

OTM Calibration Management

Maintenance Modules	Asset Reliability
Maintenance Management	FMEA / FMECA
Spare Parts Management	RBD
Calibration Management	RAM
Facility Management	RCM

The unique software suite of engineering and managerial instruments that implement Reliability & Maintenance Engineering methodologies, by integrating with that of the Management and Optimization of Maintenance and Spare parts

The management of maintenance in the industry is traditionally aimed at guaranteeing the continuity of operations of the primary activities of the company, such as the production or the utilities (electricity, water etc).

The immediate result of the maintenance corresponds often to the substitution interventions or repair of the assets managed by a sophisticated modality (corrective substitutions, preventive policies etc.) and sometimes thru dedicated devices.

The actual production scenarios are following the necessity of maintaining a level of production **quality** such that they would guarantee an adequate level of competitiveness to the company.

The most widespread task of measurement and reading instruments is derived from here in the production processes and in their management from various points of view.

The management of the instrumentation

In terms of operations, the maintenance of the instrumentation presents a series of problems linked with the search of best managerial approach for the arguments:

- Organization and the planning of the personnel, the equipment, definition of the procedures, calendars, etc...
- Execution of the planned operations and their monitoring in real time;
- The archival of the executed operations;
- The specific management of the calibrations;
- The assessment of the task in monetary terms and resources

Indeed, not managing these things via specialist instruments is complex and not practical. This leads to:

- Inefficiency in the acquisition, recalling and presentation of the data;
- Difficulty in connecting the data in an integrated manner by losing the possibility of structuring the intrinsic IT content;
- Risk of errors in the data entry (incoherency or incompleteness);

- Giving more weight to the whole management of the databank;
- Impossibility of task assignment due to the lack of training.

Particularly, some peculiarities of the management of the instrumentation with respect to other assets of production are such that one rarely finds in an application oriented at the classical maintenance (ex. the registration and the elaboration of the scaling curves).

This way, the company finds it easy to manage the instrumentation and other assets in the case of separate applications. This has evident disadvantages from two different systems, the partial duplication of the information and the impossibility of coordinating the shared resources in an organic mode.

MODULE OF INSTRUMENTS CALIBRATION

The module of "calibration management" of **OTM** is its extension oriented at the management of instruments subject to scaling, calibration or verification procedures.

TAG	Tipologia	Data installazione	Data ultima calibrazione	Classe strumento - periodo cal.	Scadenza calibr.	Stato strumento	Dettaglio	Elimina
sensore_test_1	field_switch	20-06-2007		pressostat_01 / 10 Settimane	04-09-2007	idoneo all'uso		
plan_22	analog_out_4_20	30-06-2007		pressostat_01 / 10 Settimane	08-09-2007	idoneo all'uso		
switch_1	field_switch	15-08-2007		livellostat_01 / 4 Settimane	12-09-2007	non idoneo		
psn_11novo	analog_out_4_20	24-08-2007		livellostat_01 / 4 Settimane	24-09-2007	idoneo all'uso		
lettore_asincrono	digital_out	31-12-2007			01-01-2008	idoneo all'uso		
fan_2	analog_out_4_20	28-01-2007		classe_01m / 1 Mesi	28-02-2007	idoneo all'uso		
fan_1	analog_out_4_20	11-06-2007		flussostat_01 / 12 Anni	11-06-2019	idoneo all'uso		

It helps unite the management of all production assets under a unique application. It does this by maintaining the environment uniform and coherent in terms of organization, typology, modality of access to the general functionality and modality of data presentation. The user might see the followings by confirming the general philosophy of the entire suite, also in the calibration management module:

- menus organized in a logical sequence, for the management of the configurations/re-configurations of the calibration scenarios (calendars, workers, instruments, etc.);
- the visibility of the current scenario in which one works for the execution management (operations pending, ongoing, state, calendars of anticipated operations etc);
- the visibility of the executions (historical analysis).

With particular reference to the calibration, there are also:

- the specific functionality for the execution of the scaling;
- the functionality of preventive analysis of the possible "calibration scenarios" in order to verify the costs before implementing them actually.

FUNCTIONALITY OF THE INSTRUMENTS CALIBRATION MODULE

The calibration of the instruments implemented in **OTM** covers the following areas and the principal aspects in each:

- **definition of the base elements of the calibration of instruments:**

- data of the worker for the calibration;
- data for the instruments subject to calibration;
- grouping the instruments under homogeneous families (classes, typologies).

- **characterization of the business instrumentation**, in a useful way for the calibration activities:

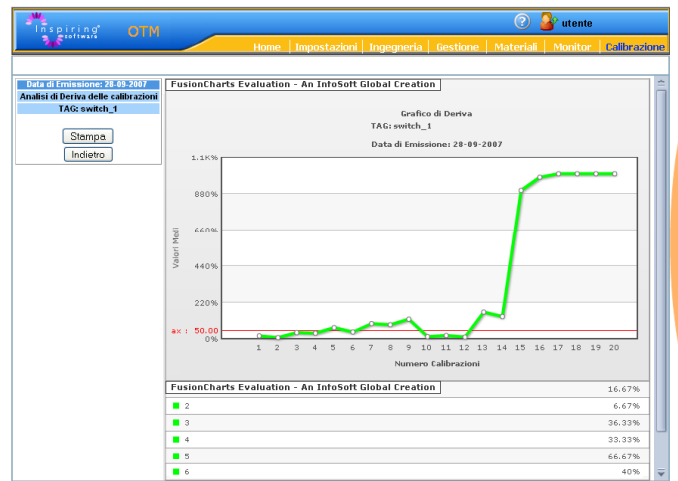
- Frequency of (re)calibration of the instruments;
- Durations and costs of the procedures of calibration;
- Assignment of the instrument operator.

- **support to the time management of the operations of calibration:**

- Generation/keeping of the "calibration interventions" in the calendar executed or to be executed for each instrument, according to the frequencies defined or the dates given;
- Calendar year of the activities for the instruments and for the families of instruments;
- Daily prospects of the forecasted or executed activities;
- Reporting tasks of the workers on the calibrations;
- Tracing the operations of calibration from their beginning thru various phases until their end and archival for the successive analyses;
- Reporting and control of the concluded, on-going or planned operations of calibration.

- **support to the registration and analysis of the quality, trend of the calibrations** from the quantitative point of view:

- Definition of the nominal values of calibration of the instruments to get during the phase of scaling;
- Registration of the effective values observed during any scaling (before /after the scaling);
- Time analysis of the precision of calibration on the archive for any instrument: error trend of calibration in various scaling, signaling of exceeding the maximum threshold of error acceptance.



- **support to the preventive analysis of the costs of calibration** (in terms of time and money) via a "what-if" instrument.

Before implementing a calibration "scenario" at the company level (together with the families of instruments, costs, times, procedures, deadlines etc.), the operator can verify analytically the business impact thru a simulation. Thus, one could anticipate the characteristics errors or decide on its effective applicability.

Consulting and Training

Inspiring Software enlarges its innovative product portfolio by providing also on-site training and consulting, thanks to **Inspiring Consulting**.

We guarantee tangible results in a short term to our clients in the area of operations, especially in Manufacturing Excellence in Maintenance Management and Energy Management.

Available solutions:

BLINK - Energy Efficiency

Integrated and multidisciplinary Software Suite to optimize and reduce the energy consumption costs.

OTM - Maintenance & Reliability

Integrated Software Suite for the analysis of Reliability, Engineering and Management of Maintenance (RAM, RCM, EAM/ CMMS).

FDS - Data Historians & Performance

The advanced MES Module of Data Historians and Performance Analysis.



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