

SysTeo® is a tool used for recording and analysing dynamic signals designed for the purpose of performing the temporary monitoring of a machine or a piece of industrial equipment.

It makes it possible to quickly and efficiently put in place a monitoring system suited to the context: setting alarms, storage of the useful signals, capturing disruptive or fugitive factors, monitoring levels or a special parameter over time.

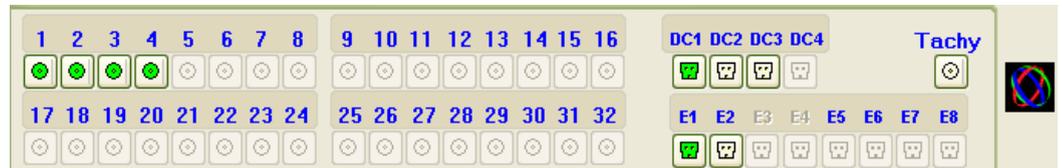


> **Numerous applications**

It is by analysing vibratory signaux that SysTeo® has its main range of applications like:

- detecting fugitive phenomena,
- immediately implementing the continuous monitoring of the machine's condition, without any need for heavy, resident instrumentation,
- monitoring of atmospheric vibrations : vibratory exposure of sensitive installations or people,
- continuous observation of a set of parameters associated with the operation of the installation (e.g. : speed, pressure, temperature, displacement, current...).

> **Very simple to implement**



SysTeo® directly controls an FFT OROS analyser with from 4 to 32 dynamic channels, 4 parametric channels, 8 logic inputs/outputs and 1 tachymeter input. Its interface makes it possible to easily set the acquisition parameters (e.g. : frequency range, duration, type of sensor ...) and all the useful data when it comes to performing measurements. All that then has to be done is indicate the type of data to be stored (spectra, scalar or status indicators, time signals), the indicators to be monitored, the associated alarms (instantaneous or average levels, overall levels, spectrum masks), and the monitoring conditions (e.g. : start date, speed range, temperature level, valve opening ....).

> **Secure mobility**



Associated with the SmartRouter® OROS, SysTeo® becomes a mobile system which is complete, autonomous, secure and able to be fully controlled and consulted remotely.

Equipped with batteries and a system for managing power cutoffs and resumptions, it performs continuous monitoring of installations.

SysTeo® is also a system which communicates; it signals all the alarms noted or operating defects by sending an email. Taking control via Internet transforms it into a powerful remote analysis tool.

**DYNAE**

- > Vibratory analysis
- > Electrical analysis
- > Infrared thermography
- > Instrumentation and sensors
- > Software
- > Training



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> **Condition-based monitoring**

When the monitoring starts, SysTeo® activates the real-time analyser, and initialises the monitoring parameters. Various start-up conditions can be defined (the date, a speed threshold, thresholds on the slow channels, or a special status on the logic channels). The monitoring will only really start when all the conditions are fulfilled and it will be suspended if one these conditions is no longer fulfilled.



> **Optimised monitoring**

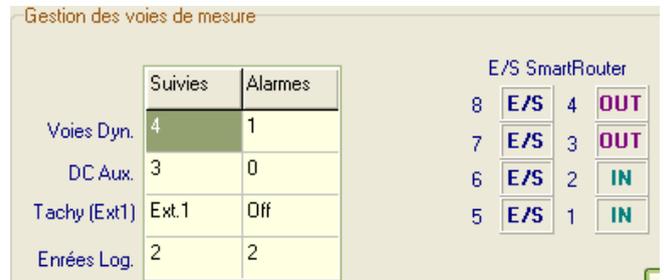
SysTeo® was designed for continuous monitoring without filling up the hard disk with useless data. It will therefore be possible to choose to store the spectral, scalar or logic data at regular intervals and also on an ad hoc basis the spectra corresponding to switching to an alarm, or time signals triggered by a meter or an alarm.

Summary data (statistics) is therefore kept. (e.g.: spectra envelope of maximum levels, number of status changes on a logic input, the cycle's average RPM level ...).

This operation is repeated from cycle to cycle throughout the duration of the monitoring, the data is archived progressively to be made available when analysed.

> **Alarm management**

The triggering of alarms can be activated on a spectrum mask or based on the value of the partial overall level of each dynamic channel, on the DC channels level thresholds, according to a speed range or according to the status of the logic inputs. The alarm statuses are stored and the acquisition of a time signal of all the analyser's channels with a pre-trigger can be programmed. The alarm statuses can also activate an On-Off output to trigger an action (e.g. : control a relay, light or sound signal ...).



> **Analysis tools**

SysTeo® makes it possible to continually consult the various curves measured or calculated by setting parameters for 1, 2, 4, 8 or 16 display windows. Following the developments of a parameter can also be viewed in real time (e.g.: monitoring the level of a particular frequency).

At the end of the monitoring, a log of the events is published. It gives access to the details of the data archived. A particular period can then be selected in order to analyse it (e.g. : extracting a speed profile, a temperature level or the overall level).

All the data collected can be used in an advanced processing tool (e.g. : NVGate®, DynamX®...).