

## MultiScale™ Process Simulation Module



### Simplified and sophisticated process simulation

Calculating the mineral scaling potential for a total process set up has previously been very time consuming, if not practically impossible, if you wish to study a system with recirculation and changing parameters (P, T, rates, different fluids, etc.).

A new option in MultiScale now simplifies calculations previously too complicated to be actually possible!

Simply add all units from your process setup until inlet and outlet of all the units you wish to look at are covered.

#### Input:

- Inlet stream calculated by MultiScale™
- Rates
- Temperatures
- Pressures

After you have defined your process systems, parameters can easily be changed, enabling you to look at various scenarios.

- Number of iterations to reach the equilibrium for the recirculation system to be decided by user
- Calculation results are given for each unit in the process setup, separately. All normal Excel functions may be used on the data from these results should you wish to do your own calculations
- pH, SR, flow rates, ion concentrations in aqueous phase and hydrocarbon compositions for oil and gas are monitored

- “Log option”: You can log trends to see how the results from the calculations converges or to see what happens when you change e.g. P, T or flow rates. You can log as many trends as you like
- “Scenarios option”: this option works nearly opposite of the “log option”. Define a set of input variables and the program will through the simulations based on the variables chosen
- Calculation sheet can be saved as a project, allowing you to go back and do changes later on
- An “adjuster option” allows you to vary a parameter to get a certain result. The adjuster option can be seen as a “virtual process regulator”
- You can open result files for each unit directly from the result sheet
- Carry over can easily be included in the calculations

The Process Simulation Module is an add-on module to the standard MultiScale™ program.

#### Contact information, software and courses:

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