

# PRESERVATION OF VALUE THANKS TO **OPTIMAL INDOOR CLIMATE**

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## KUNSTMUSEUM BASEL: THE WORLD'S OLDEST PUBLIC ART COLLECTION

The main building of the Kunstmuseum Basel, which opened in 1936, is located in the city center, close to the Rhine. The museum itself was founded as early as 1661, when the city acquired the "Amerbach Cabinet" – a large collection that included many world-famous paintings by Swiss and German artists.

Today, the museum is in the 'Premier League' of world-famous art institutions - it houses art treasures whose value is estimated to be between 8 to 9 billion Swiss francs (6 to 7 billion British pounds). In 2013, the Times of London named it the fifth best museum in the world.

The Kunstmuseum Basel collection now comprises of around 4,000 paintings, sculptures, installations and videos, as well as 300,000 drawings and prints spanning seven centuries.



## THE PRESERVATION OF ART TREASURES OVER A PERIOD OF CENTURIES REQUIRES CONSTANT CLIMATE CONTROL

Fundamentally, art treasures that are stored and exhibited in museums will be exposed to the risk of artificial aging and decay. Fluctuating temperatures and relative air humidity may cause damage to museum pieces. Ventilation and climate control are therefore a priority along with the room sizes. The number of museum visitors and architectural conditions also need to be considered.

In addition, the development and implementation of the building automation solution for the Kunstmuseum Basel proved to be a major challenge:

The contract was awarded to the Zurich company Bouygues Energies & Services, a global player in the construction sector which operates in over 80 countries. The company is active in the fields of building technology, building management, traffic technology and energy supply technology and began work on the Kunstmuseum in late 2014.





## RENOVATION PROJECTS WITH MAJOR CLIMATE CONTROL CHALLENGES

The solution that was developed by the Zurich company involved the renovation of the automation system in both the main building and the museum extension located on the opposite side of the road, which was designed by the internationally renowned architects Christ & Gantenbein.

In 2013, the first stage of the extensive renovation projects commenced in the listed building, amongst other things, in order to

ensure compliance with today's requirements for earthquake safety and fire protection. The building technology also had to be redesigned. Stefan Charles, the Kunstmuseum's Commercial Director at the time observed that, for example, the heating system was not very efficient and that cold winters always represented a "climate control challenge". There was too much humidity in the rooms and the walls were in danger of rotting.



## PRIVA PARTNER SUCCESS DUE TO TRIED AND TESTED SOLUTIONS

Bouygues Energies & Services and Priva had previously been able to prove themselves on a similar project. Philip Jurt, the Team Leader in charge, remembers: "We had already successfully completed work on the Swiss National Museum in Zurich with the planning team responsible for the Kunstmuseum." In Zurich, there was also a new building and parallel renovation work on existing buildings.

In the design of the automation solution, Philip Jurt's team relied on Priva products: "With an eye on the planning team's technical specifications, we designed the control system with the appropriate Priva components and programmed it with TC Engineer."

This involved the use of controllers from the Priva Blue ID S-line, which communicate via a wide variety of protocols and can be connected to field equipment made by different manufacturers. Of particular benefit for renovation work, existing field equipment and cabling can continue to be used. Other Priva solutions that were employed included PC applications such as TC History for long-term data recording, distribution and documentation and TC ServiceCenter as an automation monitoring system.



## OPERATIONAL BENEFITS FROM COMFORT AND EFFICIENCY

In a nutshell, the task faced by Bouygues Energies & Services was to meet the limit values specified by the planning team for temperature and humidity throughout the entire building complex. From Philip Jurt's point of view, the Priva solution was convincing primarily because of the time benefits: *"Priva has a wide range of tried and tested solutions. By deploying them, we were able to save time during implementation and when checking the functions on site."*

From the perspective of the end user, the use of TC Manager in particular produces continuous operational benefits. For example, in terms of comfort, any optimisations that are entered in the program, e.g. using graphically displayed data, will be quickly implemented. But there are also benefits in terms of efficiency as the systems can be monitored and controlled effectively and economically:




*"The Priva system gives us a precise overview of all the systems (ventilation, heating, cooling) and allows us to easily change the temperature and humidity set points in the exhibition rooms. Another benefit is that we can record temperature and humidity over a specified period of time as we have to provide this data on a regular basis to the lenders of artworks. Outside our normal opening hours, it is also very helpful that the Priva system can be accessed externally (via a laptop) and can communicate with other systems as we have several energy meters in the Kunstmuseum that work with the M-Bus system. Cross-system communication is no problem with Priva!"*

Photography: Julian Salinas



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