



ControlMaestro

Supervision and technical management of buildings and infrastructures

ControlMaestro™ is the next generation SCADA able to provide a detailed analysis of your network, your facilities and your equipment in real time. Going further than the traditional supervision system, ControlMaestro provides an effective response to specific problems to become a real decision making tool and an essential element for the growth of your system.

HMI / SCADA:

One solution to answer all the challenges of your Buildings.

- Operational building efficiency improvement (comfort, consumption, ...),
- Development and enhancement of networks security, buildings and occupants,
- Control of building cost of ownership,
- Communication and information flow improvements,
- Compliance with standards and certifications,
- etc.

ControlMaestro, a complete and open IT solution for Building Management Systems that can give you a global overview of your buildings performance viewed and controlled from anywhere in the world.





A strong pressure to reduce operating, maintenance and building energy costs is exerted on all owners. To achieve their goals, real-time access to data and accurate reporting is essential.

ControlMaestro is THE SCADA and remote processing system for Building and Energy Management that can optimize performance and contribute to creating a 20% saving in running costs, thanks to the continuous monitoring and control of the equipment installed in your premises and the daily operation of the installation.

A building is a more complex system than it first appears. Automation Systems are as varied and numerous as its users. From the owner of the building, its tenants, the person in charge of running the facility through external suppliers and the staff responsible for maintenance and security, all users of the system must be able to access strategic information on the building performance, in real time, to meet their varied needs.

The ControlMaestro Building Management Solution will network all the control equipment of the building giving a better service, better levels of comfort for the occupants and better Energy Management by using a complete graphical Web interface for comprehensive monitoring, reporting and control of information in real time.

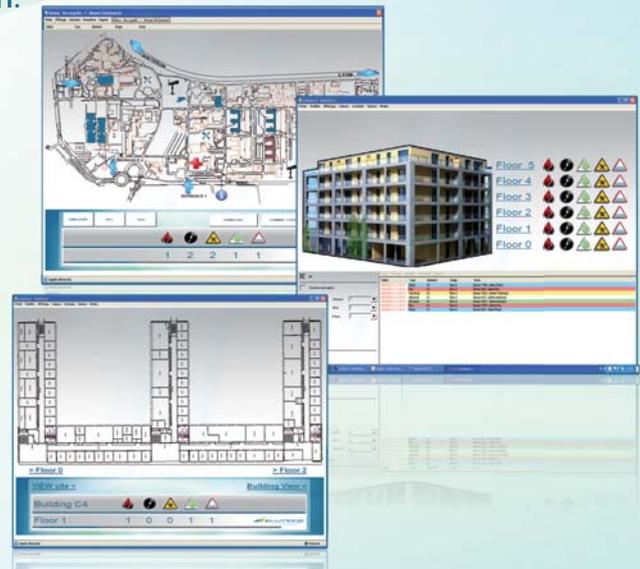
In an overview, ControlMaestro manages all the critical functions in a building.

The equipment monitored can be:

- Heating, ventilation and air conditioning (HVAC),
- The shutters and blinds,
- The lighting,
- The lifts and escalators,
- The fire safety,
- The access control, unauthorized access,
- The video surveillance,
- The power supply (MLVS, distribution boards),
- The plumbing (lift pumps, tanks etc...).

Data collected can have a variety of formats:

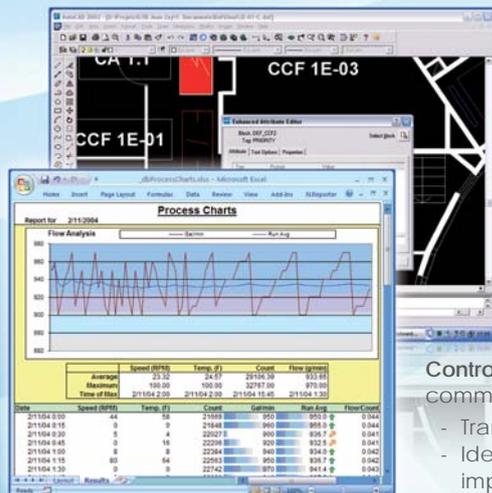
- Alarms (failure, abnormal termination, measure exceeding a threshold),
- Status (equipment operation, position, back orders, ...),
- Metrics (temperatures, uptime, number of failures ...).



ControlMaestro addresses the main concerns of modern SCADA application developers, namely rapid development of the application, its portability and the ease of maintenance. ControlMaestro is supplied with all the tools required to develop a complete and powerful automation application including the elements required from a professional supervision and control solution.

Best use of equipment, data and cost control

ControlMaestro Building Management System (BMS) allows control to increase occupant comfort while reducing power consumption and equipment wear. For example, it lets you schedule the automatic starting of HVAC, lighting, and various other operations in the evening, weekends, holidays or during maintenance periods and manages tasks according to established schedules (daily, weekly, monthly or yearly).



Buildings or facilities are not static and changes are frequently made, from moving partitions to building extensions or renovating existing facilities.

ControlMaestro offers all the functionality required to provide maximum flexibility to the BMS application in order to be able to develop or modify it in real time and provides an easy to use integrated applications generator tools for greater productivity:

- interconnection of ControlMaestro stations into a network with full access to all existing data is automatic,
- Integration of AutoCAD drawings to ensure an automatic updating of databases, images and associated animations related to the SCADA system. AutoCAD objects are reusable into ControlMaestro images and can be animated with live data.

ControlMaestro contributes to the cost reduction and process optimisation by automatically and easily communicating vital operating data as graphs, energy consumption reports, and data tables:

- Transformation of raw data into information that is useable for decision-making,
- Identification of areas of potential energy saving that exist in the building and assists in the implementation of targeted measures of modernisation and usage optimisation.

Importing AutoCAD drawings and model reports



Security of people, equipment and information

Access management and video surveillance

Building Security, whether unauthorised access detection, the control of access or video-protection, is now a must for any type of building. **ControlMaestro** enables the integration of systems and verifies that a person has the necessary rights to access a location, a building or a room, but additional protection factors can also be added to authenticate users during login and protect valuable assets and processes:

- Fingerprint scanners and/or USB keys,
- Video analysis native integration to allow anomalies detection (objects, people, etc.): video streams with open architecture, camera control, registration/access to video archives, and alert management.

Fire detection

ControlMaestro can highlight any anomaly or fluctuation that may be signs of a fire (smoke, heat, flame, gas detection) to the central station, or the personnel in charge of security of the corporation, it is then possible to control the extinction of the fire automatically or manually using the software.

Alarm management

The best way to improve security is to prevent problems and, if they do occur, to promptly notify effected users.

ControlMaestro monitors the information, change frequencies, deviations from a defined point, and from complex sequential scripts and then decides to send alarm messages.

Alerts can be automatically sent to the person on call using any available network: HTML, email or remote printer, fax, telephone or GSM (voice, SMS), modem or M2M. If a preset time limit is exceeded before the execution of a corrective action the alarm can be escalated until it is acknowledged correctly. Data security is ensured through a user management system which identifies and authenticates everybody using the system.

Data protection

ControlMaestro protects its main databases and alarm definitions, object and user management using sophisticated algorithms to avoid unauthorized modification of the **ControlMaestro** application. If the software detects that an external program has modified the code, an alarm system is generated. This ensures the integrity of databases and enables strict compliance with regulations **FDA 21CFR 11** pertaining to process, traceability and security systems.



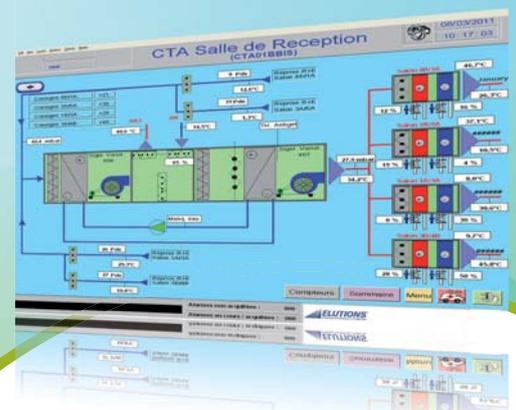
An open system: integration of various systems, users and needs

Most of buildings incorporate existing network infrastructures or wireless communication systems. **ControlMaestro** contains all necessary tools for optimal integration of these facilities and provides data acquisition and control functions for a variety of systems and software.

ControlMaestro satisfies the most complex requirements in terms of data acquisition, configuration in technical building management and access to all information of automation and control systems equipment. The majority of open protocols are catered for by communication standards such as **OPC, BACnet, LonWorks, EIB** and **CAA** (Codesys Automation Alliance), as well as **over 160 additional drivers**. All standard buses are also supported: **Profibus, Interbus, Modbus, TCP/IP**, etc.

The software easily integrates with third party systems such as **ALERT, SAP, CMMS** tools, etc. and is fully compatible with the new **Windows 7** and **Windows Server 2008** operating system. It can also be installed on Virtual Servers using tools such as **VMware**... allowing server rationalisation for users.

ControlMaestro can collect all the data from communication and measurement devices on the network, from meters to quality measures (temperature etc...). Supervision and control can be done anytime and from anywhere via an Internet connection.



The ELUTIONS Partnership

ELUTIONS lets you take advantage of 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 rely on it.

A proven solution...

- Bibliothèque Nationale de France (BNF) – France
- Université de Zurich (ETH) – Switzerland
- CHU de Rennes – France
- Médiathèque de Toulouse – France
- CEA – France
- ...



ELUTIONS Solutions

Enterprise Solutions adapted to meet your Needs

Energy efficiency: sensors, measurement, consumption monitoring

Facing the environmental issues of energy consumption reduction and reductions in greenhouse gas emissions, the entire building sector has to be able to meet its commitment and high ambitions of providing renewable systems. The ControlMaestro system can help achieve this laudable goal.

By integrating the information acquired from the equipment installed in the building into **ControlMaestro** other areas of potential money saving can be identified and cost justified.

Buildings consumption measurement combined with real-time monitoring by operatives and occupants alike can generate up to a 20% energy saving.

The **Maestro Smart Buildings** energy management solution provides an additional step to obtain outstanding results through monthly energy consumption monitoring of buildings and infrastructure providing opportunities to stimulate further thought and provide clues to understanding the issues affecting the future of the building. Each building can connect to the electricity distribution network and allowing reconciliation of electricity bills.

Maestro Smart Buildings provides with an innovative technical response to the ever increasing performance needs by providing the measurement and monitoring capability in areas such as heating control, or the associated areas of air quality, lighting and security.



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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 process supervision, technical installations and for remote equipment management.

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

ELUTIONS has established itself as a premier provider of software and wireless communication assets. ELUTIONS wide range of solutions are supported by continuous investments in technology that drive operational CAPEX & OPEX savings. All ELUTIONS software solutions benefits from mechanisms necessary for the web security and performance.

More information available on: www.elutions.com