Ensight - A Synergy add on

An insight into the future condition of artefacts

Using environmental data capture and analysis, the Ensight software ultimately assists conservators with predicting the potential damage that can occur by keeping items in their current environments over long periods of time.

Data is evaluated using either quick, visual reporting (plan views and traffic light) OR comprehensive diagnostic assessments such as mould germination.

- Developed under a knowledge Transfer Partnership in association with the National Archives
- Simply add Ensight onto existing Synergy software
- Output is commonly acceptable as part of contractual reporting requirements
- Offers a range of report complexity levels (from novice to expert)
- Easy interpretation of data and evaluation of environmental effects to materials
- Enables multiple data input for comprehensive analysis
- Improved preservation using controlled environmental surroundings

Quick visual reporting tools

Comprehensive reporting tools

Dew point

Absolute Humidity

Permanence
# Standard System Calculations

## Basic Calculations:
Find out the maximum, minimum, average and standard deviation for each sensor selected for a user-defined time period. Select a maximum and a minimum value to create a desirable range and get an indication of whether the selected data fall within the range. Scatter graph and colour coded maps can be generated for diagnostic level analysis of data.

## Absolute Humidity:
Convert RH and T data to Absolute Humidity for each sensor selected for a user-defined time period. Outputs include maximum, minimum, average and standard deviation for each sensor selected. Use the report to compare indoors and outdoors absolute humidity to identify possible moisture ingress into the monitoring space.

## Dew Point:
Convert RH and T data to Dew Point for each sensor selected for a user-defined time period. Outputs include maximum, minimum, average and standard deviation for each sensor selected. Compare indoors and outdoors Dew Point to examine the operation of environmental control.

## Degree Days:
Degree-days are a tool that can be used in the assessment and analysis of weather-related energy consumption in buildings. Degree-days calculated from external temperature data and are based on 2 assumptions: A base indoor temperature and the natural temperature increase of the unheated building due to solar gain. The base temperature used to generate the report is an indoor temperature of 19 °C and the solar gain is 3.5 °C, in line with CIBSE hourly data methodology.

Degree-days are used to forecast the heating (or cooling) load required during a time period selected by the users.

## Mould Germination
The evaluation of mould growth prediction for this report is based on the ‘germination graph method’ that uses the isopleths of required exposure time for germination of mould.

If the accumulated exposure time is greater or equal to the required exposure time, mould growth risk exists.

The colour coded maps show the accumulated exposure time, as an indication of possible areas of concern, even if mould growth risk does not exist.

## Permanence:
The Permanence report is based on the concept of Isoperms that was developed by Donald K. Sebera. Paper permanence value at 20°C and 50% RH is assigned a relative value of 1.00. The report generates graphs of permanence over time.

## Part Nos:
- W722 – Annual Ensight Licence supplied initially with W721A or W721B software disc
  - Note: we also provide remote installation if required (Part number W724)

## Prerequisite:
You will need Synergy version 1.5.2 onwards
- Note: we also provide a remote upgrade service if required (Part number W723)

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Version 2

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1. Chartered Institute of Building Service Engineers (CIBSE), Degree-days: Theory and Applications, technical Memorandum TM41 (London: CIBSE, 2009)

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# Contact us today for a free demonstration

For more information about please see the Synergy Datasheet.

Always ask for a long-range signal strength test.
We can prove ours to be unrivalled.