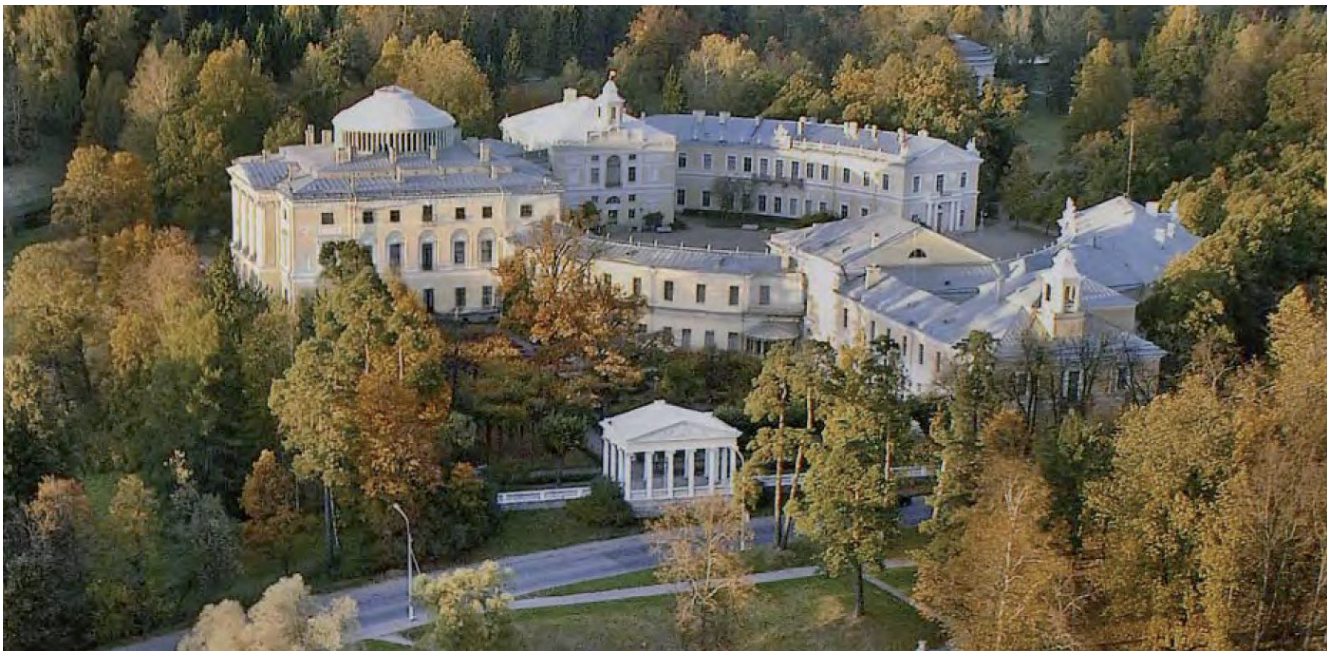
We measure it. testo

Climate monitoring at the Pavlovsk State Museum in Saint Petersburg using testo Saveris.



Older works of art in particular are extremely sensitive to fluctuations in the ambient conditions in the rooms in which they are exhibited or stored. Installation of the testo Saveris data monitoring system at the Pavlovsk State Museum in Saint Petersburg enables temperature and humidity levels to be monitored constantly and accurately. Valuable objects of art are therefore protected from any damage caused by fluctuations in humidity or temperature. The experts from Testo found solutions to the problem of installing the system without damaging the substance or appearance of the 18th-century building complex.

Pavlovsk State Museum

Pavlovsk Palace State Museum in Saint Petersburg:

- UNESCO World Heritage Site since 1991
- Built in the 18th century by Charles Cameron (personal court architect of Catherine the Great), for Tsar Pavel I and his wife Maria Feodorovna
- Houses over 45000 exhibits
- Exhibition room area: 4924 m^2
- Storeroom area: 1606 m^2
- Up to 5 storeys
- Over 1 million visitors every year

Very thick walls, obsolete wiring and the cultural significance of the building structure posed particular challenges when installing the testo Saveris monitoring system at the Pavlovsk State Museum in Saint Petersburg, Russia.

The challenge.

The museum required a data monitoring system that could record, store and analyse temperature and humidity data.

The challenge was to make sure that the installation involved an absolute minimum of interference with the UNESCO cultural site's valuable building structure due to wiring. Wireless data transfer was therefore a central requirement of the customer.

The system also needed to be able to ensure the unhindered communication of readings, despite a wall thickness of up to one metre and obsolete existing wiring.

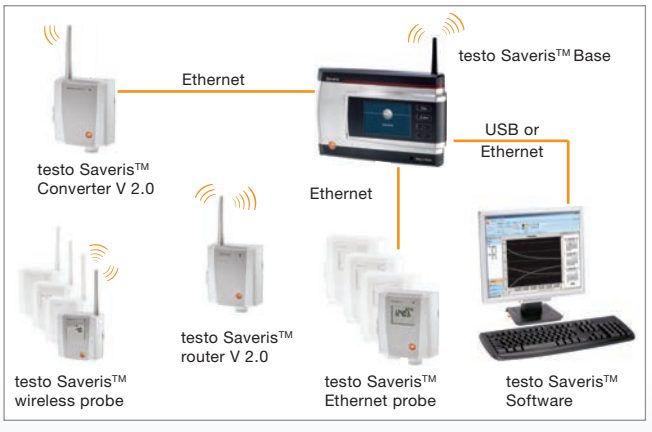
In addition to this, the system components needed to be installed as inconspicuously as possible, in order not to interfere with the cultural integrity of the building.

The solution.

Testo installed 40 testo Saveris probes and ten testo Saveris converters. Unavoidable wiring, amounting to a total of 600 m, was carried out in the basement of the museum.

PLC (Power Line Communication) adapters were used to allow digital data communication via the existing power supply network. Power was supplied to the system components via PoE (Power over Ethernet).
The thickness of the walls meant that wireless data transfer was limited to one to two adjacent rooms. This problem was solved by establishing wireless data transfer vertically through the wooden intermediary floors.

Finally, testo Saveris Professional software was installed for the purpose of analysing the data collected by the system.



The measurement data monitoring system testo Saveris with its components

More information.

For more information and answers to all your questions concerning temperature monitoring in museums at www.testo.com.

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