

Energy Efficiency

Historical Data and Monitor
Forecast model's Definition
Real-Time Control
Budgeting
Tariff Analysis
Optimization and Design

Blink Energy Efficiency

BLINK is an integrated Software Suite with multidisciplinary functionality and it is a complete tool in the energy sector that supports a virtuous cycle of planning and finalized control for the continuous reduction of costs and energy consumptions.

Context and Performances

Nowadays, Energy related problems are very important. The increasing costs related with energy, the liberalization of the energy market and the legislative dispositions about polluting emissions and consumption bring companies to the search of energy at the lowest price, to minimize losses and wastes and to manage energy production/conversion systems with efficiency. To rationalize and optimize the use of energy and to reduce costs we have three possibilities:

- during the purchasing, we can choose the type of fuel and study the supply contract;
- during the production/conversion, we can study the planning operations about the production system and optimize the machines' operation;
- during the using we can reduce wastes.

BLINK, the new solution from Inspiring Software, acts at all three levels, allowing:

the **reduction** of costs due to energy wastes till a potential saving of 40% on the total cost of energy by implementing software's functions:

Fee Module	Consumption module	Production Module
[5%-8%]	[10%-14%]	[10%-18%]

the **certainty** of energy costs to be charged in revision budgets;

the **simplification** of decision processes related to contract chosen for supplies and for the reduction of the environmental impact;

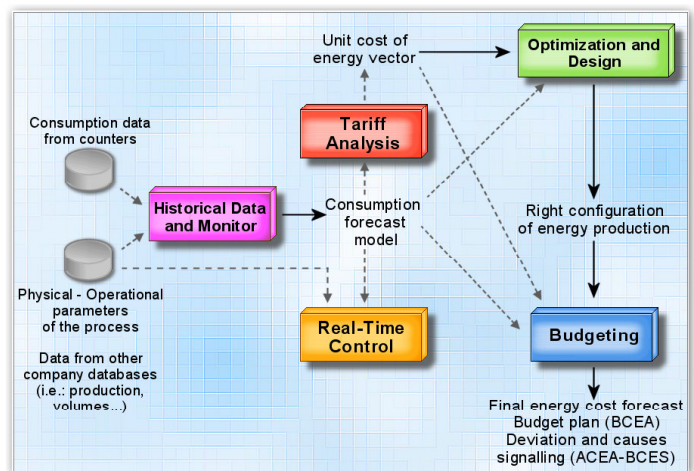
the **elimination** of energy manager operations related to elaboration, analysis and preparation of documents.

Distinctive Functionalities

BLINK is an integrated software suite with multidisciplinary functionality and it is a complete tool in the energy sector that guides the clients to virtuous behavior from the view point of energy resources management. The purpose is to obtain reasonable economic savings in conjunction with the reduction of polluting emissions.

BLINK is determined to reach the energy savings level through online control of consumptions with timely signaling of potential abnormalities and/or deviations from trends defined based on the historical data and characteristics of the facility or site. This is realized by the help of the optimization of energy auto-production systems, if any or to install.

BLINK is composed of five independent and easy-to-integrate modules which refer to particular knowledge areas. They are:



Acquisition and Archival of Consumption Data

This module helps acquire and archive data from energy counters or from other devices in real time. It is aimed to execute a preliminary energy diagnosis and assess the state of the company with its sensitivity to the saving interventions and energy rationalization. It will be possible to identify the "energy intensive" areas (division, line, single machine, service facility) on which to focus on monitoring after this analysis.

Energy Characterization and Definition of a Forecasting Model

This module of **BLINK** develops a model of forecasting of energy consumptions thru a deductive approach. The company is analyzed as a "black box" that presents the energy consumptions which depend on the specific value of energy driver.

By means of analysis techniques, such as multiple regression of least squares or of partial least squares, there will be many energy drivers possible to get from the historical energy consumption data.

The model will be reliable and will describe the mechanism of energy consumption that characterizes the company.

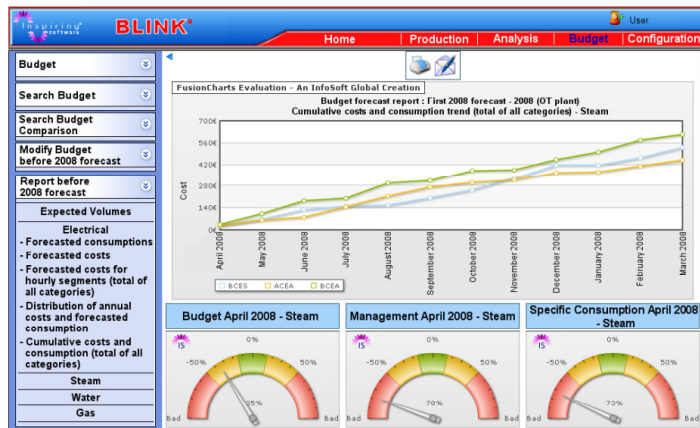
Real-time Monitoring of Consumptions

Based on the model and forecasting of consumptions, the module helps identify eventual deviations of consumption or the control of the areas subject to the analysis during in the identification of energy drivers, consumption model and control limits.

The monitoring of the consumptions is developed thru an adoption of advanced control techniques from the quality control of production processes, such as Control Charts (CuSum). It is capable of identifying and signaling punctually the significant modifications noticed in the energy consumption.

Energy Budgeting

BLINK enhances planning, formulating and controlling the energy budget based on the forecast model elaborated by the user or based on the energy drivers (production volume, temperature,...) that forecast the future. The budget is monitored by means of control indices that identify the real causes of deviations and successive re-planning.



Choice and monitoring of energy fees

The module allows simulating the effects market offers considering your consumption trend. It is possible to compare different offers taking into account the change of situations and so to identify the best one. The module identifies consumption variations between bill date and direct survey.

Electrical and thermic energy optimization

With this module you can simulate the thermic flows (hot and cold production) of a system and the electric ones, taking into account the components' features.

- Definition of the connection between components that allow highlighting possible inefficiencies;
- Analysis of polluting emissions and single components considering the variation of load and the functioning conditions;
- Simulation and comparison of different scenarios in order to identify the most suitable configuration.

Reporting and analysis

BLINK is equipped with a powerful analytical tool that executes analysis on historical data and simulations on budget data. A visual interface, which is suitable for many types of users, will facilitate the processes of extraction, visualization and interpretation of the information, so that one could decide rapidly, reduce and optimize the energy consumptions.

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.



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