
Command Reference:

SetTimeSeriesValuesFromLookupTable()

Set time series values by using an input time series and a lookup table

Version 10.27.00, 2014-02-18

The `SetTimeSeriesValuesFromLookupTable()` command uses an input time series and lookup table to set values in the output time series. Examples of using this command include:

- Converting reservoir elevation to storage, surface area, seepage, or other values
- Converting river stage to discharge
- Converting a time series to category values
- Lookup up values from a distribution

In many cases the lookup table will apply throughout the analysis period. The values in the table should be sorted in ascending order prior to lookup. This command currently does not handle rating table shifts; however, this capability may be added in the future. The following dialog is used to edit the command and illustrates the syntax of the command:

Set values in the output time series by using an input time series and lookup table.
Currently the lookup table must contain data for only one input time series and the effective date is not checked.

Input time series: Input
Output time series: Output
Lookup table ID: LookupTable Required - lookup table.
Table TSID column: Future Feature - column name for input time series TSID.
Format of TSID: -- Select Specifier -- => Future Feature - use %L for location, etc. (default=alias or TSID).
Column for input value: Value1 Required - column for input time series values.
Sort input?: Optional - sort input table (default=False).
Column for output value: Value2 Required - column for output time series values.
Column for effective date: Future Feature - column for lookup data effective date.
Lookup method: Interpolate Optional - how to lookup values (blank=Interpolate).
Out of range lookup method: Optional - how to lookup values outside table values (default=SetMissing).
Out of range notification: Optional - how to notify about out of range values (default=Ignore).
Transformation: Optional - how to transform data if interpolating (blank=None).
Value to use when log and <= 0: Optional - value to substitute when original is <= 0 and log transform (default=0.0010).
Set start: Optional - set start date/time (default=full time series period).
Set end: Optional - set end date/time (default=full time series period).
Set window: Optional - set window within input year (default=full year).
Start: Month: Day: Hour: End: Month: Day: Hour:
Command: SetTimeSeriesValuesFromLookupTable (InputTSID="Input", OutputTSID="Output", TableID="LookupTable", TableValue1Column="Value1", TableValue2Column="Value2", LookupMethod=Interpolate)

Cancel OK

SetTimeSeriesValuesFromLookupTable

SetTimeSeriesValuesFromLookupTable() Command Editor

The command syntax is as follows:

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

Command Parameters

Parameter	Description	Default
InputTSID	The time series identifier or alias for the time series used as input.	None – must be specified.
OutputTSID	The time series identifier for the time series being modified. Use the Edit button to edit the time series identifier parts.	None – must be specified.
TableID	The lookup table identifier.	None – must be specified.
Table TSIDColumn	Table column name that is used to match the time series identifier for processing. This parameter currently is not supported but will be enabled in the future.	If not specified, it is assumed that the entire lookup table applies.
Table TSIDFormat	The specification to format the time series identifier to match the TableTSIDColumn column. This parameter currently is not supported but will be enabled in the future.	Time series alias if available, or otherwise the time series identifier.
Table Value1Column	Table column name for data values that correspond to the input time series (InputTSID).	None – must be specified.
SortInput	Whether to sort the lookup table. The order is checked to ensure the data are sorted but forcing the sort when not needed is a performance hit.	Rely on table being sorted.
Table Value2Column	Table column name for data values that correspond to the output time series identifier (OutputTSID).	None – must be specified.
Effective DateColumn	Table column name for the effective date. This parameter currently is not supported but will be enabled in the future.	The lookup data apply to the entire period.
LookupMethod	Indicate how to select the value to use for output: <ul style="list-style-type: none"> Interpolate – interpolate between points if input values do not exactly align with table values; if Transformation=Log, then interpolation will use the transformed values PreviousValue – pick the previous (lower) value in the table (exact matches use the lookup table value) NextValue – pick the next (higher) value in the table (exact matches use the lookup table value) 	Interpolate
OutOfRange LookupMethod	Indicate the value to use when estimating values that are outside the range of the rating table: <ul style="list-style-type: none"> Extrapolate – use the two known values at the end of the table to extrapolate; if Transformation=Log, then extrapolation will use the transformed values 	SetMissing

Parameter	Description	Default
	<ul style="list-style-type: none"> SetMissing – set output to missing UseEndValue – use the data value on the end 	
OutOfRange Notification	<p>Indicate the notification to generate when a value is outside the range of the lookup table:</p> <ul style="list-style-type: none"> Ignore – do not generate warning or failure message Warn – generate a warning message Fail – generate a failure message 	Ignore
Transformation	<p>Indicates how to transform the data before interpolation, used when LookupMethod=Interpolate and OutOfRangeMethod=Extrapolate). Specify as None to compare raw values or Log (for log₁₀) to transform values before interpolation and extrapolation. If the Log option is used, zero and negative values are replaced with the value specified by the LEZeroLogValue parameter value for analysis (missing data values are ignored in the analysis).</p>	None (no transformation).
LEZero LogValue	Value to use for data values less than or equal to zero when using a log transformation.	.0010
SetStart	The date/time to start setting values.	Set the full period.
SetEnd	The date/time to end setting values.	Set the full period.
SetWindowStart	<p>The calendar date/time for the set start within each year. Specify using the format MM, MM-DD, MM-DD hh, or MM-DD hh:mm, consistent with the time series interval precision. A year of 2000 will be used internally to parse the date/time. Use this parameter to limit data processing within the year, for example to output only a single month or a season.</p>	Output the full year.
SetWindowEnd	Specify date/time for the output end within each year. See SetWindowStart for details.	Output the full year.

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