



PROJECT AT A GLANCE

Location:

Bad Bentheim, Germany

Project Type:

HVAC, Building Management System

Equipment Installed:

Xenta 300 and Xenta 400 Controllers,
TAC Vista Server, TAC Vista
Workstation

Network:

LONWORKS®

Applications:

Heating, Air Conditioning, Climate,
Monitoring of Medical Equipment

No. of Nodes:

500

No. of Subnets:

6

Total System Points:

2000

TAC Partner:

HGI mbH

Bad Bentheim Specialist Clinic

The famous German specialist clinic, Bad Bentheim, has treated and provided relief to over 1.5 million sufferers of dermatological disorders since 1984.

Eager to retain its reputation as a leading medical center, the clinic's psoriasis department underwent extensive renovation and redevelopment in 2001. Part of this program included the installation of an intelligent, future-proof LONWORKS® system for better building management capabilities and patient comfort. TAC® provided many of the system's advanced features.

The Bad Bentheim specialist clinic is located near the German-Dutch border in Lower Saxony. It offers treatment and rehabilitation for people with dermatological, rheumatic, and orthopedic disorders. In the clinic's psoriasis department, approximately 400 patients a day receive Sole-Photo-Therapy, which involves bathing in brine or sulfur mineral water, followed by a treatment with intensive UV rays.

After many years of operation, the clinic's existing technical building systems were quickly becoming obsolete. Faced with the prospect of deterioration in service, the clinic voted to totally modernize the department by installing an interoperable building solution which was installed by the long-term partner of TAC Germany, HGI Heger Gebäudeautomation Ingenieures mbH (www.hgi.de). This would not only enhance patient comfort but also provide extensive flexibility for future changes and upgrades.

THE CHALLENGE

One of the clinic's rehabilitation buildings, Sonnenhaus – the Sun House, so named because of the 200 m² glass roof and numerous artificial UV-ray machines – had treated approximately 1.5 million patients between 1984 and 2000.

CUSTOMER BENEFITS

- Flexibility for future expansions
- Intelligent, future-proof building management system
- Precise monitoring and control of building systems
- Transparency of building's technical functions to patients
- Optimal facility environment for patient care

Bad Bentheim Specialist Clinic



Naturally, this had taken its toll on the building and its facilities. For the clinic to remain medically and technically advanced, management took the decision to implement an extensive renovation and expansion program in 2000 and 2001. The objectives were clear: connect all of the technical building systems together; increase the transparency of the medical equipment and the building's technical functions; and provide flexibility for future expansion.

THE SOLUTION

Initially, a LONWORKS® network was installed incorporating 500 nodes across six subnets and over 2,000 informa-

tion points to provide the flexibility the clinic demanded. TAC Xenta™ 300 and TAC Xenta 400 controllers regulate the building's HVAC functions for optimal indoor climate.

Precise monitoring of critical medical equipment and control of the building's technical functions are supervised and managed by a fully integrated TAC Vista™ Server that collects real-time data. This building system information from the various environments within the facility is presented in a user-friendly format on a TAC Vista Workstation, for ease of monitoring and immediate management of alarms or system failures.

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.

THE BOTTOM LINE

The new Sun House is now slightly larger and offers 12 private bathing areas as well as over 40 UV-ray machines. HGI, as a Partner of TAC Germany, provided a solution that has enabled the Sun House to effectively monitor and control various technical and medical systems while providing an optimal healing environment. This solution smoothly integrates technical, medical and Building IT systems into a single, reliable Building Management System.

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