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- ( ) :

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-

## Market Makers

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  - Market Makers
  - -
  - 
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- -
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  - -
- 
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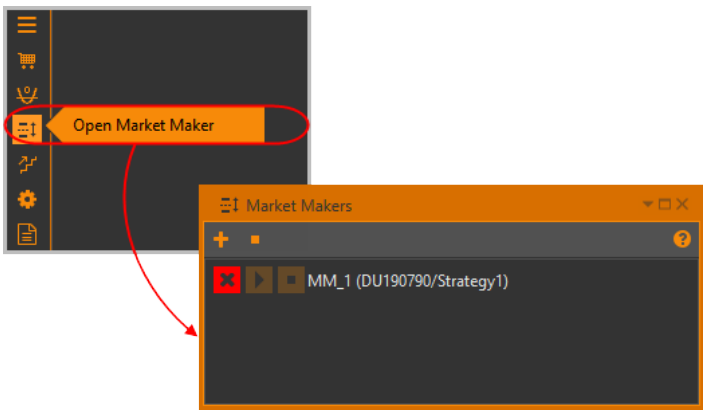
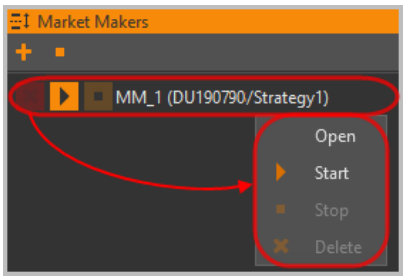
**Market Makers** (. 1).



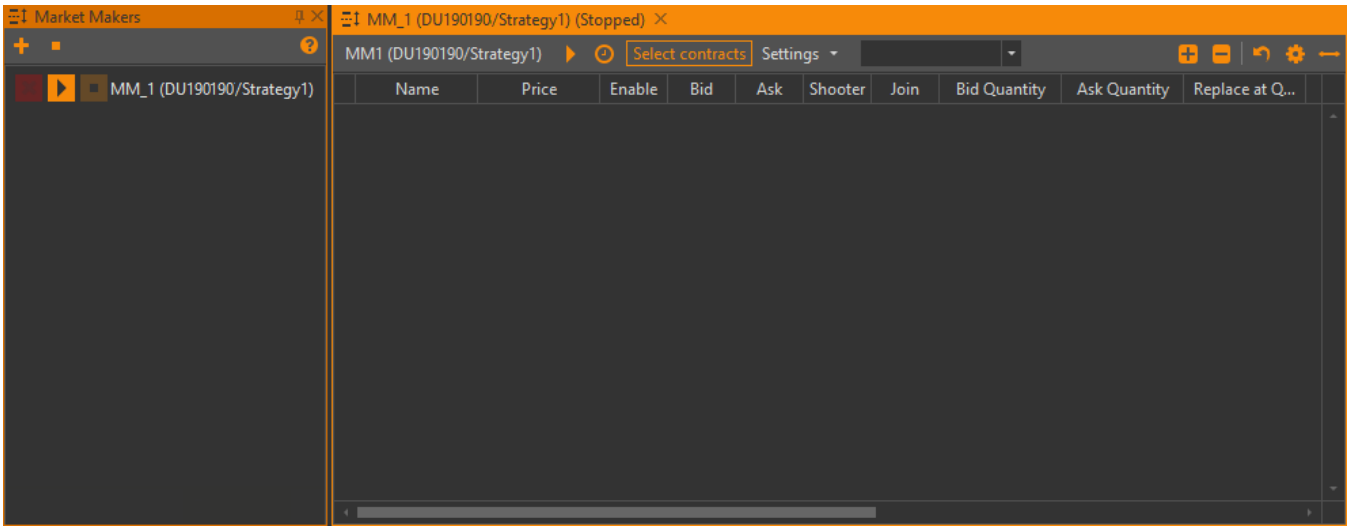

1 – **Market Makers**

(. 2).


Market Makers
MM_1 (DU190790/Strategy1)
Open
Start
Stop
Delete

2 –

, , **Open**. .

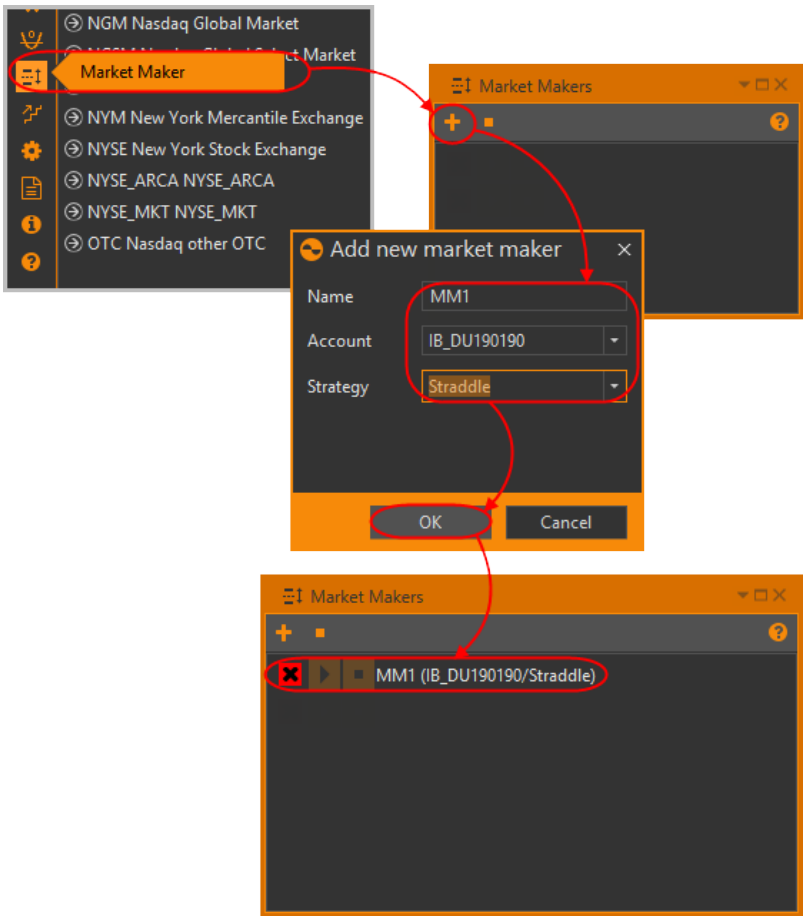

Market Makers
MM_1 (DU190190/Strategy1)
MM_1 (DU190190/Strategy1) (Stopped)
MM1 (DU190190/Strategy1)
Select contracts
Settings
Name
Price
Enable
Bid
Ask
Shooter
Join
Bid Quantity
Ask Quantity
Replace at Q...

3 –

, , .

**-**

, .

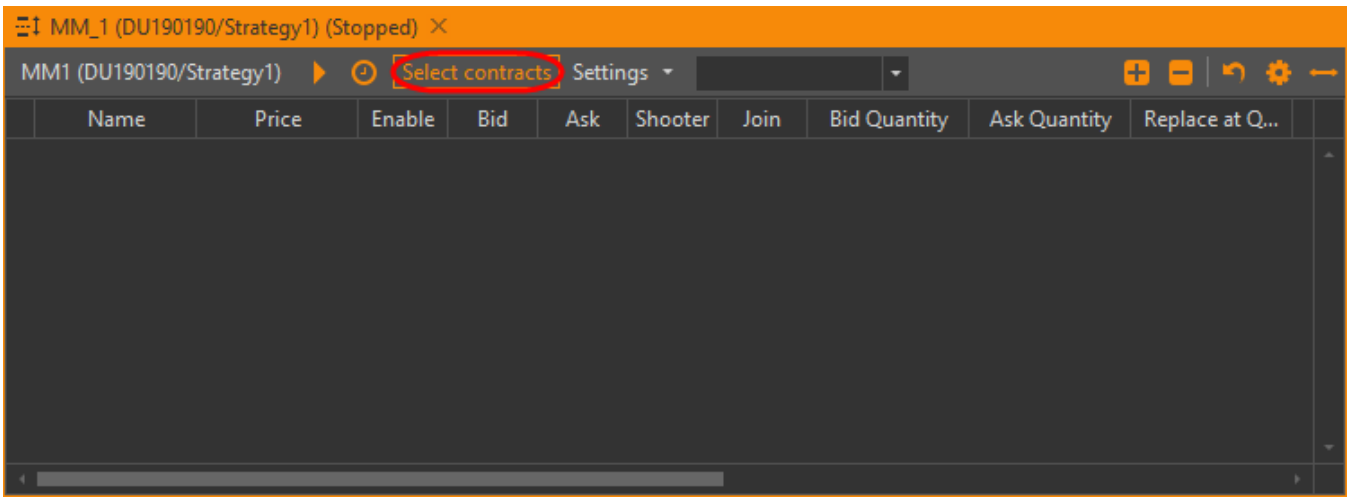



4 –

, .

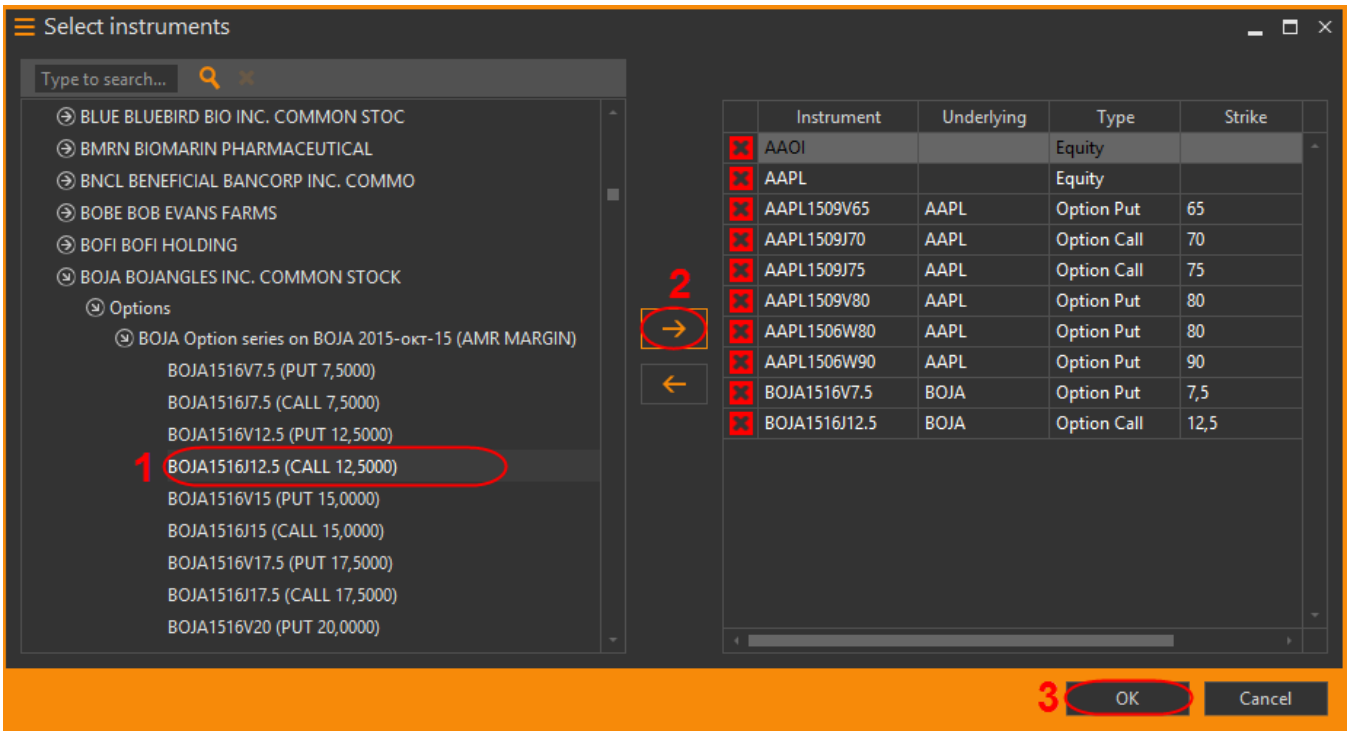
:

- / .
- .
- **Select contracts**.



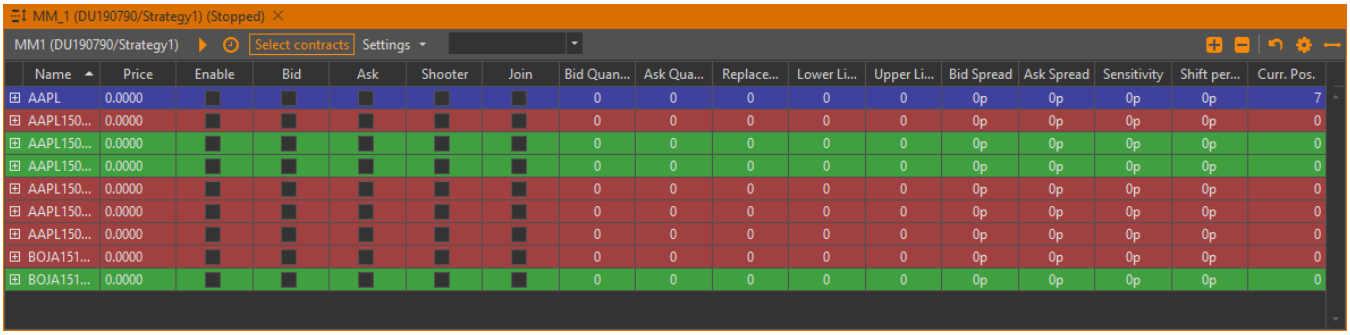
5 –

(. 6[1]), (. 6[2]), (. 6[3]). , .




6 –

.

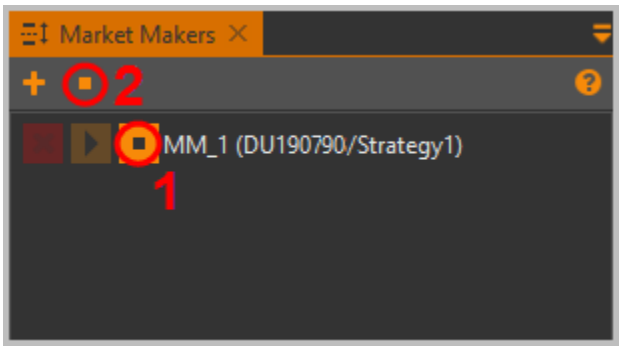



7 –

PUT, – CALL, – . (. -).

/ , **Open**, :

1. : Start/Stop;
2. : / (. 8 [1]) **Market Makers**. (. 8 [2]).




8 –

, (. . 7). , **Market Makers**.

**-**

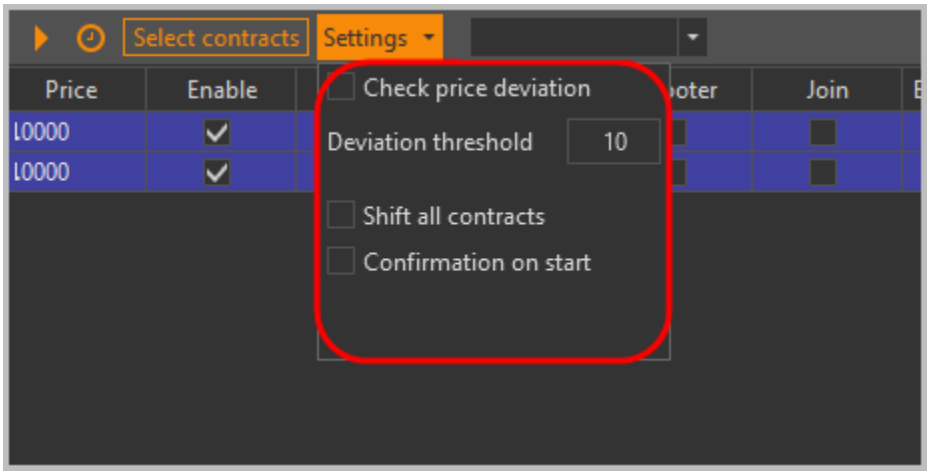
, . , , (. 1).

**1 –**

| | |
|---|---|
| **Name** | |
| **Price** | |
| **Enable** | , , . **Bid / Ask** |
| **Bid** | |
| **Ask** | |
| **Shooter** | |
| **Join** | |
| **Bid Quantity** | . :<br>• (, 1 5);<br>• (, 1d 2.5d). , ( ) |
| **Ask Quantity** | . **Bid Quantity** |
| **Replace at Quantity** | , |
| **Lower Limit** | . . "". . :<br>• - = **100**,<br>• = **120**,<br>• = **30.**<br>(**100**), **20** |
| **Upper Limit** | . . "". . ,<br>• - = **100**,<br>• = **80**,<br>• = **30**.<br>(**100**), **20** |

| | |
|---|---|
| **Bid Spread** | bid . :<br><br>• (, 100p 100);<br>• (, 2v);<br>• (, 10%);<br>• "".<br><br>(. ) |
| **Ask Spread** | ask . **Bid Spread** , , , ""<br><br>(. ) |
| **Sensitivity** | . :<br><br>• (, 100p 100);<br>• (, 2v).<br><br>,<br><br>• = **4000**,<br>• = **10**.<br><br>**10** (**<3990 >4010**), |
| **Shift per contract** | - . :<br><br>• (, 100p 100);<br>• (, 2v).<br><br>, **5**, , : **+ 5*3**. |
| **Curr. Pos.** | T |

**Settings** . , **Apply changes**.

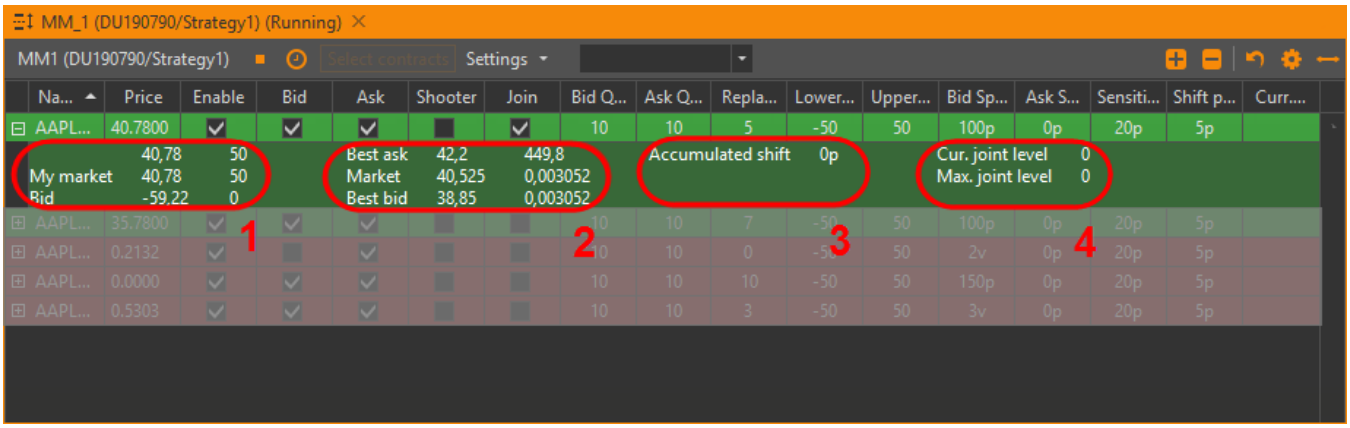



9 –

**2 –**

| | |
|---|---|
| **Check price deviation** | -. **Deviation threshold**, |
| **Deviation threshold** | - |
| **Shift all contracts** | **Shift per contract** |
| **Confirmation on start** | |

, .



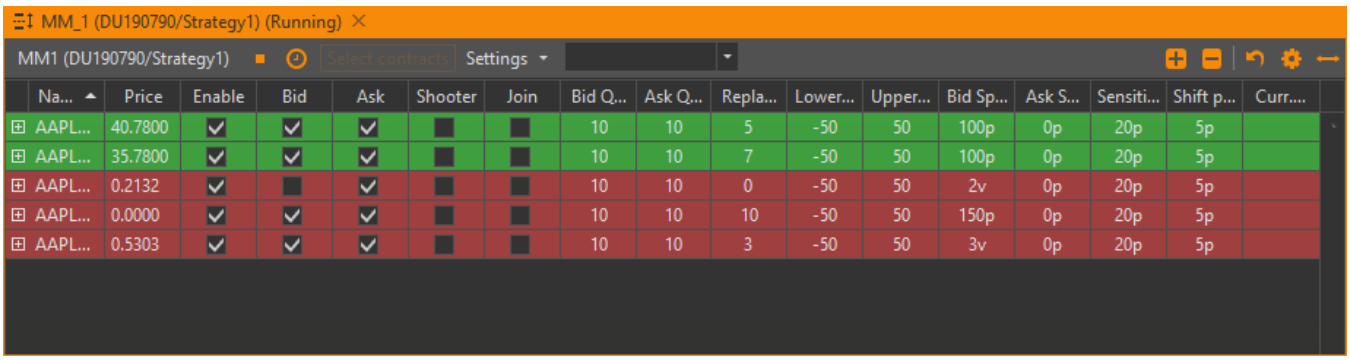

10 –

/ / .

:

1. bid ask, -. ;
2. ;
3. **Accumulated shift** ( , **Shift per contract**);
4. , :
   - **Cur. joint level** – ;
   - **Max. joint level** – ;
   - **Cur. upper limit** – bid, ;
   - **Cur. lower limit** – ask, .

11 , call – put. .




11 –

:

1. ask (. 3). sk, **AskQuantity**;

**3 –**

| **Spread** | **Ask** | **Bid** | |
|---|---|---|---|

| | | | |
|---|---|---|---|
| | $P_{ask}$ = T + AskSpread + Curr.pos * Shift per ontract | $P_{bid}$ = T - BidSpread + Curr.Pos * Shift per ontract | • T – ;<br>• Ask/BidSpread – ( +/-);<br>• Curr. Pos – ( +/-);<br>• Shift per ontract – - |
| | $P_{ask/bid}$ = $P_{teor}$ + Curr.pos * Shift per ontract | | • $P_{teor}$ – Ask /BidSpread ( +/-);<br>• Curr. Pos – ( +/-);<br>• Shift per ontract – - |
| | $P_{ask}$ = T+ AskSpread*T/100% + Curr.pos * Shift per ontract | $P_{bid}$ = T - BidSpread*T/100% + Curr.pos * Shift per ontract | • – ;<br>• Ask/BidSpread – % ( +/-)<br>• Curr. Pos – ( +/-);<br>• Shift per ontract – - |

2. bid (. .3). bid, **BidQuantity**;
3. , , ;
4. , :
   a. **Sensitivity**;
   b. **Replace at Quantity**;
5. .

(, ), . **Enable** .

:

- ( **Shooter**);
- ( **Join**).

. . **Shooter**. :

1. ask bid (. );
2. **$P_{ask}$** **Best bid**, ask.
   **Best bid** **AskQuantity**;
3. **$P_{bid}$** **Best ask**, bid.
   **Best ask** **BidQuantity**;
4. , ;
5. , 2 / 3.

/, .
, .

-

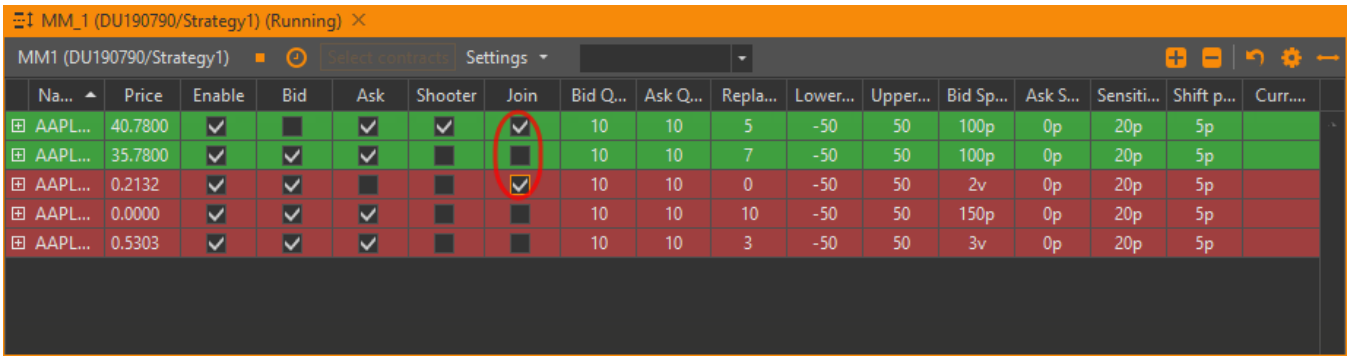
. , .

, **100** put **100** call. . . :

- put call ;
- **Upper limit=100**;
- **Quantity=5**.

, .

**Join**.




12 –

:

1. **Cur. joint level** – .

$L_i$ = Curr. Pos/Quantity, :

- Curr. Pos – ( +/-);
- Quantity – bid ask.

(. 4).

**4 – Cur. joint level**

| | **Bid** | **Ask** |
|---|---|---|
| **Current position** 0 | + | - |
| **Current position** < 0 | - | + |

, **Quantity=5**, **Curr. pos.=20**, **Bid**, **Cur. joint level=4**.

;

2. **Max. joint level**;

$L_{max} = \max(L_i)$

3. **Bid/Ask Quantity**, :
   a. (**Current joint level**) (**Max joint level**);
   b. (**Current joint level**).

**Lower limit**, **Upper limit**.

, – **Cur. upper limit** bid, **Cur. lower limit** ask. , , .

.

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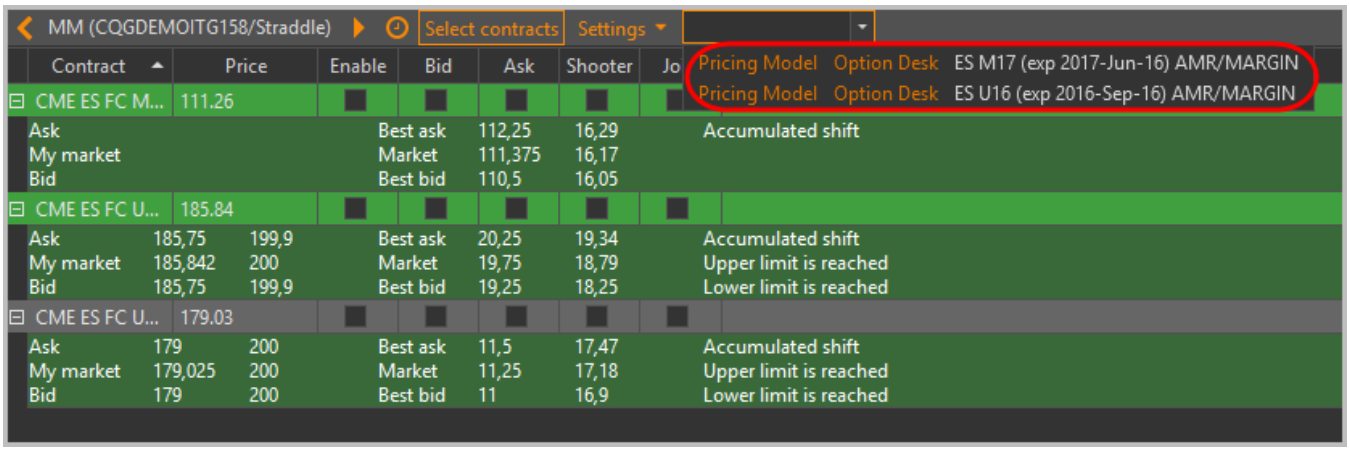
. , -. **Pricing model**. _. **Option desk** .


MM (CQGDEMOITG158/Straddle)
Select contracts
Settings
Contract
Price
Enable
Bid
Ask
Shooter
Jo
Pricing Model Option Desk ES M17 (exp 2017-Jun-16) AMR/MARGIN
Pricing Model Option Desk ES U16 (exp 2016-Sep-16) AMR/MARGIN
CME ES FC M... 111.26
Ask Best ask 112,25 16,29 Accumulated shift
My market Market 111,375 16,17
Bid Best bid 110,5 16,05
CME ES FC U... 185.84
Ask 185,75 199,9 Best ask 20,25 19,34 Accumulated shift
My market 185,842 200 Market 19,75 18,79 Upper limit is reached
Bid 185,75 199,9 Best bid 19,25 18,25 Lower limit is reached
CME ES FC U... 179.03
Ask 179 200 Best ask 11,5 17,47 Accumulated shift
My market 179,025 200 Market 11,25 17,18 Upper limit is reached
Bid 179 200 Best bid 11 16,9 Lower limit is reached

13 –

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