
Command Reference: NewPatternTimeSeries()

Create a new time series containing a pattern of repeating values

Version 10.06.00, 2012-04-01

The `NewPatternTimeSeries()` command creates a new time series containing a repeating pattern of numbers. This command is useful for generating data to test other commands.

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

Edit NewPatternTimeSeries() Command

Create a new time series, which can be referenced using the alias or TSID, using a repeating pattern of values.
Specify period start and end date/times using a precision consistent with the data interval.
If the start and end for the period are not set, then a `SetOutputPeriod()` command must be specified before the command.
If the time series has an interval of irregular, provide the interval to define data (more options for irregular data may be added later).

Alias to assign: Insert:

New time series ID:

Interval for irregular time series: Required for irregular time series - used to initialize data.

Description/name: Optional - description for time series.

Start: Optional - starting date/time for data (default=global start).

End: Optional - ending date/time for data (default=global end).

Data units: Optional - for example: ACFT, CFS, IN.

Missing value: Optional - missing data value (default=-999, recommended=NaN).

Pattern values: Required - separate by spaces or commas, blank for missing.

Pattern flags: Optional - annotates data (default=no flags).

Command:

```
NewPatternTimeSeries (Alias="ts2", NewTSID="ts2..Streamflow.Day", Description="Test data", SetStart="1950-01-01", SetEnd="1951-03-12", Units="CFS", MissingValue=NaN, PatternValues="5, 10, , , 75")
```

NewPatternTimeSeries() Command Editor

The command syntax is as follows:

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

The following older command syntax is updated to the above syntax when a command file is read:

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

Command Parameters

| Parameter | Description | Default |
|-------------------|---|---|
| Alias | The alias to assign to the time series, as a literal string or 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). | 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 – must be specified. |
| IrregularInterval | Interval to use to populate irregular time series (e.g., 1Hour, Month), necessary because data need to be assigned somehow. | None – must be specified for irregular time series. |
| Description | Description for the time series. | None. |
| SetStart | Start date/time to set data. | None – must be specified. |
| SetEnd | End date/time to set data. | None – must be specified. |
| Units | Units for the data values. | None. |
| MissingValue | Value to use to indicate missing data values. -999 is the default for historical reasons; however, NaN (not a number) is being phased in and should be specified if possible. Time series can be missing and be flagged. | -999 |
| PatternValues | Data values, separated by commas. Missing values can be omitted (e.g., indicate with adjacent commas). | None – must be specified. |
| PatternFlags | Short strings to assign to the values (used to annotate graphs and other output) separated by commas. Missing flags can be omitted (e.g., indicate with adjacent commas). | No flags are assigned. |

Examples

The following example command file illustrates how to create a pattern time series for testing:

```
NewPatternTimeSeries(Alias="ts1",NewTSID="ts1..Streamflow.Day",
  Description="Test data",SetStart="1950-01-01",
  SetEnd="1951-03-12",Units="CFS",PatternValues="5,10,12,13,75")
WriteDateValue( outputFile="Example_NewPatternTimeSeries_out.dv")
```