EQUITY MARKET

BISTECH FIX CERTIFICATION PROGRAM– ORDER ENTRY STAGE ADVANCED LEVEL

February 2024, Version 1.3

EQUITY MARKET
BISTECH FIX CERTIFICATION PROGRAM –
ORDER ENTRY STAGE –
ADVANCED LEVEL

…………………………………… A.Ş.' BISTECH FIX ORDER ENTRY STAGE CONNECTIVITY TEST

To The Attention of Our Members:

The purpose of this test is to enable our members to test their own systems as they are in BISTECH FIX environment.

Order entry part of the test is segmented according to required phases of routine operation. It comprises Opening Session, Continuous Transaction and Primary Market (Initial Public Offering Fixed Price Method) sections. Please note that Throttling (Maximum number of orders allowed in unit time) test is excluded.

Please perform the below transactions in order and make sure to check the messages incoming at every step when you carry out these transactions.

First, determine the impact expected to occur when order is sent to the system.

Whether expected impact occurred or not after order or any request is sent to the system will be controlled by dimensional and contextual integrity and accuracy of the response which reached you with respect to the activity at the first degree. By controlling whether the activities are accurately processed or not at your main system which is the source of the activities carried out from every channel at the back in the second degree, proper blanks below each option will be ticked.

Inform the officers immediately if an unexpected situation occurs.

Please send the document to Borsa Istanbul officers after filling the part spared for you at the end of the test.

Legal Liability fully pertains to the member in disputes which may arise between the customers and members who do not use optional order and transaction functions in their FIX programs which are taking part in existing transaction rules of Equity Market and allowed by Equity Market to be used with BISTECH FIX.

For this reason, we recommend our members to inform their customers on this subject and form the proper legal basis with their customers.

Our members are fully responsible for faultless perform of the member system.

Contents

SECTION 1:

CONNECTIVITY TEST

1. **Logon with Password Change**
   - ➢ Send the first Logon message of the day with sequence number 1. (Password=LLL)
   - ➢ Receive Logout message from the system with "Password Expired" message. (SessionStatus=8 – Password Expired)

   ( ) Expected messages are received.   ( ) Problem with messages

   - ➢ Send Logon message with Password Change. (554=LLL 925=MMM). Receive Logon message from the system with "Password Changed" status.

   ( ) Expected messages are received.   ( ) Problem with messages

2. **Logout Message**
   - ➢ Send Logout message and receive Logout message from the system with "Logout Complete".

   ( ) Expected messages are received.   ( ) Problem with messages

3. **Logon Message with Reset Sequence Number Flag**
   - ➢ Send Logon message with reset sequence number. (ResetSeqNumFlag=Y, SeqNum=1). Receive Logon message from the system with "Active" status. (SessionStatus=0 SeqNum=1)

   ( ) Expected messages are received.   ( ) Problem with messages

4. **Sending Resend Request Message**
   <u>Enter Order</u>
   - ➢ Send below orders to the system and receive Execution reports (Accepted):
     - o   AKBNK.E BUY Price: 5.000 Quantity: 5 Lot   **[ClOrdID=1]**
     - o   GARAN.E BUY Price: 5.010 Quantity: 10 Lot   **[ClOrdID=2]**
     - o   NETAS.E BUY Price: 5.020 Quantity: 15 Lot   **[ClOrdID=3]**
     - o   ZOREN.E BUY Price: 5.030 Quantity: 20 Lot   **[ClOrdID=4]**

   ( ) Expected messages are received.   ( ) Problem with messages

Logout
➢ Send Logout message and receive Logout message.

( ) Expected messages are received. ( ) Problem with messages

Executions

While user is logged out, orders that will match with user's orders will be entered to the system. Orders of the user will be executed and execution messages (Execution Report - Trade) will be written to the message queue of the user.

Logon and Resend Request
➢ Send Logon message to the system without resetting the sequence number and receive Logon message from the system.

( ) Expected messages are received. ( ) Problem with messages

➢ Send Resend Request message to the system due the fact that higher sequence number than expected is received. Following Execution Report messages will be received from the system as response to the Resend Request:

o AKBNK.E BUY Price: 5.000 Quantity: 5 Lot fully traded.
o GARAN.E BUY Price: 5.010 Quantity: 10 Lot fully traded.
o NETAS.E BUY Price: 5.020 Quantity: 15 Lot fully traded.
o ZOREN.E BUY Price: 5.03 Quantity: 20 Lot fully traded.

( ) Expected messages are received. ( ) Problem with messages

5. **Logout**
➢ Send Logout message and receive Logout message.

( ) Expected messages are received. ( ) Problem with messages

6. Replying Resend Request Message

Before user logs in to the system, expected sequence number on the server side will be decreased to a lower number manually. When user logs in to the system without resetting the sequence number, Resend Request message will be sent from the system.

<u>Logon</u>
➢ Send Logon message **<u>without</u>** resetting Sequence number and receive Logon message from system.

( ) Expected messages are received.   ( ) Problem with messages

➢ Resend request message will be received from the system right after the Logon message. Resend Request message must be replied according to below principals. System will not respond with any message if there is not a problem with resent messages.
  o Sequence Reset message with GapFillFlag=Y and NewSeqNum field should be sent instead of session messages that will be resent.
  o Application messages should be resent with PossDupFlag=Y and OrigSendingTime fields.

( ) Expected messages are sent.   ( ) Problem with messages

7. Logout
➢ Send Logout message and receive Logout message.

( ) Expected messages are received.   ( ) Problem with messages

SECTION 2 :

ORDER ENTRY AND FUNCTIONALITY

8

Instruments that will be used during test are listed below with Partition and Base Price information:

SYMBOL	Partition	Base Price		SYMBOL	Partition	Base Price
ACSEL.E	1	6.000		GARAN.R	2	-
AEFES.E	1	5.000		GARAN.TE	2	5.000
AKCNS.E	1	5.000		GARAN.TR	2	5.000
ADEL.E	1	6.000		GASLA.V	2	-
ATAGY.E	1	5.000		ADAAA.C	1	-
ALCAR.E	1	5.000		GARAN.ME	1	5.000
AKBNK.E	1	5.000		EGGUB.E	1	14.480
AKGRT.E	1	5.000		GARAN.BE	1	-
ANSGR.E	1	5.000				
ARCLK.E	1	5.000				
ASELS.E	1	5.000				
ATLAS.E	1	5.000				
BIMAS.E	1	5.000				
AKBNK.AOF	1	5.000				
BAKAB.E	1	5.000				
DJIST.F	2	5.000				
FRIGO.E	2	0.21				
GARAN.E	2	5.000				
ZOREN.E	4	5.000				
NETAS.E	3	0.620				
BAGFS.E	1	15.000				

Reference Data (Security Definition, Security Status, Price Limits vs.) regarding the instruments that are listed will be available through FIX Reference Data connection.

Order Details:

- ✓ Orders should be **Limit** priced **Day** and **Client** orders unless it is noted otherwise.
- ✓ Expire Date for **Good Till Date** orders should be two workdays from test day. (Test day: 15.04.2015 Expire Date: 17.04.2015)
- ✓ For orders with AccountType **FUND,** AFK field with **XRM** value must be included in the order. (PartyGroup)
- ✓ Values of Account and Reference fields will be checked for only steps that indicate these values in the scenario. These fields should be sent in compliance with FIX Specification document.

DropCopy Connection

Connect to the DropCopy Port (will be given before test) with FIX DropCopy user. User should be stay connected during the test. After test is completed, message log file of DropCopy connection will be requested in addition to the message log files of FIX Order Entry connection.

> ➢ Send Logon message with resetting sequence number and receive Logon message from the system.

( ) Expected messages are received. ( ) Problem with messages

OPENING AUCTION

1. **ACSEL.E** enter orders listed below and receive Execution Reports (Accepted).

i.	ACSEL.E – BUY – 200 lot – 6.200 TL – Day - Client	**[ClOrdID=10]**
ii.	ACSEL.E – BUY – 90 lot – 6.090 TL – Day - Client	**[ClOrdID=20]**
iii.	ACSEL.E – BUY – 80 lot – 6.080 TL – Day - Client	**[ClOrd ID=30]**
iv.	ACSEL.E – BUY – 70 lot – 6.070 TL – Day - Client	**[ClOrdID=40]**
v.	ACSEL.E – BUY – 60 lot – 6.060 TL – Day - Client	**[ClOrdID=50]**
vi.	ACSEL.E – BUY – 50 lot – 6.050 TL – Immediate or Cancel - Client	**[ClOrdID=60]**
vii.	ACSEL.E – SELL – 20 lot – 6.100 TL – Day – Client	**[ClOrdID=70]**
viii.	ACSEL.E – SELL – 650 lot – 6.300 TL – Day - FON – AFK: XRM	**[ClOrdID=80]**

( ) Expected messages are received. ( ) Problem with messages

2. **ACSEL.E** cancel below orders and receive Execution Report messages. (cancelled)

    i.   (ClOrdID=20) ACSEL.E – BUY – 90 lot – 6.090 TL – Day - Client

                          [ClOrdID=90]

(   ) Expected messages are received.   (   ) Problem with messages

3. **ACSEL.E** modify quantity of below orders and receive Execution Report messages. (modified)

    i.   (ClOrdID=30) – BUY – <u>79 lot</u> – 6.080 TL – Day- Client

                          [ClOrdID=100]

(   ) Expected messages are received.   (   ) Problem with messages

4. **ACSEL.E** modify below orders as underlined and receive Execution Report messages.

    ii.   (ClOrdID=40) BUY – 70 lot – <u>6.060 TL</u> – Day – Client

                          [ClOrdID=110]

(   ) Expected messages are received.   (   ) Problem with messages

5. **AEFES.E** enter orders listed below and receive Execution Reports (Accepted).

i.	BUY – 100 lot – 5.200 TL – Day - Client	**[ClOrdID=120]**
ii.	BUY – 250 lot – Market – Immediate or Cancel(IoC) - Client	**[ClOrdID=130]**
iii.	BUY – 300 lot – Market – Immediate or Cancel – Portföy	**[ClOrdID=140]**
iv.	SELL – 15 lot – 5.100 – Day - Client	**[ClOrdID=150]**
v.	SELL – 25 lot – Market – Immediate or Cancel – Fon – AFK: XRM	**[ClOrdID=160]**
vi.	SELL – 35 lot – Market – Immediate or Cancel - Client	**[ClOrdID=170]**
vii.	SELL – 45 lot – Market – Immediate or Cancel - Client	**[ClOrdID=180]**

(   ) Expected messages are received.   (   ) Problem with messages

6. **AEFES.E** cancel below order and receive Execution Report message. (cancelled)

    i. (ClOrdID=170) SELL – 35 lot – Market –Immediate or Cancel- Client   **[ClOrdID=190]**

( ) Expected messages are received. ( ) Problem with messages

7. **AEFES.E** modify below order as underlined and receive Execution Report message.

i. (ClOrdID=180) SELL – <u>40</u> lot – Market –IoC- Client **[ClOrdID=200]**

( ) Expected messages are received. ( ) Problem with messages"

8. **AKCNS.E** enter orders listed below and receive Execution Reports (Accepted).

i. BUY – 100 lot – 5.200 TL – Day - Client **[ClOrdID=210]**
ii. BUY – 250 lot – Market to Limit – Day - Client **[ClOrdID=220]**
iii. BUY – 300 lot – Market to Limit – Immediate or Cancel – Portföy **[ClOrdID=230]**
iv. SELL – 15 lot – 5.100 TL – Day - Client **[ClOrdID=240]**

( ) Expected messages are received. ( ) Problem with messages

9. **ADEL.E** enter orders listed below and receive Execution Reports (Accepted).

    i.   BUY – 100 lot – 6.200 TL – Day - Client   **[ClOrdID=250]**
    ii.   BUY – 250 lot – Imbalance – IoC- Client   **[ClOrdID=260]**
    iii.   SELL –15 lot – 6.200 TL – Day – Client   **[ClOrdID=270]**
    iv.   SELL – 25 lot – Imbalance – IoC - Client   **[ClOrdID=280]**

    (   ) Expected messages are received.   (   ) Problem with messages

OPENING SESSION - MATCH

10. Opening Auction will be ended. Check the Execution Report and Trade Capture Report messages related with below executions on **ACSEL.E**.
    i.   Trade 1: 20 lot 6.200TL
    ii.   Trade 2: 10 lot 6.200 TL

    (   ) Expected messages are received.   (   ) Problem with messages

    Below Opening Auction order will be cancelled. Check the related Execution Report message.
    iii.   (ClOrdID=60) BUY – 50 lot – 6.050 TL – Limit - IoC - Client

    (   ) Expected messages are received.   (   ) Problem with messages

11. Opening Auction will be ended. Check the Execution Report and Trade Capture Report messages related with below executions on **AEFES.E**.
    i.   Trade 1: 25 lot 5.210 TL
    ii.   Trade 2: 40 lot 5.210 TL
    iii.   Trade 3: 15 lot 5.210 TL

    (   ) Expected messages are received.   (   ) Problem with messages

    Below Opening Auction orders will be cancelled. Check the related Execution Report messages.

    iv.   (ClOrdID=130) BUY – 170 lot – Market – IoC – Client
    v.   (ClOrdID=140) BUY – 300 lot – Market – IoC – Portfolio

    (   ) Expected messages are received.   (   ) Problem with messages

12. Opening Auction will be ended. Check the Execution Report and Trade Capture Report messages related with below executions on **AKCNS.E**.
   i.   Trade 1: 25 lot 5.210 TL
   ii. Trade 2: 15 lot 5.210 TL

( ) Expected messages are received.   (   ) Problem with messages

Below Opening Auction orders will be cancelled. Check the related Execution Report messages.
iii. (ClOrdID=230) BUY – 300 lot – Market to Limit – FaK – Portfolio

( ) Expected messages are received.   (   ) Problem with messages

13. Opening Auction will be ended. Check the Execution Report and Trade Capture Report messages related with below executions on **ADEL.E**.
   i.   Trade 1: 15 lot 6.200 TL
   ii. Trade 2: 25 lot 6.200 TL

( ) Expected messages are received.   (   ) Problem with messages

Below Opening Auction orders will be cancelled. Check the related Execution Report messages.
iii. (ClOrdID=260) BUY – 250 lot – Imbalance – IoC – Client

( ) Expected messages are received.   (   ) Problem with messages

CONTINOUS AUCTION

14. ZOREN.E enter below orders (2nd partition) and receive Execution Report messages.

    i.   BUY – 100 lot – 5.200 TL – Day – Client   **[ClOrdID=290]**

    ii.   SELL –20 lot – 5.200 TL – Day – Client   **[ClOrdID=300]**

Check Execution Messages and Trade Report messages of trade below.
  i. Trade 1: 20 lot 5.200 TL

(   ) Expected messages are received.   (   ) Problem with messages

15. ZOREN.E modify quantity of your partially traded order and receive Execution Report messages.

    i.   (ClOrdID=290) BUY – 70 lot* – 5.200 TL – Day – Client   **[ClOrdID=310]**

* Order with original quantity of 100 lots is partially executed and remains 80 lots in the orderbook befor modification. When order is modified as 70 lots, partially executed quantity will be extracted and passive order in the orderbook will be updated as 50 lots. Check and confirm that 50 is received in the LeavesQty field (151=50). *(This warning messages is for users who send Order Cancel Replace Request for order modification.)*

(   ) Expected messages are received.   (   ) Problem with messages

16. ZOREN.E modify quantity of your partially traded order and receive Execution Report messages.

    i.   (ClOrdID=310) BUY – 90 lot** – 5.200 TL – Day – Client   **[ClOrdID=320]**

** Order with original quantity of 100 lots is partially executed and remains 80 lots in the orderbook befor modification. When order is modified as 90 lots, partially executed quantity will be extracted and passive order in the orderbook will be updated as 70 lots. Check and confirm that 70 is received in the LeavesQty field (151=70). *(This warning messages is for users who send Order Cancel Replace Request for order modification.)*

(   ) Expected messages are received.   (   ) Problem with messages

17. ALCAR.E enter below orders (1st partition) and receive Execution Report messages.

    i.   BUY – 100 lot – 5.200 TL – Day - Client   **[ClOrdID=330]**

    ii.   SELL – 60 lot – 5.200 TL – Good Till Date (Two workdays from test day) – Client
                                                                             [ClOrdID=340]

Check Execution Messages and Trade Report messages of trades below.
    i.Trade 1: 60 lot 5.200 TL

(   ) Expected messages are received.   (   ) Problem with messages

18. ALCAR.E modify quantity of your partially traded order and receive Execution Report messages.

    i.(ClOrdID=330) BUY – <u>50 lot***</u> – 5.200 TL – Day – Client   **[ClOrdID=350]**

*** Order with original quantity of 100 lots is partially executed and remains 40 lots in the orderbook before modification. When order is modified as 50 lots, partially executed quantity will be extracted and passive order in the orderbook will be deleted. Check and confirm that 0 is received in the LeavesQty field (151=00). *(This warning messages is for users who send Order Cancel Replace Request for order modification.)*

(   ) Expected messages are received.   (   ) Problem with messages

19. AKBNK.E enter below orders and receive Execution Report messages.

    i.   BUY – 100 lot – 5.200 TL – Day - Client   **[ClOrdID=360]**
    ii.   BUY – 200 lot – 5.190 TL – Day - Client   **[ClOrdID=370]**
    iii.   SELL – 450 lot –Market – IoC – Client   **[ClOrdID=380]**

Check Execution Messages and Trade Report messages of trades below.
    i.Trade 1: 100 lot 5.200 TL
    ii.Trade 2: 200 lot 5.190 TL

Below order will be cancelled. Check the related Execution Report message:
    iii. (ClOrdID=380) 150 lot Market

(   ) Expected messages are received.   (   ) Problem with messages

20. AKGRT.E enter below orders and receive Execution Report messages.

    i.   BUY – 100 lot – 5.200 TL – Day - Client   **[ClOrdID=390]**

    ii.   BUY – 200 lot – 5.190 TL – Day - Client   **[ClOrdID=400]**

    iii.   SELL – 450 lot – Market to Limit – Good Till Date (Test Day) – Client

        [ClOrdID=410]

Check Execution Messages and Trade Report messages of trades below.
    i.Trade 1: 100 lot 5.200 TL

    ii.Rest of the partially traded Market to Limit (350 lot) order will be placed in the orderbook at price level 5.200 TL. No messages will be received for this transaction.

(   ) Expected messages are received.   (   ) Problem with messages

21. ANSGR.E enter below orders and receive Execution Report messages.

    i.   BUY – 100 lot – 5.200 TL – Day - Client   **[ClOrdID=420]**

    ii.   BUY – 200 lot – 5.190 TL – Day - Client   **[ClOrdID=430]**

    iii.   SELL – 450 lot – Market to Limit – IoC – Client   **[ClOrdID=440]**

Check Execution Messages and Trade Report messages of trades below.
    i.Trade 1: 100 lot 5.200 TL

    ii.Rest of the partially traded Market to Limit (350 lot) order will be placed in the orderbook at price level 5.200 TL. No messages will be received for this transaction.

(   ) Expected messages are received.   (   ) Problem with messages

22. ARCLK.E enter below orders and receive Execution Report messages.

    i.   BUY – 100 lot Appearable Amount Miktar - 500 toplam Miktar (Partial Appearance Conditional Order / Iceberg)– 5.200 TL – Day - Client   **[ClOrdID=450]**

    ii.   BUY – 200 lot – 5.190 TL – Day - Client   **[ClOrdID=460]**

    iii.   SELL – 100 lot – 5.20 – Day – Client   **[ClOrdID=470]**

Check Execution Messages and Trade Report messages of trades below.

    i.Trade 1: 100 lot 5.200 TL
    ii.Trade 2: 100 lot 5.200 TL

(   ) Expected messages are received.   (   ) Problem with messages

23. ASELS.E enter below orders and receive Execution Report messages.

i.	BUY – 100 lot – 5.200 TL – Day - Client	**[ClOrdID=480]**
ii.	SELL – 200 lot – 5.220 TL – Day - Client	**[ClOrdID=490]**
iii.	BUY – 45000 lot – 5.210 TL – Midpoint Limit – Day – Client	**[ClOrdID=500]**
iv.	BUY – 50000 lot – 5.230 TL – Midpoint Limit – Day – Client	**[ClOrdID=510]**
v.	BUY – 70000 lot – Midpoint Market – IoC – Client	**[ClOrdID=520]**
vi.	SELL – 80000 lot – Midpoint Market – IoC – Client	**[ClOrdID=530]**

Check Execution Messages and Trade Report messages of trades below.
  i. Trade 1: 45000 lot 5.210 TL
  ii. Trade 2: 35000 lot 5.210 TL

Below order will be cancelled. Check the related Execution Report message:
  iii. (ClOrdID=520) BUY 70000 lot

( ) Expected messages are received.   ( ) Problem with messages

24. AKBNK.AOF enter below orders and receive Execution Report messages.

i.	BUY – 100000 lot – (-0.01) TL – Day - Client	**[ClOrdID=540]**
ii.	BUY – 100000 lot – (0.000) TL – Day - Client	**[ClOrdID=550]**
iii.	BUY – 100000 lot – (0.01) TL – Day - Client	**[ClOrdID=560]**
iv.	SELL – 250000 lot – (-0.010) TL – Day - Client	**[ClOrdID=570]**

Check Execution Messages and Trade Report messages of trades below.
  i. Trade 1: 100000 lot (0.010) TL
  ii. Trade 2: 100000 lot (0.000) TL
  iii. Trade 3: 50000 lot (-0.010) TL

( ) Expected messages are received.   ( ) Problem with messages

25. Enter BUY orders to below instruments with price 5.000 TL, quantity100 lot and receive Execution Report messages (Accepted).

i.	GARAN.R	**[ClOrdID=580]**
ii.	GARAN.TE	**[ClOrdID=590]**
iii.	GARAN.TR	**[ClOrdID=500]**
iv.	GASLA.V	**[ClOrdID=610]**
v.	ADAAA.C	**[ClOrdID=620]**
vi.	GARAN.ME	**[ClOrdID=630]**
vii.	GARAN.BE	**[ClOrdID=640]**

( ) Expected messages are received.   ( ) Problem with messages

26. BAKAB.E enter the below orders and check the Execution Report messages.

i.	BUY – 100 lot – 5.000 TL – Day - Client	**[ClOrdID=650]**
ii.	SELL - 10 lot – 5.000 TL – Day - Client	**[ClOrdID=660]**
iii.	BUY – 50 lot – 5.010 TL – Day - Client	**[ClOrdID=670]**
iv.	**Short Sell** – 50 lot – 5.010 TL – Day - Client	**[ClOrdID=680]**

Check Execution Messages and Trade Report messages of trades below.

i. Trade 1: 10 lot 5.000 TL
ii. Trade 2: 50 lot 5.010 TL (Short Sell Trade)

(   ) Expected messages are received.   (   ) Problem with messages

End of Day Batch

Check cancel messages (Execution Report - cancelled) for Expired day orders.

( ) Expected messages are received.   ( ) Problem with messages

Logout from the system after expected cancel messages are received. System will be restarted after End of Day Batch.

( ) Expected messages are received.   ( ) Problem with messages

Failover to Secondary Gateway (Order Entry)

Terminate connection with Primary FIX Gateway IP and Ports and connect to secondary FIX Gateway IP and Port provided.

➤ Send Logon message without resetting Sequence number and receive Logon message. ,

( ) Expected messages are received.   ( ) Problem with messages

➤ Enter below orders to the secondary system and receive Execution Report (accepted) messages:

- o ARCLK.E BUY PRICE: 5.000 20 LOT (Partition1)
- o GARAN.E BUY PRICE: 5.060 20 LOT (Partition2)
- o NETAS.E BUY PRICE: 5.000 10 LOT (Partition3)
- o TCELL.E BUY PRICE: 7.500 10 LOT (Partition4)

( ) Expected messages are received.   ( ) Problem with messages

Failover to Secondary Gateway (Drop Copy)

The connection from the primary DC Gateway IPs is terminated. While the user is in the Logout state, orders that match the user orders are entered into the system. User orders are executed and execution reports (Execution Report - Trade) are written to the user's message queue.

Drop copy connections are established in all partitions with the given Secondary Gateway IPs. The ports used in the primary gateway connection will be used.

➢ The Logon message is sent and the Logon message is received from the system without resetting the sequence number.

(   ) Expected   messages are received.   (   ) Problem with messages

---

➢ Since the Sequence number of the message coming from the server is higher than expected, a Resend Request message is sent to the system. It is seen that the missed messages are received from the system in response to the Resend Request message:

- ○ ARCLK.E Price: 5.000 20 LOT   fully traded.
- ○ GARAN.E Price: 5.060 20 LOT fully traded.
- ○ NETAS.E Price: 5.000 10 LOT fully traded.
- ○ TCELL.E Price: 7.500 10 LOT fully traded.

SECTION 3:

MARKET MAKER FUNCTIONALITY TEST

Notes

- ✓ Orders should be **Limit** priced, **Day** and **Client** orders.

- ✓ Values of Account and Reference fields will be checked for only steps that indicate these values in the scenario. These fields should be sent in compliance with FIX Specification document.

- ✓ PartyID of MassQuote messages must be **"PY"** with PartyRole *28-Custodian.*

- ✓ There will be no response from the system for successful MassQuote entries. MassQuote Acknowledgement message will be sent if one or more Quote entry has incorrect value. MassQuote message will be validated by Exchange operator and user will be informed.

- ✓ It is strongly recommended that the QuoteIDs are taken from the same numbering series as the ClOrdID in cases where Orders and Quotes are submitted through the same FIX session. This principle is applied for test steps below and previously used ClOrdIDs/TradeReportIDs are not used.

- ✓ "QuoteEntryID" value that will be given to each quote entry is started from 1 and incremented by one for each quote entry. Given QuoteEntryIDs are expected for MassQuote messages that include more than one quotes.

- ✓ Entered successful MassQuotes will be checked from Trader Workstation by Exchange Operator.

OPENING SESSION

1. **ATAGY.E** enter below orders and receive Execution Report messages.

      i.   BUY – 100 lot – 4,950 TL   **[ClOrdID=5010]**
     ii.   SELL – 700 lot – 5,100 TL   **[ClOrdID=5020]**

(   ) Expected messages are received.   (   ) Problem with messages

2. **ATAGY.E** enter MassQuote at price levels 5,100 – 5,110 and 500 lots each side.
                                      [QuoteID=5030]

NOTE: No response will be received from system for a successful MassQuote entry. MassQuote entry will be checked from Trading Workstation by Exchange Operator during the test.

OPENING SESSION MATCHING

Opening Session will be ended and match will be started. Check Execution Report ve Trade Capture Report messages for **ATAGY.E**:

    i.   Trade : 500 lot 5.100TL

(   ) Expected messages are received.   (   ) Problem with messages

3. **ATAGY.E** enter MassQuote at price levels 5,200 – 5,250 and 500 lots each side. Check Mass Quote Acknowledgement- Reject message is received.   **[QuoteID=5040]**

NOT: MassQuote entry is not allowed in this session state.

(   ) Expected messages are received.   (   ) Problem with messages

P_SaltKotasyon Session (Before Continuous Auction Session) Quotation Entry

4. ATAGY.E Enter a quote order for 500 lots at prices 5.08 - 5.09. **[QuoteID=5050]**
Check the DC Quote Status Reports.

( ) Expected messages are received. ( ) Problem with messages

5. ATAGY.E Change the quote prices as 5.07 – 5.080. **[QuoteID=5060]**
Check the DC Quote Status Reports.

( ) Expected messages are received. ( ) Problem with messages

6. ATAGY.E cancel the quote order. **[QuoteID=5070]**
Check the DC Quote Status Reports.

( ) Expected messages are received. ( ) Problem with messages

CONTINOUS AUCTION

7. ATAGY.E enter MassQuote at price levels 5,200 – 5,250 and 500 lots each side. Quote entry on this instrument will be updated. Check below Execution Report and Trade Report messages are received after MassQuote update.

[QuoteID=5080]

i. Trade : 200 lot 5.100TL

( ) Expected messages are received. ( ) Problem with messages

8. ATAGY.E enter MassQuote at price levels 5,300 – 5,350 and 250 lots each side. Quote entry on this instrument will be updated.

[QuoteID=5090]

( ) Expected messages are received. ( ) Problem with messages

9.ATAGY.E enter below orders and receive Execution Report messages.

ii.	SELL – 100 lot – 5,310 TL	[ClOrdID=5100]
iii.	SELL – 20 lot – 5,320 TL	[ClOrdID=5110]
iv.	SELL – 30 lot – 5,330 TL	[ClOrdID=5120]

( ) Expected messages are received.	( ) Problem with messages

10. ATAGY.E update the price of BUY side of the quote as 5,330 TL

Check Execution Report and Trade Report messages are received for below trades after Quote update:

[QuoteID=5130]

v.   Trade : 100 lot 5.310 TL
vi.   Trade : 20 lot 5.320 TL
vii.   Trade : 30 lot 5.330 TL

( ) Expected messages are received.	( ) Problem with messages

11. DJIST.F enter MassQuote at price levels 5,000 – 5,250 and 500 lots each side.

[QuoteID=5140]

( ) Expected messages are received.   (   ) Problem with messages

12. DJIST.F cancel only the BUY side of the quote entered to this instrument above.

[QuoteID=5150]

( ) Expected messages are received.   (   ) Problem with messages

13. DJIST.F cancel the SELL side of the quote entered to this instrument, too. So that there will be no valid quote remains in this instrument.

[QuoteID=5160]

( ) Expected messages are received.   (   ) Problem with messages

14. ATAGY.E enter MassQuote only on BUY side at price level 5,510 TL with 500 Lots.

[QuoteID=5170]

( ) Expected messages are received.   (   ) Problem with messages

15. ATAGY.E enter MassQuote only on SELL side at price level 5,580 TL with 500 Lots. (BUY side will be cancelled)

[QuoteID=5180]

( ) Expected messages are received.   ( ) Problem with messages

16. Enter a single MassQuote message on below instruments with given price levels, size and QuoteEntryID.

[QuoteID=5190]

ADAAA.C : BUY: 7,900 TL 5000 Lot – SELL: 8,600 5000 Lot   *(QuoteEntryID=1)*

EGGUB.E : BUY: 16,000 TL 500 Lot – SELL: 16,200 1000 Lot   *(QuoteEntryID=2)*

NETAS.E : BUY: 5.30 TL 500 Lot – SELL: 5.50 500 Lot   *(QuoteEntryID=3)*

ZOREN.E : BUY: 5,100 TL 500 Lot – SELL: 5,200 1000 Lot   *(QuoteEntryID=4)*

( ) Expected messages are received.   ( ) Problem with messages

17. Enter a single MassQuote message on below instruments with given price levels, size and QuoteEntryID.

[QuoteID=5200]

ADAAA.C : BUY: 8,000 TL 5000 Lot – SELL: 8,100 5000 Lot   *(QuoteEntryID=1)*

EGGUB.E: BUY: 15,000 TL 500 Lot – SELL: 16,200 1000 Lot   *(QuoteEntryID=2)*

NETAS.E : BUY: 0,530 TL 500 Lot – SELL: 0,580 500 Lot   *(QuoteEntryID=3)*

ZOREN.E : BUY: 17,000 TL 500 Lot – SELL: 16,200 1000 Lot *(QuoteEntryID=4)*

Check that "Mass Quote Acknowledgement - Some Quotes Rejected" message is received due to rejection of 4th quote entry in the MassQuote message.

( ) Expected messages are received.   ( ) Problem with messages

18. Enter a single MassQuote message on below instruments with given price levels, size and QuoteEntryID.

[QuoteID=5210]

ADAAA.C : BUY: 8,000 TL 5000 Lot – SELL: 8,100 5000 Lot   *(QuoteEntryID=1)*

EGGUB.E: BUY: 15,000 TL 500 Lot – SELL: 16,200 1000 Lot   *(QuoteEntryID=2)*

NETAS.E : BUY: 0,530 TL 500 Lot – SELL: 0,580 500 Lot   *(QuoteEntryID=3)*

ZOREN.E : BUY: 17,000 TL 500 Lot – SELL: 16,200 1000 Lot   *(QuoteEntryID=4)*

Check that "Mass Quote Acknowledgement – All Quotes Rejected" message is received due to rejection of all quote entries in the MassQuote message.

( ) Expected messages are received.   ( ) Problem with messages

Test Evaluation

Title of the Brokerage House	
Technical Staff Participated in the Test	
Market Staff Participated in the Test	
Exchange Official Participated in the Test	
General Evaluation (to be filled by BIST officials)	

Please contact with bistechsupport_autoticket@borsaistanbul.com for your questions.