

MES
Data Historians
Performance Analysis

FDS Data Historians & Performance

FDS is the advanced MES module of Data Historians and Performance Analysis, which is capable of satisfying all the requirements regarding the Collection, Acquisition and Visualization of production data, machines and facilities. It helps monitor the principal performance indices and O.E.E.

Overview and distinctive functionalities

FDS is an advanced system of Data Historians and Performance Analysis that satisfies all the needs related with collection, archival and visualization of data.

The purpose is to assess the efficiency and effectiveness which help carry out production activities.

The outstanding features of **FDS** are the:

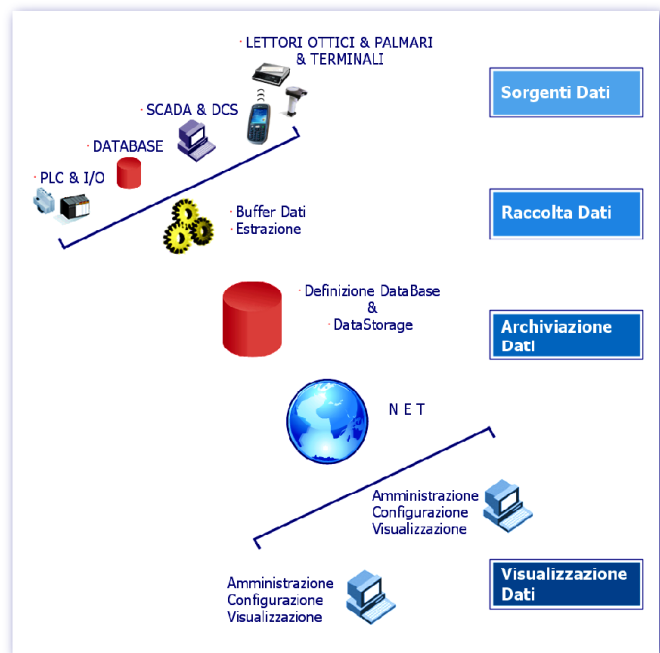
- Capacity to manage more than 100.000 variables for every **FDS** server with an acquisition and archiving speed of 10.000 variables per second.
- Driver of communication with multiple appliances.
- Conformity with the CFR 21 norm part 11.
- Possibility of spreading the functionality of acquisition, configuration, storage and visualization of data on different hardware platforms.
- Storage during the event, programmable backup scheduling, management of the dead band, log in events and alarms, fault tolerant management of data, backup of log in archives.
- Data visualisation in tabular and graphical forms.
- Dashboards to measure, monitor and analyze the performance of a system.
- Management of e-mail and SMS messaging.
- Multi-platforms to function on a variety of operation systems.
- Web-based architecture, which guarantees user friendliness and low costs of management.

Data Collection

FDS allows access to and collection of data coming from various sources in the plant in real time via *OPC, Custom Driver, Ethernet, Profibus, Modbus* and many other protocols.

Data Archival

FDS uses relational database technology, which assures robustness, non-redundancy (or duplication) of data and doing fast and complex queries. Archiving and writing of the same values are highly efficient by the help of installing the caching mechanisms that minimizes the number of access for the writing tasks on the Database. Besides, the protection of the data from the unintended modifications is secured.



Data Visualization and Reporting

FDS allows visualizing the archived data even during the process of data acquisition in either graphical or tabular format by opening the web browser at any PC and accessing to the FDS server. In the graphical format, it is possible to see the trends of the variables by visualizing according to the preferred and more adequate forms by selecting among the numerous and diverse types of static and interactive graphics.

Follows the Performance...----->

Performance Analysis

In order to reach and maintain a competitive advantage in terms of quality-oriented at client, speed and innovation, it is necessary to stabilize performance targets and measure them in real time. This way, one can identify the weak point and execute the necessary improvements to reach the planned results.

This concept is concrete in the analysis modules of **FDS**, which help build dashboards to measure, monitor and analyze the performance of a system in real time.

O.E.E. is recognized universally as the most qualified indicator to measure the efficiency of a system. It stands for Overall Equipment Efficiency. O.E.E. is composed of three sub-indicators:

Availability indicator

It allows measuring how much time the shutdowns drew on from the time of the system's availability.

For those shutdowns whose causes are not recognized by the system, there is the possibility to choose one from a configurable menu for the worker. It is possible to calculate different index with these data that analyze assets' reliability and availability, as MTBF, MTTR, MTBM...

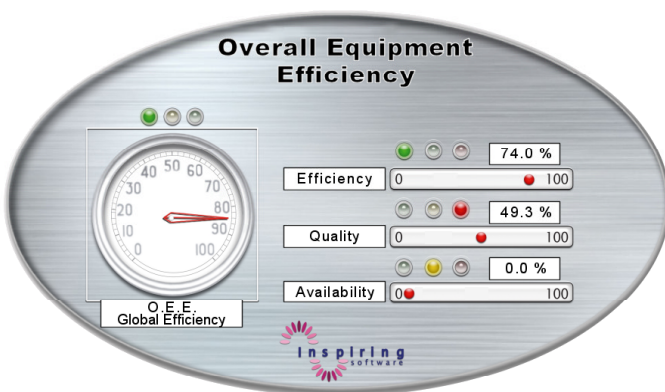
Performance indicator

It is possible to measure with this index, how much the system came close to its nominal rate of production.

The system calculates various index by exploiting data acquired from the machine control systems and eventually from data entry.

For instance:

- Yield index
- Performance index



Quality indicator

The number of products in entry, products in exit and scrap are counted for each level. All data coming from the field are processed and shown in a graphical and tabular form. It is possible to calculate the qualitative yield index with the available data.

Analysis Paths

In order to make analysis easy, indicators provided are aggregated at different levels, as:

- Plant
- Department
- Single machine, equipment or line of production
- Production or job order
- Lot
- Product
- Given format

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.

For further details, please contact us at mkt@inspiringsoftware.com

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.



20060 Bussero (Milano) Italy - Via Milano, 15/i
Tel. +39 02 95038260 - Fax +39 02 95039892

mkt@inspiring-group.com - www.inspiring-group.com