BDMotor software provides user support for the acquisition, replacement and repair of electric motors via economic analysis and load calculations. It reveals the state of the motor in use by calculating the load conditions via three easily accessible measurements (current, angular velocity and power).

BDMotor includes a database and two modules for analysis: comparison among motors and the motor’s running conditions. The database covers 3-phase induction motors of 220 V, 380 V and 440 V and 0.25 to 250 hp.

The main users of the program are energy service companies (ESCOs) and electric utilities.
Monitermo software calculates the residual life of thermal power plant components. The program includes:

- a module to monitor component temperature and deformation in real time using high temperature thermocouples and strain gauges;
- a data acquisition and storage module;
- a mathematical processing module, where pre-established mathematical models use the field data to calculate the component residual life.

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The Isolated System Optimization (OTSI) and Isolated System Simulation (SSI) software optimize design and simulate generator set operations, following a demand curve. The optimal design specifies number, nominal power rating and operation of the generators to reach the lowest total generation costs.

Thus, the software is a management decision-making tool for the ideal generator groups to be used in a new thermoelectric facility, in terms of minimizing generation costs. For existing thermoelectric facilities, it can be used to assess operating conditions in terms of fuel consumption.

OTSI and SSI have user-friendly graphic interfaces and databases with the technical specifications of existing generators that can be extended by the user. OTSI’s results are presented in up to five different configurations of generator sets in order to demonstrate various generating costs. The costs used in the models are based on information from the manufacturers.

The software considers the various costs involved in power generation by diesel generator sets, such as fuel costs, investment costs and operational and maintenance costs. Furthermore, it analyzes the overall generator operations.
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