Command Reference: WriteWellRightsToStateMod()
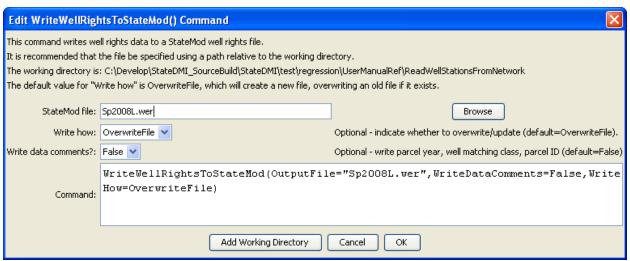
Write well rights data to a StateMod file

StateMod Command
Version 3.09.00, 2010-01-25

The `WriteWellRightsToStateMod()` command writes well rights to a StateMod well rights file. The current in-memory rights are written. See also the `MergeWellRights()` and `AggregateWellRights()` commands.

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

WriteWellRightsToStateMod() Command Editor

The command syntax is as follows:

```
WriteWellRightsToStateMod(Parameter=Value,…)
```

Command Parameters

Parameter	Description	Default
OutputFile	The name of the output file to write, surrounded by double quotes.	None – must be specified.
WriteHow	`OverwriteFile` if the file should be overwritten or `UpdateFile` if the file should be updated, resulting in the previous header being carried forward.	`OverwriteFile`
WriteData Comments	Write comments to the right of normal data, including the parcel year, parcel/well matching class, and parcel ID. This information is necessary to fill irrigation practice and crop pattern time series with well water rights. Typically, a "*_NotMerged.wer*" well right file is written and then merged and possibly aggregated rights files are written.	`False`

An excerpt from a well rights file with data comments is shown below:

```
#>   ID              Name             Struct       Admin #   Decree  On/Off  PYr--Cls--PID
#>---------eb----------------------eb----------eb-------------eb------eb------exb--exb--exb----e
2005001     W0006 WELL NO 01        200812       31592.00000  2.34    1936 1936   1   3107
2005001     W0006 WELL NO 01        200812       38836.00000  1.23    1956 1936   1   3107
2005001     W0006 WELL NO 01        200812       31592.00000  2.34    1936 1998   2  11016
2005001     W0006 WELL NO 01        200812       31592.00000  1.15    1936 2002   5  20902
2005001     W0006 WELL NO 01        200812       38836.00000  0.61    1956 2002   5  20902
…
```

The following example command file illustrates how well rights can be defined, sorted, checked, and written to a StateMod file:

```
# Well Rights File (*.wer)
StartLog(LogFile="Sp2008L_WER.log")
# _____
# Step 1 - Read all structures
ReadWellStationsFromNetwork(InputFile="..\Network\Sp2008L.net")
# _____
# Step 2 - define diversion and d&w aggregates and demand systems
SetWellAggregateFromList(ListFile="..\Sp2008L_SWAgg.csv",PartType=Ditch,IDCol=1,
  NameCol=2,PartIDsCol=3,PartsListedHow=InColumn,IfNotFound=Warn)
SetWellSystemFromList(ListFile="..\Sp2008L_DivSys_DDH.csv",PartType=Ditch,IDCol=1,
  NameCol=2,PartIDsCol=3,PartsListedHow=InRow,IfNotFound=Warn)
#
SetWellAggregateFromList(ListFile="Sp2008L_AugRchWell_Aggregates.csv",PartType=Well,
  IDCol=1,PartIDsCol=2,PartsListedHow=InRow)
# _____
# Step 3- Set Well aggregates (GW Only lands)
# rrb Same as provided by LRE as Sp_GWAgg_xxxx.csv except non WD 01 and 64 removed
SetWellSystemFromList(ListFile="..\Sp2008L_GWAgg_1956.csv",Year=1956,Div=1,
  PartType=Parcel,IDCol=1,PartIDsCol=2,PartsListedHow=InColumn)
SetWellSystemFromList(ListFile="..\Sp2008L_GWAgg_1976.csv",Year=1976,Div=1,
  PartType=Parcel,IDCol=1,PartIDsCol=2,PartsListedHow=InColumn)
SetWellSystemFromList(ListFile="..\Sp2008L_GWAgg_1987.csv",Year=1987,Div=1,
  PartType=Parcel,IDCol=1,PartIDsCol=2,PartsListedHow=InColumn)
SetWellSystemFromList(ListFile="..\Sp2008L_GWAgg_2001.csv",Year=2001,Div=1,
  PartType=Parcel,IDCol=1,PartIDsCol=2,PartsListedHow=InColumn)
SetWellSystemFromList(ListFile="..\Sp2008L_GWAgg_2005.csv",Year=2005,Div=1,
  PartType=Parcel,IDCol=1,PartIDsCol=2,PartsListedHow=InColumn)
# _____
# Step 4 - Read Augmentation and Recharge Well Aggregate Parts
SetWellAggregateFromList(ListFile="Sp2008L_AugRchWell_Aggregates.csv",PartType=Well,
  IDCol=1,PartIDsCol=2,PartsListedHow=InRow,PartIDsColMax=25,IfNotFound=Ignore)
SetWellAggregateFromList(ListFile="Sp2008L_AlternatePoint_Aggregates.csv",PartType=Well,
  IDCol=1,PartIDsCol=2,PartsListedHow=InRow,PartIDsColMax=1,IfNotFound=Ignore)
# _____
# Step 5 - Read rights from HydroBase
ReadWellRightsFromHydroBase(ID="*",IDFormat="HydroBaseID",Year="1956,1976,1987,2001,2005",
  Div="1",DefaultAppropriationDate="1950-01-01",DefineRightHow=RightIfAvailable,
  ReadWellRights=True,UseApex=True,OnOffDefault=AppropriationDate)
# _____
# Step 6 - Sort and Write
#  Write Data Comments="True" provides output used for subsequent cds & ipy acreage filling
#  Write Data Comments="False" provides merged file used for seting ipy max pumping
SortWellRights(Order=LocationIDAscending,Order2=IDAscending)
# _____
WriteWellRightsToStateMod(OutputFile="Sp2008L_NotMerged.wer",WriteDataComments=True)
MergeWellRights(OutputFile="..\StateMod\Historic\Sp2008L.wer")
SortWellRights(Order=LocationIDAscending,Order2=IDAscending)
# _____
WriteWellRightsToStateMod(OutputFile="Sp2008L.wer",WriteDataComments=False,WriteHow=OverwriteFile)
# Check the well rights
CheckWellRights(ID="*")
WriteCheckFile(OutputFile="Sp2008L.wer.check.html",Title="Well Rights Check File")
```