices (pumps, valves, etc.) often difficult to access, are monitored, controlled and subjected to preventive maintenance. In operation, the maintenance and the exploitation of tanks and pumping stations, the management of on-duty operators and the emergency troubleshooting are also critical aspects considered by the system.

In summary. **ControlMaestro** enables you to:

Collect field data:

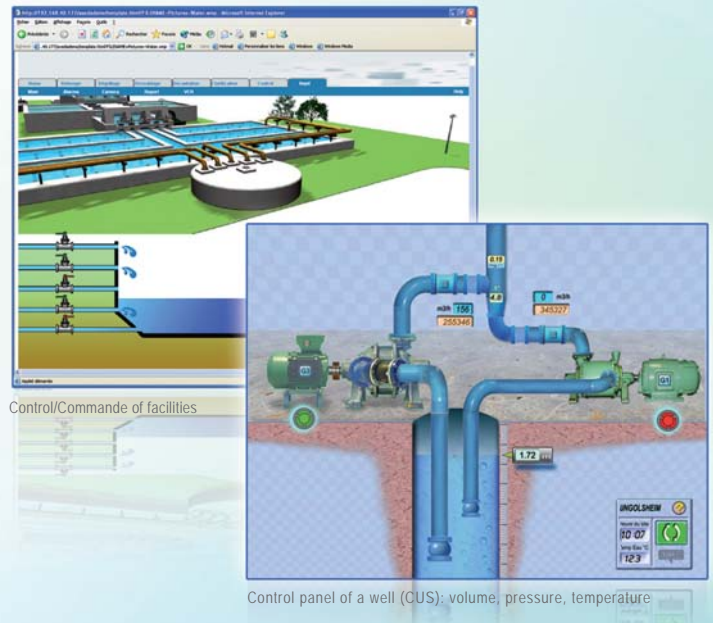
- From any type or brand of PLC or remote management system,
- From one or more sites linked or unlinked to your network,
- From water process data but also data from security systems (such as access control, video surveillance ...).

Monitor/control easily:

- Thanks to a simple and user-friendly tool,
- Distant devices in remote mode,
- In compliance with standards and with an access security.

Communicate efficiently and easily:

- Distribute data to other people or other information systems or enterprise management software,
- Alarms or critical information can be routed to the right stakeholders according to their type, criticality and on-duty calendars,
- Reports can be automatically edited or customized in various formats such as print, Web, Excel...



Control/Commande of facilities

Control panel of a well (CUS): volume, pressure, temperature

ControlMaestro addresses the main concerns of modern SCADA applications developers, namely rapid application development, the portability and application maintenance ease. All the tools required to develop a complete and powerful automation application and all elements required from a professional supervision and control solution are provided.

Drinking water production and savings



Consumption curves autoregulation of a SCADA application

ControlMaestro controls the auto regulation of pumping systems and water storage facilities to allow energy savings during the replenishment of water by benefiting from nightly energy rates.

True automated drinking water production is being able to respond in near real time to consumption variations over the network. To adjust its production, the system can use a theoretical curve that reflects the shape and the form of the daily consumption depending on the season and the current day type (working day, holiday).

Deviations are prevented and controlled through a system that continuously monitors and responds to consumption and that automatically adjusts curves of reference which are the basis of the system.

The service lifetime of installations is improved through the "preventive" maintenance of equipment, the management of pumps alternating operation, the quantifying of number of starts and errors, etc.



Integration with both enterprise solutions and field equipment

A Forward looking Web platform

Supervision and control can be done anytime and from anywhere via an Internet connection. No specific development or training is required to deploy a Web application that for example includes control panels, graphics and alarms banners.

The Web platform is built using a sophisticated user interface based on Java technology: **Web desktop** that provides access to a real home office with the same local connection features, and all this, without a requisite knowledge of html programming.

Reports publication

With the interactive screens of **ControlMaestro Excel Reporter™**, comprehensive reports are generated immediately. Simply enter the settings for instant a new reports. The interactive screens are directly accessible from Excel, from the application or from the desktop.

ControlMaestro Excel Reporter analysis tool enables the conversion of raw data into actionable information thus making best use of the reports.

Open connectivity

ControlMaestro provides open connectivity to equipment on site through communication standards such as OPC, Modbus and more than 160 specific drivers. In particular, **ControlMaestro** integrates communication protocols with all major brands of equipment for remote management: **SOFREL, Wit, Perax, TBox**, etc.

It easily integrates with third party systems such **ALERT, SAP, CMMS** tools, geo location, etc.

The software also provides a Development Toolkit (SDK) allowing access to core **ControlMaestro** APIs that enable the creation of custom extensions.

ControlMaestro is fully compatible with the new **Windows 7** and **Windows Server 2008** operating system and can also be installed on virtual servers using tools such as **VMware...** allowing users' server rationalization.

Zoning of water Systems

By analysing the inflows and outflows of a zone, the consumption of a mesh of zones can be acquired instantaneously and compared with water sold by the operator for the same zone. Then, difference can be considered as leakage or loss:

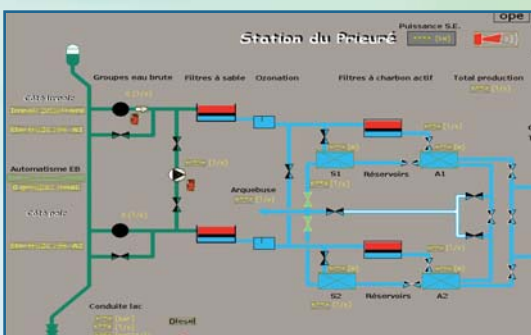
- Leaking underground (due to wear sleeves, cracks ...),
- Water stolen (people connected to fire hydrants etc...),
- Other municipal usage such as: street washing, green spaces watering, fire...

ControlMaestro provides the user with production data and centralised production management applications enabling them to see exactly what happens in the pipes in real time using existing sensors and flow meters: flow pressure, flow direction, pollution ...

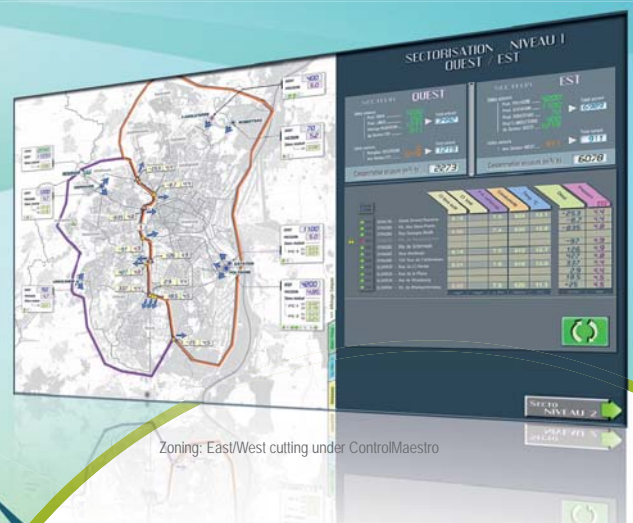
All shutoff valves existing on these pipes can be controlled via **ControlMaestro**, each pipe or portion of the network can be isolated and may be monitored or controlled by interconnecting them to a Security System (video surveillance and intrusion detection).

These various parameters and information are recovered, either by permanent ADSL (BROADBAND) connections (in real time) or GPRS requests. **ControlMaestro** collects all the data associated with communication and measurement of the network, from pressure sensors to quality measures (temperature, chlorine and PH levels, etc...).

In addition to faster leak detection and treatment, **ControlMaestro** enables you to calibrate the costs associated with the Zones (division into sectors) managing priorities, while cost justifying the effectiveness of an open supervision system!



Screen shot of a SCADA application



Zoning: East/West cutting under ControlMaestro

ELUTIONS Partnership

ELUTIONS allows you to benefit from 22 years of experience in the field of strategic control and automation software: **ControlMaestro** enables companies to improve their productivity and profitability through an exchange of real-time secure information between, first, intelligent devices and, secondly, people and management systems that depend on it.

A proven solution...

- Water Production & treatment union of Bas Rhin - Strasbourg, France
- Zuiveringschap Hollandse Eilanden en Waarden (ZHEW) - Netherlands
- Urban Community of Le Havre (CODAH) - France
- Urban Community of Strasbourg (CUS) - France
- Station of Pierre Bénite - Lyon, France
- Industrials Services of Geneva (SIG) - Switzerland
- Northern Ireland Water - Belfast, Northern Ireland
- City of Mexico - Mexico
- CLABSA - Barcelona, Spain
- ...



ELUTIONS Solutions

Solutions that meet the unique needs of your company

Drinking water and wastewater treatment plant

ENGINEERING & CONSULTING

- Project management Assistance
- Audits and Analysis

DEVELOPMENT & R&D

- Global R&D center in Lyon
- Specific developments
- Systems Integration

TRAINING & SERVICE

- Service delivery with our experts
- Networks of local and international partners

ASSISTANCE & SUPPORT

- Methodological on-site assistance
- Hotline
- Remote applications assistance



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About ELUTIONS

Author of automation software solutions since 1988, ELUTIONS develops, from its R&D in Lyon (France), the widest range of solutions for supervision process, technical installations and for remote equipment management.

Leader in technological innovation (Frost & Sullivan in 2005 and 2007), ELUTIONS was the first to introduce Internet in Wizcon® supervision in 1996.

ELUTIONS has an established reputation for technological innovation in software and wireless communications equipment. ELUTIONS' wide range of solutions are supported by continuous investments in technology that drive operational CAPEX and OPEX savings.

All ELUTIONS software solutions benefit from necessary mechanisms for safety and performance on the Web.

Plus d'information disponible sur : www.elutions.com