## Command Reference: LookupTimeSeriesFromTable()

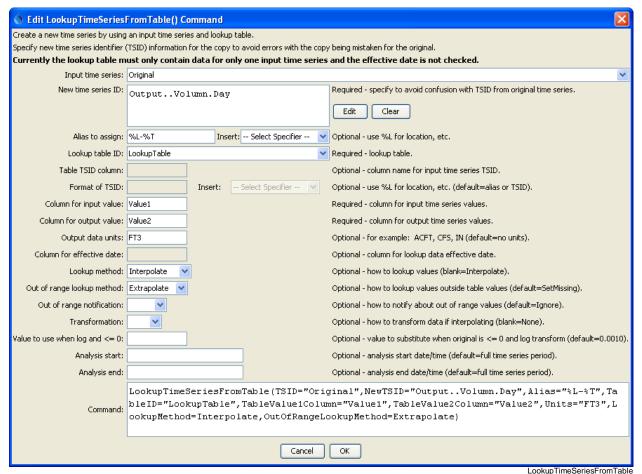
Crate new time series by using an input time series and a lookup table

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The LookupTimeSeriesFromTable() command uses an input time series and lookup table to create 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

In many cases the lookup table will apply throughout the analysis period. However, it is possible that the table will change over time (e.g., as a stream channel changes or a reservoir fills with silt). In these cases, the command allows for an effective date to be specified – the table then is applicable on and after the specified date/time, until another effective date is encountered. 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:



LookupTimeSeriesFromTable() Command Editor

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The command syntax is as follows:

LookupTimeSeriesFromTable(Parameter=Value,...)

## **Command Parameters**

Parameter	Description	Default
TSID	The time series identifier or alias for the time series used as	None – must be
	input.	specified.
NewTSID	The time series identifier for the time series being created.	None – must be
	Use the <i>Edit</i> button to edit the time series identifier parts.	specified.
Alias	The alias to assign to the time series, as a literal string or	No alias.
	using the special formatting characters listed by the command	
	editor. The alias is a short identifier used by other commands	
	to locate time series for processing, as an alternative to the	
	time series identifier (TSID).	
TableID	The lookup table identifier.	None – must be specified.
Table	Table column name that is used to match the time series	If not specified,
TSIDColumn	identifier for processing. This parameter currently is not	it is assumed
	supported but will be enabled in the future.	that the entire
		lookup table
m 1-1 -		applies.
Table	The specification to format the time series identifier to match	Time series
TSIDFormat	the TableTSIDColumn column. This parameter	alias if
	currently is not supported but will be enabled in the	available, or otherwise the
	future.	time series
		identifier.
Table	Table column name for data values that correspond to the	None – must be
Value1Column	input time series (TSID).	specified.
Table	Table column name for data values that correspond to the	None – must be
Value2Column	output (new) time series identifier (NewTSID).	specified.
Units	The data units to assign to the new time series.	No data units
		will be
		assigned.
Effective	Table column name for the effective date. This parameter	The lookup data
DateColumn	currently is not supported but will be enabled in the	apply to the
	future.	entire period.
LookupMethod	Indicate how to select the value to use for output:	Interpolate
	• 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)	
OutOfRange	Indicate the value to use when estimating values that are	SetMissing
LookupMethod	outside the range of the rating table:	

Parameter	Description	Default
	<ul> <li>Extrapolate – use the two known values at the end of the table to extrapolate; if Transformation=Log, then extrapolation will use the transformed values</li> <li>SetMissing – set output to missing</li> <li>UseEndValue – use the data value on the end</li> </ul>	
OutOfRange Notification	Indicate the notification to generate when a value is outside the range of the lookup table:  Ignore – do not generate warning or failure message  Warn – generate a warning message  Fail – generate a failure message	Ignore
Transformation	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 log <sub>10</sub> ) 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).	None (no transformation).
LEZero LogValue	Value to use for data values less than or equal to zero when using a log transformation.	.0010
AnalysisStart	The date/time to start the analysis.	Analyze the full period.
AnalysisEnd	The date/time to end the analysis.	Analyze the full period.

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