

Manual of Permafrost_1D

This Permafrost_1D package has to be run prior to the CVFEM_ice package if the users need to incorporate the temperature distribution in the Tecplot output file of CVFEM_ice.

The users will need to run the “permafrost_main.m” as the main program of the permafrost package for a series of 1-dimensional columns (in our case there are 55 columns). We only uploaded one column as a template and the users will need to generate the other columns according to their own needs.

The input parameters could be changed in the subroutine “get_data_permafrost.m” and the main program generates two txt-formatted output files: 1) “temp_subsurface_col1.txt” that contains the subsurface temperature profiles; 2) “temp_min_col1.txt” that only includes the minimum temperature of the subsurface. Both of the output files generate output every 1000 years for the entire one glacial cycle.