

DHSVM Sediment Module Network segment output file

The following files are produced if a stream network is specified. If a road network is specified and the routing option is KINEMATIC, the corresponding road files are produced.

Network segment output file

Name:

Sed.Stream.Flow or Sed.Road.Flow

Written by:

channel_save_sed_outflow_text()

Format:

ASCII

Purpose:

Reports, for each time step, the results of stream or road channel routing, including results for the entire network (a "totals" line)

Comments:

The format of the stream/road output file is designed so that data can be plotted easily with [gnuplot](#). For example, if one of the segments in the example network file is marked to save with the tag "Mouth". To plot the outflow from that segment, one would use the following commands in [gnuplot](#):

```
gnuplot> set xdata time
gnuplot> set timefmt '%m/%d/%Y-%hhr'
gnuplot> plot '<grep Mouth Stream.Flow.bin' using 1:5 with lines
gnuplot>
```

would produce a plot with dates and times on the x-axis.

This way, [gnuplot](#) can be used to monitor the progress of a DHSVM simulation. Simply execute the above commands and, while DHSVM is running, execute the `gnuplot replot` command at intervals.

Using the stream/road network option, the outflows are given in m³/timestep.

Details:

The fields in the channel routing results output file are:

Field	Type	Description
1	string	Simulation time stamp of the form MM/DD/YYYY-HH
2	integer	Channel ID, as specified in the stream/road network file
3	real	total mass (kg) in the segment
4	real	total outflow concentration (ppm) from the segment
5	integer	Segment identifier, as specified in the stream/road network file

Stream or road sedimentconcentration only files

Name:

`Sed.Streamflow.Only` or `Sed.Roadflow.Only`

Written by:

`channel_save_sed_outflow_text()`

Format:

ASCII

Purpose:

Reports, for each time step, the results of stream or road channel sediment routing.

Comments:

These files do not provide any information that is not in the `Sed.Stream.Flow` and `Sed.Road.Flow` files, but are in a format that may be easier to read by most plotting programs.

Details:

The file has a one line header indicating the columns. The first column contains the date, the following columns contain the sediment concentration (ppm) at a particular location.