state_saveyyymmdd[HHMM]

State variables can be saved to a file and later used for starting a model simulation from that same point. This can be useful to shorten the simulation time, e.g to skip repeatedly simulating a warm-up period, or to simulate several forecasts after running the model up to date.

State-files are saved for the dates given by outstatedate in info.txt. The files are written to the resultdir folder. To use a state-file as a starting state instate is set in info.txt. A state-file with the date(time) given by bdate is expected and used as starting state. The starting state file is expected to be found in the forcingdir folder. There is one file per time step with saved states: state_saveyyyymmdd[HHMM].txt/tgz. yyyymmdd[HHMM] is the date(time) of the start of simulation (bdate). For daily time step only the date is used in the file name.State files can be in text format (state_saveyyyymmdd[HHMM].txt) (formatted or unformatted) or compressed with gzip by the tar archive software (state_saveyyyymmdd[HHMM].tgz). The unformatted or compressed options are set in info.txt, while the formatted text file option is the default. They can be used for Windows10 and Linux.

The first data of the state_save-file is integer codes for what settings were used when creating the file. The settings are checked against the simulation that is started. Most of the settings must be the same for the simulation to start. For instance number of subbasins and classes are checked, as is some model options and time step length. Number of substances simulated (and their internal order) is checked, but it is possible to use a starting state created from a simulation with substances (e.g. NP) to start a simulation of ony discharge. It is not possible run a model of only discharge starting from a state created with "substance" T2 though. That is an exception because a T2 simulation turn on lake and river ice calculations and related states. Updating with the AR-method is possible to turn on or off between simulations where some of them are using starting states.