
Command Reference: ReadStreamGageStationsFromNetwork()

Read stream gage station data from a network file

StateMod Command
Version 3.09.01, 2010-02-01

The `ReadStreamGageStationsFromNetwork()` command reads a list of stream gage stations from a StateMod network file (XML or Makenet) and defines stream gage stations in memory. The stream gage stations can then be manipulated and output with other commands. The default output order is that of the stream network, upstream to downstream. The StateMod model requires that the stream gage station file be in the same order as the river network file.

Stream gages in the network are those defined as node type FLOW that are natural flow nodes. Stream gages that are included in the network but which are not identified as natural flow nodes are omitted from the stream gage station file – these nodes are typically treated as OTHER nodes in the network and will be included in the river network file but not other station files.

If stream estimate stations are also included in processing, all nodes identified as natural flow nodes are processed. See also the `ReadStreamEstimateStationsFromNetwork()` command.

The following dialog is used to edit the command and illustrates the syntax of the command.

Edit ReadStreamGageStationsFromNetwork() Command

This command reads stream gage station data from a StateMod XML network file.
Stream gage stations indicate locations where historical observations are available.
Nodes of type FLOW that are natural flow nodes are read.
Stream estimate stations can also be read - these are locations where streamflow is estimated using proration factors.
If the network file is not specified, it is assumed that the network has already been read by the network editor or another command.
If the network file specified, it is read and will be available to later commands.
The following station data are set from the network:
Identifier (station ID)
River node ID - set to station ID
Daily ID - if a stream gage set to the station ID, otherwise (if stream estimate stations are included) set to the nearest downstream flow station ID.
See also the `Fill*FromNetwork()` commands to fill missing data.
It is recommended that the path to the file be specified relative to the working directory.
The working directory is: C:\Develop\StateDMI_SourceBuild\StateDMI\test\regression\UserManualRef\FillStreamGageStationsFromHydroBase

StateMod network file:

Include stream estimate stations?: Optional - use True if creating RIS file with no SES file (default=False).

Command:

```
ReadStreamGageStationsFromNetwork(InputFile="..\Network\cm2005.net", IncludeStreamEstimateStations="True")
```

ReadStreamGageStationsFromNetwork() Command Editor

The command syntax is as follows:

```
ReadStreamGageStationsFromNetwork (Parameter=Value, ...)
```

Command Parameters

Parameter	Description	Default
InputFile	The name of the network file to be read.	Use the network that has been previously read.
IncludeStreamEstimateStations	Indicate whether stream estimate stations should also be included. If False, only stream gage stations will be read. If True, stream gage and estimate stations will be read and will be treated as stream gage stations (separate stream gage and stream estimate station files are being evaluated but traditionally have been saved to the <i>*ris</i> file).	False

The following example command file illustrates the commands used to read stream gage stations from the network and create a StateMod file:

```
StartLog(LogFile="ris.commands.StateDMI.log")
# ris.commands.StateDMI
#
# StateDMI command file to create streamflow station file for the Colorado River
#
# Step 1 - read streamgages and baseflows ids from the network file
#
ReadStreamGageStationsFromNetwork(InputFile="..\Network\cm2005.net",
    IncludeStreamEstimateStations="True")
#
# Step 2 - read baseflow nodes names from HydroBase,
#           fill in missing names from the network file
#
FillStreamGageStationsFromHydroBase( ID="*",NameFormat=StationName,CheckStructures=True)
FillStreamGageStationsFromNetwork(ID="*",NameFormat="StationName")
#
# Step 3 - set streamgage station to use to disaggregate monthly baseflows to daily
#
# add set daily pattern gages for WD 36
SetStreamGageStation(ID="36*",DailyID="09047500",IfNotFound=Warn)
...many similar commands omitted...
#
# Step 4 - create streamflow station file
#
WriteStreamGageStationsToStateMod(OutputFile="..\StateMod\cm2005.ris")
#
# Check the results
CheckStreamGageStations(ID="*")
WriteCheckFile(OutputFile="ris.commands.StateDMI.check.html")
```