Command Reference: fillProrate()

Fill Missing Time Series Data by Prorating Values in Another Time Series

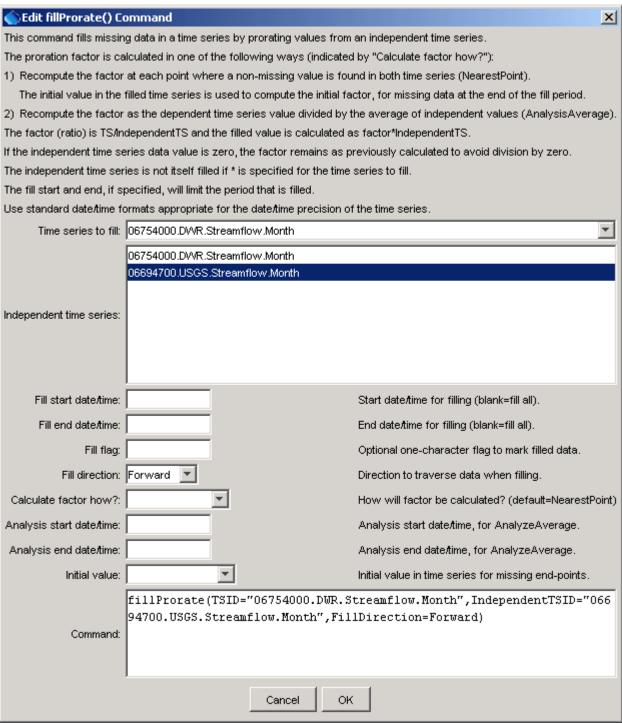
ersion 06.10.05, 2005-08-04, Color, Acrobat Distiller

The fillProrate() command fills missing data in time series by prorating values from another time series. This fill technique is useful, for example, where two time series are likely to have the same general trend and ratio of data values. The ratio can be computed two ways, as specified by the ComputeFactorHow parameter:

- NearestPoint causes the ratio to be recomputed each time that a non-missing value is found in both time series. The ratio is therefore used for filling until another value can be computed.
- AnalyzeAverage computes the ratio as the average ratio of the time series and the independent time series. This was implemented to match an existing fill procedure but can lead to some bias in the results. A different overall average will be obtained depending on whether ratios are computed first and then averaged than if the sum of the numerators are added and divided by the sum of the denominators. In the former, the choice of which time series is in the denominator could impact results.

The initial computation of the ratio may require specifying an initial value due to missing data on the endpoints of the time series (see the InitialValue parameter). Alternatively, the time series can be filled in one direction first and then filled in the other direction with a second command.

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



fillProrate() Command Editor

fillProrate

The command syntax is as follows:

fillProrate(param=value,...)

Command Parameters

Parameter	Description	Default
TSID	The time series identifier or alias for the time series	None – must be
	to be filled. Specify as * to fill all time series.	specified.
	Currently a pattern other than * is not supported.	
IndependentTSID	The time series identifier or alias for the	None – must be
	independent time series.	specified.
FillStart	The starting date/time for the fill.	Available period.
FillEnd	The ending date/time for the fill.	Available period.
FillFlag	A one-character flag to tag data values that are	None – do not flag
	filled.	filled data.
FillDirection	Specify the direction of the fill as Forward or	Forward
	Backward.	
CalculateFactorHow	Specify how to calculate the factor to use in	NearestPoint
	proration, one of:	
	AnalyzeAverage – to calculate the factor	
	of the average of the time series divided by the	
	independent time series, using the analysis	
	period.	
	• NearestPoint – calculate the factor at the	
	nearest point where both time series have non-	
	missing values.	
AnalysisStart	The starting date/time for the analysis, used when	Analyze the full
	CalculateFactorHow=AnalysisAverage.	period.
AnalysisEnd	The ending date/time for the analysis, used when	Analyze the full
	CalculateFactorHow=AnalysisAverage.	period.
InitialValue	The initial value to use for the filled time series, for	None – filling will not
	cases where a value may not be available on the	occur at the end.
	ends of the fill period, one of:	
	NearestBackward – search the time series	
	backward for the nearest non-missing value.	
	NearestForward – search the time series	
	forward for the nearest non-missing value.	
	• Specify a number to use for the initial value.	

A sample commands file is as follows:

```
# 06754000 - SOUTH PLATTE RIVER NEAR KERSEY
06754000.DWR.Streamflow.Month~HydroBase
# 06694700 - FOURMILE CREEK NEAR FAIRPLAY, CO.
06694700.USGS.Streamflow.Month~HydroBase
fillProrate(TSID="06754000.DWR.Streamflow.Month",
IndependentTSID="06694700.USGS.Streamflow.Month",
FillDirection=Forward,InitialValue=0)
06754000.DWR.Streamflow.Month~HydroBase
```

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