

Environmental Monitoring in Archives

Environmental monitoring plays a key role in the conservation and preservation of sensitive archive materials.



Tinytag data loggers are discreet, robust, and easy to use, providing a reliable and cost-effective solution for helping to maintain a stable environment in archive strongrooms by accurately monitoring conditions (e.g. temperature and relative humidity). This plays a key role in conservation and preservation, as well as improving the efficiency of data collection.

The accuracy of Tinytag temperature and humidity data loggers makes them a useful and often necessary tool in implementing a successful and comprehensive environmental monitoring programme.

As well as standalone USB loggers, the Tinytag range offers radio and LAN data loggers - the Tinytag Connect system - which provides a remote, real-time solution for monitoring collections, stores, and buildings across multiple sites or locations, instantly sending data to the computer via a receiver, and alerts via email and SMS. Also in the range, the Tinytag Energy logger is a very useful tool for monitoring the energy consumption of buildings and can help to identify opportunities for energy savings.

Typical Applications

- ***Monitoring temperature and relative humidity for archives, museums, and historic sites***

Tinytags are ideal for monitoring heritage sites, including archives, museums, historic buildings, and even historic ships! Tinytags help to maintain a stable environment to protect sensitive items; they are easy to use, cost-effective and unobtrusive, and accurately monitor the conditions that can affect materials on display, in storage and during transport, as well as archival collections and the actual fabric of historic buildings.

- ***Monitoring conditions in the display, storage, and conservation of sensitive items***

Data logging helps to maintain a stable environment for sensitive items, including artefacts in museum collections – on display and in storage, archive material, and the materials and fabric of historic buildings and sites.

- ***Monitoring the performance of HVAC systems***

Temperature and relative humidity (RH) data loggers can help to validate whether Heating, Ventilation, and Air Conditioning (HVAC) systems are functioning correctly and effectively. This can be an important factor in maintaining a controlled environment for sensitive items and materials. Energy data loggers can also be used to assess motor efficiency and record power usage in HVAC units, helping to identify areas where energy costs can be saved.

- ***Monitoring the efficiency of environmental control measures***

Tinytag data loggers are used to assess the performance of control measures, for example, when roof, wall and window insulation is improved or replaced. Before-and-after monitoring can help quantify results and identify further recommended action.



Case Studies

Tinytag data loggers are used in many locations and industries; you can find examples on our website. Typical conservation and preservation case studies include:



Berkshire Record Office use Tinytag Ultra 2 temperature and relative humidity (RH) data loggers to help preserve over 900 years of local history in their archive strongrooms.



Fishbourne Roman Palace & Gardens, the largest Roman house in Britain, use Tinytag Ultra 2 temperature and RH and Tinytag Ultra and Plus Radio data loggers to monitor sensitive exhibits and archives.

HMS Victory, Nelson's historic flagship, is home to Tinytags monitoring temperature and RH to aid in the preservation of sensitive items aboard.

The Glamorgan Archives use Tinytag Ultra 2 temperature and relative humidity data loggers to monitor archive strongrooms, the studio, the search room, and in isolation to aid the conservation of historical documents and artefacts.

Key Products



Tinytag Transit 2

Compact temperature data logger



Tinytag View 2

Temperature or temperature and RH data logger with display



Tinytag Ultra 2

Indoor temperature or temperature and RH data logger



Tinytag CO₂

Discreet indoor CO₂ monitoring



Tinytag Energy

Voltage (V), current (AC), power (kW) and energy consumption (kWh) monitoring



Tinytag Radio Bundles

Temperature, RH, voltage (DC), current (DC) or count (pulses) radio data loggers. Bundles - 3 loggers/receiver/software

If you require further information about using data loggers for monitoring in heritage sites please email sales@tinytag.info or call us on +44 (0)1243 813000.