

EMPURON CE

Calculation engine

Computing genius for plant ratios

EMPURON CE (EMPURON Calculation Engine) unifies the standard calculations of various data loggers and supports the efficient management of large plants.

EMPURON CE is based on the time series database **EMPURON HIS** (Historical Information System). **EMPURON CE** provides operating dialogs for the formula input and for the linkage of calculation steps. Operators can calculate plant ratios with free definable mathematical and logical formulas.

For example the calculation engine is utilized for the calculation of specific plant ratios, for assisting in reporting e.g. for investors and for providing of data via the **EMPURON REPORTING SYSTEM**.

Functions of **EMPURON CE**:

- Logical operators and expressions
- Calculation result can be a digital time series
- Basic operations (+, -, /, *, ^)
- Manifold mathematical functions
(sin, cos, avr, cov, var, min, max, var, linear fit, ...)
- Two-dimensional calculations – along time axis and between time series
- Wild cards in formula deviations
- Calculation chains for encapsulation of operations
- Time slot creation dependent on calculation result
- Manual or automatic execution of calculation chains

Fit for the Future

With **EMPURON HIS** a long-term, future-proof operation of the facilities is given:

- Using OPC HDA empuron HIS provides a standard interface and openness for processing data from **EMPURON CE**.
- empuron HIS is already used together with **EMPURON CE** for controlling the provision of primary reserve.