



PROJECT AT A GLANCE

Location:

Bochum, Germany

Project Type:

Integration, Energy

Equipment Installed:

Xenta Controllers

Network:

LONWORKS®

Applications:

Heating, Air Conditioning, Climate,
Energy Management

TAC Partner:

HGI mbH

Westphalian Centre for Psychiatry and Psychotherapy

Health authorities everywhere are struggling to balance budgets or juggling with limited financial resources.

A modest investment in an efficient energy management system yields substantial savings and improves productivity without deterioration in service levels, which allows a healthcare provider to focus on its primary objective: healing patients. The Westphalian Centre in Germany is a textbook example of what can be achieved when LONWORKS® technology is properly applied with the help of TAC® solutions.

Until recently, the Westphalian Centre for Psychiatry and Psychotherapy (Westfälischen Zentrum für Psychiatrie – WZP) in Bochum, Germany, occupied an aging complex comprising many different purpose-made buildings distributed over a wide area. Management realized that this not only hindered staff productivity, it also impaired the efficiency of Building Management Systems leading to unnecessarily high energy and operating costs.

In order to improve facilities and reduce overall expenditures, the regional authority commissioned an extensive renovation project aimed at fully modernizing the clinic. A TAC solution based on LONMARK® interoperability was delivered by the long-term partner of TAC Germany, HGI Heger Gebäudeautomation Ingenieures mbH (www.hgi.de).

THE CHALLENGE

WZP's chief ambition was a property-wide energy management system that would help generate significant cost savings. The Centre also wanted an open communications standard that could integrate all building automation devices and merge seamlessly with an

CUSTOMER BENEFITS

- Energy savings
- Decreased operational costs
- System interoperability
- Enhanced control of multiple buildings from central monitoring location
- Flexibility for future expansions and upgrades
- Rapid return on investment

Westphalian Centre for Psychiatry and Psychotherapy

IT network for easy monitoring and control, both onsite and remotely. And to guard its investment, WZP was seeking a system that would provide unlimited flexibility for future expansions and upgrades.



THE SOLUTION

In the first redevelopment phase, four buildings were linked together via a fiber optic Ethernet network with a TCP/IP protocol. This was then integrated with a LONWORKS-based system that formed the technical backbone for building automation subnets, internal data processing and, in time, the telephone system. With this solution, two or more devices can directly communicate with each other via the intranet or Internet.

In addition, the Internet router functions as a server that allows the entire system to be accessed and controlled using a standard web browser from any online computer. Award-winning LONMARK-certified TAC Xenta™ controllers regulate numerous HVAC devices and electrotechnical systems and integrate them into the energy management system. The main heating system is fitted with pumps, valves and sensors, all of which are interoperable due to their LONMARK® profile.

THE BOTTOM LINE

A rapid return on investment was one deciding factor in WZP choosing a LONWORKS-based network solution including TAC products. For example,

HEALTHCARE PROFILE

Healthcare facilities operate 24/7 and require 24/7 system reliability and precision. Environmental conditions must adjust quickly and uniformly to the needs of each patient. Particular areas, such as surgery suites and laboratories, must maintain specific temperature, air filtration and ventilation requirements.

Managing energy usage without compromising life critical environmental needs is a huge challenge faced by maintenance and engineering personnel. For both patients and staff, TAC's open systems solutions mean a total quality healthcare environment and efficient facility operation.

thanks to the system architecture, electrical installation costs were reduced by 35 percent. Furthermore, WZP will now gain greater control over all building operating costs due to accurate and easily accessible information, allowing it to make well-reasoned energy management decisions.

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PP-HCARE-WESTPHALIAN-US
April 2006



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