WaSiM 7.10.0, 06.01.2008

\+ Implementing two new modules: silting up and advanced surface routing as empty frames. It is implemented all the handling of fluxes for water and tracers between the modules. Solely the algorithms of the new modules are still missing. This task has been undertaken by the research group of Prof. Disse (University of Armed Forces in Neubiberg). The new features are disabled by the compiler for the normal version until UniBw will have finished with this project and the code will be available for all users. Most important features are:

- Silting-up module will be inserted between snow model and unsaturated zone, so the energy of rain, the soil condition and some other factors can be used to calculate a disposition for silting up.
- Precipitation may generate surface runoff by silting up the soil. The surface runoff component is handled separately from the surface runoff generated by the unsaturated zone and snow melt modules.
- A reactivation of the original soil properties during dry periods will be also implemented.
- After the unsaturated zone module, all surface runoff components are added (as well as their tracer loads) and the surface runoff module will be used to rout the runoff cell by cell. If the water meets a river, it is routed with river routing algorithms to the subbasin outlet, otherwise it is routed with surface routing algorithms (both are basically kinematic wave approaches) to the next cell.
- Surface water, which after a time step has still not approached a river, will be stored for the next time step. Hence there is a feedback into the silting up module. Both modules may also run without the other. However, both modules require the unsaturated zone module to be activated. The groundwater module may or may not be used.
- The actual dummy implementation generates a parameter table for the surface runoff (percentage of precipitation or snow melt) in the silting up module and does no effective routing in the surface routing module but copies the translation-retention-method from the unsaturated zone approach. So even when using the new modules, the results should be identical to the old WaSiM-Version prior to 7.10.0 (when the percentage of surface runoff is set to 0 and the single linear storage parameters are identical to the ones used in the unsaturated zone module).
- However: normal users will not get the possibility to test this versions, since it is not included in the actual versions (cut out by the compiler, using #ifdef - #endif sequences).