

Moving Transform

Apply rolling window functions to the time series. Use this widget to get a series' mean.

Inputs

- Time series: Time series as output by **As Timeseries** widget.

Outputs

- Time series: The input time series with the added series' transformations.

In this widget, you define what aggregation functions to run over the time series and with what window sizes.


The screenshot shows the 'Moving Transform' widget interface. It features a 'Non-overlapping windows' checkbox (labeled 6), a 'Fixed window width' spinner (labeled 7) set to 10, and a table with three columns: 'Series' (labeled 3), 'Window width' (labeled 4), and 'Aggregation function' (labeled 5). The table contains four rows: 'Adj Close' with window width 5 and aggregation function 'Mean'; 'High' with window width 5 and aggregation function 'Max'; 'Low' with window width 5 and aggregation function 'Min'; and 'Volume' with window width 5 and aggregation function 'Sum'. Below the table are two buttons: 'Add Transform' (labeled 1) and 'Delete Selected' (labeled 2). At the bottom, there is an 'Apply' button.

1. Define a new transformation.
2. Remove the selected transformation.
3. Time series you want to run the transformation over.
4. Desired window size.
5. Aggregation function to aggregate the values in the window with. Options are: *mean, sum, max, min, median, mode, standard deviation, variance, product, linearly-weighted moving average, exponential moving average, harmonic mean, geometric mean, non-zero count, cumulative sum, and cumulative product.*

6. Select *Non-overlapping windows* options if you don't want the moving windows to overlap but instead be placed side-to-side with zero intersection.
7. In the case of non-overlapping windows, define the fixed window width(overrides and widths set in (4)).

Example

To get a 5-day moving average, we can use a rolling window with *mean* aggregation.



Yahoo Finance Moving Transform

Moving Transform

☐ Non-overlapping windows

Fixed window width:

Series	Window width	Aggregation function
<input checked="" type="checkbox"/> Adj Close	5	Mean
<input checked="" type="checkbox"/> High	5	Max
<input checked="" type="checkbox"/> Low	5	Min
<input checked="" type="checkbox"/> Volume	5	Sum

☐

To integrate time series' differences from **Difference** widget, use *Cumulative sum* aggregation over a window wide enough to grasp the whole series.



Difference

Differencing

Differencing order: 1

Shift: 1

☒ Invert differencing direction

- Open
- High
- Low
- Close
- Volume
- Adj Close

Moving Transform

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☐ Non-overlapping windows

Fixed window width: 10

Series	Window width	Aggregation function
Adj Close (diff; order=1) (forecast)	1000	Cumulative sum

+ Add Transform X Delete Selected

☐ Apply

See also

Seasonal Adjustment