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// First of all I want to say thank you to © thequantscience.

//@version=5

strategy(

title = 'AUTOMATIC GRID BOT STRATEGY [ilovealgotrading]',

overlay = true,

commission\_type = strategy.commission.percent,

commission\_value = 0.0075,

pyramiding = 20,

default\_qty\_type = strategy.percent\_of\_equity,

close\_entries\_rule = 'ANY',

initial\_capital = 100000

)

/////////////////////////////// ALGORITHM BACKTEST SOURCE CODE ////////////////////////////////////

startDate = input.time(defval=timestamp('1 nov 2022 13:30 +0000'), title='Start\_Date', group = " ################# BACKTEST DATE ################ " )

endDate = input.time(defval=timestamp('20 oct 2030 13:30 +0000'), title='End\_Date', group = " ################# BACKTEST DATE ################ " )

inDateRange = time > startDate and time < endDate

high\_price = input.price(

defval = 0.00,

title = 'Range High price: ',

group = " ################# HIGH PRICE GRID ################ ",

confirm = true,

tooltip = "Top grid price."

)

low\_price = input.price(

defval = 0.00,

title = 'Range Low price: ',

group = " ################# LOW PRICE GRID ################# ",

confirm = true,

tooltip = "Bottom grid price."

)

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trade\_direction = input.string(title='Trade\_direction', group = " ################# TRADE DIRECTION ################ ", options=['LONG', 'SHORT', 'BOTH'], defval='BOTH')

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Long\_message = input("", group = " ################# ALGO TRADE ALERTS ################ ")

Long\_Exit\_message = input("", group = " ################# ALGO TRADE ALERTS ################ ")

Long\_Stop\_message = input("", group = " ################# ALGO TRADE ALERTS ################ ")

Short\_message = input("", group = " ################# ALGO TRADE ALERTS ################ ")

Short\_Exit\_message = input("", group = " ################# ALGO TRADE ALERTS ################ ")

Short\_Stop\_message = input("", group = " ################# ALGO TRADE ALERTS ################ ")

use\_stop = input.bool(defval = false , title = "Use StopLoss", group = " ################# Strategy Settings ################ ")

Resolution = input.string(title='Stop Resolution', defval='10 4h',tooltip = "IF price below under Low range level or price above High range level at this time frame we close all open positions", options=['00 Current', '01 1m', '02 3m', '03 5m', '04 15m', '05 30m', '06 45m', '07 1h', '08 2h', '09 3h', '10 4h', '11 1D', '12 1W', '13 1M'], group = " ################# Strategy Settings ################ ")

dolar = input.int(defval = 5000, title = "$ Per Position", group = " ################# Strategy Settings ################ ")

float qty\_new = dolar / close

if close > 5000

qty\_new := math.round(dolar / close, 3)

else if close < 5000 and close > 200

qty\_new := math.round(dolar / close, 2)

else if close < 200 and close > 50

qty\_new := math.round(dolar / close, 1)

else if close < 50

qty\_new := math.round(dolar / close, 0)

ten\_grid = input.bool(

defval = false,

title = "10 grid levels",

group = " ############## GRID CONFIGURATION ############## ",

tooltip = "10 grid levels",

confirm = true

)

tewnty\_grid = input.bool(

defval = true,

title = "20 grid levels",

group = " ############## GRID CONFIGURATION ############## ",

tooltip = "20 grid levels",

confirm = true

)

show\_stop\_res = input.bool(true, title = "Show Stop Price",group = " ############## Graphics Settings ############## ")

show\_grid\_level\_bg = input.bool(true, title = "Show Grid Levels BG",group = " ############## Graphics Settings ############## ")

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res(Resolution) =>

if Resolution == '00 Current'

timeframe.period

else

if Resolution == '01 1m'

'1'

else

if Resolution == '02 3m'

'3'

else

if Resolution == '03 5m'

'5'

else

if Resolution == '04 15m'

'15'

else

if Resolution == '05 30m'

'30'

else

if Resolution == '06 45m'

'45'

else

if Resolution == '07 1h'

'60'

else

if Resolution == '08 2h'

'120'

else

if Resolution == '09 3h'

'180'

else

if Resolution == '10 4h'

'240'

else

if Resolution == '11 1D'

'1D'

else

if Resolution == '12 1W'

'1W'

else

if Resolution == '13 1M'

'1M'

stolloss\_close = request.security(syminfo.tickerid, res(Resolution), close)

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grid\_range = high\_price - low\_price

percent\_change = ((high\_price - low\_price) / low\_price) \* (1.00 / 9.00)

var float grid\_1 = 0

var float grid\_2 = 0

var float grid\_3 = 0

var float grid\_4 = 0

var float grid\_5 = 0

var float grid\_6 = 0

var float grid\_7 = 0

var float grid\_8 = 0

var float grid\_9 = 0

var float grid\_10 = 0

var float grid\_11 = 0

var float grid\_12 = 0

var float grid\_13 = 0

var float grid\_14 = 0

var float grid\_15 = 0

var float grid\_16 = 0

var float grid\_17 = 0

var float grid\_18 = 0

var float grid\_19 = 0

var float grid\_20 = 0

var float factor = 0

long\_1 = false

long\_2 = false

long\_3 = false

long\_4 = false

long\_5 = false

long\_6 = false

long\_7 = false

long\_8 = false

long\_9 = false

long\_10 = false

short\_1 = false

short\_2 = false

short\_3 = false

short\_4 = false

short\_5 = false

short\_6 = false

short\_7 = false

short\_8 = false

short\_9 = false

short\_10 = false

if ten\_grid == true

percent\_change := ((high\_price - low\_price) / low\_price) \* (1.00 / 9.00)

factor := grid\_range / 9

grid\_1 := (high\_price)

grid\_2 := (high\_price - (factor \* 1))

grid\_3 := (high\_price - (factor \* 2))

grid\_4 := (high\_price - (factor \* 3))

grid\_5 := (high\_price - (factor \* 4))

grid\_6 := (high\_price - (factor \* 5))

grid\_7 := (high\_price - (factor \* 6))

grid\_8 := (high\_price - (factor \* 7))

grid\_9 := (high\_price - (factor \* 8))

grid\_10 := (low\_price)

long\_1 := ta.crossunder(close, ((grid\_5+grid\_6)/2))

long\_2 := ta.crossunder(close, ((grid\_6+grid\_7)/2))

long\_3 := ta.crossunder(close, ((grid\_7+grid\_8)/2))

long\_4 := ta.crossunder(close, ((grid\_8+grid\_9)/2))

long\_5 := ta.crossunder(close, ((grid\_9+grid\_10)/2))

short\_1 := ta.crossover(close, ((grid\_6+grid\_5)/2))

short\_2 := ta.crossover(close, ((grid\_5+grid\_4)/2))

short\_3 := ta.crossover(close, ((grid\_4+grid\_3)/2))

short\_4 := ta.crossover(close, ((grid\_3+grid\_2)/2))

short\_5 := ta.crossover(close, ((grid\_2+grid\_1)/2))

if tewnty\_grid == true

percent\_change := ((high\_price - low\_price) / low\_price) \* (1.00 / 19.00)

factor := grid\_range / 19

grid\_1 := (high\_price)

grid\_2 := (high\_price - (factor \* 1))

grid\_3 := (high\_price - (factor \* 2))

grid\_4 := (high\_price - (factor \* 3))

grid\_5 := (high\_price - (factor \* 4))

grid\_6 := (high\_price - (factor \* 5))

grid\_7 := (high\_price - (factor \* 6))

grid\_8 := (high\_price - (factor \* 7))

grid\_9 := (high\_price - (factor \* 8))

grid\_10 := (high\_price - (factor \* 9))

grid\_11 := (high\_price - (factor \* 10))

grid\_12 := (high\_price - (factor \* 11))

grid\_13 := (high\_price - (factor \* 12))

grid\_14 := (high\_price - (factor \* 13))

grid\_15 := (high\_price - (factor \* 14))

grid\_16 := (high\_price - (factor \* 15))

grid\_17 := (high\_price - (factor \* 16))

grid\_18 := (high\_price - (factor \* 17))

grid\_19 := (high\_price - (factor \* 18))

grid\_20 := (low\_price)

long\_1 := close < ((grid\_10+grid\_11)/2)

long\_2 := close < ((grid\_11+grid\_12)/2)

long\_3 := close < ((grid\_12+grid\_13)/2)

long\_4 := close < ((grid\_13+grid\_14)/2)

long\_5 := close < ((grid\_14+grid\_15)/2)

long\_6 := close < ((grid\_15+grid\_16)/2)

long\_7 := close < ((grid\_16+grid\_17)/2)

long\_8 := close < ((grid\_17+grid\_18)/2)

long\_9 := close < ((grid\_18+grid\_19)/2)

long\_10 := close < ((grid\_19+grid\_20)/2)

short\_10 := close >((grid\_1+grid\_2)/2)

short\_9 := close >((grid\_2+grid\_3)/2)

short\_8 := close >((grid\_3+grid\_4)/2)

short\_7 := close >((grid\_4+grid\_5)/2)

short\_6 := close >((grid\_5+grid\_6)/2)

short\_5 := close >((grid\_6+grid\_7)/2)

short\_4 := close >((grid\_7+grid\_8)/2)

short\_3 := close >((grid\_8+grid\_9)/2)

short\_2 := close >((grid\_9+grid\_10)/2)

short\_1 := close > ((grid\_10+grid\_11)/2)

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if ten\_grid and ( trade\_direction == 'LONG' or trade\_direction == 'BOTH')

if long\_1 and strategy.opentrades == 0 and inDateRange and stolloss\_close > low\_price

strategy.entry(id = "L\_1", direction = strategy.long,alert\_message = Long\_message, qty = qty\_new )

if strategy.opentrades == 1

strategy.exit(id = "E\_1",from\_entry = "L\_1", qty\_percent = 100,alert\_message =Long\_Exit\_message,stop = 0, limit = strategy.opentrades.entry\_price(strategy.opentrades - 1) \* (1+percent\_change))

if long\_2 and strategy.opentrades == 1 and inDateRange and stolloss\_close > low\_price

strategy.entry(id = "L\_2", direction = strategy.long,alert\_message = Long\_message, qty = qty\_new )

if strategy.opentrades == 2

strategy.exit(id = "E\_2",from\_entry = "L\_2", qty\_percent = 100,alert\_message =Long\_Exit\_message, limit = strategy.opentrades.entry\_price(strategy.opentrades - 1) \* (1+percent\_change))

if long\_3 and strategy.opentrades == 2 and inDateRange and stolloss\_close > low\_price

strategy.entry(id = "L\_3", direction = strategy.long,alert\_message = Long\_message, qty = qty\_new )

if strategy.opentrades == 3

strategy.exit(id = "E\_3",from\_entry = "L\_3", qty\_percent = 100,alert\_message =Long\_Exit\_message,limit = strategy.opentrades.entry\_price(strategy.opentrades - 1) \* (1+percent\_change))

if long\_4 and strategy.opentrades == 3 and inDateRange and stolloss\_close > low\_price

strategy.entry(id = "L\_4", direction = strategy.long,alert\_message = Long\_message, qty = qty\_new )

if strategy.opentrades == 4

strategy.exit(id = "E\_4",from\_entry = "L\_4", qty\_percent = 100,alert\_message =Long\_Exit\_message,limit = strategy.opentrades.entry\_price(strategy.opentrades - 1) \* (1+percent\_change))

if long\_5 and strategy.opentrades == 4 and inDateRange and stolloss\_close > low\_price

strategy.entry(id = "L\_5", direction = strategy.long,alert\_message = Long\_message, qty = qty\_new )

if strategy.opentrades == 5

strategy.exit(id = "E\_5",from\_entry = "L\_5", qty\_percent = 100,alert\_message =Long\_Exit\_message, limit = strategy.opentrades.entry\_price(strategy.opentrades - 1) \* (1+percent\_change))

if ten\_grid and ( trade\_direction == 'SHORT' or trade\_direction == 'BOTH')

if short\_1 and strategy.opentrades == 0 and inDateRange and stolloss\_close < high\_price

strategy.entry(id = "S\_1", direction = strategy.short,alert\_message = Short\_message, qty = qty\_new )

if strategy.opentrades == 1

strategy.exit(id = "ES\_1",from\_entry = "S\_1", qty\_percent = 100,alert\_message =Short\_Exit\_message, limit = strategy.opentrades.entry\_price(strategy.opentrades - 1)\*(1-percent\_change))

if short\_2 and strategy.opentrades == 1 and inDateRange and stolloss\_close < high\_price

strategy.entry(id = "S\_2",direction = strategy.short,alert\_message = Short\_message, qty = qty\_new )

if strategy.opentrades == 2

strategy.exit(id = "ES\_2",from\_entry = "S\_2", qty\_percent = 100,alert\_message =Short\_Exit\_message, limit = strategy.opentrades.entry\_price(strategy.opentrades - 1)\*(1-percent\_change))

if short\_3 and strategy.opentrades == 2 and inDateRange and stolloss\_close < high\_price

strategy.entry(id = "S\_3", direction = strategy.short,alert\_message = Short\_message, qty = qty\_new )

if strategy.opentrades == 3

strategy.exit(id = "ES\_3",from\_entry = "S\_3", qty\_percent = 100,alert\_message =Short\_Exit\_message, limit = strategy.opentrades.entry\_price(strategy.opentrades - 1)\*(1-percent\_change))

if short\_4 and strategy.opentrades == 3 and inDateRange and stolloss\_close < high\_price

strategy.entry(id = "S\_4", direction = strategy.short,alert\_message = Short\_message, qty = qty\_new )

if strategy.opentrades == 4

strategy.exit(id = "ES\_4",from\_entry = "S\_4", qty\_percent = 100,alert\_message =Short\_Exit\_message,limit = strategy.opentrades.entry\_price(strategy.opentrades - 1)\*(1-percent\_change))

if short\_5 and strategy.opentrades == 4 and inDateRange and stolloss\_close < high\_price

strategy.entry(id = "S\_5", direction = strategy.short,alert\_message = Short\_message, qty = qty\_new )

if strategy.opentrades == 5

strategy.exit(id = "ES\_5",from\_entry = "S\_5", qty\_percent = 100,alert\_message =Short\_Exit\_message, limit = strategy.opentrades.entry\_price(strategy.opentrades - 1)\*(1-percent\_change))

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long\_exit\_price = str.tostring(math.round\_to\_mintick(close\*(1+percent\_change)))

short\_exit\_price = str.tostring(math.round\_to\_mintick(close\*(1-percent\_change)))

if tewnty\_grid and close > low\_price and ( trade\_direction == 'LONG' or trade\_direction == 'BOTH')

if long\_1 and strategy.opentrades == 0 and inDateRange and stolloss\_close > low\_price

strategy.entry(id = "L\_1", direction = strategy.long,alert\_message = Long\_message, qty = qty\_new , comment = long\_exit\_price )

if strategy.opentrades == 1

strategy.exit(id = "E\_1",from\_entry = "L\_1", qty\_percent = 100,alert\_message =Long\_Exit\_message,stop = 0, limit = strategy.opentrades.entry\_price(strategy.opentrades - 1) \* (1+percent\_change))

if long\_2 and strategy.opentrades == 1 and inDateRange and stolloss\_close > low\_price and close < strategy.opentrades.entry\_price(strategy.opentrades - 1) \* (1-percent\_change)

strategy.entry(id = "L\_2", direction = strategy.long,alert\_message = Long\_message, qty = qty\_new , comment = long\_exit\_price)

if strategy.opentrades == 2

strategy.exit(id = "E\_2",from\_entry = "L\_2", qty\_percent = 100,alert\_message =Long\_Exit\_message, limit = strategy.opentrades.entry\_price(strategy.opentrades - 1) \* (1+percent\_change))

if long\_3 and strategy.opentrades == 2 and inDateRange and stolloss\_close > low\_price and close < strategy.opentrades.entry\_price(strategy.opentrades - 1) \* (1-percent\_change)

strategy.entry(id = "L\_3", direction = strategy.long,alert\_message = Long\_message, qty = qty\_new , comment = long\_exit\_price)

if strategy.opentrades == 3

strategy.exit(id = "E\_3",from\_entry = "L\_3", qty\_percent = 100,alert\_message =Long\_Exit\_message,limit = strategy.opentrades.entry\_price(strategy.opentrades - 1) \* (1+percent\_change))

if long\_4 and strategy.opentrades == 3 and inDateRange and stolloss\_close > low\_price and close < strategy.opentrades.entry\_price(strategy.opentrades - 1) \* (1-percent\_change)

strategy.entry(id = "L\_4", direction = strategy.long,alert\_message = Long\_message, qty = qty\_new , comment = long\_exit\_price)

if strategy.opentrades == 4

strategy.exit(id = "E\_4",from\_entry = "L\_4", qty\_percent = 100,alert\_message =Long\_Exit\_message,limit = strategy.opentrades.entry\_price(strategy.opentrades - 1) \* (1+percent\_change))

if long\_5 and strategy.opentrades == 4 and inDateRange and stolloss\_close > low\_price and close < strategy.opentrades.entry\_price(strategy.opentrades - 1) \* (1-percent\_change)

strategy.entry(id = "L\_5", direction = strategy.long,alert\_message = Long\_message, qty = qty\_new , comment = long\_exit\_price)

if strategy.opentrades == 5

strategy.exit(id = "E\_5",from\_entry = "L\_5", qty\_percent = 100,alert\_message =Long\_Exit\_message, limit = strategy.opentrades.entry\_price(strategy.opentrades - 1) \* (1+percent\_change))

if long\_6 and strategy.opentrades == 5 and inDateRange and stolloss\_close > low\_price and close < strategy.opentrades.entry\_price(strategy.opentrades - 1) \* (1-percent\_change)

strategy.entry(id = "L\_6", direction = strategy.long,alert\_message = Long\_message, qty = qty\_new , comment = long\_exit\_price)

if strategy.opentrades == 6

strategy.exit(id = "E\_6",from\_entry = "L\_6", qty\_percent = 100,alert\_message =Long\_Exit\_message, limit = strategy.opentrades.entry\_price(strategy.opentrades - 1) \* (1+percent\_change))

if long\_7 and strategy.opentrades == 6 and inDateRange and stolloss\_close > low\_price and close < strategy.opentrades.entry\_price(strategy.opentrades - 1) \* (1-percent\_change)

strategy.entry(id = "L\_7", direction = strategy.long,alert\_message = Long\_message, qty = qty\_new , comment = long\_exit\_price)

if strategy.opentrades == 7

strategy.exit(id = "E\_7",from\_entry = "L\_7", qty\_percent = 100,alert\_message =Long\_Exit\_message, limit = strategy.opentrades.entry\_price(strategy.opentrades - 1) \* (1+percent\_change))

if long\_8 and strategy.opentrades == 7 and inDateRange and stolloss\_close > low\_price and close < strategy.opentrades.entry\_price(strategy.opentrades - 1) \* (1-percent\_change)

strategy.entry(id = "L\_8", direction = strategy.long,alert\_message = Long\_message, qty = qty\_new , comment = long\_exit\_price)

if strategy.opentrades == 8

strategy.exit(id = "E\_8",from\_entry = "L\_8", qty\_percent = 100,alert\_message =Long\_Exit\_message, limit = strategy.opentrades.entry\_price(strategy.opentrades - 1) \* (1+percent\_change))

if long\_9 and strategy.opentrades == 8 and inDateRange and stolloss\_close > low\_price and close < strategy.opentrades.entry\_price(strategy.opentrades - 1) \* (1-percent\_change)

strategy.entry(id = "L\_9", direction = strategy.long,alert\_message = Long\_message, qty = qty\_new , comment = long\_exit\_price)

if strategy.opentrades == 9

strategy.exit(id = "E\_9",from\_entry = "L\_9", qty\_percent = 100,alert\_message =Long\_Exit\_message, limit = strategy.opentrades.entry\_price(strategy.opentrades - 1) \* (1+percent\_change))

if long\_10 and strategy.opentrades == 9 and inDateRange and stolloss\_close > low\_price and close < strategy.opentrades.entry\_price(strategy.opentrades - 1) \* (1-percent\_change)

strategy.entry(id = "L\_10", direction = strategy.long,alert\_message = Long\_message, qty = qty\_new , comment = long\_exit\_price)

if strategy.opentrades == 10

strategy.exit(id = "E\_10",from\_entry = "L\_10", qty\_percent = 100,alert\_message =Long\_Exit\_message, limit = strategy.opentrades.entry\_price(strategy.opentrades - 1) \* (1+percent\_change))

if use\_stop and stolloss\_close < low\_price and strategy.position\_size > 0

strategy.close\_all(alert\_message =Long\_Stop\_message)

//if tewnty\_grid and direction > 0

if tewnty\_grid and close < high\_price and ( trade\_direction == 'SHORT' or trade\_direction == 'BOTH')

if short\_1 and strategy.opentrades == 0 and inDateRange and stolloss\_close < high\_price

strategy.entry(id = "S\_1", direction = strategy.short,alert\_message = Short\_message, qty = qty\_new , comment = short\_exit\_price)

if strategy.opentrades == 1

strategy.exit(id = "ES\_1",from\_entry = "S\_1", qty\_percent = 100,alert\_message =Short\_Exit\_message, limit = strategy.opentrades.entry\_price(strategy.opentrades - 1)\*(1-percent\_change))

if short\_2 and strategy.opentrades == 1 and inDateRange and stolloss\_close < high\_price and close > strategy.opentrades.entry\_price(strategy.opentrades - 1) \* (1+percent\_change)

strategy.entry(id = "S\_2",direction = strategy.short,alert\_message = Short\_message, qty = qty\_new , comment = short\_exit\_price)

if strategy.opentrades == 2

strategy.exit(id = "ES\_2",from\_entry = "S\_2", qty\_percent = 100,alert\_message =Short\_Exit\_message, limit = strategy.opentrades.entry\_price(strategy.opentrades - 1)\*(1-percent\_change))

if short\_3 and strategy.opentrades == 2 and inDateRange and stolloss\_close < high\_price and close > strategy.opentrades.entry\_price(strategy.opentrades - 1) \* (1+percent\_change)

strategy.entry(id = "S\_3", direction = strategy.short,alert\_message = Short\_message, qty = qty\_new , comment = short\_exit\_price)

if strategy.opentrades == 3

strategy.exit(id = "ES\_3",from\_entry = "S\_3", qty\_percent = 100,alert\_message =Short\_Exit\_message, limit = strategy.opentrades.entry\_price(strategy.opentrades - 1)\*(1-percent\_change))

if short\_4 and strategy.opentrades == 3 and inDateRange and stolloss\_close < high\_price and close > strategy.opentrades.entry\_price(strategy.opentrades - 1) \* (1+percent\_change)

strategy.entry(id = "S\_4", direction = strategy.short,alert\_message = Short\_message, qty = qty\_new , comment = short\_exit\_price )

if strategy.opentrades == 4

strategy.exit(id = "ES\_4",from\_entry = "S\_4", qty\_percent = 100,alert\_message =Short\_Exit\_message,limit = strategy.opentrades.entry\_price(strategy.opentrades - 1)\*(1-percent\_change))

if short\_5 and strategy.opentrades == 4 and inDateRange and stolloss\_close < high\_price and close > strategy.opentrades.entry\_price(strategy.opentrades - 1) \* (1+percent\_change)

strategy.entry(id = "S\_5", direction = strategy.short,alert\_message = Short\_message, qty = qty\_new , comment = short\_exit\_price)

if strategy.opentrades == 5

strategy.exit(id = "ES\_5",from\_entry = "S\_5", qty\_percent = 100,alert\_message =Short\_Exit\_message, limit = strategy.opentrades.entry\_price(strategy.opentrades - 1)\*(1-percent\_change))

if short\_6 and strategy.opentrades == 5 and inDateRange and stolloss\_close < high\_price and close > strategy.opentrades.entry\_price(strategy.opentrades - 1) \* (1+percent\_change)

strategy.entry(id = "S\_6", direction = strategy.short,alert\_message = Short\_message, qty = qty\_new , comment = short\_exit\_price )

if strategy.opentrades == 6

strategy.exit(id = "ES\_6",from\_entry = "S\_6", qty\_percent = 100,alert\_message =Short\_Exit\_message, limit = strategy.opentrades.entry\_price(strategy.opentrades - 1)\*(1-percent\_change))

if short\_7 and strategy.opentrades == 6 and inDateRange and stolloss\_close < high\_price and close > strategy.opentrades.entry\_price(strategy.opentrades - 1) \* (1+percent\_change)

strategy.entry(id = "S\_7", direction = strategy.short,alert\_message = Short\_message, qty = qty\_new , comment = short\_exit\_price )

if strategy.opentrades == 7

strategy.exit(id = "ES\_7",from\_entry = "S\_7", qty\_percent = 100,alert\_message =Short\_Exit\_message, limit = strategy.opentrades.entry\_price(strategy.opentrades - 1)\*(1-percent\_change))

if short\_8 and strategy.opentrades == 7 and inDateRange and stolloss\_close < high\_price and close > strategy.opentrades.entry\_price(strategy.opentrades - 1) \* (1+percent\_change)

strategy.entry(id = "S\_8", direction = strategy.short,alert\_message = Short\_message, qty = qty\_new , comment = short\_exit\_price )

if strategy.opentrades == 8

strategy.exit(id = "ES\_8",from\_entry = "S\_8", qty\_percent = 100,alert\_message =Short\_Exit\_message, limit = strategy.opentrades.entry\_price(strategy.opentrades - 1)\*(1-percent\_change))

if short\_9 and strategy.opentrades == 8 and inDateRange and stolloss\_close < high\_price and close > strategy.opentrades.entry\_price(strategy.opentrades - 1) \* (1+percent\_change)

strategy.entry(id = "S\_9", direction = strategy.short,alert\_message = Short\_message, qty = qty\_new , comment = short\_exit\_price )

if strategy.opentrades == 9

strategy.exit(id = "ES\_9",from\_entry = "S\_9", qty\_percent = 100,alert\_message =Short\_Exit\_message, limit = strategy.opentrades.entry\_price(strategy.opentrades - 1)\*(1-percent\_change))

if short\_10 and strategy.opentrades == 9 and inDateRange and stolloss\_close < high\_price and close > strategy.opentrades.entry\_price(strategy.opentrades - 1) \* (1+percent\_change)

strategy.entry(id = "S\_10", direction = strategy.short,alert\_message = Short\_message, qty = qty\_new , comment = short\_exit\_price )

if strategy.opentrades == 10

strategy.exit(id = "ES\_10",from\_entry = "S\_10", qty\_percent = 100,alert\_message =Short\_Exit\_message, limit = strategy.opentrades.entry\_price(strategy.opentrades - 1)\*(1-percent\_change))

if use\_stop and stolloss\_close > high\_price and strategy.position\_size < 0

strategy.close\_all(alert\_message =Short\_Stop\_message)

//// ####################################################################################

// Plot Functions

plot(strategy.position\_size < 0 ? strategy.opentrades.entry\_price(strategy.opentrades - 1)\*(1-percent\_change) : na , color= color.rgb(247, 85, 85), linewidth= 1, style=plot.style\_cross)

plot(strategy.position\_size > 0 ? strategy.opentrades.entry\_price(strategy.opentrades - 1)\*(1+percent\_change) : na , color= color.rgb(136, 247, 85), linewidth= 1, style=plot.style\_cross)

plot(request.security(syminfo.tickerid, res(Resolution), close), color= show\_stop\_res ? color.fuchsia : na )

//plot(strategy.position\_avg\_price, color= color.rgb(251, 176, 64) )

//plot(strategy.opentrades.entry\_price(0),color = color.black)

// #########################################################################################################

plot(inDateRange ? (high\_price + low\_price) / 2 : na , color= color.rgb(0, 68, 255), linewidth = 2 )

plot(inDateRange ? high\_price : na, color= color.rgb(0, 0, 0), linewidth =3 )

plot(inDateRange ? low\_price : na, color= color.rgb(255, 255, 255), linewidth =3 )

// #########################################################################################################

// high\_price = math.round\_to\_mintick(request.security(syminfo.tickerid, res(Resolution), ta.highest(upper,band\_length)))

// low\_price = math.round\_to\_mintick(request.security(syminfo.tickerid, res(Resolution), ta.lowest(lower,band\_length)))

// #########################################################################################################

var float new\_ten\_grid\_1 = na

var float new\_ten\_grid\_2 = na

var float new\_ten\_grid\_3 = na

var float new\_ten\_grid\_4 = na

var float new\_ten\_grid\_5 = na

var float new\_ten\_grid\_6 = na

var float new\_ten\_grid\_7 = na

var float new\_ten\_grid\_8 = na

var float new\_ten\_grid\_9 = na

var float new\_ten\_grid\_10 = na

if ten\_grid == true and show\_grid\_level\_bg and inDateRange

new\_ten\_grid\_1 := grid\_1

new\_ten\_grid\_2 := grid\_2

new\_ten\_grid\_3 := grid\_3

new\_ten\_grid\_4 := grid\_4

new\_ten\_grid\_5 := grid\_5

new\_ten\_grid\_6 := grid\_6

new\_ten\_grid\_7 := grid\_7

new\_ten\_grid\_8 := grid\_8

new\_ten\_grid\_9 := grid\_9

new\_ten\_grid\_10 := grid\_10

else if ten\_grid == false

new\_ten\_grid\_1 := na

new\_ten\_grid\_2 := na

new\_ten\_grid\_3 := na

new\_ten\_grid\_4 := na

new\_ten\_grid\_5 := na

new\_ten\_grid\_6 := na

new\_ten\_grid\_7 := na

new\_ten\_grid\_8 := na

new\_ten\_grid\_9 := na

new\_ten\_grid\_10 := na

fill(plot(new\_ten\_grid\_1, color = color.new(color.green, 90)),

plot(new\_ten\_grid\_2, color = color.new(color.green, 90)),

color = color.new(color.green, 90))

fill(plot(new\_ten\_grid\_2, color = color.new(color.green, 85)),

plot(new\_ten\_grid\_3, color = color.new(color.green, 85)),

color = color.new(color.green, 85))

fill(plot(new\_ten\_grid\_3, color = color.new(color.green, 80)),

plot(new\_ten\_grid\_4, color = color.new(color.green, 80)),

color = color.new(color.green, 80))

fill(plot(new\_ten\_grid\_4, color = color.new(color.green, 70)),

plot(new\_ten\_grid\_5, color = color.new(color.green, 70)),

color = color.new(color.green, 70))

fill(plot(new\_ten\_grid\_5, color = color.new(color.green, 60)),

plot(new\_ten\_grid\_6, color = color.new(color.green, 60)),

color = color.new(color.green, 60))

fill(plot(new\_ten\_grid\_6, color = color.new(color.red, 60)),

plot(new\_ten\_grid\_7, color = color.new(color.red, 60)),

color = color.new(color.red, 60))

fill(plot(new\_ten\_grid\_7, color = color.new(color.red, 70)),

plot(new\_ten\_grid\_8, color = color.new(color.red, 70)),

color = color.new(color.red, 70))

fill(plot(new\_ten\_grid\_8, color = color.new(color.red, 80)),

plot(new\_ten\_grid\_9, color = color.new(color.red, 80)),

color = color.new(color.red, 80))

fill(plot(new\_ten\_grid\_9, color = color.new(color.red, 85)),

plot(new\_ten\_grid\_10, color = color.new(color.red, 85)),

color = color.new(color.red, 85))

// // #########################################################################################################

var float new\_twenty\_grid\_1 = na

var float new\_twenty\_grid\_2 = na

var float new\_twenty\_grid\_3 = na

var float new\_twenty\_grid\_4 = na

var float new\_twenty\_grid\_5 = na

var float new\_twenty\_grid\_6 = na

var float new\_twenty\_grid\_7 = na

var float new\_twenty\_grid\_8 = na

var float new\_twenty\_grid\_9 = na

var float new\_twenty\_grid\_10 = na

var float new\_twenty\_grid\_11 = na

var float new\_twenty\_grid\_12 = na

var float new\_twenty\_grid\_13 = na

var float new\_twenty\_grid\_14 = na

var float new\_twenty\_grid\_15 = na

var float new\_twenty\_grid\_16 = na

var float new\_twenty\_grid\_17 = na

var float new\_twenty\_grid\_18 = na

var float new\_twenty\_grid\_19 = na

var float new\_twenty\_grid\_20 = na

if tewnty\_grid == true and show\_grid\_level\_bg and inDateRange

new\_twenty\_grid\_1 := grid\_1

new\_twenty\_grid\_2 := grid\_2

new\_twenty\_grid\_3 := grid\_3

new\_twenty\_grid\_4 := grid\_4

new\_twenty\_grid\_5 := grid\_5

new\_twenty\_grid\_6 := grid\_6

new\_twenty\_grid\_7 := grid\_7

new\_twenty\_grid\_8 := grid\_8

new\_twenty\_grid\_9 := grid\_9

new\_twenty\_grid\_10 := grid\_10

new\_twenty\_grid\_11 := grid\_11

new\_twenty\_grid\_12 := grid\_12

new\_twenty\_grid\_13 := grid\_13

new\_twenty\_grid\_14 := grid\_14

new\_twenty\_grid\_15 := grid\_15

new\_twenty\_grid\_16 := grid\_16

new\_twenty\_grid\_17 := grid\_17

new\_twenty\_grid\_18 := grid\_18

new\_twenty\_grid\_19 := grid\_19

new\_twenty\_grid\_20 := grid\_20

else if tewnty\_grid == false

new\_twenty\_grid\_1 := na

new\_twenty\_grid\_2 := na

new\_twenty\_grid\_3 := na

new\_twenty\_grid\_4 := na

new\_twenty\_grid\_5 := na

new\_twenty\_grid\_6 := na

new\_twenty\_grid\_7 := na

new\_twenty\_grid\_8 := na

new\_twenty\_grid\_9 := na

new\_twenty\_grid\_10 := na

new\_twenty\_grid\_11 := na

new\_twenty\_grid\_12 := na

new\_twenty\_grid\_13 := na

new\_twenty\_grid\_14 := na

new\_twenty\_grid\_15 := na

new\_twenty\_grid\_16 := na

new\_twenty\_grid\_17 := na

new\_twenty\_grid\_18 := na

new\_twenty\_grid\_19 := na

new\_twenty\_grid\_20 := na

fill(plot(new\_twenty\_grid\_1, color = color.new(color.green, 90)),

plot(new\_twenty\_grid\_2, color = color.new(color.green, 90)),

color = color.new(color.green, 90))

fill(plot(new\_twenty\_grid\_2, color = color.new(color.green, 85)),

plot(new\_twenty\_grid\_3, color = color.new(color.green, 85)),

color = color.new(color.green, 85))

fill(plot(new\_twenty\_grid\_3, color = color.new(color.green, 80)),

plot(new\_twenty\_grid\_4, color = color.new(color.green, 80)),

color = color.new(color.green, 80))

fill(plot(new\_twenty\_grid\_4, color = color.new(color.green, 70)),

plot(new\_twenty\_grid\_5, color = color.new(color.green, 70)),

color = color.new(color.green, 70))

fill(plot(new\_twenty\_grid\_5, color = color.new(color.green, 60)),

plot(new\_twenty\_grid\_6, color = color.new(color.green, 60)),

color = color.new(color.green, 60))

fill(plot(new\_twenty\_grid\_6, color = color.new(color.green, 60)),

plot(new\_twenty\_grid\_7, color = color.new(color.green, 60)),

color = color.new(color.green, 60))

fill(plot(new\_twenty\_grid\_7, color = color.new(color.green, 70)),

plot(new\_twenty\_grid\_8, color = color.new(color.green, 70)),

color = color.new(color.green, 70))

fill(plot(new\_twenty\_grid\_8, color = color.new(color.green, 80)),

plot(new\_twenty\_grid\_9, color = color.new(color.green, 80)),

color = color.new(color.green, 80))

fill(plot(new\_twenty\_grid\_9, color = color.new(color.green, 85)),

plot(new\_twenty\_grid\_10, color = color.new(color.green, 85)),

color = color.new(color.green, 85))

fill(plot(new\_twenty\_grid\_10, color = color.new(color.red, 90)),

plot(new\_twenty\_grid\_11, color = color.new(color.red, 90)),

color = color.new(color.red, 90))

fill(plot(new\_twenty\_grid\_11, color = color.new(color.red, 85)),

plot(new\_twenty\_grid\_12, color = color.new(color.red, 85)),

color = color.new(color.red, 85))

fill(plot(new\_twenty\_grid\_12, color = color.new(color.red, 80)),

plot(new\_twenty\_grid\_13, color = color.new(color.red, 80)),

color = color.new(color.red, 80))

fill(plot(new\_twenty\_grid\_13, color = color.new(color.red, 70)),

plot(new\_twenty\_grid\_14, color = color.new(color.red, 70)),

color = color.new(color.red, 70))

fill(plot(new\_twenty\_grid\_14, color = color.new(color.red, 60)),

plot(new\_twenty\_grid\_15, color = color.new(color.red, 60)),

color = color.new(color.red, 60))

fill(plot(new\_twenty\_grid\_15, color = color.new(color.red, 60)),

plot(new\_twenty\_grid\_16, color = color.new(color.red, 60)),

color = color.new(color.red, 60))

fill(plot(new\_twenty\_grid\_16, color = color.new(color.red, 70)),

plot(new\_twenty\_grid\_17, color = color.new(color.red, 70)),

color = color.new(color.red, 70))

fill(plot(new\_twenty\_grid\_17, color = color.new(color.red, 80)),

plot(new\_twenty\_grid\_18, color = color.new(color.red, 80)),

color = color.new(color.red, 80))

fill(plot(new\_twenty\_grid\_18, color = color.new(color.red, 85)),

plot(new\_twenty\_grid\_19, color = color.new(color.red, 85)),

color = color.new(color.red, 85))

fill(plot(new\_twenty\_grid\_19, color = color.new(color.red, 85)),

plot(new\_twenty\_grid\_20, color = color.new(color.red, 85)),

color = color.new(color.red, 85))

// // #########################################################################################################