

Getting More Insights into Your Data with Windows



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Summary



How to interpret windows

Two different types

Demo



Window Types

Rolling

Expanding



Rolling Windows



EUR/USD

24-03-2017 01:00:15	1.789
24-03-2017 01:00:30	1.791
24-03-2017 01:00:45	1.791
24-03-2017 01:01:00	1.793



EUR/USD

24-03-2017 01:00:15	1.789
24-03-2017 01:00:30	1.791
24-03-2017 01:00:45	1.791
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EUR/USD

24-03-2017 01:00:15	1.789
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24-03-2017 01:00:45	1.791
24-03-2017 01:01:00	1.793

mean → 1.790



EUR/USD

24-03-2017 01:00:15	1.789
24-03-2017 01:00:30	1.791
24-03-2017 01:00:45	1.791
24-03-2017 01:01:00	1.793

mean →

1.790

1.791



EUR/USD

24-03-2017 01:00:15	1.789
24-03-2017 01:00:30	1.791
24-03-2017 01:00:45	1.791
24-03-2017 01:01:00	1.793

mean
→

1.790

1.791

1.792



EUR/USD

Rolling Mean

24-03-2017 01:00:15	1.789	NaN
24-03-2017 01:00:30	1.791	1.790
24-03-2017 01:00:45	1.791	1.791
24-03-2017 01:01:00	1.793	1.792



EUR/USD

Rolling Mean

24-03-2017 01:00:15	1.789	NaN
24-03-2017 01:00:30	1.791	1.790
24-03-2017 01:00:45	1.791	1.791
24-03-2017 01:01:00	1.793	1.792

```
series.rolling(2).mean()
```



Expanding Windows



EUR/USD

24-03-2017 01:00:15	1.789
24-03-2017 01:00:30	1.791
24-03-2017 01:00:45	1.791
24-03-2017 01:01:00	1.793

mean → 1.790



EUR/USD

24-03-2017 01:00:15	1.789
24-03-2017 01:00:30	1.791
24-03-2017 01:00:45	1.791
24-03-2017 01:01:00	1.793

mean →

1.790

1.790



EUR/USD

24-03-2017 01:00:15	1.789
24-03-2017 01:00:30	1.791
24-03-2017 01:00:45	1.791
24-03-2017 01:01:00	1.793

mean
→

1.790

1.790

1.791



EUR/USD

Cumulative
Mean

24-03-2017 01:00:15	1.789	1.789
24-03-2017 01:00:30	1.791	1.790
24-03-2017 01:00:45	1.791	1.790
24-03-2017 01:01:00	1.793	1.791



	EUR/USD	Cumulative Mean
24-03-2017 01:00:15	1.789	1.789
24-03-2017 01:00:30	1.791	1.790
24-03-2017 01:00:45	1.791	1.790
24-03-2017 01:01:00	1.793	1.791

```
series.expanding().mean()
```



	EUR/USD	Cumulative Mean
24-03-2017 01:00:15	1.789	1.789
24-03-2017 01:00:30	1.791	1.790
24-03-2017 01:00:45	1.791	1.790
24-03-2017 01:01:00	1.793	1.791

```
series.expanding().mean()
```



Can We Use Period as Window's Size?



Can We Use Period as Window's Size?

**More advanced is
not always better**



Can We Use Period as Window's Size?

**More advanced is
not always better**

Resample



Can We Use Period as Window's Size?

More advanced is
not always better

Resample

Apply windows as
you like



Expanding Windows



Example use-case: Budget execution



Windows –
Simple and powerful

