



BIOENERGIESYSTEME GmbH

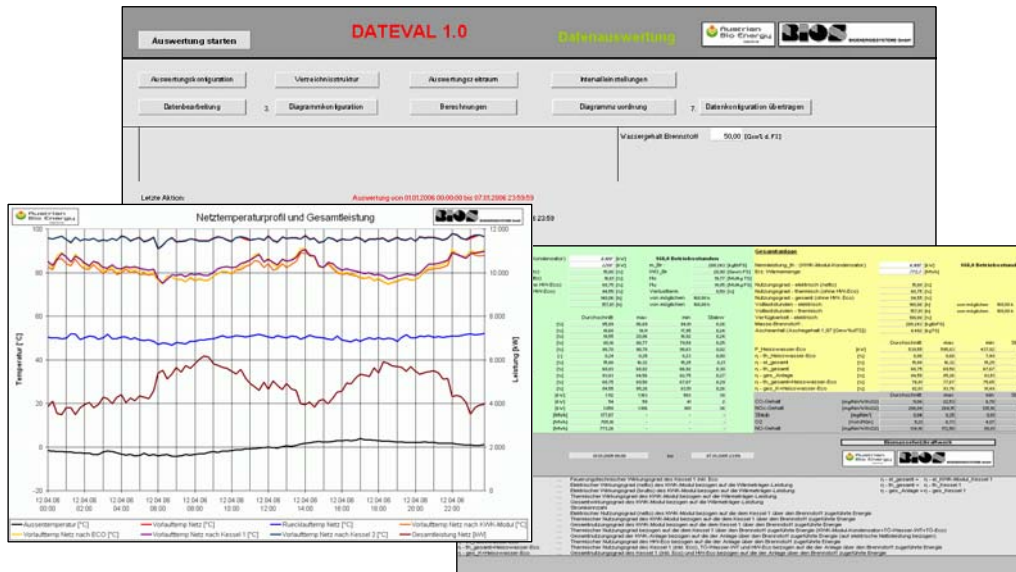
Research, Development and Design of Plants
for Heat and Power Production from Biomass

Inffeldgasse 21b A-8010 GRAZ, AUSTRIA
TEL.: +43 (0)316-481300; FAX: +43 (0)316-481300-4
EMAIL: OFFICE@BIOS-BIOENERGY.AT
HOMEPAGE: HTTP://BIOS-BIOENERGY.AT



DATEVAL 1.0

Process data evaluation and validation program



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Short description

Based on MS-Excel and VBA (MS Excel programming language)

DATEVAL 1.0 is a program for the evaluation and validation of operating data of biomass combustion and biomass combined heat and power plants. DATEVAL 1.0 is commercially available and will be individually adapted to the requirements of the plant operator and to the specific plant characteristics (for price information and comprehensive description see <http://www.bios-bioenergy.at>). Delivery includes on-site installation of DATEVAL 1.0, configuration and adaptation to plant specific conditions as well as documentation and training.

DATEVAL 1.0 compiles all operating data recorded by the process control system (temperatures, pressures, capacities, etc.) into an MS-Excel file and automatically calculates mean values and characteristic parameters (efficiencies, plant utilisation, etc.). The evaluation results for user-specified periods (e.g. days, weeks or months) can be readily displayed in charts and tables in the form of mean values and summaries.

DATEVAL 1.0 allows the plant operator to identify weak points in plant performance and to optimise plant operation based on the evaluations performed. Standardised charts and tables are generated automatically, which enables easy comparison of different evaluation periods for efficient plant monitoring and validation by the plant operator.

The numerous references of plants utilising DATEVAL 1.0 demonstrate the advantages of the new program.

References:

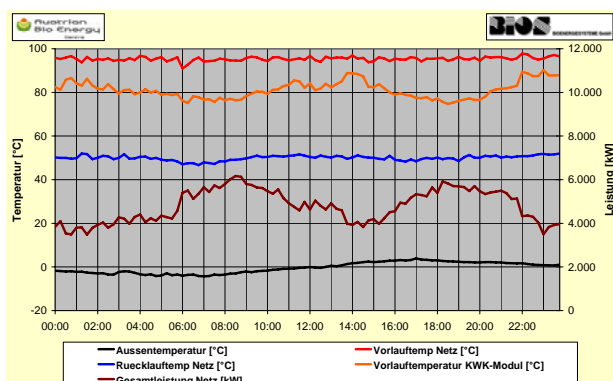
- Biomass CHP plant Stadtwärme Lienz (Tyrol, Austria)
- Biomass CHP plant Längenfeld (Tyrol, Austria)
- Biomass CHP plant BIOSTROM Fussach (Vorarlberg, Austria)
- Biomass CHP plant TDZ-Ennstal Reichraming (Upper Austria, Austria)

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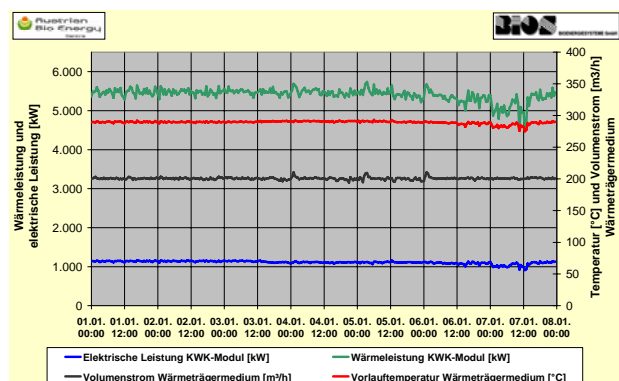
Features of DATEVAL 1.0

- Configuration of DATEVAL 1.0 and adaptation to the requirements of the plant operator and to the specific plant characteristics in clearly arranged menus.
- Adaptation of DATEVAL 1.0 to different data sets and data structures recorded by the process control system.
- Directory structure, evaluation period, mean value ranges and chart configuration (data sets, chart name, axis labelling, axis scale) can be freely configured.
- The names of the evaluation files can be flexibly defined.
- Completeness and plausibility check of data recorded by the process control system.
- Calculation and storage of mean values in MS-Excel files.
- Calculation of relevant parameters (e.g. efficiencies, plant utilisation, etc.) over the evaluation period based on recorded data, including automatic plausibility check.
- The mean values of recorded and calculated parameters are displayed in clearly arranged tables and datasheets.
- Generation of charts for recorded and calculated data sets.
- Tool for assessing the fouling factor of biomass boilers.
- Generation, storage and printing of evaluation logs.
- Reduction of file size using compact file formats.

**Example chart
of hot water temperatures
and capacity data of the heating network
of a biomass CHP plant
recorded over a period of one day**



**Example chart
of energy data of a biomass CHP plant
recorded over a period of one week
(thermal and electric capacity of the CHP module, feed
temperature and flow rate of the heat transfer medium)**



DATEVAL 1.0

Advantages of DATEVAL 1.0

- Fully automated evaluation of recorded operating data for different periods of time (e.g. days, weeks, and months) without the need for user intervention.
- The recorded and calculated parameters are displayed in automatically generated tables and charts.
- Easy assessment, monitoring and optimisation of plant operation based on the charts and tables generated.
- Identification of malfunctions or weak points in plant performance based on automated data evaluation at regular intervals.
- The plant performance data of different evaluation periods are easy to compare based on standardised tables and charts.
- Individual adaptation of the evaluation results (charts, tables, etc) to the requirements of the plant operator and the specific plant characteristics.
- Clearly arranged menus for fast and easy navigation.
- Quick and automated calculation.

Downloads

An example file of a biomass CHP plant evaluation using DATEVAL 1.0 is available for download at our homepage www.bios-bioenergy.at.

Contact addresses:

Dipl.Ing. Dr. Friedrich Biedermann

Inffeldgasse 21b

A-8010 Graz

Tel.: +43 (316) 481300-72

Fax: +43 (316) 481300-4

Email: biedermann@bios-bioenergy.at

Dipl.Ing. Peter Thonhofer

Inffeldgasse 21b

A-8010 Graz

Tel.: +43 (316) 481300-14

Tel.: +43 (316) 481300-4

Email: thonhofer@bios-bioenergy.at

Homepage: <http://www.bios-bioenergy.at/>