

Reims University Hospital

A scalable SCADA platform to support the health sector

In order to support each of the hospital departments in their daily operations, the Reims University Hospital's logistics department is using the Panorama platform to control the Facilities and Building Management System (FM/BMS) for the main site as well as some twenty other sites. By way of example, the Children's Hospital (American Memorial Hospital), retirement homes and EHPADs... together represent a total of just over 300,000m².

The SCADA application also allows for the monitoring and traceability of the hospital equipment. To date, the Reims University Hospital has been working with Codra for more than 20 years. The application is constantly evolving to meet the new needs of the teams and to incorporate new buildings.



in figures

- 430 000 external visits/ year
- 200 000 patients/ year
- 9 establishments
- 300,000m² supervised surface
- 4 job lots dedicated to the Hospital
- 1 200 real-time monitored alarms



A BMS/FM for hospital safety

The hospital setting requires flawless management of the maintenance of installations, in terms of both software and hardware, to ensure a high level of excellence for users. The Panorama SCADA software plays a vital role in maintaining the health-care equipment. It provides invaluable assistance to staff in the monitoring and maintenance of key facilities, as with the real-time monitoring of operating theatres. Through data acquisition and temperature monitoring, the logistics department can ensure the traceability of equipment and detect any abnormal variations to prevent risks of contam-

ination. Use cases include for example monitoring temperatures of the Biology Unit building, monitoring temperatures of medicines in the Pharmacy Unit and monitoring the milk in the Baby Bottle Department.

In terms of cybersecurity, the Panorama software also contributes to the safety of the hospital network thanks to its native defence-in-depth mechanisms. The Reims University Hospital has chosen to rely on a reliable, robust and ANSSI-certified management tool to protect its systems from cyber attacks, which are a particular concern in the hospital sector.

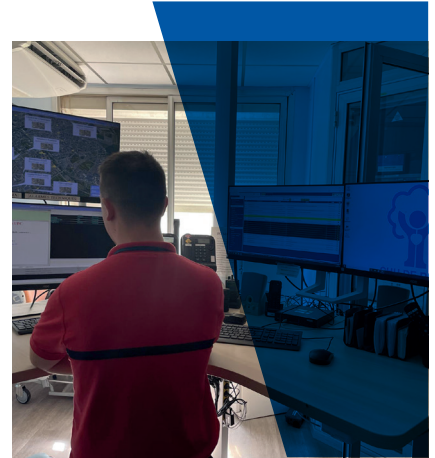




Batch management for optimised maintenance

In order to help operators in their day-to-day work, technical teams have access to views for each functional area to facilitate their status monitoring for each building: Traceability, Electricity, HVAC and Technical safety.

The technical teams are also equipped with mobile access and Panorama Web HMI so they can consult the status of the system any time, anywhere. All the data brought out from the 300 PLCs is processed in Panorama to detect, for instance, temperature drifts in buildings or to check the status of the circuit breakers and meters in each pole. In addition, a filtered list of critical information from the different functional areas is centralised directly at the Security Desk. The on-call firefighter can then follow the different instructions indicated for each type of alarm and quickly contact the relevant team if an intervention is required.



Real-time monitoring of alarms at the security control room



Monitoring temperatures from a mobile

An adaptable solution tailored to Hospital needs

In order to be efficient in their daily duties and to fulfil all of the hospital's safety requirements, the teams at Reims University Hospital can draw on a customised and scalable SCADA solution, and on Codra's high-level technical support, which provides a high quality and highly responsive service.

The ergonomics of the system is such that the technical teams can more intuitively grasp the Panorama functionality, so gaining in speed of response, particularly when managing alarms. In addition, the architecture of the Panorama application allows for great flexibility. Each piece of equipment is modelled together with its behaviour. The instances deployed in the application allow changes or abnormal behaviour to be viewed dynamically, without having to restart the application.

« This new generation SCADA gives us greater flexibility in terms of deployment. It allows us to interconnect our technical solutions, as well as directly exchanging information with our IT and with a unified supervisory system for our regional hospital group (GHT - Groupement Hospitaliers de Territoire) » explains Stéphane MARTIN, technical manager for BMS/FM/automation and LV systems.

Panorama on the horizon

The Reims University Hospital is currently building a new hospital with a timeline for completion by 2029. Eventually, Panorama will be handling some 100,000 points compared to 40,000 today.

As part of this drive to modernise and digitalised services, the CHU's logistics department is also looking into more complex projects using Panorama. Among the projects under consideration are the optimisation of 7/7 heating regulation (with implementation of on-call/holiday scheduling), integration of specific equipment for laboratory testing, as well as the creation of an energy efficiency monitoring system.