Enrico Schumann es@enricoschumann.net

This vignette shows how the vprice argument of function pl can be used.

## 1 How to use vprice

### When timestamp is not used

If no timestamp information is used, i.e. if along timestamp is FALSE, vprice is used to value an open position (or, if you prefer, to simulate the close of an open position). So for a single asset, it should be vector of length one; for N assets, it should be a named vector of length N.

#### When timestamp is used

If along timestamp is TRUE, vprice is used to close the final, open position. So for a single asset, it should be vector of length one; for N assets, it should be a named vector of length N.

If along timestamp is a vector of timestamps, vprice is used to value any open position along those timestamps. For a single asset, it should then be a vector of prices, with length equal to that of along timestamp. For N assets, it should be a matrix with length(along timestamp) rows and N named columns.

# 2 Examples

With a single asset.

```
> j <- journal(amount = 1, price = 20)
> pl(j)
```

```
P/L total NA
average buy 20
average sell NaN
cum. volume 1

'P/L total' is in units of instrument;
'volume' is sum of /absolute/ amounts.
```

## > pl(j, vprice = 21)

```
P/L total 1
average buy 20
average sell 21
cum. volume 1

'P/L total' is in units of instrument;
'volume' is sum of /absolute/ amounts.
```

```
timestamp 1 2 3 4 5 6 7 8 9 10

P/L total 0 0 1 2 3 4 5 6 7 7

__ realised 0 0 0 0 0 0 0 0 7 7

__ unrealised 0 0 1 2 3 4 5 6 0 0

average buy 102

average sell 109

cum. volume 0 0 1 1 1 1 1 1 2 2

'P/L total' is in units of instrument;
'volume' is sum of /absolute/ amounts.
```

With several assets.

```
> j <- journal(amount = c(1, -1, 1),
               instrument = c("A", "A", "B"),
               timestamp = c(1, 2, 1),
               price = c(100, 103, 10))
> P <- cbind(A = c(100, 102, 105),
             B = c(10, 5, 11)
> pl(j, vprice = P,
     along.timestamp = 1:3)
                 1 2 3
  timestamp
                0 3 3
  P/L total
  __ realised 0 3 3
  __ unrealised 0 0 0
  average buy 100
  average sell 103
  cum. volume 1 2 2
  \begin{array}{ccccc} \text{timestamp} & 1 & 2 & 3 \\ \text{P/L total} & 0 & -5 & 1 \end{array}
  __ realised 0 0 0
  __ unrealised 0 -5 1
  average buy 10
  average sell NaN
  cum. volume 1 1 1
 'P/L total' is in units of instrument;
 'volume' is sum of /absolute/ amounts.
```

```
timestamp 1 2 3
P/L total 0 -2 4
__ realised 0 3 3
__ unrealised 0 -5 1
average buy NA
average sell NA
cum. volume 2 3 3
```

'P/L total' is in units of instrument; 'volume' is sum of /absolute/ amounts.