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ECC-CM

Technical Climate Monitoring System (T, DP, RH and P)

used as a

standard measurement data acquisition, analysis and representation tool, in all air conditioning applications

for R&D, Production and QA activities

compatible with
most of the state-of-the-art sensors, like Vaisala, Novasina, and other air conditioning components

in automotive, chemical, electronics, and pharmaceutical industries

1 Input:
Sensor Data

For example from the Vaisala HMT 330 (see picture) or any other sensors.
Any analogue inputs 0-10VDC.

2 Data Processing:
Monitoring System

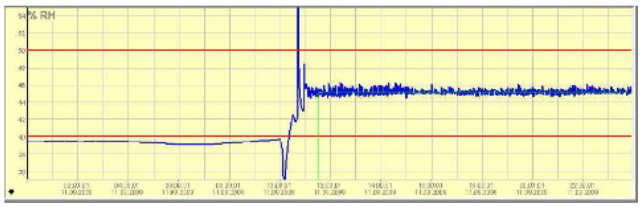
The CM monitor system with the HP-Notebook, the LabJack U12 data acquisition device (red box, right) and the IKT-Monitor-ECC software.

One application example is shown on the left, precision weighing with a Mettler-Toledo ultra micro balance UMX5.

3 Output:
Plots and saved Data

The picture shows a single Humidity RH-plot.

Standardized plots and overwievs, automatically saved, 24h periods, compatible with Quality Assurance requirements.
See also www.iktag.com



24 hours RH-Plot

ECC-CM - Product Description

The clients application and needs: technical climate data analysis and representation, easy and reliable to handle (T, DP, RH and P)

The applications are given in all those situations where the laboratory, facility or even natural climate conditions should be recorded and documented in a simple, transparent way. The physical measurement values in high performance air conditioning are: Temperature T, Dew Point DP, relative Humidity RH and Pressure P, among other client specific experimental conditions.

The specific needs are resulting from the following facts. Although these climate data usually exist in several single formats and displays, a comprehensive standardized analysis and representation tool for the set of relevant data is not available. A big, expensive user effort is necessary in order to realize these requirements according to the user specific and standard quality assurance needs.

The ECC-CM problem solution: a standardized, flexible tool

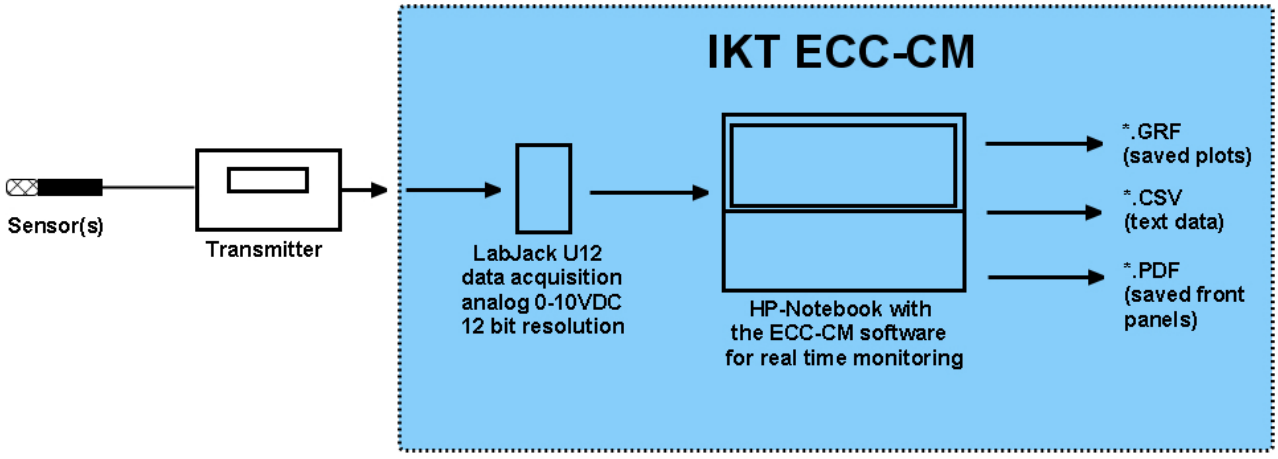
The main features are summarized as follows.

- Flexible input, any analogue sensor signal data, 0 - 10 VDC, see picture on the front page
- Front panel overview on the important, closely related measurement functions T, DP and RH, see graphical output next page, top
- Front panel overview on the monitor system configuration and the measured pressure P, with dew point calculator, see graphical output next page, below (P is an option)
- Client specific configuration of the complete experimental set and required outputs
- Detailed data and plot analysis tool, for single plots, with graphical view options, help info
- Detailed data and representation analysis with actual standard deviation, mean and min/max values, automatically done for the relevant steady state conditions, start-up and erroneous perturbations separately considered
- Standard 24h front panel and single file save, automatically done (e.g. at 23.59h, daily)
- Extra option: complete climate control system ECC3, for standard and extremely high precision control performance (+/- 0.1 °C among others, please contact IKT office Winterthur)

The clients benefits

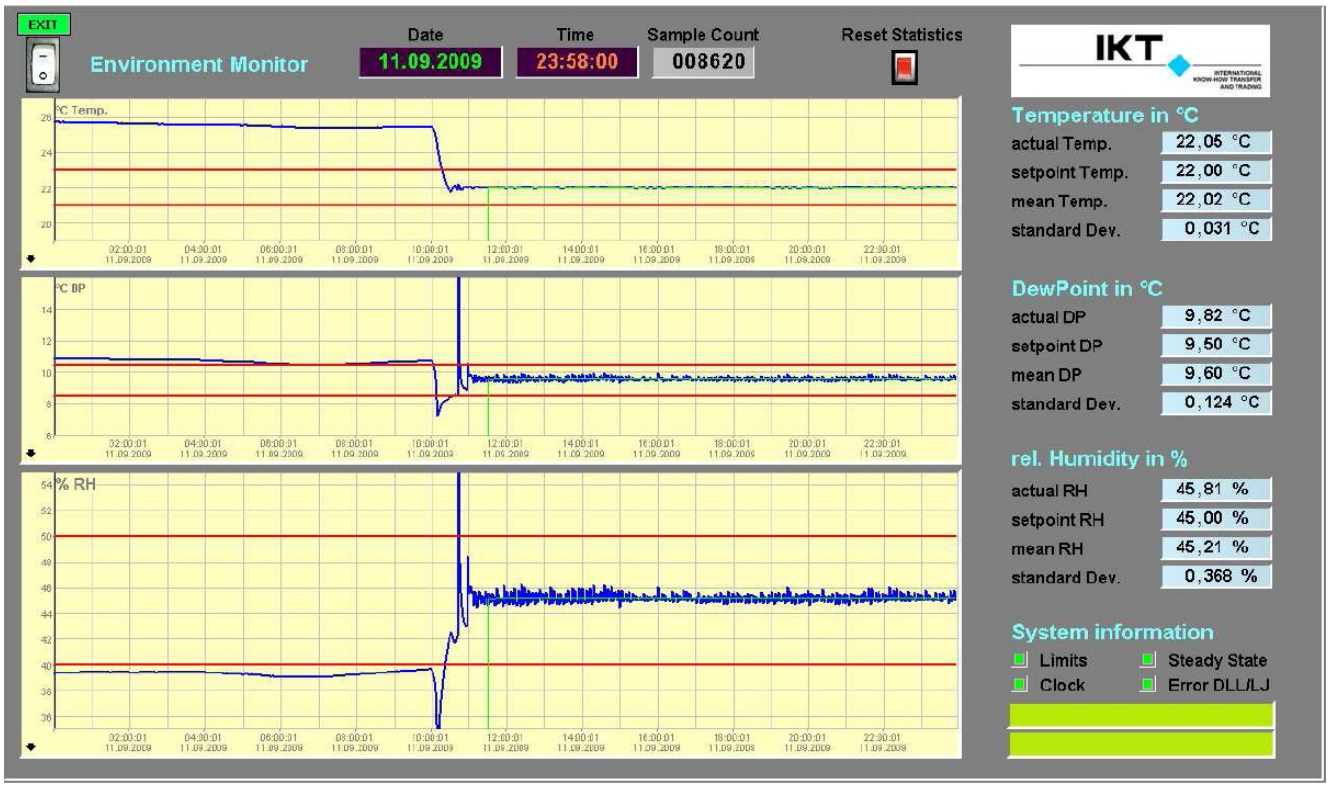
The ECC-CM user gets a reliable and standardized monitoring tool at an attractive price of EUR 5'000.--, much lower than other customized solutions.

Schematic Diagram of the CM Monitor



External units (client owned) Delivery content IKT AG

CM Monitor Output: Front Panel Overview T, DP, RH



CM Monitor Output: System Configuration and Pressure Monitor

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