Allen County Public Library
Civic Buildings • Fort Wayne, Indiana

About Allen County Public Library
ACPL has served Fort Wayne and area since 1895. Today it includes the main library in downtown Fort Wayne, 13 branches in the city and outlying communities, and a warehouse/IT services center. Fort Wayne has been cited as the Best Read City in the United States by Places Rated Almanac, due largely to ACPL’s collections. One of the finest and largest publicly-held genealogy centers in the U.S., ACPL is also well-known for its rare books collection and is a home to Internet Archive, an independent operation that is part of a network of scanning centers that are putting rare books and documents on the Internet for public use. ACPL was recently named a co-recipient of collections of the Abraham Lincoln Museum of Fort Wayne that closed after 80 years. ACPL will receive numerous documents, photos and books from the collection that is valued at more than $20 million.

About MSKTD & Associates
Based in Fort Wayne and Indianapolis, MSKTD & Associates provide comprehensive design services including in-house architecture, interior design, mechanical, electrical, civil and structural engineering and cost estimating. Their portfolio includes a wide array of project types including healthcare, educational, industrial/food processing, corporate and community facilities.

Project Summary
• Comprehensive technology solutions contract project by Trane integrates HVAC, lighting, security and multiple other systems in a 15-building county library system.
Challenge
In 2001 Allen County Public Library (ACPL), one of the top U.S. libraries, and its 14 locations had a varied collection of HVAC systems, controls, fire alarm, access, security and other systems. With the planned addition of 127,000 square feet and renovation of 240,000 square feet at the main library in Fort Wayne, ACPL used the opportunity to upgrade, standardize and integrate buildings, systems and equipment.

Solutions
ACPL called on MSKTD & Associates to develop an upgrade, integration and construction plan. Jim Kelley, P.E. and Senior Mechanical Engineer at MSKTD, wrote the RFP and specifications that allowed suppliers to bid the projects, as required when public tax funds are involved. All suppliers could bid, but also had to prove that their products had open communications protocol allowing easy integration with all other systems. Each top-end building automation system supplier had to prove their system could integrate with, monitor, report, trend and control other makes of controls. Ultimately only Trane met the specs. Trane literally collected and mounted other makes of controllers on demonstration boards to prove Trane capabilities and earn the systems integration contract.

About Tracer ES™ Facilities Management System
Tracer ES™ is Web-based, building automation software that dramatically simplifies the complex requirements of managing and operating multiple facilities. It gives owners information about any of their buildings from any secure PC connected to the Internet. Tracer ES™ excels as a Web-based BAS application due to its user-centered design, robust search tools, intuitive navigation, open architecture, and autodiscovery and self-configuration capabilities.

Result: An especially easy-to-use online building control system.

Allen County Public Library worked with engineers from MSKTD & Associates, Trane, and valued partners using the Tracer ES™ Facilities Management System to integrate building systems throughout the county-wide library system.
In addition to a Trane Tracer ES™ Facilities Management System, the main building of the Allen County Public Library is equipped with Trane air handling products for efficient, effective air distribution — very important to patron comfort and the preservation of library materials, especially those in the rare books collection.

Results

Work began on the main library in May, 2004, reopening to the public in January 2007. Branch locations were upgraded in stages during those three years. Using a Tracer ES™ Web-based, multiple buildings facilities management system, Trane provided single-source responsibility, control, monitoring, management and interoperability for these systems throughout ACPL buildings.

• In addition to supplying two new, reliable and efficient Trane Series R™ chillers and an energy-saving CALMAC ice storage system for the main library, Trane monitors and controls a number of Trane HVAC systems at branch locations for patron comfort and materials preservation.
• Monitor/control lighting systems for best lighting and efficiency.
• Fire Alarm: Trane worked with a valued partner to monitor/control fire protection equipment throughout the library system.

• Evacuation Paging: Provide evacuation directions building-wide in fire or other emergency.
• Access Control: Trane worked with a valued partner to monitor and control personnel access at all controlled doors.
• Intrusion Security: Monitor internal/external access points.
• Closed Circuit TV: Monitor and control in real time internal/external points.
• Monitor electric consumption at service entrance and other loads.
• Elevator Control: Monitor, intercept floor-to-floor service requests. Coordinates elevators during emergencies and while operating on emergency power.
• Monitor/control backup and emergency power equipment, including generators which are also used for load-shaving to maintain constant demand.
• Lift Station Monitoring: Monitor/control pumps, basin level alarms and controls for sanitary, storm and other gray-water systems.

Tracer ES™ features:
• Online facility management
• Daily operator functionality
• Central, server-based software
• Remote access from any secure PC on the network
• Front-end system that works with both Trane and qualified non-Trane BACnet™ systems
• Data collection and analysis tool
Maintenance Control & Management: Monitor all serviceable equipment for run time, start/stops and other metrics to develop and initiate preventive maintenance procedures. ACPL chose Trane for a maintenance contract to preserve system continuity and single-source responsibility. ACPL is exploring more Tracer™ systems uses such as paging personnel if systems like the automatic book drop/return system go down.

With its multi-million dollar value, ACPL is one of the most sophisticated, extensive integration projects completed by Trane. Jim Gumbel, ACPL Properties Manager, said, “We can easily monitor and control the main library and branch locations and make operating changes very quickly and easily. We are seeing significant energy savings. In the past HVAC systems ran 24 hours a day. Now, 90 percent of those units go into night setback. We have better lighting control for additional energy savings. We’ve worked with Trane many years and were very comfortable when this project went to Trane. Trane stands behind their products. If there is an issue, they’re just a phone call away.”

Jeffrey Krull, ACPL Director, said, “The new systems are a dramatic change from the hodge-podge of systems that we had. We now have unified, integrated systems that make it easy to monitor and control all of the buildings within the library system. It gives us flexibility for future expansion and changes in equipment and control systems. We truly are getting the most benefit for the taxpayer’s money.”

Trane optimizes the performance of homes and buildings around the world. A business of Ingersoll Rand, the leader in creating and sustaining safe, comfortable and energy efficient environments, Trane offers a broad portfolio of advanced controls and HVAC systems, comprehensive building services, and parts. For more information, visit www.Trane.com.