What's new in HSC Chemistry 6.09

Several enhancements and fixes has been made to HSC 6.09, for example:

Flowsheet Module:

1. Flowsheet Name and Value labels do not change the owner anymore.
2. Zoom setting and image location are now identical in Flowsheet module Design and Run mode.
3. The current Sim-module version number is saved into FLS-file instead of the latest one.
4. Drawing tool change speed improved in large flowsheets.
5. Insert new unit operation speed improved.
6. Excel-editor: Copy, Paste and Cut options added to Mouse Right button in Edit Box.
7. New "File, Trim Excel Units..." option minimizes the size of the XLS-files of the units.
8. Graphical Stream markers trace and tag along the stream polyline better.
9. Stream Name and Value label automatic location routine improved.
10. Inserting name and value labels works also with Stream multiselection.
11. Delete... dialog occasionally set the Sync OFF. This bug has been fixed.
12. New "Run all Wizards" option makes formula updates easier.
13. Flowsheet version messages improved.
14. Demo, and Photosynthesis flowsheet samples added to installation CD.
15. Selection of objects improved in the drawing (edit) mode.
16. Automatic stream edit termination when drawing tool changes.
17. Wizards may be runned also from other than Input, Output, Dist and Control Sheets.
18. Equilibrium Wizard activated.
19. Insert/Delete Rows/Colums bug in the Excel Sheet fixed.
20. Reactions Wizard: Species variable identification routine improved.
21. Unit creation routine improved, keeps the formulas update better.
22. Creation of formulas improved. For example, Concentration variable logic improved.
23. "Controls, Set Unit Target" option did not always work properly, fixed.
24. Opening of Stream edit mode improved.
25. Run-time Error '20003' fixed within aqueous density database access when one or more species were missing.
26. Formula wizards use default Windows List Separator character instead of ";".
27. Wizards operation with the different Measure Units improved.
28. Reaction and Distribution Wizards do not delete existing Progress % and Distribution cell formulas.
29. Variable Type Dialog: More flexible phase type selection (Gas, Water, Mixture, Pure). New Automatic/Manual Density calculation options.

30. More error checks. For example, errors in files, locked files, etc. More info messages.

31. Visualize dialog do not take into account Disabled streams anymore.

32. Visualize dialog shows list of the found values.

33. If model is based on particles, a new particle analysis tool has been added. From each of the stream following variables can be studied in table and graphical format: mineralogical composition by size, elemental composition by size, particle size distribution by mineral, cumulative liberation curves by mineral and size, mineralogical grade-recover limiting curves by mineral, distribution of element between minerals by size, distribution of mineral between particle types by size, recovery of mineral by particle type and by size.

34. "Properties, Units" Thumb-list do not anymore crash, if mouse wheel is rotated within loading thumbs.

35. Several smaller fixes.

Mineral Process Modules:

1. HSC Sim: Mineral Setup bug fixed.

2. Simulation - Mineral setup: MLA (Mineral Liberation Analyser) data processed with Hsc Geo can be used as an input stream.

3. Simulation - Run mode: New Particle Analysis window. If the process is mineral-based then from each stream in run-time mode an analysis of particle size, elemental distribution between minerals, distribution of minerals between different kinds of particles can be done.

4. Geo: Accepts several types of formats as input, in e.g. elemental, oxide form.

5. Geo: New modal calculation module. Modal composition, i.e. mineral composition, can be estimated from chemical analyses by chemical mass balancing. Least squares weighed least squares, non-negative least squares and weighed non-negative least squares can be used in estimations. Possibility to use diagnostic methods. Besides modal composition module includes views for elemental distributions, calculation residues, composition of selected fraction (i.e. selected minerals recalculated to 100%) and chemical composition back calculated from mineral quantities. For error estimation Monte Carlo simulation can be done.

6. Add-ins. New mineralogical add-ins functions available.

7. HscData: Polygons and trendlines can be stored in a database.

8. Profiles: Profiles are introduced In HscGeo and HscData to change reference databases smoothly in run-time.

Other Modules:

1. All modules: HSC Excel emulator visualizes cell formulas as in MS Excel.

2. All modules: HSC Excel emulator in cell editor is not anymore transparent within the sheets.

3. All spreadsheet controls: F4-key Redo operation activated (similar than in Excel). This makes possible to redo cell format operations by pressing F4-key.

4. Excel, Sim and Programming AddIn functions syntax unified.

5. New sample VB and C++ codes for calling HSC AddIn functions.

6. Occasional bug in StreamEQ-AddIn function fixed.

7. Solgasmix Diagram Draw bug fixed.

8. HSC Database module: active database selection logic improved.

9. HSC database editor improved.
10. HSC Database: Al2O3*SiO2(A) readded to the main database.
11. StreamHNm3, StreamTHNm3 and HNm3 Add-In functions use now ideal gas densities.
12. SPECIES(Database%, Record&) Add-In function can now read records beyond record 32767.
13. HSC do not anymore crash if Own or Main Database files do not exist.
14. Several smaller fixes and properties, like new link to HSC User Forums.

Preliminary News of the HSC 7.0

1. Will be released in 2008 or 2009.
2. New Flowsheet Page-property makes possible to draw different process stages on the different pages.
3. New Layer-property makes possible to print flowsheets for different purposes, with more or less details.
4. New Element Visialization option in Run mode.
5. New Table-object in Flowsheet.
6. New Error-monitor dialog in Excel Model Editor
7. Larger H, S and Cp database.
8. and many other new properties and fixes…