
Command Reference: TS Alias = NewStatisticTimeSeriesFromEnsemble()

Create a time series containing a statistic determined from a time series ensemble

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The `TS Alias = NewStatisticTimeSeriesFromEnsemble()` command uses data from a time series ensemble to calculate a statistic for each interval in the ensemble, and assigns the statistic value to each corresponding interval for the full period. For example, for a statistic of Mean applied to a daily time series, all January 1, 1970 values will be averaged and the output time series will be set to the mean value for the date. Because the ensemble has overlapping time series that have the same period, leap year will be included if it is in the period of the ensemble.

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

Edit TS Alias = NewStatisticTimeSeriesFromEnsemble() Command

THIS IS AN EXPERIMENTAL COMMAND NOT YET TESTED FOR PRODUCTION WORK.

Create a time series as a statistic determined from an ensemble of time series, giving the result an alias.

A statistic is a value computed from a sample, where in this case the sample is values at an interval from each time series in the ensemble.

Optionally, specify a new time series identifier (TSID) information for the new time series.

This is highly recommended if there is any chance that the new time series will be mistaken for the original.

Time series alias: Often the location from the TSID, or a short string.

Ensemble to analyze (EnsembleID):

New time series ID: Specify to avoid confusion with TSID from original TS.

Statistic: Statistic to generate.

Allow missing count: Number of missing values allowed in sample (default=-1, all).

Analysis period: to

Command:

```
TS Mean =  
NewStatisticTimeSeriesFromEnsemble(EnsembleID="TestEnsemble",NewTSID="Test..Streamflow.6Hour",Statistic=Mean)
```

NewStatisticTimeSeriesFromEnsemble

TS Alias = NewStatisticTimeSeriesFromEnsemble() Command Editor

The command syntax is as follows:

```
TS Alias = NewStatisticTimeSeriesFromEnsemble(Parameter=Value,...)
```

Command Parameters

Parameter	Description	Default
Alias	The alias of the new time series, which can be used instead of the TSID in other commands.	None – must be specified.
EnsembleID	The ensemble identifier to analyze.	None – must be specified.
NewTSID	The time series identifier to be assigned to the new time series, which is useful to avoid confusion with the original time series.	None – use the same identifier as the original time series.
Statistic	See the Available Statistics table below.	None – must be specified.
Allow Missing Count	The number of missing values allowed in the source interval(s) in order to produce a result. This capability should be used with care because it may result in data that are not representative of actual conditions.	-1 – allow any number of missing values
AnalysisStart	The date/time for the analysis start, using a precision that matches the original time series.	Analyze the full period.
AnalysisEnd	The date/time for the analysis start, using a precision that matches the original time series.	Analyze the full period.

Available Statistics

Statistic	Description	Limitations
Mean	Mean of all values on an interval.	None.

Examples

The following example command file illustrates how to generate test data and a corresponding statistics time series:

```
TS ts1 = NewPatternTimeSeries(NewTSID="ts1..MAP.6Hour",
    Description="test data 1",SetStart="2000-01-01 00",
    SetEnd="2007-05-13
18",Units="IN",PatternValues="1,2,4,3,5,6,25,10,8,5,1")
CreateEnsemble(TSID="ts1",TraceLength=1Year,
    EnsembleID="TestEnsemble",ReferenceDate="2000-01-01 00",
    ShiftDataHow=ShiftToReference)
TS Mean = NewStatisticTimeSeriesFromEnsemble(EnsembleID="TestEnsemble",
    NewTSID="Test..Streamflow.6Hour",Statistic=Mean)
WriteDateValue(
    OutputFile="Results/Test_NewStatisticTimeSeriesFromEnsemble_1_out.dv")
```