
Command Reference: **runningAverage()**

Convert Time Series Data to Running Average Values

Version 06.08.02, 2004-08-03, Color, Acrobat Distiller

The `runningAverage()` command converts a time series' raw data values to a running average, resulting in data that are smoothed. There are two versions of the command. The centered running average requires that the number intervals on each side of a point be specified (e.g., specifying 1 will average 3 values at each point). The N-year running average is computed by averaging the current year and N - 1 values on previous years, for a specific date. An average value is produced only if the needed number of non-missing values is available.

The following dialog is used to edit the command and illustrates the centered running average command syntax.

The dialog box is titled "Edit runningAverage() Command" and contains the following fields:

- Time Series to Convert:** A dropdown menu with "Center" selected.
- Type of Average:** A dropdown menu with "Centered" selected.
- Number of Intervals on Each Side:** A text input field with "3" entered.
- Command:** A text input field showing the command `runningAverage(Center,Centered,3)`.

At the bottom are "Cancel" and "OK" buttons.

runningAverage_centered

runningAverage() Command Editor for Centered Running Average

The following dialog illustrates the N-year running average command syntax.

The dialog box is titled "Edit runningAverage() Command" and contains the following fields:

- Time Series to Convert:** A dropdown menu with "NYear" selected.
- Type of Average:** A dropdown menu with "N-Year" selected.
- Number of Years to Average:** A text input field with "5" entered.
- Command:** A text input field showing the command `runningAverage(NYear,N-Year,5)`.

At the bottom are "Cancel" and "OK" buttons.

runningAverage_nyear

runningAverage() Command Editor for N-Year Running Average

The command syntax is as follows:

```
runningAverage (TSID, AverageMethod, Bracket)
```

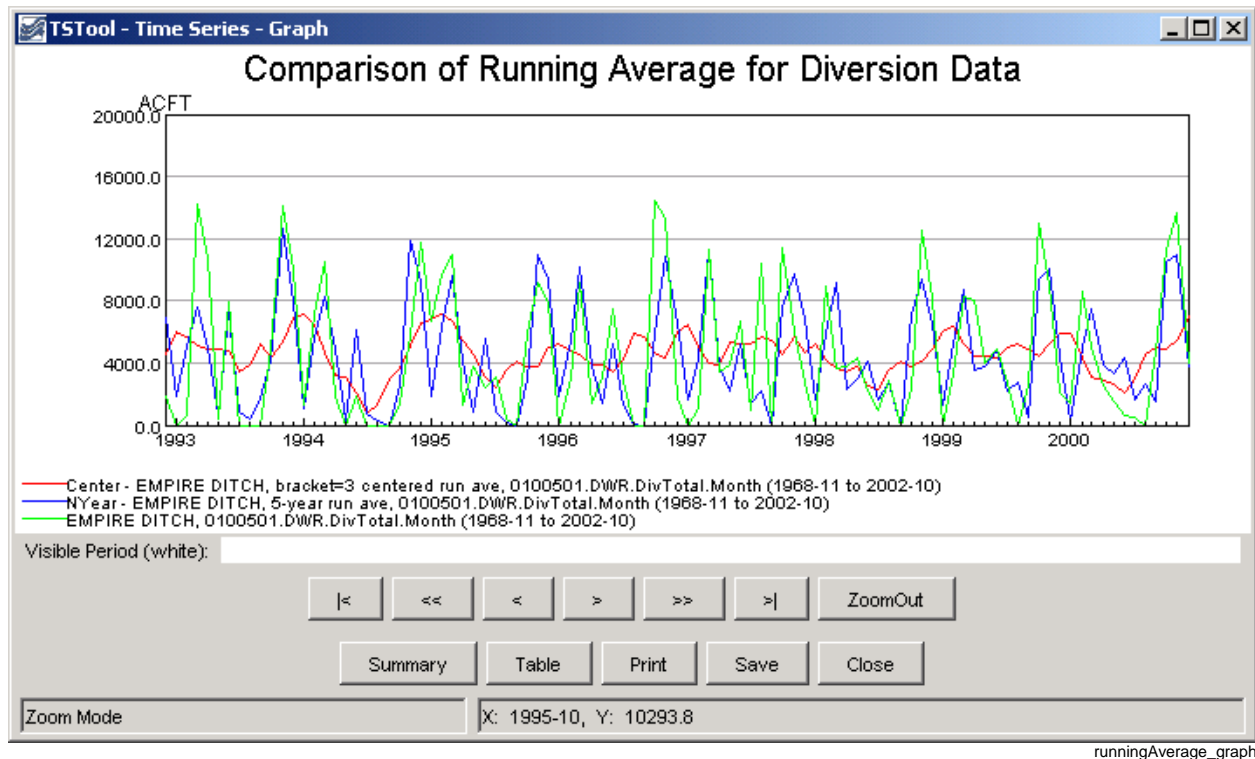
Command Parameters

Parameter	Description	Default
TSID	The time series identifier or alias for the time series to be modified. A specific time series or all time series (*) can be converted to running averages.	None – must be specified.
AverageMethod	The method used to create the running average, one of: <ul style="list-style-type: none">• Centered – values on each side of a date/time are averaged.• N-Year – values for the current year and (N – 1) preceding years, for the same date/time, are averaged.	None – must be specified.
Bracket	For centered running average, the bracket is the number of points on each side of the current point (therefore a value of 1 will average 3 data values). For N-year running average, the bracket is the total number of years to average, including the current year.	None – must be specified.

A sample commands file is as follows:

```
# 0100501 - EMPIRE DITCH
TS Center = readTimeSeries("0100501.DWR.DivTotal.Month~HydroBase")
runningAverage(Center,Centered,3)
TS NYear = readTimeSeries("0100501.DWR.DivTotal.Month~HydroBase")
runningAverage(NYear,N-Year,5)
0100501.DWR.DivTotal.Month~HydroBase
```

The resulting graph is as follows:



Results from runningAverage() Commands

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