

27 Resampling Dialog

Contents

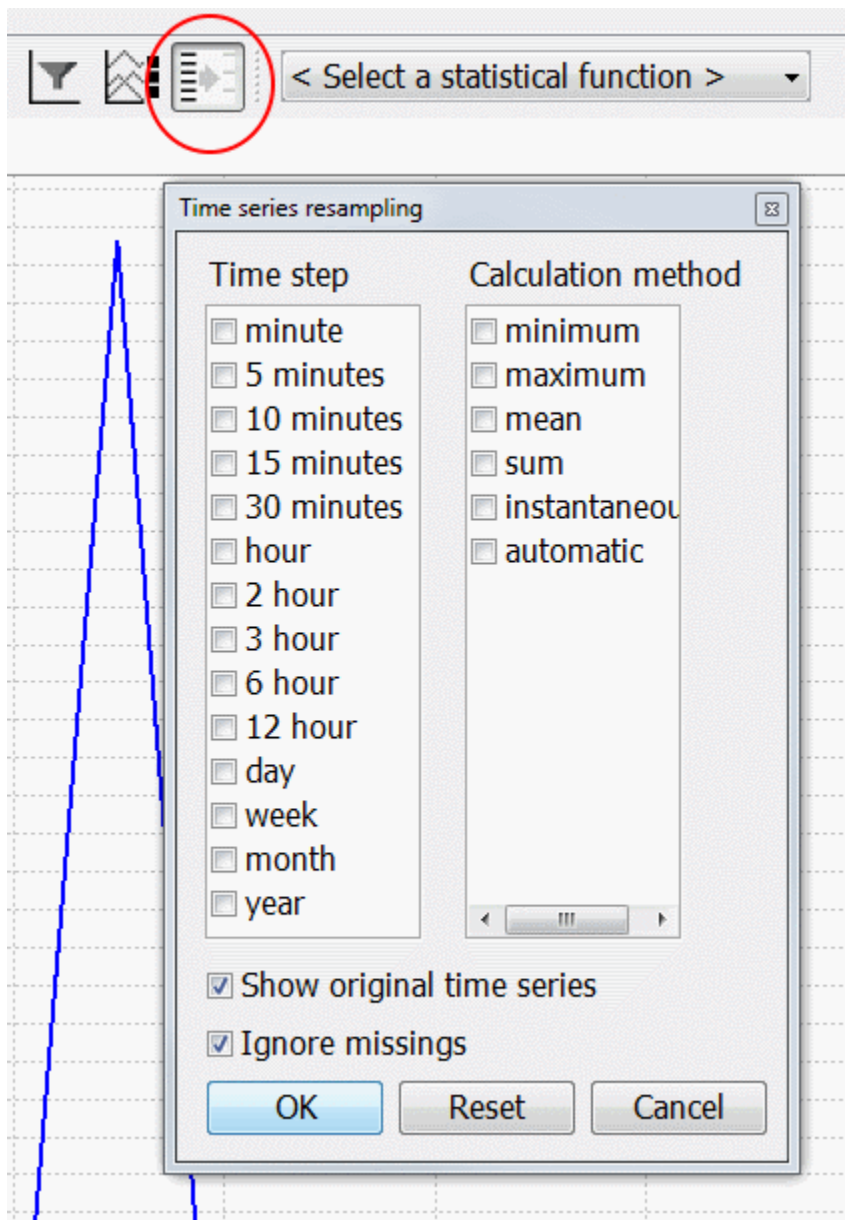
- [Contents](#)
- [Overview](#)
 - [Button on toolbar](#)
 - [Adding a time serie with new interval](#)
 - [Adding time series for each original time serie](#)
 - [Selecting multiple intervals and calculation methods](#)
 - [Ignore missings values checkbox](#)
 - [Buttons](#)
 - [Calculation Methods](#)
 - [Minimum](#)
 - [Maximum](#)
 - [Mean](#)
 - [Mean over time](#)
 - [Sum](#)
 - [Instantaneous](#)
 - [Automatic](#)
 - [Percentile](#)
 - [Available time steps](#)

Overview

The time series resampling dialog lets the user select different intervals and calculation methods for the time series available in the Time Series Dialog. The different intervals and calculation methods will result in newly on the fly calculated time series which will be added to the Time Series Display. These newly added time series are just for displaying in the graph and table and will not be stored in the data store so will not be available for functionality outside of the Time Series Dialog.

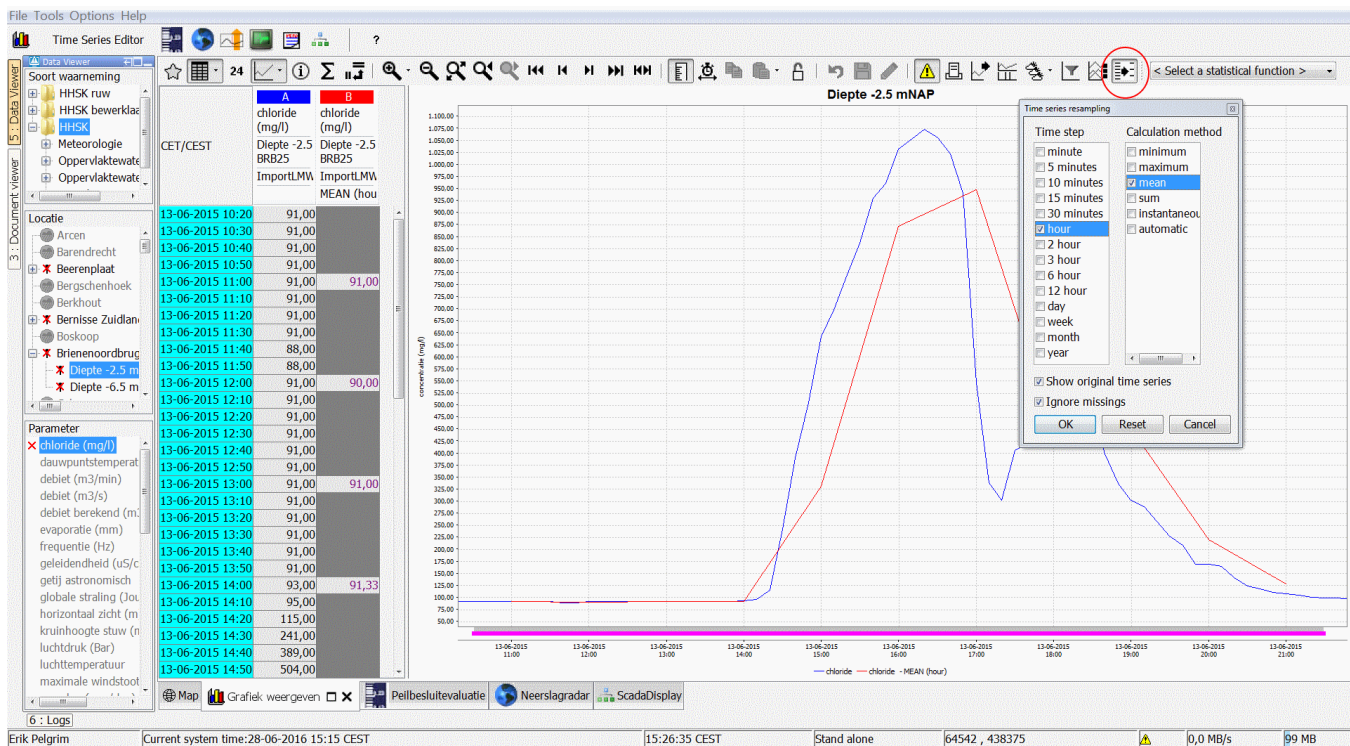
Button on toolbar

The resampling dialog will appear after clicking the button in the toolbar of the Time Series Dialog.



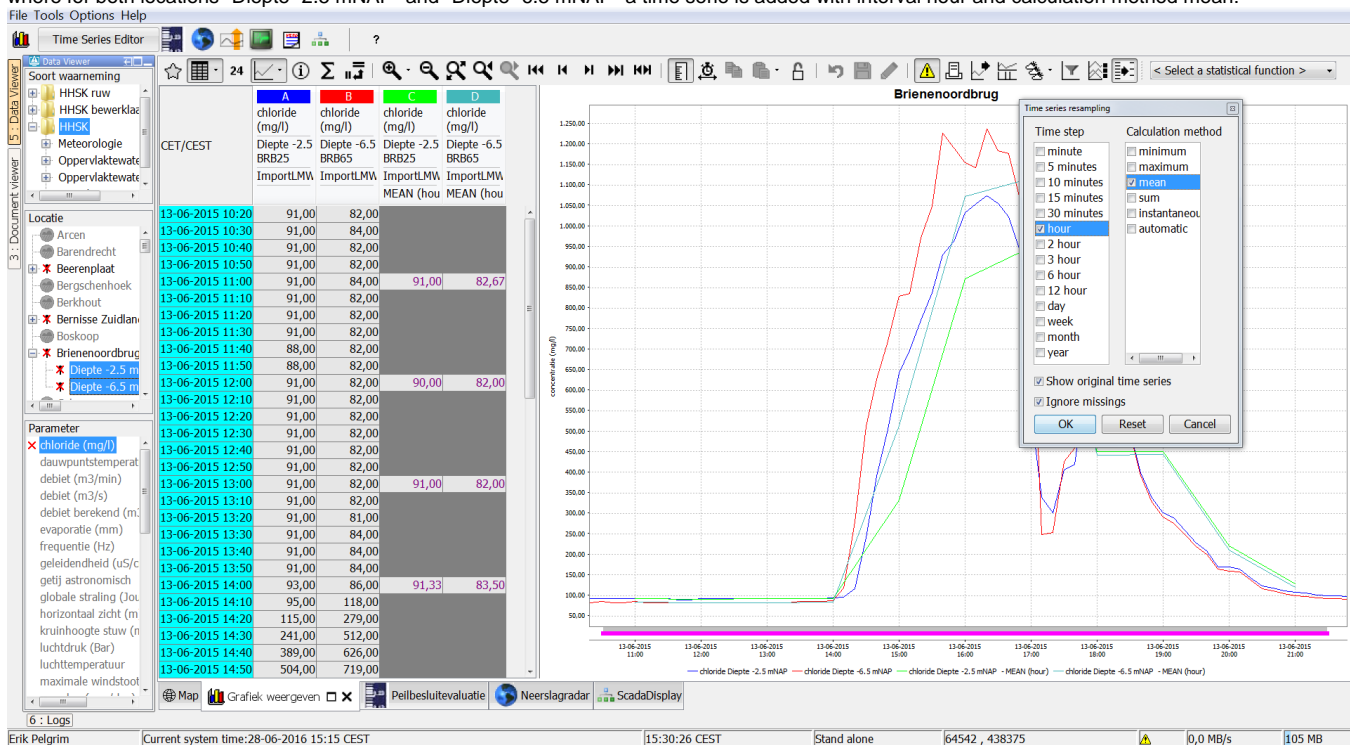
Adding a time series with new interval

When selecting the time step "hour" and calculation method "mean", the time series "chloride -MEAN (uur)" will appear after clicking the "ok" button. When time series are added in this way, the icon of the button will have a black arrow and black stripes instead of grey to show it is active.



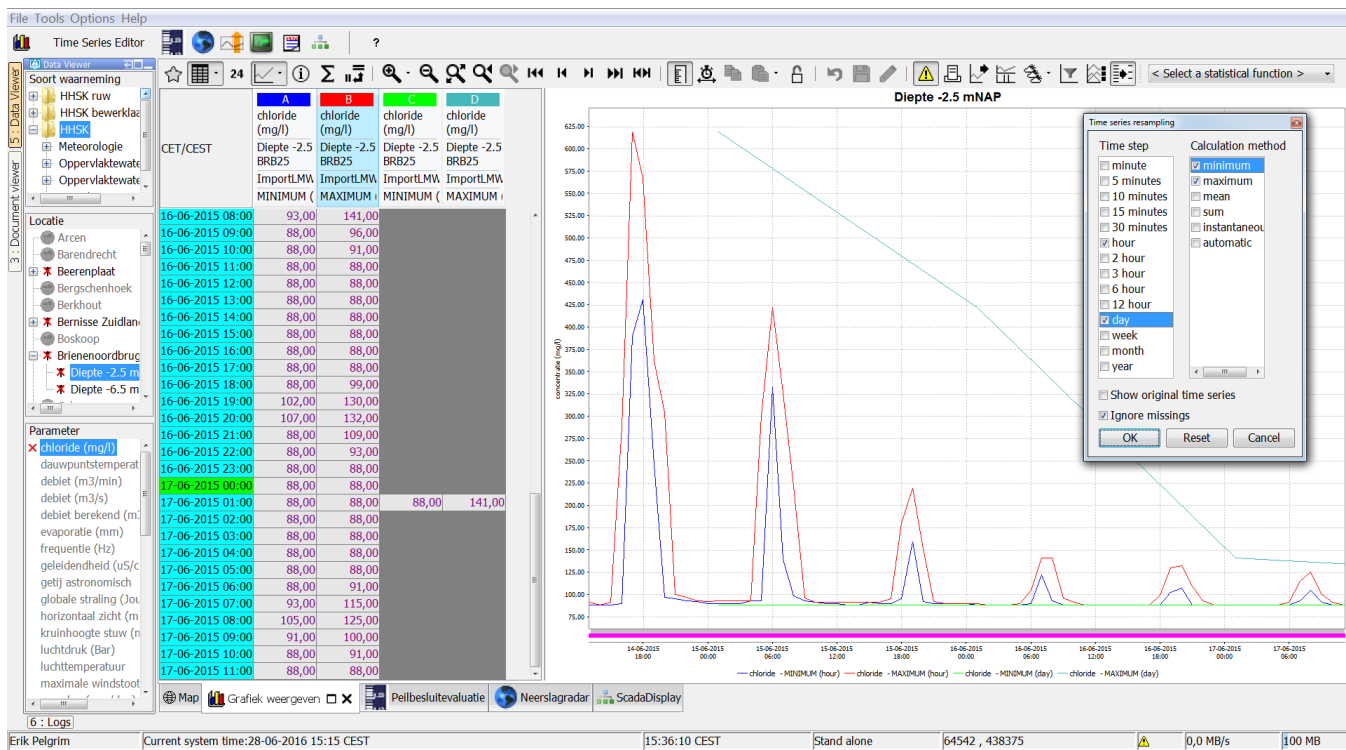
Adding time series for each original time series

Each combination of selected intervals and calculation methods will result in a new time series for each original time series. Below an example is shown where for both locations "Diepte -2.5 mNAP" and "Diepte -6.5 mNAP" a time series is added with interval hour and calculation method mean:



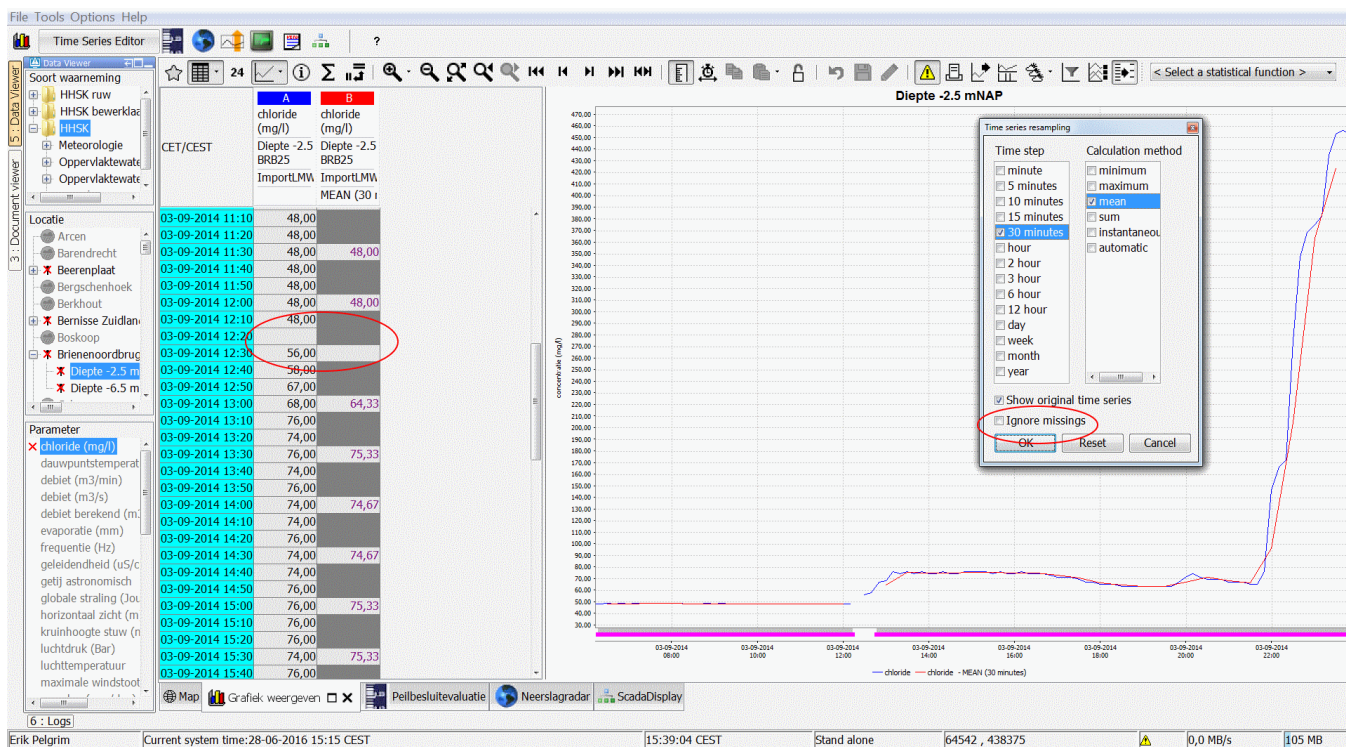
Selecting multiple intervals and calculation methods

Selecting multiple intervals and multiple calculation methods will result in adding new time series for each combination. In the example below the intervals hour and day are selected and calculation methods minimum and maximum, this way 4 time series are added. Also the checkbox "show original time step" is not selected anymore, this way the original time series is not shown anymore.

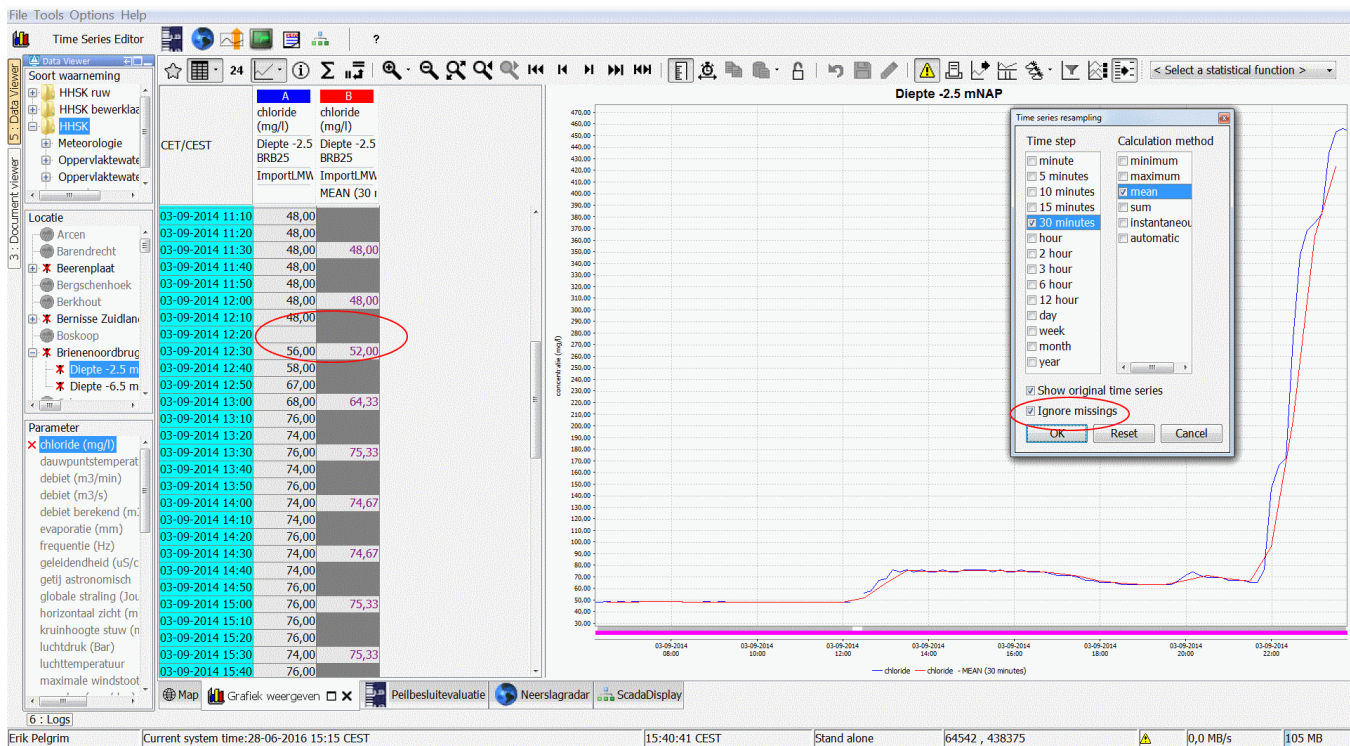


Ignore missing values checkbox

If the checkbox "ignore missing values" is not selected a new value will not be calculated for a new interval time step when a missing value is present in the original interval:



When this checkbox is selected, the missing values will be ignored:



Buttons

The reset button will deselect all intervals and calculation methods and select both checkboxes, this is the default setting in which the dialog is also originally opened for the first time.

The cancel button will close the dialog and not apply the changes made while it was open.

The changes made to this dialog will only be applied to the time series after clicking the ok button.

Calculation Methods

The time steps included in intervals are always looking backwards and include the time step on which the result will be placed.

So for instance if the interval is day and the source time step is hour, it will use the time steps 01:00 until 24:00 for the calculation and place the result at 24:00.

There are multiple calculation methods:

Minimum

Minimum value that is present in the original time series within each interval.

Maximum

Maximum value that is present in the original time series within each interval.

Mean

This is calculated by first adding the values from the original time series within each interval together, and then dividing it by the amount of values.

Mean over time

Calculated by first adding the values multiplied by the amount of milliseconds since its predecessor together, and then dividing it by the total amount of milliseconds of the resampled time step.

Sum

This is calculated by adding the values from the original time series within each interval together.

Instantaneous

This takes the last value from the original time series within each interval.

Automatic

This picks the calculation method according to the parameter type:

- Parameter type "instantaneous" => Calculation method "instantaneous"
- Parameter type "accumulative" => Calculation method "sum"
- Parameter type "mean" => Calculation method "mean"

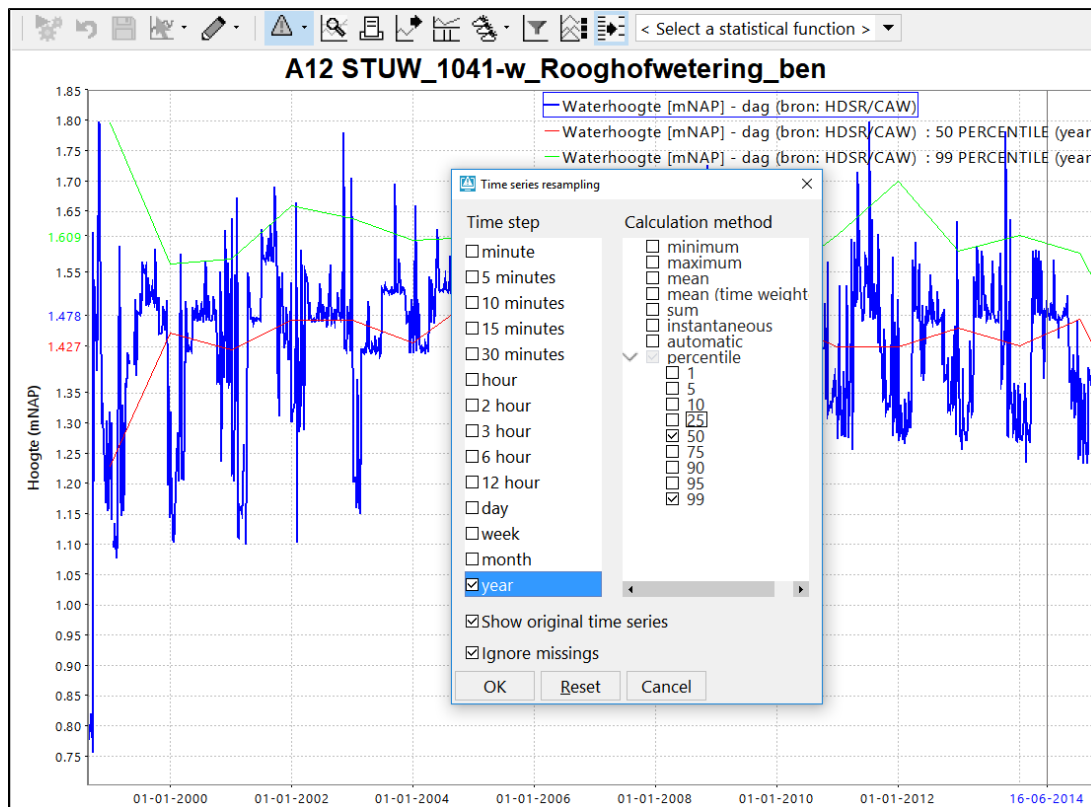
This option is introduced to help users to pick a valid calculation method. Because for some parameters certain calculation methods do not make sense.

For instance for a parameter "Precipitation Intensity" with type "mean" and unit "mm/h" it does not make sense to chose calculation method sum because intensity is not meant to be summed. If in 1 hour every 15 minutes the intensity was measured at 5, 10, 0 and 5 and you calculate the sum over that hour you get an intensity of 20 mm/h, which is wrong. But for a parameter "Precipitation" with type "accumulative" and unit "mm" this does make sense. If in 1 hour every 15 minutes the precipitation was measured at 5, 10, 0 and 5 and you calculate the sum over that hour you get a total precipitation of 20 mm, which is perfectly fine.

For a parameter "Gate position" with type "instantaneous" it could be that the only valid values are 0 or 1, meaning closed and open. Calculating a sum or a mean will not make sense because it can result in invalid data above 1 or between 0 and 1.

Percentile

Percentile resampling is a handy functionality for comparing values to what is "normal" but then compared to the current month or year (or other chosen interval)



Available time steps

Since 2018.01, the time steps available in the time series resampling dialog can be customized through the FEWS configuration. More information can be found in the [configuration guide for the TimeSeriesDisplayConfig.xml](#).