



PROJECT AT A GLANCE

Project Type:
Integrated Building Controls

Location:
Cambridge, Massachusetts, USA

Number of Buildings:
One 12-Story Office Building

Leadership in Energy and Environmental Design (LEED):
Rating: Platinum Level

Applications:
Integrated Building Automation, Lighting and Access; Andover Report Suite

Total System Points: 7,500

Equipment Installed:
Andover Continuum

TAC Branch:
Boston, Massachusetts
Systems Integration Group

Genzyme Center

Genzyme's new corporate headquarters is a "green" facility powered by renewable energy sources and controlled by integrated building systems that create a functional and environmentally conscious work environment.

THE CHALLENGE

Genzyme, a world leader in biotechnology, wanted its new corporate headquarters to reflect the company's mission of making a positive impact on people's lives. So the design for Genzyme Center focused on not only lowering operational, maintenance, and energy costs, but also on providing a work environment that catered to the human need for natural light and fresh air.

The environmental requirements translated into a variety of design specifications, such as movable mirrors placed on the roof to direct sunlight inside, blinds programmed to follow the sun and then close at night, and windows that employees could open to let in fresh air. And that was just the beginning.

When Genzyme requested proposals for an integrated systems solution to fulfill the building design's objectives, four companies responded. Genzyme awarded the project to the Systems Integration group of TAC® because it demonstrated its ability to handle the project's scope and had the expertise to integrate systems from multiple manufacturers.

The project team faced a number of challenges – from integrating different systems and leveraging the corporate virtual private network (VPN) to adjusting to cultural differences and communicating among far-flung team members in Germany, Massachusetts, New York, and Los Angeles.

THE SOLUTION

The Systems Integration group proposed a building controls solution that leveraged Andover Continuum™ products to control the main building and Andover Report Suite to measure and report energy trends. These measurements are required for obtaining the U.S. Green Building Council's LEED® (Leadership in Energy and Environmental Design) rating.

CUSTOMER BENEFITS

- Significant energy savings
- Interoperability among multiple systems
- Use of existing network resources
- Ease of use and maintenance



Genzyme Center

The Andover Continuum system is fully programmable and leverages a Windows® front-end workstation connected directly to Genzyme's Ethernet VPN. This configuration enables Genzyme to monitor and manage a wide range of operations – from HVAC equipment, chiller and boiler interfaces, carbon monoxide/carbon dioxide levels, and rainwater collection...to artificial lighting, opening/closing windows and blinds, door controls, and building/tenant metering.



Andover Continuum floor controllers interface with lighting components to yield significant savings by eliminating the need for a separate network system to handle the lighting. In addition, Andover's Smart Sensors give employees individual room control for HVAC and lighting.

THE BOTTOM LINE

Genzyme Center relies on integrated building automation systems to lower operational and energy costs while maximizing natural energy sources such as wind, rain, and natural light.

By designing a facility that provides fresh air and natural light, Genzyme expects the payback on its investment to lead to employees who are happy and motivated at work.

The Genzyme Center earned a Platinum certification, the highest rating issued by the U.S. Green Building Council, under the Council's LEED (Leadership in Energy and Environmental Design) Green Building Rating System™.

LIFE SCIENCES PROFILE

The Life Sciences industries require business critical efficiency from their facilities. Tightly regulated by the FDA and other national and regional regulatory authorities, Life Sciences companies must ensure strict standards are maintained in their facilities. Any slight deviation in environmental conditions or unauthorized access to restricted areas can result in millions of dollars in lost revenues and loss of market share in these extremely competitive businesses where time-to-market means everything.

TAC has proven experience in providing solutions for environmental controls and access and security management for Life Sciences facility research, manufacturing, processing, packaging, and storage areas.

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