



CASE STUDY

BUILDING AUTOMATION CONTRACTORS

CASE STUDY

Eurohypo AG



Financial Services Giant Thrives With Complete Facility Service

In the spring of 2002, Eurohypo, the world's largest private bank dedicated to the real estate market, chose to locate their U.S. headquarters at the award-winning Grace Building tower in Midtown Manhattan. At the time Doug Winshall, Senior Vice President of Trizec Properties, Inc., owner and operator of the facility, said "The Grace Building offers premier Class A space and its Bryant Park location is unsurpassed with convenience to subways, Grand Central Station, Penn Station and the Port Authority." With one of the most recognizable facades in New York City, and overlooking Midtown's beautiful Bryant Park, the Grace Building has long held an esteemed position among Manhattan's skyscrapers. Its recently renovated Grace Plaza--a 25,000-sq. ft. landscaped, open-air plaza fronting on the Avenue of the Americas extends its elegant reach to bring a feeling of openness and light to one of the City's busiest intersections. The 1.5 million-sq.-ft. tower, created by renowned architect Gordon Bunschaft, FAIA, offers tenants one of the most technologically advanced security systems in the country, in addition to state-of-the-art interior systems and an aggressive tenant retention and relations policy.

The Challenge

- Facilitate Eurohypo's business strategy by providing the systems and services needed to manage environmental systems.
- Provide latest technology in a temperature control system, cost savings to

(Continued)

Project Team

Owner & Developer: Trizec Properties, Inc, Chicago, Illinois & The Swig Company, NY

Prime Tenant: Eurohypo AG, NY

Mechanical, Electrical & Plumbing Engineer: Edwards & Zuck, PC., NY

Mechanical Contractor: Prestige Air, NY

Key Benefits

- Achieved greater energy efficiency from the mechanical system upgrades and Honeywell Excel 5000® Building Automation System.
- Increased energy tracking capabilities and system monitoring functions while maintaining system uptime.
- Increased equipment reliability, flexibility and cost effectiveness.
- Scalable Solution - limitless cost-effective upgrade process available through LonWorks Field Bus.

Eurohypo, as well as minimize any occupant inconvenience or disruption.

- Provide advanced monitoring and control of building systems, accommodate the specific needs of Eurohypo's business and its workforce.

The Solution

- Install a direct-digitally-control (DDC) variable-air-volume (VAV) system.
- Install a Honeywell EXCEL 5000® Building Automation System (BAS) to cost-effectively control temperature, humidity and pressurization.
- Install a new LonWorks®-open protocol network throughout the tenant space and connect to Honeywell's SymmetrE™ Building Management System (BMS).

To aid Eurohypo in achieving facility management efficiency, T.E.C. Systems, Inc., in concert with representatives of Eurohypo, the property manager, and Edwards & Zuck P.C., the Mechanical, Electrical and Plumbing Engineer, aggressively attacked operational management from three angles: efficiency assurance, upgradeability opportunities, and ease of maintenance for building engineers. Efficiency assurance included the installation of setback controls to shut down equipment during office hours when office space is unoccupied, the installation of Mammoth packaged water-cooled variable-air-volume air-conditioning (AC) units with direct LonWorks interface to allow for scheduling and setpoint adjustments, and the installation of Liebert AC units integrated with Honeywell's SymmetrE™ front-end via the Modbus protocol. Upgradeability measures included the standardization of mechanical controls to Honeywell's Excel 5000 BAS, which provides an open integration of Honeywell control systems as well as compatibility and integration of competitive systems. The Excel 5000 System is "an open architecture approach that utilizes LonWorks based devices at the unitary and simple I/O level that are in turn tied to supervisory level systems." It assures future-proof flexibility, seamless expansion and modification of equipment functionality. The latter phase of the strategy derives its benefits from the successful implementation of the formers; the installed components and accompanying software, makes use of simple design, specification and installation - requiring minimal maintenance.

Overall, the tenant space is inclusive of its own condenser water system, completely separated from the base-building system by a plate-frame heat exchanger fed by primary and condenser water variable speed pumps. Pump speed is controlled by a Honeywell variable-frequency-drive with direct LonWorks connection to the control network. In sum, 40 VAV boxes, complemented with XL-10 LonWorks controllers, serves the tenant space. Perimeter VAV units provide for coordinated, sequenced control of VAV boxes as well as reheat and perimeter induction unit valves. Monitoring and control of mechanical equipment is achieved thru the SymmetrE graphical-user-interface (GUI) - a single view, web-enabled system that allows control over HVAC. The Eurohypo space is served by a SymmetrE server, and two remote workstations, with the system software database standardized to Echelon's LonWorks Network Services (LNS). The LNS software extends the versatility of the system by meeting the requirement to connect to BACnet, Modbus and OPC. The GUI is connected to Eurohypo's IP network, allowing secure access to the system from anywhere within the enterprise.

T.E.C. Systems Incorporated

54-08 Vernon Boulevard, Long Island City, NY 11101

10/04 Printed in the USA

©T.E.C. Systems 2004 All rights reserved

