



## Part 3

## Modules of the Plant Calculation

The PMP - Software provides methods in order to use flowsheets of process engineering plants for data recording, simulation- and balance sheet calculations as well as for representations of result views. A flowsheet editor for designing plants is available in the Beta-version.

### **Modules: FS Disp / FS Sim      Plant Calculation**

The modules are based on PMP – Projects which are equipped with a flowsheet. The flow sheets are shown in a flowsheet collection.

Contains methods for

- ◆ selecting a flowsheet
- ◆ setting up flowsheets. This concerns
  - ◆ data structures
  - ◆ process descriptions
  - ◆ result views (in the flowsheet, in graphics and tables)
  - ◆ calculation defaults
  - ◆ additional information
- ◆ administrating available flowsheets
- ◆ transferring complex data structures from spread sheets
- ◆ displaying selectable detail information of material flows and process models
- ◆ stepwise calculating single processes based on material balances
- ◆ calculating material balances in process levels and circuits (simulation)
- ◆ following simulation calculations
- ◆ manual controlled optimising of flow sheets

### **Flowsheet Editor**

This module enables the creation of flow sheets. The flow scheme will be checked and taken up into a flowsheet collection.

The module contains methods for

- ◆ selecting and placing process units
- ◆ displaying the material flow by arrow links
- ◆ analysing the flow scheme ( interfaces, calculation order )
- ◆ administrating set up flowsheets in flowsheet collections

### **Flowsheet Collection**

The flowsheet collection comprises currently 30 flow sheets. Including

- ◆ Single processes
  - ◆ merging/separating
  - ◆ comminution / coarsening
  - ◆ classifying
- ◆ open circuits
  - ◆ multi-stage classification flowsheets
- ◆ enclosed grinding circuits
  - ◆ simple grinding- and classifying circuit
  - ◆ grinding circuits for the cement grinding
  - ◆ circuits with grinding and compacting

### **Data base connection via a configurable export interface**

There is a possibility to define the interface protocol between the data base (or MS Excel) and the PMP-Software problem-related for the data input.