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# Command Reference: TS X = weightTraces()

## Create a Time Series by Weighting Data from Time Series Traces

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The `weightTraces()` command creates a new time series as a weighted sum of time series traces, which were produced by a `createTraces()` command. The following dialog is used to edit the command and illustrates the syntax of the command. Most often when using this command you will have interactively reviewed available traces to decide which traces should be weighted.

**Edit weightTraces() Command**

Create a new time series by weighting traces. The result is identified by its alias.  
Enter trace years and weights one value per line.

Time Series Alias:

Trace Identifier:

Weights Specified How:

Trace (year):	Weight:
1997	.5
1998	.4
1999	.1

Command:

**weightTraces() Command Editor**

TS\_weightTraces

The command syntax is as follows:

```
TS X = weightTraces (TSID, SpecifWeightsHow, Year, Weight, ...)
```

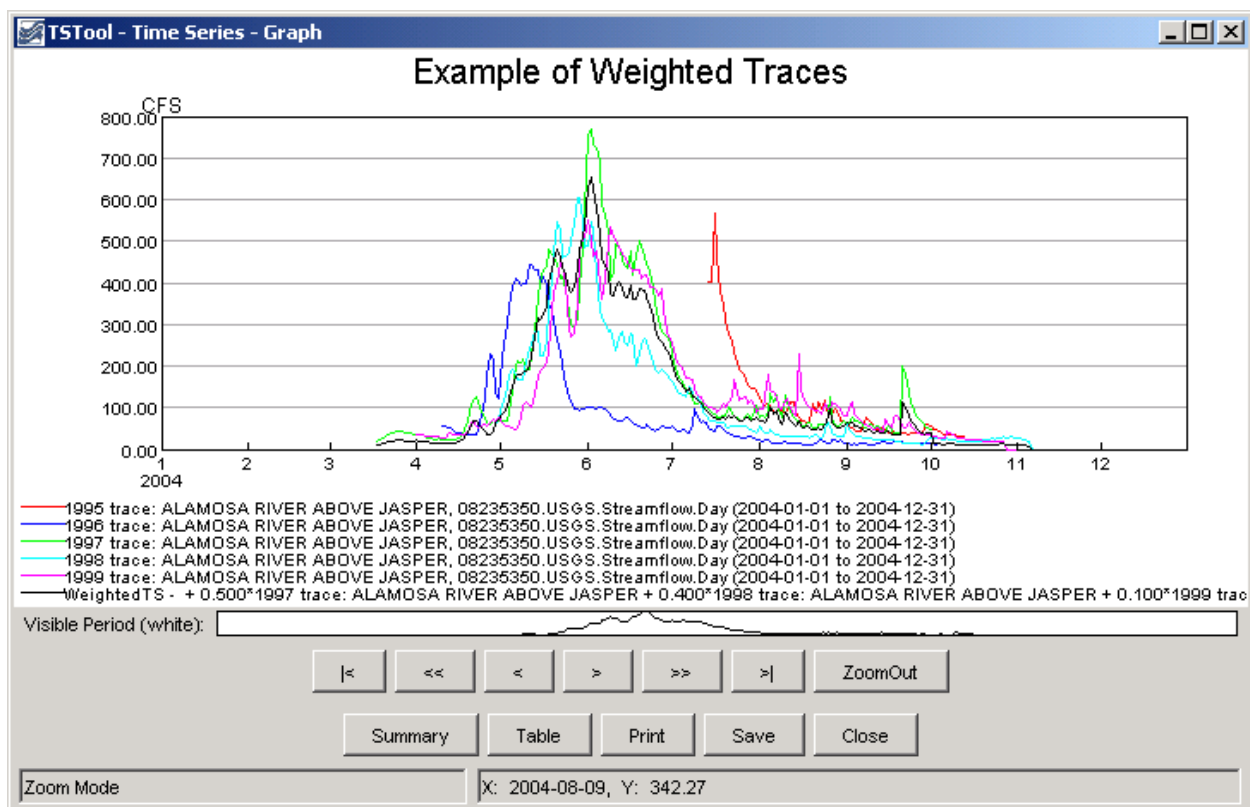
#### Command Parameters

Parameter	Description	Default
X	The alias of the new time series.	None – must be specified.
TSID	The time series identifier or alias for a time series that has been converted into traces (e.g., from a <code>createTraces()</code> command). Time series matching the identifier will be checked.	None – must be specified.
SpecifyWeightsHow	Weights are currently only applied as <code>AbsoluteWeights</code> (in the future an option may be added to normalized weights to 1.0 accounting for missing data in the traces).	Must be <code>AbsoluteWeights</code> .
Year, Weight	Specify pairs of trace year and weights (0-1.0), used to create the new time series. Trace years must be manually entered because at the time that the command is edited, time series have not yet been queried.	None – must be specified.

A sample commands file is as follows:

```
# Create annual traces from a time series shifted to the 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)
TS WeightedTS =
  weightTraces(08235350.USGS.Streamflow.Day,AbsoluteWeights,1997,.5,1998,.4,1999,.1)
```

The results from the commands are shown in the following graph:



TS\_weightTraces\_Graph

Results of the weightTraces() Command

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