

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

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

 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.		`	gout Message Send Logout message and receive Logout message from the system with "Logou Complete".				
	()	Expected messages are received. () Problem with messages				
3.		•	gon 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		nt	nding Resend Request Message ter 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.
<u>Logon and Resend Request</u> ➤ Send Logon message to the system <u>without</u> 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.

<u>Logon</u> ➤ Send Logon message <u>without</u> resetting Sequence number and receive Logon message from systems.	em.
() Expected messages are received. () Problem with messages	
 Resend request message will be received from the system right after the Logon message. Rese Request message must be replied according to below principals. System will not respond with a 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

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

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			
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.
- 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.	 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. ii. iv. v. vi. vii.	BUY – 250 lot – Market – Immediate or Cancel(IoC) - Client [ClOrdID=130] BUY – 300 lot – Market – Immediate or Cancel – Portföy [ClOrdID=140] SELL – 15 lot – 5.100 – Day - Client [ClOrdID=150] SELL – 25 lot – Market – Immediate or Cancel – Fon – AFK: XRM [ClOrdID=160] SELL – 35 lot – Market – Immediate or Cancel - Client [ClOrdID=170]
(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 message	es
7. <i>i</i> .	AEFES.E modify below order as underlined and receive Execution Report messa. (ClOrdID=180) SELL – 40 lot – Market –IoC- Client [ClO	nge. OrdID=200]
	() Expected messages are received. () Problem with message	es"
8. A	AKCNS.E enter orders listed below and receive Execution Reports (Accepted).	
i. ii. iii. iv.	BUY – 250 lot – Market to Limit – Day - Client [ClOrd] BUY – 300 lot – Market to Limit – Immediate or Cancel – Portföy [ClOrd]	[D=220] [D=230]
	() Expected messages are received. () Problem with message	es

i ii iii iv	BUY – 250 lot – Imbalance – IoC- Clien SELL –15 lot – 6.200 TL – Day – Clien	nt t		[ClOrdID=250] [ClOrdID=260] [ClOrdID=270] [ClOrdID=280]
() Expected messages are received.	() Problem with messag	ges
	Opening Auction will be ended. Check the Erelated with below executions on ACSEL.E. i. Trade 1: 20 lot 6.200TL	Execu	ntion Report and Trade Ca	pture Report message:
() Expected messages are received.	() Problem with messag	ges
	Below Opening Auction order will be cancel ii. (ClOrdID=60) BUY – 50 lot – 6.050			on Report message.
() Expected messages are received.	() Problem with messag	ges
11.	Opening Auction will be ended. Check the E 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		ntion Report and Trade Ca	pture Report message:
() Expected messages are received.	() Problem with message	es
Be	low Opening Auction orders will be cancelled	d. Ch	eck the related Execution	Report messages.
	iv. (ClOrdID=130) BUY – <u>170 lot</u> – Ma v. (ClOrdID=140) BUY – 300 lot – Ma			
() Expected messages are received.	() Problem with message	es

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

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CONTINOUS AUCTION

	i.	BUY – 10	00 lot – 5.200 TL -	– Day – Clien	ıt			[ClOrdI	D=290]
	ii.	SELL –20) lot – 5.200 TL –	Day – Client				[ClOrdI	D=300]
		ck Execution rade 1: 20 lot	Messages and Tra 5.200 TL	de Capture R	eport	messages o	of trade be	elow.	
	() Expected	l messages are re	eceived.	() Problem	n with me	essages	
15.			y quantity of your 0) BUY – <u>70 lot</u> *				eive Exec	ution Rep	-
before pas	or mo sive o wesQ	odification. Worder in the or	quantity of 100 leading from the first quantity of 100 le	fied as 70 lots pdated as 50	s, par lots.	tially execut Check and o	ted quanti confirm th	ty will be nat 50 is re	extracted and eccived in the
() [Expected m	essages are recei	ved. () I	Problem wi	th messa	ges	
16. i			y quantity of your 0) BUY – <u>90 lot</u> **					ution Repo	_
befo pas Lea	or mo sive o wesQ	odification. Worder in the or	I quantity of 100 then order is modified a derbook will be use 70). (This warning a.)	fied as 90 lots pdated as 70	s, par lots.	tially execut Check and o	ted quanti confirm th	ty will be nat 70 is re	extracted and eccived in the
()	Expected m	essages are recei	ved. () I	Problem wi	th messa	ges	

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

i. BUY – 100 lot – 5.200 TL – Day - Client	[ClOrdID=330]
ii. SELL – 60 lot – 5.200 TL –Day – Client	[ClOrdID=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 mess	ages
18. ALCAR.E modify quantity of your partially traded order and receive Exe i.(ClOrdID=330) BUY – <u>50 lot**</u> * – 5.200 TL – Day – Client	cution Report messages. [ClOrdID=350]
*** Order with original quantity of 100 lots is partially executed and remains before modification. When order is modified as 50 lots, partially executed quand passive order in the orderbook will be deleted. Check and confirm the LeavesQty field (151=00). (This warning messages is for users who send Request for order modification.)	antity will be extracted at 0 is received in the
() Expected messages are received. () Problem with mess	ages
 i. BUY – 100 lot – 5.200 TL – Day - Client ii. BUY – 200 lot – 5.190 TL – Day - Client iii. SELL – 450 lot – Market – IoC – Client 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 	[ClOrdID=360] [ClOrdID=370] [ClOrdID=380]
Below order will be cancelled. Check the related Execution Report messagiii. (ClOrdID=380) 150 lot Market	ie:

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

20.	AKGRT.	E enter	below	orders and	receive	Execution	Report messages.
40.	AILOIL.		OCIO W	oracis and	ICCCIVC	LACCUUOII	report messages.

i.	BUY - 100 lot - 5.200 TL - Day - Client	[ClOrdID=390]
ii.	BUY – 200 lot – 5.190 TL – Day - Client	[ClOrdID=400]
ii.	SELL – 450 lot – Market to Limit – 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 Appearable Amount Quantity -500 toplam Quantity (Partial Appearance Conditional Order / Iceberg)-5.200 TL - Day - Client [ClOrdID=450]
iii. BUY -200 lot -5.190 TL - Day - Client [ClOrdID=460]
iiii. 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

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).

ii. GARAN.TE [CIO	OrdID=590]
Later the second se	
iii. GARAN.TR [CIC	OrdID=500]
iv. GASLA.V [CIC	OrdID=610]
v. ADAAA.C [CIC	OrdID=620]
vi. GARAN.ME [CIC	OrdID=630]
vii. GARAN.BE [CIC	OrdID=640]

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

26. BAKAB.H	E enter the below orders and check the	e E	xecution Report messages.	
ii. SELL iii. BUY –	100 lot – 5.000 TL – Day - Client - 10 lot – 5.000 TL – Day - Client 50 lot – 5.010 TL – Day - Client Sell – 50 lot – 5.010 TL – Day - Clien	nt	[ClOrdID=650] [ClOrdID=660] [ClOrdID=670] [ClOrdID=680]	
Check Execution	on Messages and Trade Capture Rep	ort	messages of trades below.	
	lot 5.000 TL lot 5.010 TL (Short Sell Trade)			
() Expec	eted messages are received.	() Problem with messages	
TRADE I	REPORT			
the ClOrdID.		eps	d to be produced from the same numbering seribelow and continued numbering from the last icated below each step.	
1. ZOREN.E lots with a pric	_	ith t	the counterparty member code BIACA for 5,000 [TradeReportID:1010]	0,000
Trade Report v message is reco	-	nva	lid, please check that the Trade Capture Report	t Ack
() Expec	eted messages are received.	() Problem with messages	
	•		the counterparty member code BIACA for 5,000 Trade Capture Report Ack message is received. [TradeReportID:1020]	
() Expec	eted messages are received. (() Problem with messages	
which you sen	nd the buy side to the series (as Transcage (Trade Report - Confirmation	idel	enter the Sell side of the Trade Report Notificati ReportID=1020). Check that you have receive regarding the matching of your Trade Report i	d the
i. (Tr	adeReportRefID=1020) ZOREN.E 5,	,000	0,000 lot 5,210 TL	
() Expec	eted messages are received.	() Problem with messages	

4. ALCAR.E Enter the SELL side Trade Report Notification in the series with 5,000,000 lots pric 5,200 TL and the counterparty member code is BIACA and check that the Trade Capture Report A 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 Ca Report Ack has been received. (TradeReportRefID: 1040 should be sent).	ıpture
[TradeReportID:1050] () Expected messages are received. () Problem with messages	
6. ALCAR.E As a BIACA member, the BUY side of the Trdae Report of 5,100,000 lots with a Pri 5,200 TL will be entered into the series by the Stock Exchange Operator, with the counterparty me information being your member code. Check that you have received a notification message (Trade Ca Report - Notification) stating that there is a Trade Report Notification awaiting your approval.	ember
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 of 5,200 TL for the ALCAR.E series sent by BIACA and check that the Trade Capture Report Ack has received. [TradeReportID:106]	been
() Expected messages are received. () Problem with messages	
Check that you have received the confirmation message (Trade Report - Confirmation) regardin matching of your Trade Report in the trading system. ii. (TradeReportRefID=1060) ALCAR.E 5,100,000 lot 5,200 TL Counterparty: BIACA	g the
() Expected messages are received. () Problem with messages	
Check that you receive a second notification message stating that the notification message stating that is a Trade Report Notification awaiting your approval is no longer valid. (Trade Report – Delete Notification.) 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 T will be entered into the series by the Stock Exchange Operator as a BIACA member, with the counterpart member information as your member code. Check that you have received a notification message (Trad Capture Report - Notification) regarding the relevant transaction notification. ALCAR.E 5,500,000 lot 5,150 TL SELL Counterparty: BIACA 	ty
() Expected messages are received. () Problem with messages	
This Trade Report Action Notice will be terminated by BIACA without confirmation by you. Check that yo 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	ck d

() Problem with messages

() Expected messages are received.

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
ail	over to Secondary Gateway (Drop Copy)
L	the connection from the primary DC Gateway IPs is terminated. While the user is in the ogout state, orders that match the user orders are entered into the system. User orders are
	cecuted and execution reports (Execution Report - Trade) are written to the user's message ueue.

> 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:

The Logon message is sent and the Logon message is received from the system without resetting the

) Problem with messages

o ARCLK.E Price: 5.000 20 LOT fully traded.

) Expected messages are received.

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

sequence number.

End of Day Batch

Chec	ck cancel messages (Execution Report - c	eanc	elled) 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 ii. SELL - 700 lot - 5,100 TL	[ClOrdID=5010] [ClOrdID=5020]			
() Expected messages are received. () Problem with messa	eges			
2. ATAGY.E enter MassQuote at price levels 5,100 – 5,110 and 500 lots each	h side. [QuoteID=5030]			
NOTE: No response will be received from system for a successful MassQu entry will be checked from Trading Workstation by Exchange Operator dur	•			
OPENING SESSION MATCHING				
Opening Session will be ended and match will be started. Check Execution Re Report messages for ATAGY.E: i. Trade: 500 lot 5.100TL	port ve Trade Capture			
() Expected messages are received. () Problem with messages	iges			
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 mess	ages			

P_SaltKotasyon Session (Before Continuous Auction Session) Quotation Entry

Check the DC Q	uote Status Reports.	at price	es 5.08 - 5.09. [QuoteID=505	0]
() Expected me	essages are received.	() Problem with messages	
	the quote prices as 5.07 - uote Status Reports.	- 5.080	. [QuoteID=5	060]
() Expected me	essages are received.	() Problem with messages	
6. ATAGY.E cancel Check the DC Q	the quote order. uote Status Reports.		[QuoteID=5	070]
() Expected me	essages are received.	() Problem with messages	
	updated. Check below Ex Quote update.		5,250 and 500 lots each side. n Report and Trade Capture I [Quote	
() Even a stard we	d	() Ducklam with massages	
() Expected m	essages are received.	() Problem with messages	
B. ATAGY.E enter Ma	ssQuote at price levels 5,	300 – 5	5,350 and 250 lots each side. Q	
B. ATAGY.E enter Ma	ssQuote at price levels 5,	300 - 5	5,350 and 250 lots each side. Q	Quote entry on

	() E	xpected	l messages are	received.	() Problem with messages	
1(Executio	ate the price of B n Report and Tra		•	messages are received for below trades after	
	v. vi. vii.	Tra	de: 100 lot 5.310 de: 20 lot 5.320 de: 30 lot 5.330	TL		[QuoteID=5130]	
	() E	xpected	l messages are	received.	() Problem with messages	

11. D	JIST	.F enter	MassQuote at price levels :	5,000 – 5	,250 and 500 lots each side. [QuoteID=5]	140]
() E	xpected	messages are received.	() Problem with messages	
12. D.	JIST	.F cance	l only the BUY side of the	quote ent	tered to this instrument above. [QuoteID=5]	150]
() E	xpected	messages are received.	() Problem with messages	
			I the SELL side of the quot in this instrument.	e entered	to this instrument, too. So that there v	
() Ex	pected	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]						
() E	xpected	messages are received.	() Problem with messages	

vill be cancelled)		[QuoteID=5180]
() Expecte	d messages are received. () Problem with	messages
6. Enter a single quoteEntryID.	MassQuote message on below instruments with given	price levels, size and
		[QuoteID=5190]
ADAAA.C : B	UY: 7,900 TL 5000 Lot – SELL: 8,600 5000 Lot	(QuoteEntryID=1)
EGGUB.E : B	UY: 16,000 TL 500 Lot - SELL: 16,200 1000 Lot	(QuoteEntryID=2)
NETAS.E : B	UY: 5.300 TL 500 Lot - SELL: 5.400 500 Lot	(QuoteEntryID=3)
ZOREN.E : B	UY: 5,100 TL 500 Lot - SELL: 5,200 1000 Lot	(QuoteEntryID=4)
7. Enter a single uoteEntryID.	MassQuote message on below instruments with given	price levels, size and [QuoteID=5200]
ADAAA.C	: BUY: 8,000 TL 5000 Lot - SELL: 8,100 5000	
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 Lo	ot (QuoteEntryID=3)
ZOREN.E	: BUY: 17,000 TL 500 Lot - SELL: 16,200 1000) Lot (QuoteEntryID=4)
	Quote Acknowledgement - Some Quotes Rejected" mote entry in the MassQuote message.	essage is received due to
() Expecte	ed messages are received. () Problem with	n 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 <u>bistechsupport_autoticket@borsaistanbul.com</u> for your questions.