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# Command Reference: createTraces()

## Create One or More Traces from a Time Series

Version 06.08.02, 2004-07-29, Color, Acrobat Distiller

A `createTraces()` command can be inserted to convert a time series into a series of traces, which can then be manipulated as independent time series. This command has been implemented on a limited basis will be enhanced in the future. For example, shifts currently ensure that data are sequential; however, there is no option to create traces and make sure that February 29 is always February 29 (currently the reference date controls whether the trace will have leap year or not).

New traces are created using the time series identifier information from the original time series. The original time series is not modified. To avoid confusion, the original time series may need to be discarded after processing or use a temporary time series.

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

**Edit createTraces() Command**

Convert a time series to a sequence of traces (typically one trace per year).  
Each trace will start on the reference date and will be as long as specified.  
Each trace will have the properties of the original time series with unique sequence numbers.  
Specify the reference date using standard date formats to a precision appropriate for the data.  
If shifted, each trace will start on the reference date (use to overlay plots).

Time Series to Create Traces From:

08235350.USGS.Streamflow.Day

Trace Length (blank=1 Year): 1 Year

Reference Date (blank=Jan 1): 2004-01-01

Shift Data How?: ShiftToReference

Command: createTraces(08235350.USGS.Streamflow.Day,1 Year,2004-01-01,ShiftToReference)

Cancel OK

createTraces

**createTraces() Command Editor**

The command syntax is as follows:

```
createTraces (TSID, Length, ReferenceDate, ShiftDataHow)
```

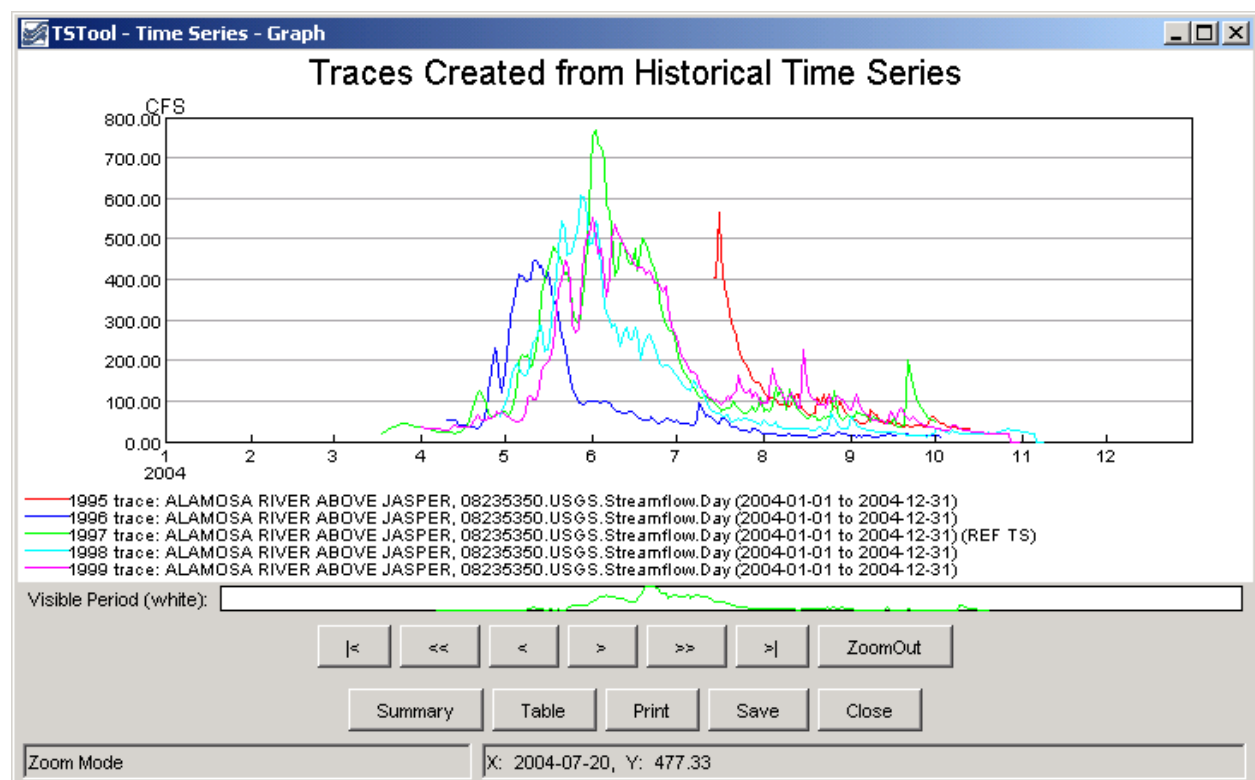
### Command Parameters

Parameter	Description	Default
TSID	The time series identifier or alias for the time series to split into traces. The original time series to process can be selected explicitly or can be identified as a TEMPTS.	None – must be specified.
Length	The length of each trace to be created (e.g., 1Year, #Month or, #Day). The starting (reference) date will be incremented by this interval to determine the trace end point.	1Year.
ReferenceDate	The reference date indicates the starting date for each trace and should be left blank (resulting in a default of January 1 of the current year), or set to January 1 of a year of interest (use the format 01/01/YYYY or YYYY-MM-DD). Each trace can optionally be shifted (see ShiftDataHow).	January 1.
ShiftDataHow	Indicates whether the traces should be shifted. Possible values are: <ul style="list-style-type: none"> <li>ShiftToReference – each trace will be shifted to the reference date, resulting in overlapping time series.</li> <li>NoShift – plotting the traces will result in a total line that matches the original time series, except that each trace can be manipulated individually.</li> </ul>	NoShift

A sample commands file is as follows:

```
#
# Create annual traces from a time series shifted to current year
#
# (1995-1998) ALAMOSA RIVER ABOVE JASPER, CO USGS Streamflow Day
08235350.USGS.Streamflow.Day~HydroBase
createTraces(08235350.USGS.Streamflow.Day,1Year,2004-01-01,ShiftToReference)
```

Results from processing the command are as follows:



createTraces\_Graph

Results from the createTraces() Command

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