

Document of Standard Agent

Team name

U-Mart Project

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Agent

Name

DayTradeStrategy

Summary

Basic strategy of day trading. The agent orders selling and buying simultaneously. Limited price of selling order is slightly higher than latest futures price. That of buying order is lower than latest futures price.

Execution and arguments

according as TestStrategy.java

Summary of arguments

according as TestStrategy.java

Type

Tool	Number of orders	Market of Limit	Asset management	Reference data	Long or short term	Against or follow trend	Learning	Online learning
Strategy.java	2	Limit Price	Yes	futures price, spot price, position, cash, remaining session	Short term trader	Against trend	No	No

Outline of algorithm

Getting last future price (U-Mart price). Then it decide limit price for buying and selling order. Price on buying order is $(1-R)*P$. (R: Spread Ratio, P:Latest future price) Price on selling order is $(1+R)*P$. Order volume is obtained as an uniform random numbers between minQuote and maxQuote.

Class

Class Name

DayTradeStrategy

Super class

Strategy

Summary of class

Same as Summary of Agent

Fields

Name	Type	Role	Range	Value	Reason of Value
widthOfPrice	int	Variance of limit price decided	1 ... 1000	20	
maxQuant	int	Maximam volume of one order	(minQuant+1) ... (initial cash/300,000)	50	
minQuant	int	Minimum volume of one order	1 ... (maxQuant-1)	10	
maxPosition	int	Upper bound of net position. For asset management.	1 ... (initial cash/300,000)	300	
spreadRatio	double	spread ratio of buying and selling orders	0 spreadRatio 1	0.01	20 to 40 points higher or lower than future price

Methods

Name	Summary	Returned type	Arguments			
getOrder	to dicide order	Order	Name	Type	Role	Range
			spotPrice	int[]	Time Series of spot price	1 ...
			futurePrice	int[]	Time Series of futures price	-1 : When trade is failure, positive value : contracted futures price
			pos	int	current position	Positive is buying position. Negative is selling position.
			money	long	amount of cash	0 ...
			restDay	int	Number of to the closing of market	0 ... 240
Name	Summary	Returned type	Arguments			
			Name	Type	Role	Range

getSellOrder	to decide selling order	Order	spotPrice	int[]	Time Series of spot price	-1 : When trade is failure, positive value : contracted futures price
			futurePrice	int[]	Time Series of future price	-1 : When trade is failure, positive value : contracted futures price
			pos	int	current position	Positive is buying position, Negative is selling position.
			restDay	int	Number of to the closing of market	0 ... 240

Attachment

DayTradeStrategy.doc, DayTradeStrategy.java

Comments