



LOYTEC integrated with iBMS to help an archive realize its intelligent building control

Text by DGC

Internet technology marked by advent of big data, mobile Internet, etc. has changed people's living habits, and also brought in new requirements and challenges for the construction and management of archives. One such case is Tianjin's Xiqing Archive that appeared under the spotlight now, thanks to LOYTEC's "comprehensive management system for smart archives" that helped it achieve smart management and control. Capable of integrating multiple types of information for various weak electronic systems across platforms, the system utilizes 3D modeling of the intelligent building management system (iBMS) to display the overall operation of the building. It can carry out functions such as device connection, logic processing, interface configuration, centralized monitoring, control, smart linkage, schedule control, historical record, event alarm, and others via a large screen, providing solutions in data sharing and mutual collaboration for various devices, subsystems, and applications, which in turn helps realize smart linkage and data analysis.



LOYTEC's "comprehensive management system for smart archives" with smart management and control to improve the level of intelligent services

Integrated management system and intelligent building management system (iBMS) for the smart archive

Combining building control and application requirements, the "integrated management system for smart archives" is able to integrate 15 subsystems such as equipment monitoring system, smart lighting system, energy management system, security monitoring system, and access control system for the archives. In addition, it created an intelligent building management system (iBMS) with 3D modeling. Connected via OPC XML-DA, the two systems carried out centralized equipment monitoring and operation management for the core subsystems of the building. Intelligent equipment of different communication protocols is connected through this platform to facilitate information sharing and linked control of various systems and improve the level of intelligent services.

Monitoring of equipment in the building

Delta integrates large electromechanical equipment such as new ventilation systems, multiple connections, air conditioners in the service room, air supply and exhaust fans, UPS, precision power distribution cabinets, and elevators in the archive, which improved efficiency of operation

Monitoring of environment for archive rooms

Delta set up a seven-in-one sensor to monitor the real-time temperature and humidity, air quality, and the concentrations of CO₂, PM_{2.5}, PM₁₀, and comprehensive volatiles in the area.

Smart lighting

Setting different scene modes, timing modes, and centralized control modes, the system offers intelligent management and control on the basis of energy efficiency.

Management of energy consumption

Through collection by the energy management system, complex data is analyzed and reported through visualized energy management system to help users accurately assess consumption of energy and take actions for energy conservation.