KAZAKHSTAN STOCK EXCHANGE JSC

A p p r o v e d

by a decision of the Management Board
of Kazakhstan Stock Exchange JSC

(minutes No. 147 of the meeting
of December 12, 2024)

Effective

as of January 5, 2025

N O T I C E

The Instruction has been translated into English by employees of Kazakhstan Stock Exchange for information purposes only. In case of any incompliance of this translation with the original version of the Instruction in Russian, the Russian version shall always prevail.

INSTRUCTION

for the DMA system certification

city of Almaty

2024

This Instruction has been developed in accordance with the legislation of the Republic of Kazakhstan and internal document of the Exchange, establishing the conditions and procedure for the provision by members of Kazakhstan Stock Exchange JSC (hereinafter – the Exchange) of services to provide their clients with direct access to the Exchange's trading system, and establishes the procedure for certification of the DMA system[1].

Article 1. General Provisions

1. The concepts used in this Instruction are identical to the concepts defined by other internal documents of the Exchange or the legislation of the Republic of Kazakhstan.
2. The Exchange carries out certification of the DMA system in accordance with the requirement established by its internal document, which determines the conditions and procedure for the provision by members of the Exchange of services for providing their clients with direct access to the Exchange's trading system.
3. DMA systems used for connection to the Exchange's trading and clearing system via software protocols provided by the Exchange are subject to certification.
4. For the purposes of certification, the DMA system must comply with the requirements of the Exchange's internal document establishing the requirements for the DMA systems of members of the Exchange, as well as the basic conditions and procedure for provision by members of the Exchange of direct access to the Exchange's trading system to their DMA clients.

Article 2. Certification of the DMA system for working with the ASTS+ FIX-protocol

1. When certifying the connection to the ASTS+ via the Fix-protocol, the following is checked:
    1) successful placing/removing of orders; absence of errors when placing orders caused by incorrect formation of the transaction. For the DropCopy and TradeCapture services, performing tests on trading operations is not required;
    2) correct use of tag 11 – ClOrdID and, together with it, the <Parties> group (correct submission of an order from a client account with the corresponding client code);
    3) correct use of the Resend Request after session restoration;
    4) successful execution of the transactions "change password" (indicating a new password in the special field of the Logon message) and "change the language of trading system responses" (indicating the language in the special field of the Logon message).
2. To pass the certification of connection via the FIX-protocol, a member of the Exchange must complete all the scenarios described in Appendix 1 or 2 (depending on the market) to this Instruction and send (on the same business day) the resulting log files of their DMA system to support@kase.kz.

[1] According to the Rules for Providing Direct Access to the Exchange's Trading System, the DMA system is a set of software and hardware tools of a member of the Exchange that interacts with the Exchange's software and hardware complex and is intended for concluding transactions in the Exchange's trading system based on orders generated based on client orders of DMA clients.

Article 3. Certification of the DMA system for working with Bridge

1. When certifying a connection using the Bridge protocol, the following is checked:
   1) correctness of information requests (opening tables and updating them);
   2) correct disconnection from the trading system upon completion of work;
   3) absence of errors when placing orders caused by incorrect formation of the transaction;
   4) use of the latest version of the gateway interface that is relevant at the time of certification;
   5) the software must be able to submit a password change transaction when working with the trading system; submitting this transaction is a mandatory step in successfully passing the certification;
   6) the ability to set a limit on the frequency of requests for data.
2. To pass the certification of connection via Bridge, a member of the Exchange must perform all the actions described in item 1 of this article and send (on the same business day) the resulting log files of their DMA system to support@kase.kz.

Article 4. Certification of the DMA system for working with the SPECTRA FIX-protocol

To pass the certification of connection via the Fix-protocol, a member of the Exchange must complete all the scenarios described in Appendix 3 to this Instruction and send (on the same business day) to support@kase.kz with the note *"for analysis and certification of the DMA system"* the resulting log files of their DMA system strictly in the format: Name-message (field1=value1, field2=value, ...)

Example: NewOrderSingle (blockLength=46, templateId=6000, schemaId=19781, version=2, ClOrdID=102, ExpireDate=18446744073709551615L, Price=100000, SecurityID=347990, ClOrdLinkID=7895424, OrderQty=5, TimeInForce=0, Side=1, CheckLimit=1, Account='AAAA').

Article 5. Certification of the DMA system for working with the TWIME service SPECTRA

To pass the certification of connection via the TWIME service, a member of the Exchange must complete all the scenarios described in Appendix 4 to this Instruction and send (on the same business day) to support@kase.kz with the note *"for analysis and certification of the DMA system"* the resulting log files of their DMA system strictly in the format: Name-message (field1=value1, field2=value, ...)

Example: NewOrderSingle (blockLength=46, templateId=6000, schemaId=19781, version=2, ClOrdID=102, ExpireDate=18446744073709551615L, Price=100000, SecurityID=347990, ClOrdLinkID=7895424, OrderQty=5, TimeInForce=0, Side=1, CheckLimit=1, Account='AAAA').

Article 6. Final Provisions

1. Responsibility for the timely introduction of changes and/or additions (updating) to this Instruction rests with the information technology division and the trading division of the Exchange.

2. This Instruction shall be updated as necessary. This Instruction shall be reviewed for the need for updating at least once every 36 months, calculated from the effective date of this Instruction, and in the event of its updating – from the effective date of the latest changes/additions.

Chairman of the Management Board A. Aldambergen

Appendix 1

to the Instruction for the DMA system certification

SCENARIO

of operation of the DMA system connecting to the ASTS+ Fix-protocol (stock market)

Test 1. Establishing and completing the connection

Test 1-1. Session setup

The member of the Exchange must connect to the system by specifying their SenderCompID received from the Exchange.

Software of the member of the Exchange sends Logon and HeartBeat messages.

The test is performed automatically, no additional actions are required.

Expected result: establishing a connection and receiving confirmation from the system.

Test 1-2. End of session

The member of the Exchange must properly disconnect from the system within 1 minute.

Reconnect to the system.

Expected result: Correct disconnection and reconnection to the system.

Test 2. Trading interaction

Test 2-1. Submitting an order on securities (GROSS)

The order is accepted by the system:

Step	Sender	Comment
1.	Client	The client submits a limit order to purchase a test stock <any of those available on the test circuit> at a price <fitting into the limits> from <account>. The order amount is 100 shares
2.	System	The system responds with a message based on business logic.

Test 2-2. Test the placement of a long-term order to sell a stock. (REPO)

Step	Sender	Comment
1.	Client	The client submits a limit order to buy/sell securities <any of those available on the test circuit> with a price<fitting into the limits> from his account. Execution mode – T+
2.	System	The system responds with a message based on business logic.

Test 2-3. Check the withdrawal of a previously placed order.

Step	Sender	Comment
1.	Client	The client submits an instruction to withdraw a previously placed order using the ID of the previously submitted order
2.	System	The system responds with a message based on business logic.

Test 2-4. Check the submission of the application for change.

Step	Sender	Comment
1.	Client	The client submits a limit order to buy/sell securities <any of those available on the test circuit> at a price <fitting into the limits> from his account
2.	System	The system responds with a message based on business logic.
3.	Client	The client changes the price of a previously submitted order based on the received OrigClOrdID (ID of the previously submitted order). The new price must differ from the previous one
4.	System	The system responds with a message based on business logic.

Test 2-5. Requesting the order status

Determining the status of an order submitted in Test 2-1

Step	Sender	Comment
1.	Client	The client submits a request for the status of the order submitted in test 2-1, using the received ClOrdID
2.	System	The system responds with a message based on business logic.

Test 2-6. Mass cancellation of orders

Removing all available orders generated during testing:

Step	Sender	Comment
1.	Client	The client submits a request for mass cancellation of orders, Order Mass Cancel Rep
2.	System	The system responds with a message based on business logic. The orders will be deleted.

Appendix 2

Instruction for the DMA system certification

SCENARIO

of operation of the DMA system connecting to the ASTS+ Fix-protocol (currency market)

Test 1. Establishing and completing the connection

Test 1-1. Session setup

A member of the Exchange must connect to the system by specifying their SenderCompID received from the exchange.

Software of the member of the Exchange sends Logon and HeartBeat messages.

The test is performed automatically, no additional actions are required.

Expected result: Establishing a connection and receiving confirmation from the system.

Test 1-2. End of session

The member of the Exchange must properly disconnect from the system within 1 minute.

Reconnect to the system.

Expected result: Correct disconnection and reconnection to the system.

Test 2. Trading interaction

Test 2-1. Submitting an order on securities (GROSS)

The order is accepted by the system:

Step	Sender	Comment
1.	Client	The client submits a limit order to purchase a test currency pair <any of those available on the test circuit> at a price <fitting into the limits> from <account>
2.	System	The system responds with a message based on business logic.

Test 2-2. Check the withdrawal of a previously placed order.

Step	Sender	Comment
1.	Client	The client submits an order to withdraw a previously placed order using the ID of the previously submitted order
2.	System	The system responds with a message based on business logic.

Test 2-3. Check the submission of the order for change.

Step	Sender	Comment
1.	Client	The client submits a limit order to buy/sell a currency pair <any of those available on the test circuit> with a price <fitting into the limits> from his account
2.	System	The system responds with a message based on business logic.
3.	Client	The client changes the price of a previously submitted order based on the received OrigClOrdID (ID of the previously submitted order). The new price must differ from the previous one
4.	System	The system responds with a message based on business logic.

Test 2-4. Requesting the order status

Determining the status of an order submitted in Test 2-1

Step	Sender	Comment
1.	Client	The client submits a request for the status of the order submitted in test 2-1, using the received ClOrdID
2.	System	The system responds with a message based on business logic.

Test 2-5. Mass cancellation of orders

Removing all available requests generated during testing:

Step	Sender	Comment
1.	Client	The client submits a request for mass cancellation of orders, Order Mass Cancel Rep
2.	System	The system responds with a message based on business logic. The orders will be deleted.

Appendix 3

to the Instruction for the DMA system certification

SCENARIO

of operation of the DMA system connecting to the SPECTRA Fix-protocol

Test 1. Establishing and completing the connection

Test 1-1. Session setup

A member of the Exchange must connect to the system by indicating their SenderCompID, received from the Exchange's division responsible for organizing and conducting trades.

The Exchange member's software will need to send Logon and HeartBeat messages. The test is performed automatically, no special actions are required.

Test 1-2. End of session

The Exchange Member must properly disconnect from the system after 1 minute and reconnect.

Test 2. Trading interaction

Test 2-1: Submitting a Futures Order

The order is accepted by the system:

Step	Sender	Comment
1.	Client	It is necessary to submit a limit order to buy a test futures <any of those available on the test circuit> with a price <fitting into the limits> from <account>. Order amount – 5 contracts
2.	System	The system responds with a message based on business logic.

Test 2-2: Placing a long-term order to sell a futures contract.

An order with an unlimited validity period needs to be placed:

Step	Sender	Comment
1.	Client	It is necessary to submit a limit order to sell a test futures <any of those available on the test circuit> with a price <fitting into the limits> from <the account>. Order amount – 6 contracts. Execution mode – Good Till Date. Expiration date – any
2.	System	The system responds with a message based on business logic.

Test 2-3. Withdrawal of a previously submitted order

The placed (in test 2-2) order must be withdrawn by the member of the Exchange by OrigClOrdID:

Step	Sender	Comment
1.	Client	Submit an instruction to withdraw a previously placed order using the received OrigClOrdID (ClOrdID of a previously submitted order), (sale of six contracts)
2.	System	The system responds with a message based on business logic.

Test 2-4. Changing the order

Submitting an order to buy a futures contract and changing by OrigClOrdID:

Step	Sender	Comment
1.	Client	Submit a limit order to buy a futures contract <any of those available on the test circuit>. Order size – 10 contracts, from <account>. Execution mode – Good Till Date. Expiration date – any
2.	System	The system responds with a message based on business logic.
3.	Client	Change the price of a previously submitted order according to the received OrigClOrdID (ClOrdID of a previously submitted bid). The new price must differ from the previous one
4.	System	The system responds with a message based on business logic.

Test 2-5. Requesting the Order Status

Determining the status of an order submitted in Test 2-1

Step	Sender	Comment
1.	Client	Submit a request for the status of the order submitted in test 2-1, using the received ClOrdID
2.	System	The system responds with a message based on business logic.

Test 2-6. Mass cancellation of orders

Removing all available orders generated during testing:

Step	Sender	Comment
1.	Client	Submit a mass order cancellation request by specifying <account> and the corresponding modes MassCancelRequestType=8 and MarketSegmentID=F
2.	System	The system responds with a message based on business logic. The orders will be deleted.

Appendix 4

to the Instruction for the DMA system certification

SCENARIO

of operation of the DMA system connecting to the SPECTRA TWIME service

Test 1. Establishing and completing the connection

Test 1-1. Session setup

A member of the Exchange must connect to the system by indicating his TWIME login received from the Exchange's division responsible for organizing and conducting trading.

Software of the member of the Exchange must send an Establish message and at least one HeartBeat (i.e. a Sequence message with NextSeqNo= null). The test is automatic, no special user action is required.

Test 1-2. End of session the member of the Exchange must correctly disconnect from the system after 1 minute and connect again.

Test 2. Trading interaction

Test 2-1: Submitting a Futures Order

Submitting an order with a validity period of "day":

Step	Sender	Comment
1.	Client	Submitting a limit order to buy a futures contract <any of those available on the test circuit>. Order amount – 5 contracts from <account>. Order type – Day <0>
2.	System	The system responds with a message based on business logic.

Test 2-2: Submitting a long order to buy a futures contract.

Submitting a limited validity order:

Step	Sender	Comment
1.	Client	Submitting a limit order to buy a future <any of those available on the test circuit> with a price <fitting into the limits> from <account>. Order size – 6 contracts. Execution mode GTD=<6>. Expiration date – any, different from the current one
2.	System	The system responds with a message based on business logic.

Test 2-3. Withdrawal of a previously submitted order

The submitted (in test 2-1 or 2-2) order must be withdrawn by the member of the Exchange by OrderID:

Step	Sender	Comment
1.	Client	Submitting an order to withdraw a previously submitted order using the received OrderID (sale of six contracts)
2.	System	The system responds with a message based on business logic.

Test 2-5. Changing the order

Placing an order to buy a futures contract and changing an existing order:

Step	Sender	Comment
1.	Client	Submitting a limit order to buy a futures contract <any of those available on the test circuit>. Order size – 10 contracts, from <account>). Order type – Day <0>
2.	System	The system responds with a message based on business logic.
3.	Client	Changing the price of a previously submitted order based on the received OrderID. The new price must differ from the previous one
4.	System	The system responds with a message based on business logic.

Test 2-7. Mass cancellation of orders

Removing all available orders generated during testing:

Step	Sender	Comment
1.	Client	Submitting a request for mass cancellation of orders, specifying <Account> and the corresponding Side mode= <89> and SecurityType=<0>
2.	System	The system responds with a message based on business logic.

Test 2-8: Requesting Message Resends

Request to re-send the last five messages:

Step	Sender	Comment
1.	Client	Sending a RetransmitRequest message with a message sequence number =N-5, where N is the number of the last received message
2.	System	The system responds with a Retransmission message and re-requested messages.

Test 3. Recovering a large number of missed messages

Test 3-1. Session setup

A member of the Exchange must connect to the Recovery service by indicating their TWIME login received from the Exchange division responsible for organizing and conducting trades.

Software of the member of the Exchange must send the Establish and HeartBeat messages (Sequence with NextSeqNo=null). The test is automatic, no special actions are required.