

CASESTUDY

American Museum of Natural History

An ABB Cylon® Smart Building Solution for Exhibit Preservation



Located on Central Park West at 79th Street, the American Museum of Natural History is a magnificent site encompassing 23 buildings.

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Project Overview

When the need to renovate the fourth floor of the complex arose, facility managers decided to use ABB Cylon® Auto-Matrix products in the renovation because of their outstanding reliability and low-maintenance requirements.

The American Museum of Natural History opened its doors on April 6, 1869, in New York City. Less than 10 years later, the museum had outgrown its original home in Central Park’s Arsenal Building, President Ulysses S. Grant “laid the cornerstone” for its current location. Today the museum houses one of the world’s largest collections of insects, invertebrates, fish, amphibians, reptiles, anthropological artifacts, and fossils.

The Challenge

Located on Central Park West at 79th Street, the American Museum of Natural History is a magnificent site encompassing 23 buildings. The museum identified a need to renovate the fourth floor of the complex. Upon analyzing the many HVAC control systems throughout the complex, facility managers decided to use ABB Cylon® Auto-Matrix products in the renovation based on reliability and low-maintenance requirements.

Project at a glance

Firm	TEC Systems
Location	New York, New York
Date of completion	September 2011
Owner	American Museum of Natural History
Certification	LEEDS
Delivery method	Design & Build
Project size	2,000,000 Sq. Ft.
Project type	HVAC
ABB Cylon® Solution	American Auto-Matrix Pinnacle Series controllers, Oritor Communications Network, BACnet & LonWorks

The Solution

Based on the performance of ABB Cylon® Auto-Matrix products already being used in the museum, the American Museum of Natural History hired New York HVAC specialists, TEC Systems, a ABB Cylon® Auto-Matrix authorized System Integrator to install a comprehensive direct digital control system that regulates exhibits and HVAC environments throughout the museum. The generation-to-generation compatible ABB Cylon® building automation system allows the museum to continually expand, upgrade, and improve building automation with technologically advanced controls.

ABB Cylon® Auto-Matrix controls were placed to regulate environments for the American Museum of Natural History exhibits that demand precise temperature and humidity levels. One example is Leonardo da Vinci's Codex Leicester: A Masterpiece of Science exhibit. The Codex Leicester: A Masterpiece of Science was a temporary exhibit that displayed the last privately held manuscript by Leonardo da Vinci in the United States. In order to preserve the manuscript during its stay, the museum placed ABB Cylon® Auto-Matrix controls in special climate-controlled display cases that strictly regulated the amount of light exposure.

In February 2000, the American Museum of Natural History opened the Frederick Phineas and Sandra Priest Rose Center for Earth and Space, a building designed to take museum visitors on a journey to the furthest outskirts of the universe. This newly constructed facility uses a comprehensive ABB Cylon® direct digital control system to automate and control all aspects of its environment. From heating and cooling to central point operation and critical system monitoring, the ABB Cylon® solution offered complete system integration.

The focus of the building is the Hayden Planetarium, an 87-foot sphere that seemingly levitates in a glass cube. The one-of-a-kind planetarium houses the most innovative Sky Theatre in existence and exhibits technology used to create astronomical recreations of unprecedented realism. Crucial to the experience is a customized one-of-a-kind Zeiss Star Projector. This device, the most technologically advanced projector in the world, offers very realistic views of the universe. ABB Cylon® controls are in use to monitor and regulate temperature and humidity levels that ensure that the projector's highly sensitive lenses and electronics operate properly.

Future Energy Savings

As the technology-driven museum evolves, ABB Cylon® Auto-Matrix Smart Building Solutions will naturally evolve with it the building.

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experiences to increase productivity, optimize processes, and ultimately provide higher tenant satisfaction. For more information visit new.abb.com/buildings

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