



SUCCESS STORY

PROFILE

- Subject : SCADA
- Process : BMS
- Client : Hôtel de la Cité
- Integrator : Axima-Seitha Sauter
- Date : 2010

Installed base :

- Panorama E²
- Sauter equipments
- OPC

Panorama at Hôtel de la Cité



Hôtel de la Cité :
Cité Internationale in Lyon

AIMS

Energy efficiency :
Reduction of the building's
energy consumption.

Combining SCADA software
with the hotel's reserva-
tions management system.

BENEFITS

Cutting of operating costs
by 20%.

Innovative technical solu-
tion for the environment.

Sustainable and environmentally-friendly solutions are vital for optimizing our energy consumption, and as a result Hôtel de la Cité in Lyon has decided to install an open, innovative Building Management System (BMS). This global solution, including the Panorama E² SCADA product from Codra, was installed by Axima-Seitha using products from control system vendor Sauter. Linked with the hotel reservation system, the BMS has reduced the building's energy consumption and cut operating costs by 20%.

Hôtel de la cité

Hôtel de la Cité opened for business in November 2006. Located in Lyon at the Cité Internationale and designed by architect Renzo Piano (winner of the international competition), the hotel is part of a larger project including an amphitheater, a convention center, a mu-

seum, a cinema, traditional and residential hotels, offices and restaurants. The specifications called for an innovative solution using new technologies for improving energy efficiency:

- Production of hot and cold water via heat pumps,
- Combining SCADA



Equipments room containing heat pumps and condensers

software with the hotel's reservations management system,

- Management of all plant equipment.

"Today the concept of combining room reservations with a BMS is rare. Few hotels have installed such a system, even among high-end establishments," said Mr. Denis Rey-Bayle, Sales Engineer for Sauter.

BMS makes customers more comfortable

Once customers have checked in to the hotel and received their room key, the information is sent immediately to the BMS which forwards it to the controller located in the room. The heating or air conditioning in the room

is turned on automatically. The system switches between two settings: "MINIMUM" (unoccupied room) and "COMFORT" (occupied room). The customer can manually change the temperature by + or - 2 degrees, or can turn it off entirely. The hotel's Technical Manager or any other operator can view these changes on the BMS workstation.

The BMS also raises "high" and "low" temperature alarms. "When a customer leaves the room and forgets to close a window, for example, the temperature drops. The BMS issues an alert so that we can immediately send someone to the room in order to determine the cause," said Mr. Hervé

Compagnon, Technical Manager at Hôtel de la Cité.

In the wings

Hôtel de la Cité has two heat pumps for 164 rooms—all independently controlled via Sauter control terminals. The pumps heat or cool the condensers in order to produce the hot or cold air distributed across the various air handling units. The heat pumps collect fresh water from Hôtel de la Cité's interception well, located upstream. Used water is then released downstream in compliance with strict regulations from DRIRE—the regional government agency for industry, research, and the environment regarding the water conductivity* and temperature differences between the well water drawn and the released water. "Thanks to the BMS, we can provide monthly energy balances for DRIRE. Hôtel de la Cité is one of the few organizations in the region able to provide such detailed information," said Hervé Compagnon.

* The water conductivity provides an indication of the quality and quantity of substances dissolved in the water

Choosing the Panorama SCADA solution

Sauter uses an OEM version of the Panorama E² product called NovaPRO Entreprise. The Swiss company includes the SCADA software in all the BMS solutions it offers to end users. Hôtel de la Cité chose Axima-Seitha for its air conditioning and BMS installation, and Axima-Seitha in turn selected Sauter for control and supervision. The decisive factor in the bidding process was the company's reputation for delivering top-quality hotel services in the Lyon region. Panorama E² was selected firstly for its open design, a key requirement for business applications. You can easily integrate both off-the-shelf functions and custom functions developed inhouse to address specific requirements. "It is a multi-protocol SCADA solution able to communicate with other programs such as the FIDELIO reservation system. System interoperability is based on OPC (OLE for Process Control) technology," said Mr. Denis Rey-Bayle. "Panorama E² is an open tool, able to manage various types of systems such as fire control, access control, video surveillance, etc."

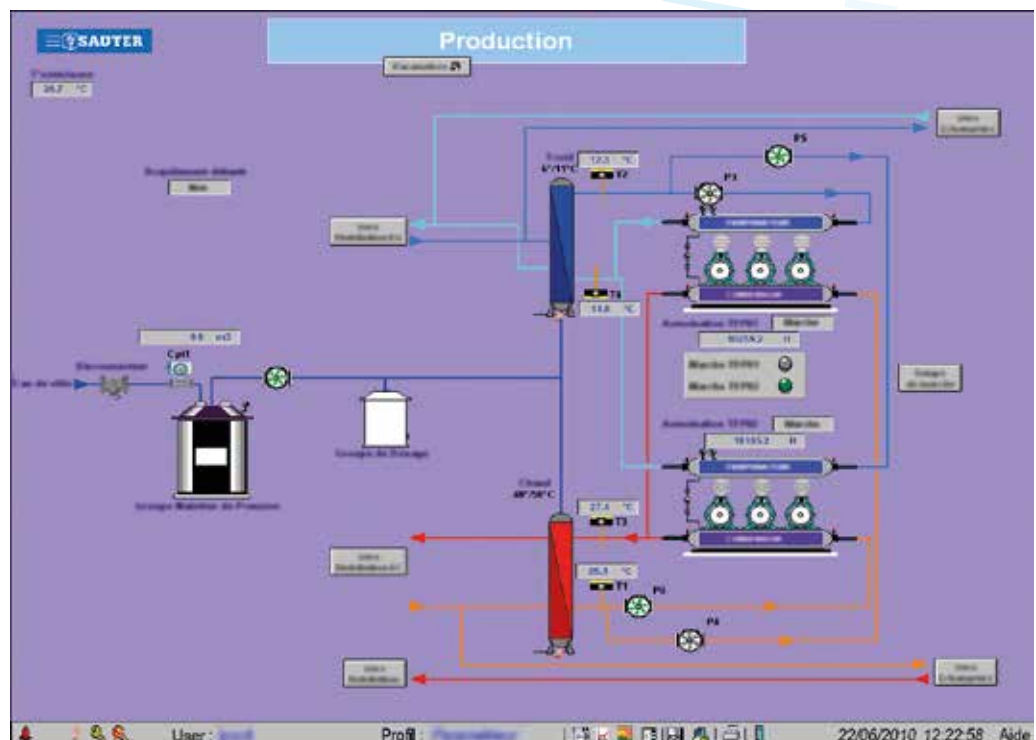
Secondly, Panorama E² is an "object-oriented" system. This both significantly shortens development times through the re-use of components and facilitates maintenance. Panorama E² is the first SCADA development workshop applying an object-oriented approach to all BMS functions, both at the field level (such as acquisition, alarm management, calculations, archiving) and for the users (animated symbols, mimics, etc.).

Why choose Panorama E²?
Saves time.
Saves money.
Saves energy.
the solution offers real added value to customers concerned about the environment and future generations.

KEY FIGURES

- 2 heat pumps
- 1 collection borehole
- 1 release borehole
- 9 air handling units
- 164 rooms fitted with terminals
- 8 floors
- 10,000 m³ of water used
- 50,000 customers/year

BMS mimic Panorama E² diagram :
 Production of hot and cold air





Controller cabinet : Linking Sauter controllers to other plant equipment

Project partners



Sauter celebrates its centenary. Sauter, a family business founded in 1910, develops and manufactures a broad range of products for controlling temperature, humidity and pressure. Both company headquarters and manufacturing are based in Basel, Switzerland. Sauter, the third-largest manufacturer of control systems with 2,000 employees worldwide, specializes in energy efficiency and green buildings. Today 40% of the world's energy consumption is used to supply buildings: Sauter is pioneering innovative applications to promote renewable energy by developing global solutions based on open systems such as Panorama E².

Axima-Seitha Located in Villeurbanne, France, Axima-Seitha designs and installs environmental and refrigeration engineering solutions thanks to its expertise in both installation and maintenance. Axima-Seitha develops powerful solutions to help clients meet energy efficiency challenges.

Sauter uses an OEM version of the Panorama E² product called NovaPRO Enterprise.

From industrial SCADA to a global information system

