PCShell R implementation

To use the R implementation of PCLake we make use of a number of scripts that call upon and run the model from R. Advantage of this is that it allows the user to quickly run through diverse scenarios, change many parameter and state sets and use additional R functionality for analysis of the output data directly. For ease of use the R implementation provided gets its base input data straight from the DATM excel implementation, allowing the user specify reported output and settings as they are used to in the excel interface. Further analysis and adjustment of the settings may be done via R.

The R implementation is located in the PCLake model folder (…\Models\PCLake\6.13.16\) under the name ‘PCShell’. In this folder the user will find two folders:

* ‘R\_base\_work\_case’ a folder with subdirectories which will hold all the results and output of the model run. The user is recommended to copy and rename the folder to identify their own work case. This work case folder name is referenced in the R control scripts.
* ‘scripts’ a directory holding the core of the PCShell implementation
  + The folder ‘R\_user’ is the only one that a user will need to change anything in. In this folder the user finds a number of example scripts used for different operations that may be useful to carry out in R. Of course the user is free to expand and adjust these scripts as they see fit, however saving them under a new name is recommended.

When we open the ‘201706\_SingleRun.r’ located in the ‘R\_user’ directory as an example we see a number of user defined settings that should be entered by the user. Note that the work\_case defined here should match the folder name specified in the PCShell folder. Note that this folder must at minimum contain the directories of the ‘R\_base\_work\_case’ (‘source\_cpp’) and the ‘logfile.txt’. After specification of the user defined input the user may run the script and found the output of the model run in the results folder of their work case directory.