Automation System Hellas

DEUTSCHE SCHULE THESSALONIKI

130 years of history

CHALLENGE

The upgrade of the Building Management System of the school.

SOLUTION

- Siemens Desigo series system
- Siemens Desigo CC V3.0 management system
- Siemens PX Automation stations

RESULTS

Completion of the project within 30 days of the assignment. Reduction of energy consumption and maintenance costs. Better control and safety.

The German School of Thessaloniki is a lively and integral part of the city, having 130 years of active participation in the educational, cultural and social events of Thessaloniki.

It was inaugurated on February 13, 1888, by August Sigmund, who had the role of director and sole teacher at the beginning of a private school. The operation of the school began in a rented building on the street «Pros Mpes Tsinar», in the region of Vardaris, with the participation of 9 girls and 7 boys. The school rapidly evolved into a multinational community of considerable magnitude. Today, DST has an outstanding reputation and has established itself as one of the best private schools in the region and Greece in general. In 1996 he moved to the new privately-owned facilities in Thermi.

PROJECT DESCRIPTION

The new facilities concerned a modern building with significant innovations and amenities for its users. There were two BMS management systems that had a lifespan of

over 12 years. In recent years, AS Hellas supported the two systems that co-existed in the building. The first system, which was installed from the outset, was Landis & Gyr. The second system, which replaced part of the first 10 years ago, was from the company Saia Burgess. The two systems did not interact and performed autonomous functions. This was a significant drawback in the operation of the building, particularly in the operation of the production, distribution, and consumption of heating. In 2017, it was deemed necessary to replace the two old Building Management Systems with the aim of reducing energy consumption and maintenance costs but also increasing levels of safety, comfort, and control.

TECHNICAL SOLUTIONS

In the summer of 2017, AS Hellas undertook to replace the two systems with a new Building Management System. The solution was based on the complete dismantling of the Saia system and the partial dismantling of the Landis & Gyr system.

The operation of the Saia system has been fully covered with a modular automation station and with the appropriate modules for managing physical signals. The Landis & Gyr system retained the physical signal modules and replaced the old controllers with 3 new modular automation stations. This option provided the advantage of a quick transition as well as a reduced cost of materials.

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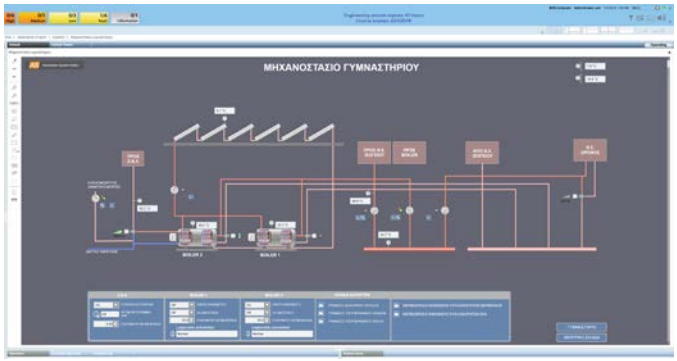
The design of the new system was done in a way that in the future any need for addition and expansion would be covered spatially and technologically.

The new system is from Siemens Desigo PX series. A total of 5 automation stations were installed in the building, and they were connected via Ethernet and Lon network. The BACnet protocol is transmitted on all physical media and is the native device protocol of all the devices and the Desigo CC V3.0 management platform.

Benefits

- In the new system, heating consumers transfer their demand to the distribution system and this in turn to the production system. Heating production now works for the percentage that is needed while consumers operating mode can be selected between normal, economy and protection mode.
- Heating generation for the boilers becomes proportional, a function that was not supported by the old system. Their sequence is also suitably adapted for optimal power distribution.
- The new Desigo CC platform has advanced Vector graphics capabilities, a feature that particularly caters to the management of pages with lighting and heating plans.
- Lighting circuits are dynamically integrated into control groups and operating scenarios. The level of external lighting intervenes with each lighting circuit, and the operator independently sets the setpoint values for each circuit.
- Desigo CC platform has superior scheduling capabilities. The operator is now able to create time schedules and associate dynamic objects and functions. This feature addresses the requirement for the building to run efficiently during nonordinary schedules (events, meetings, etc.).



AS Automation System Hellas completed the installation of the Building Management System of the German School of Thessaloniki (DST) within just 30 days of the assignment of the project, in time for the beginning of the new school year.

IMPACT OF THE PROJECT

The investment of the German School of Thessaloniki will significantly reduce energy consumption. Maintenance costs will also decrease as new technologies allow much faster solutions at lower costs. Reliability will improve significantly as the new systems have spare parts, as opposed to those older than ten years.

Finally, the new system offers further possibilities for expansion and optimization of the building's operation. It is an important tool for the Technical Service Team, for the control of the installation, the rapid diagnosis of faults and the evaluation of the operation of the systems.