Test sample for TopNet, TopRouting in fortran, and TopRouting in c#

1. Test example

This example is an TopNet application above reach 13179156. This application only contains 5 reaches and no lakes, and is ideal to test original TopNet, Routing in fortran, Routing in c#.

1. Spatial file:

../ancillary\_data/topnet/spatial\_rec\_13179156\_strahler3.nc

1. Control file & parameter multiplier file:

../control/topnet/topnet\_info\_13179156.dat

../control/topnet/par\_mult\_13179156.dat

Weather input and simulation setup files are in ../input/topnet/………

1. Restart file

../running/topnet/restart\_2000010121\_2000010121\_utc\_topnet\_13179156\_strahler3.nc

In this test example, TopNet is used to generate inputs to TopRouting, and “TopRouting in fortran” and “TopRouting in c#” is used to validate if their codes are correct.

1. TopNet program

Conduct normal TopNet run (). It requires most of “\*.dll”s in ../bin

Command: Z:\hamilton\FWWQ1907\Working\Jing\PareoraRun\running>..\bin\topnet\_ren.exe ..\control\topnet\topnet\_info\_13179156.dat

Inputs:

../control/topnet/topnet\_info\_13179156.dat & relevant weather input in ../input/topnet

../control/topnet/par\_mult\_13179156.dat

../ancillary\_data/topnet/spatial\_rec\_13179156\_strahler3.nc

../running/topnet/restart\_2000010121\_2000010121\_utc\_topnet\_13179156\_strahler3.nc

Main Outputs:

input4routing.txt - Instant flow from each subbasin (routing input)

output4routing.txt - Routed flow for each reach (routing output, used to test the fortran or c# code)

1. TopRouting in fortran

This code is to test the dll library of topnet routing procedure.

Command: ftestRouteLib.exe

Inputs:

../ancillary\_data/topnet/spatial\_rec\_13179156\_strahler3.nc

../running/topnet/restart\_2000010121\_2000010121\_utc\_topnet\_13179156\_strahler3.nc

input4routing.txt

Dependent:

All \*dll in ../bin/ except TopRouteLib.dll & cutilsd.dll

Output:

fout4routing.out - Routed flow for each reach (test routing library in fortran)

1. TopRouting in c#

**Problem: this program can only run within visual studio + “Start Debugging” model.**

Command: ctestRouteLib.exe

Inputs:

../ancillary\_data/topnet/spatial\_rec\_13179156\_strahler3.nc

../running/topnet/restart\_2000010121\_2000010121\_utc\_topnet\_13179156\_strahler3.nc

input4routing.txt

Dependent:

All \*dll in ../bin/ and TopRouteLib.dll except cutilsd.dll

Output:

c#output4routing.txt - Routed flow for each reach (test routing library in c#)