



**BORSA  
İSTANBUL**

## **EQUITY MARKET**

# **BISTECH FIX CERTIFICATION PROGRAM– ORDER ENTRY STAGE ADVANCED LEVEL**

April 2025, Version 1.6

## **PREPARATION BEFORE PARTICIPATION IN THE TEST**

Institutions that want to receive FIX API Certification must test their software in BISTECH test environments before coming to the certification tests. They must follow the scenario steps in the certification documents according to the market they want to receive certification in and make sure that they can successfully complete all the steps.

In addition to the tests conducted in the BISTECH test environment, the institution can also use the FIX simulator application developed by BISTECH and offered to members so that institutions can test the scenario steps on their own software and successfully complete the process in a short time. Access to the FIX Simulator application and user manual files can be provided via the BIST Connect platform of the relevant test environment.

**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.

# 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**Enter Order

- 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:
  - AKBNK.E BUY Price: 5.000 Quantity: 5 Lot fully traded.
  - GARAN.E BUY Price: 5.010 Quantity: 10 Lot fully traded.
  - NETAS.E BUY Price: 5.020 Quantity: 15 Lot fully traded.
  - ZOREN.E BUY Price: 5.030 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.*

### Logon

- Send Logon message **without** resetting Sequence number and receive Logon message from system.

( ) Expected messages are received.      ( ) Problem with messages
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- 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
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## 7. Logout

- Send Logout message and receive Logout message.

( ) Expected messages are received.      ( ) Problem with messages
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# SECTION 2 :

## ORDER ENTRY AND FUNCTIONALITY



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

<i>SYMBOL</i>	<i>Partition</i>	<i>Base Price</i>		<i>SYMBOL</i>	<i>Partition</i>	<i>Base Price</i>
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				
GARAN.E	2	5.000				
ZOREN.E	4	5.000				
NETAS.E	3	5.000				
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                 | [ClOrdID=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 – 79 lot – 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 – 6.060 TL – 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 – 40 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

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

Below Opening Auction order will be cancelled. Check the related Execution Report message.

- ii. (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

## CONTINUOUS AUCTION

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

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

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

Check Execution Messages and Trade Capture 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. (CfOrdID=290) BUY – 70 lot\* – 5.200 TL – Day – Client [CfOrdID=310]

\* Order with original quantity of 100 lots is partially executed and remains 80 lots in the orderbook before 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. (CfOrdID=310) BUY – 90 lot\*\* – 5.200 TL – Day – Client [CfOrdID=320]

\*\* Order with original quantity of 100 lots is partially executed and remains 80 lots in the orderbook before 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 [CfOrdID=330]

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

Check Execution Messages and Trade Capture 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.(CfOrdID=330) BUY – 50 lot\*\*\* – 5.200 TL – Day – Client [CfOrdID=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 [CfOrdID=360]

ii. BUY – 200 lot – 5.190 TL – Day - Client [CfOrdID=370]

iii. SELL – 450 lot –Market – IoC – Client [CfOrdID=380]

Check Execution Messages and Trade Capture 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. (CfOrdID=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 Capture 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 Capture 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 Appearance Amount Quantity - 500 toplam Quantity (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 Capture Report messages of trades below.

i.Trade 1: 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 Capture 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 Capture 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. <b>Short Sell</b> – 50 lot – 5.010 TL – Day - Client | [ClOrdID=680] |

Check Execution Messages and Trade Capture 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

## TRADE REPORT

**NOTE:** TradeReportID given by user is recommended to be produced from the same numbering series as the ClOrdID. We applied this principle for test steps below and continued numbering from the last used ClOrdID value. TradeReportID must be entered as indicated below each step.

**1. ZOREN.E** Enter the BUY side Trade Report with the counterparty member code BIACA for 5,000,000 lots with a price of 4,500 TL.

[TradeReportID:1010]

Trade Report will be rejected because it is priced invalid, please check that the Trade Capture Report Ack message is received.

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

**2. ZOREN.E** Enter the BUY side Trade Report with the counterparty member code BIACA for 5,000,000 lots priced at 5,210 TL in the series and check that the Trade Capture Report Ack message is received.

[TradeReportID:1020]

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

**3. ZOREN.E** The counterparty (BIST Operator) will enter the Sell side of the Trade Report Notification to which you send the buy side to the series (as TradeReportID=1020). Check that you have received the confirmation message (Trade Report - Confirmation) regarding the matching of your Trade Report in the trading system.

- i. (TradeReportRefID=1020) ZOREN.E 5,000,000 lot 5,210 TL

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

**4. ALCAR.E** Enter the SELL side Trade Report Notification in the series with 5,000,000 lots priced at 5,200 TL and the counterparty member code is BIACA and check that the Trade Capture Report Ack is received.

**[TradeReportID:1040]**

☐ Expected messages are received. ☐ Problem with messages

**5. ALCAR.E** Cancel the SELL side Trade Report you entered in the series and check that the Trade Capture Report Ack has been received. (TradeReportRefID: 1040 should be sent).

**[TradeReportID:1050]**

☐ Expected messages are received. ☐ Problem with messages

**6. ALCAR.E** As a BIACA member, the BUY side of the Trade Report of 5,100,000 lots with a Price of 5,200 TL will be entered into the series by the Stock Exchange Operator, with the counterparty member information being your member code. Check that you have received a notification message (Trade Capture Report - Notification) stating that there is a Trade Report Notification awaiting your approval.

i. ALCAR.E 5,100,000 lot 5,200 TL BUY Counterparty: BIACA

☐ Expected messages are received. ☐ Problem with messages

Enter the SELL side Trade Report to confirm the Trade Report Notification for 5,100,000 lots with a Price of 5,200 TL for the ALCAR.E series sent by BIACA and check that the Trade Capture Report Ack has been received.

**[TradeReportID:1060]**

☐ Expected messages are received. ☐ Problem with messages

Check that you have received the confirmation message (Trade Report - Confirmation) regarding the matching of your Trade Report in the trading system.

ii. (TradeReportRefID=1060) ALCAR.E 5,100,000 lot 5,200 TL Counterparty: BIACA

☐ Expected messages are received. ☐ Problem with messages

Check that you receive a second notification message stating that the notification message stating that there is a Trade Report Notification awaiting your approval is no longer valid. (Trade Report – Delete Notification)

iii. ALCAR.E 5,100,000 lot 5,200 TL Counterparty: BIACA

☐ Expected messages are received. ☐ Problem with messages

**7. ALCAR.E** The SELL side of the Trade Report Notification of 5,500,000 lots with a Price of 5,150 TL will be entered into the series by the Stock Exchange Operator as a BIACA member, with the counterparty member information as your member code. Check that you have received a notification message (Trade Capture Report - Notification) regarding the relevant transaction notification.

- i. ALCAR.E 5,500,000 lot 5,150 TL SELL Counterparty: BIACA

☐ Expected messages are received. ☐ Problem with messages

This Trade Report Action Notice will be terminated by BIACA without confirmation by you. Check that you have received the message stating that the Trade Report Notification has been cancelled. (Trade Report – Delete Notification)

- ii. ALCAR.E 5,500,000 lot 5,150 TL SELL Counterparty: BIACA

☐ Expected messages are received. ☐ Problem with messages

**8. BAKAB.E** Enter a double-sided Trade Report Notification with 700,000 lots and 5,010 TL Price into the series (Trade Report – Two Party: In-house, BUY and SELL side with your own member code) and check that the confirmation messages are received. **[TradeReportID:1070]**

- i. (TradeReportRefID=1060) BAKAB.E 700,000 lot 5,010 TL Two Party Trade Report Accepted  
ii. (TradeReportRefID=1060) BAKAB.E 700,000 lot 5,010 TL Two Party Trade Report Confirmation

☐ 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:

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

## 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

# 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

## CONTINUOUS 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 Capture 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 | <b>[ClOrdID=5100]</b> |
| iii. SELL – 20 lot – 5,320 TL | <b>[ClOrdID=5110]</b> |
| iv. SELL – 30 lot – 5,330 TL  | <b>[ClOrdID=5120]</b> |

( ) 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 Capture 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: 5.300 TL 500 Lot – SELL: 5.400 500 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: 5,350 TL 500 Lot – SELL: 5,500 500 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: 9,000 TL 5000 Lot – SELL: 8,100 5000 Lot (*QuoteEntryID=1*)

**EGGUB.E**: BUY: 14,000 TL 500 Lot – SELL: 16,200 1000 Lot (*QuoteEntryID=2*)

**NETAS.E** : BUY: 5,500 TL 500 Lot – SELL: 5,800 500 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	
Exchange Official Participated in the Test	
General Evaluation (to be filled by BIST officials)	

Please contact with [bistechsupport\\_autoticket@borsaistanbul.com](mailto:bistechsupport_autoticket@borsaistanbul.com) for your questions.