Document of Standard Agent

Team name

U-Mart Project

Copyright

Producer(s)

Yuji KAWABE
Dept. of Information Science and Intelligent Systems, Faculty of Engineering, The University of Tokushima
Isao ONO
Dept. of Information Science and Intelligent Systems, Faculty of Engineering, The University of Tokushima
Hajime KITA
National Institution for Academic Degree

Agent

Name

TrendStrategy

Summary

price1=last futures price, and price2= second last futures price. If price1 is higher than price2 then the agent orders buying. If price1 is lower than price2 then the agent orders selling. The amount of order is randomly desided.

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	1	Limit Price	Yes	futures price, spot price, position, cash, remaining session	Short	following the trend	No	No

Outline of algorithm

The agent try to obtain latest spot price and second latest spot price. If it is failed, he uses spot prices. If the latest price is lower than the second latest price, he send selling order. If the latest price is higher than the second latest price, he send buying order. Limited price of the order is given by Gaussian whose standerd deviation is given as field variable "widthOfPrice". Order volume is obtained as an uniform random numbers between minQuote and maxQuote.

Class

Class Name

TrendStrategy

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	

Methods

Name	Summary	Returned type	Arguments			
			Name	Type	Role	Range
getOrder	to dicide order	Order	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. Nagative is selling position.
			money	long	amount of cash	0 ...
			restDay	int	Number of to the closing of market	0 ... 240

Attachment

TrendStrategy.doc, TrendStrategy.java

Comments