





walls or near windows, the actual room climate may have the largest influence on the volumes. Consequently, the Central Depository needed a reliable system to reduce fluctuations in temperature and humidity, since these are especially damaging and can accelerate their degradation and decay.

Already during the initial construction phase of the Central Depository, some rooms were equipped with strict climate control, in particular those designated for safeguarding the national preservation collection. Following the refurbishment of the Central Depository from October 2018 to March 2019, the new BMS was then based on SAUTER's proven and reliable solution for building management – the modulo 5 technology. The first phase involved the installation of 10 BACnet automation stations modu525, with the final number later adding up to 29. Among its main and most important functionalities is controlling the cooling and heating systems as well as the air-conditioning units with special functions for temperature and humidity control.

### High-end technology made by SAUTER

In addition to ensuring the right environment for the historical artefacts, the specific character of the building also required the right amount of attention. With a proven track record of successfully implemented projects covering comparable requirements and similar technology management, SAUTER convinced the building operator that its technology would be the right choice to ensure efficient energy management while simultaneously guaranteeing a highly reliable operation. Implementing its solution in accordance with the most common and important quality management norm, namely ISO 9001, only underlines the expertise of SAUTER.

The implemented solution is based on SAUTER modulo 5 – a modular and configurable system for integrated building management. The components of the modulo 5 product family are perfectly suited for combining room automation with energy supply. The interaction among the automation stations modu525 hence achieves the technological efficiency required for meeting the specific requirements of this project. Furthermore, SAUTER implements the open communication protocol BACnet as a standard in its modulo 5 systems. The protocol, especially suited for building automation, allowed combining different components of the Central Depository without having to establish complicated interfaces.

For the specific challenges of this project, SAUTER used the modular automation stations modu525 to regulate, control, monitor and optimise the heating, ventilation and air-conditioning systems. These collect thousands of data points, which are then visualized and managed by the BACnet-certified building management software SAUTER Vision Center. With its intuitive design and high user-friendliness, it can easily be used without prior knowledge and gives the operator a quick and easy oversight. This is especially important in situations, in which fluctuations in temperature and humidity need to be prevented – for example in the Central Depository of the National Library of the Czech Republic.

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