Cboe Japan Kai-X Drop Copy Interface Specification

Cboe Japan Limited

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1 Introduction

This document is the technical specification for the Drop Copy service. The service provides a consolidated feed of messages taken from the FIX sessions a participant establishes with the Kai-X (Cboe Kai-X as the full name) system. The service can be made available to participants or to third party vendors on behalf of the participant, provided a written letter of authority is provided to Kai-X nominating the third party vendor as an authorized recipient. The protocol of this interface is the FIX protocol.

In addition, it supports Kill Switch service which clients can use to stop or resume their FIX sessions and ToSTNeT session by submitting a FIX message called "Session Command Request".

This document serves as a supplement to the FIX Protocol Specification (please visit www.fixprotocol.org for detail). Implementation and interpretation of the protocol by the Drop Copy Service and Kill Switch Service are described in this document.

Note: This specification should be read with reference to the latest version of the Kai-X System Interface Specification.

1.1 Relevant documents

ITEM	TITLE	VERSION	DATE
1	Kai-X System Interface Specification	1.36	16-Mar-2017

Figure 1: Relevant Document(s)

1.2 Revision History

ITEM	REVISION HIGHLIGHT	DOCUMENT REFERENCE	DATE
1	Initial version	1.00	23-Feb-2016
2	Updated ToSTNeT custom tag number Updated broker preference tag description Removed cash margin and broker preference from cancel and replace response	1.01	17-Mar-2016
3	Added post only order type Added primary and market peg types Updated indicative fill cancellation scenarios	1.02	14-Apr-2016
4	Added custom tags to return ToSTNeT order id and execution id in execution correction message	1.03	18-Apr-2016
5	Added MaxFloor description Added unsolicited order cancel response Removed NoSelfTrade from Order Cancel Response	1.04	9-May-2016
6	Removed MinQty from Order Cancel Response Added ClientID to Unsolicited Order Cancel Response Updated multiple tag descriptions to align with System Interface Specification	1.05	27-May-2016
7	Updated Account tag as optional in Order Cancel Ack Added TransactTime to Order Cancel Response and Unsolicited Order Cancel Response	1.06	13-Jun-2016
8	Updated CashMargin tag to only accept cash	1.07	17-Jun-2016
9	Updated MinQty description	1.08	21-Jul-2016
10	Added limit price (tag 44) to execution report, execution correction, execution cancel	1.09	3-Aug-2016
11	Updated CashMargin tag (8104) description	1.10	23-Aug-2016
12	Added custom tags (8031, 8032, 8033) to return	1.20	25-Aug-2016

	primary exchange last traded, best bid, best ask, inside execution report and execution correction		
13	Updated PrimaryLastPx (8031) description	1.21	26-Oct-2016
14	Added Kill Switch Request Type (8201) STOP_TOSTNET and RESUME_TOSTNET and removed legacy ones	1.22	1-Dec-2016
15	Added PriceProtectionScope (tag 1092) to enable dynamic limit price Added NoTradeKey (tag 7714) to enable broker independent self-trade prevention Added LastLiquidityInd (tag 851) to execution report and execution correction	1.30	15-Dec-2016
16	Updated PriceProtectionScope (tag 1092) description	1.31	19-Dec-2016
17	Skipped 1.32 to align version with System Spec Added custom tag Indicative (6226) to flag indicative fill, trade correction, and trade cancel	1.33	24-Mar-2017
18	Updated MinQty description in 5.2, 5.4 Updated NoTradeKey, NoSelfTrade description in 5.2, 5.4 Updated required flag of ClOrdID, OrdType, OrderCapacity, MaxFloor in 5.2, 5.4 Added description for required=N tags for reject responses Standardized description of OrderQty, Price, Side, Symbol, TimeInForce in all responses Standardized OrigClOrdID description	1.34	8-May-2017
19	Add OrderClassification(8060) in 5.2	1.35	9-Nov-2017
20	Change CashMargin tag from 8104 to 544 Updated CashMargin(544) description in 5.2, 5.7, 5.8 Removed CashMargin(8104) from 5.2, 5.4	1.36	23-Jul-2018
21	Update description of TransactTime(60) about nanosecond precision Updated 5.2, 5.3, 5.4, 5.6, 5.7, 5.8, 5.9	1.37	23-Jul-2018
22	Re-branding – logo and name reference change	1.38	02-Feb-2022

Figure 2: Revision History

2 FIX Protocol

FIX Protocol (Financial Information eXchange Protocol), which is owned and maintained by FIX Protocol Ltd., is a series of standardized messaging specifications for the electronic communication of execution-related messages. It is a globally used collective language developed by bankers, exchanges, and institutional clients and brokers. Since FIX Protocol is widely accepted protocol in the industry. Therefore, by providing this interface in FIX Protocol, the participants can connect to this interface with minimal development overhead.

3 Drop Copy Service

The Drop Copy service provides messages in accordance with the FIX protocol. It collects information from order maintenance and execution messages to assist a client in identifying the orders and executions from a particular participant(s).

4 Session Recovery

4.1 Disconnection

4.1.1 Same Day Message Recovery

When a Drop Copy session of a client is disconnected and connection is subsequently re-established within the same day, all messages sent by the Drop Copy Service but not received by the client will be detected by tracking the incoming sequence numbers. The messages are then recovered by the FIX message recovery process and re-sent to the client. On getting a Resend Request from a client, all messages will be transmitted to the client again with each message containing a PossDupFlag field, indicating it is a resent message.

4.1.2 No Recovery on Previous Day Message

When a Drop Copy session of a client is disconnected and connection is subsequently re-established on the next day, all missed messages on the previous day will not be re-sent to the client.

5 Messages

This section provides details concerning the different types of messages that are sent by the Drop Copy service. For reject responses, tags marked with required=N may not be returned if the tag value in the incoming request on the trading session fails validation.

5.1 Order Requests

A Drop Copy session does not accept order requests. All order requests are rejected.

5.2 New Order Single Acknowledgment

Kai-X sends a New Order Single Acknowledgment after accepting or rejecting a New Order Single Request from a participant.

In addition to the standard header, trailer and Kai-X accepted symbol definition fields – Kai-X provides the following fields in the message:

TAG	FIELD NAME	REQ'D	COMMENTS
	Message Header	Y	MsgType=8
1	Account	N	Kai-X populates this field with the original value assigned in the New Order Single message.
6	AvgPx	Y	Defaulted to 0 for order acknowledgements.
11	ClOrdId	N	Kai-X populates this field with the original value assigned in the New Order Single message.
14	CumQty	Y	Defaulted to 0 for order acknowledgements.
17	ExecID	Y	A unique identifier of execution message as assigned by Kai-X.
18	ExecInst	Y	Values supported: Pegging options (mutually exclusive) P = Market Peg R = Primary Peg M = Mid-price Peg
20	ExecTransType	Y	0 = New
31	LastPx	Y	Default to 0 for order acknowledgements.
32	LastShares	Y	Default to 0 for order acknowledgements.
37	OrderID	Y	Kai-X order reference number.
38	OrderQty	Y	Quantity of order.
39	OrdStatus	Y	0 = New 8 = Rejected
40	OrdType	N	P = Pegged
44	Price	N	Optional for pegged orders, indicating a limit price for the order. It is positive decimal in format: "[max 12 digits whole number].[max 7 digits decimal place]" It may contain leading zeros or trailing zeros. Max value is "100,000,000,000.0000000".
47	OrderCapacity	N	A = Agency single order P = Principal
54	Side	Y	1 = Buy 2 = Sell 5 = Sell short 6 = Sell short exempt
55	Symbol	Y	Kai-X Symbol.
58	Text	N	Reason for rejecting an order if it is defined.
59	TimeInForce	N	Absence of this field indicates a day order. 0 = Day – Day orders are in effect until the client cancels the order, or until the Kai-X system is shut down for maintenance 3 = Immediate or Cancel - As much of the order as possible must be executed immediately. Any part of the order that is not executed immediately gets cancelled. 4 = Fill Or Kill (FOK) – Fill the order in its entirety or cancel it immediately.
60	TransactTime	N	Time of new order acknowledgement (expressed as GMT). If nanoseconds is enabled by the administrator: YYYYMMDD-HH-MM-SS.nnnnnn000
76	ExecBroker	N	Identifier of a participant in Kai-X.
109	ClientID	N	Internal connection ID of the client assigned by Kai-X.
110	MinQty	N	Minimum quantity of an order to be executed. When the residual quantity falls below the specified minimum quantity, residual quantity will be used as minimum quantity. Incoming MinQty must conform to the security lot size. Value of 0 is treated as no MinQty supplied.
111	MaxFloor	N	Always 0

150	ExecType	Y	0 = New. 8 = Rejected
151	LeavesQty	Y	Amount of shares open for further execution.
544	CashMargin	N	Will be returned if valid value is supplied in the original New Order Single message. 1 = Cash
1092	PriceProtectionScope	N	This field indicates whether the order will use the latest primary exchange day high and day low as limit price when the order is re-priced. This tag can only be specified in new order message and cannot be modified afterwards. Value supported: 1= Enable dynamic limit price If an explicit limit price (tag 44) is also specified on a dynamic limit price order, • Min(tag 44, latest primary day high) will be the effective limit price for buy order when it is re-priced • Max(tag 44, latest primary day low) will be the effective limit price for sell order when it is re-priced
7714	NoTradeKey	N	Orders with the same value in NoTradeKey will not be matched against each other, regardless of participant. If the order is not fully-filled, the order will rest on the book. It is a positive integer and max value is 2147483647.
8021	PostOnly	N	This field indicates order is post only, i.e. it will not take liquidity. If there is matching opportunity when a post only order is sent to Kai-X, the post only order will be cancelled. Otherwise, the post only order will be entered into the order book for subsequent matching. TimeInForce(59) cannot be IOC(3) and FOK(4) if order is postonly. Value supported: P = Post or cancel
8060	OrderClassification	N	Will be returned if valid value is supplied in the original New Order Single message. 1 = Non Low Latency Trading (Auto) 2 = Non Low Latency Trading (Manual) 3 = Market Making Strategy 4 = Arbitrage Strategy 5 = Directional Strategy 6 = Other Strategy
8174	NoSelfTrade	N	Identified as Self-Trade Prevention (STP) order. Orders from the same participant with the same NoSelfTrade key will not be allowed to match with each other. If the order is not fully-filled, the order will rest on the book. It is a positive integer and max value is 2147483647.
8182	OrderRestrictions	N	Broker Preferencing logic can ONLY be enabled/disabled by contacting Market Operations to request that it be configured as a default setting on a per FIX Gateway basis. If a participant elects to have broker preferencing enabled on the session, orders will be treated as broker preferencing without the need for any custom tag. Tag <8182> can be used to disable the broker preference on a per order basis provided that the override order has TIF = 3 (IOC) or 4 (FOK).

			I = Override broker preference default setting
	Message Trailer	Y	

Table 1: New Order Single Acknowledgement

5.3 Order Cancel Acknowledgement

Kai-X sends Order Cancel Acknowledgment via an Execution Report message after accepting Order Cancel Requests from participants.

In addition to the standard header, trailer and Kai-X accepted symbol definition – Kai-X provides the following fields in an Execution Report message:

TAG	FIELD NAME	REQ'D	COMMENTS
	Message Header	Y	MsgType=8
1	Account	N	Kai-X always populates this field with the original value supplied by the participant
6	AvgPx	Y	The average price of all shares executed.
11	ClOrdId	Y	Kai-X will always populate this field with the value assigned by the participant in the corresponding Order Cancel Request.
14	CumQty	Y	Total shares executed.
17	ExecID	Y	A unique identifier of execution message as assigned by Kai-X
20	ExecTransType	Y	0 = New.
31	LastPx	Y	Default to 0 for order cancel acknowledgements.
32	LastShares	Y	Default to 0 for order cancel acknowledgements.
37	OrderID	Y	Kai-X order reference number.
38	OrderQty	Y	Quantity of order.
39	OrdStatus	Y	4 = Canceled.
40	OrdType	N	P = Pegged
41	OrigClOrdID	Y	ClOrdID of the previous order (not the initial order) as assigned by the client.
44	Price	N	Limit Price
47	OrderCapacity	Y	A = Agency single order P = Principal This tag only exists in drop copy spec but not in system spec.
54	Side	Y	1 = Buy 2 = Sell 5 = Sell short 6 = Sell short exempt
55	Symbol	Y	Kai-X Symbol.
59	TimeInForce	N	Absence of this field indicates a day order. 0 = Day – Day orders are in effect until the client cancels the order, or until the Kai-X system is shut down for maintenance 3 = Immediate or Cancel - As much of the order as possible must be executed immediately. Any part of the order that is not executed immediately gets cancelled. 4 = Fill Or Kill (FOK) – Fill the order in its entirety or cancel it immediately.
60	TransactTime	N	Time of cancel acknowledgement (expressed as GMT). If nanoseconds is enabled by the administrator: YYYYMMDD-HH-MM-SS.nnnnnn000
76	ExecBroker	N	Identifier of a participant in Kai-X. This tag only exists in drop copy spec but not in system spec.
109	ClientID	N	Internal connection ID of the client assigned by Kai-X.
111	MaxFloor	Y	Always 0
150	ExecType	Y	4 = Cancelled.
151	LeavesQty	Y	0
	Message Trailer	Y	

Table 2: Order Cancel Acknowledgement

5.4 Order Replace Acknowledgment

Kai-X sends Order Replace Acknowledgments via an Execution Report message after accepting Order Replace Requests from participants.

In addition to the standard header, trailer and Kai-X accepted symbol definition fields. Kai-X provides the following fields in an Execution Report message:

TAG	FIELD NAME	REQ'D	COMMENTS
	Message Header	Y	MsgType=8

1	Account	N	Kai-X always populates this field with the original value supplied by the participant
6	AvgPx	Y	Average price of shares executed.
11	ClOrdId	N	Kai-X will always populate this field with the value assigned by the participant in the corresponding Order Replace Request.
14	CumQty	Y	Total shares executed.
17	ExecID	Y	A unique identifier of execution message as assigned by Kai-X.
18	ExecInst	N	Kai-X will always populate this field with the value assigned by the participant in the corresponding Order Replace Request.
20	ExecTransType	Y	0 = New
31	LastPx	Y	Default to 0 for replace acknowledgements.
32	LastShares	Y	Default to 0 for replace acknowledgements.
37	OrderID	Y	Kai-X order reference number.
38	OrderQty	Y	Quantity of order.
39	OrdStatus	Y	1 = Partially filled 5 = Replaced
40	OrdType	N	P = Pegged
41	OrigClOrdID	Y	ClOrdID of the previous order (not the initial order) as assigned by the client.
44	Price	N	Limit Price
47	OrderCapacity	N	A = Agency single order P = Principal
54	Side	Y	1 = Buy 2 = Sell 5 = Sell short 6 = Sell short exempt
55	Symbol	Y	Kai-X Symbol.
59	TimeInForce	N	Absence of this field indicates a day order. 0 = Day – Day orders are in effect until the client cancels the order, or until the Kai-X system is shut down for maintenance 3 = Immediate or Cancel - As much of the order as possible must be executed immediately. Any part of the order that is not executed immediately gets cancelled. 4 = Fill Or Kill (FOK) – Fill the order in its entirety or cancel it immediately.
60	TransactTime	N	Time of cancel/replace acknowledgement (expressed as GMT). If nanoseconds is enabled by the administrator: YYYYMMDD-HH-MM-SS.nnnnnn000
76	ExecBroker	N	Identifier of a participant in Kai-X.
109	ClientID	N	Internal connection ID assigned by Kai-X.
110	MinQty	N	Will be returned if supplied in order replace request. 0 will be returned if MinQty is removed.
111	MaxFloor	N	Always 0
150	ExecType	Y	5 = Replace
151	LeavesQty	Y	Amount of shares open for further execution.
7714	NoTradeKey	N	Orders with the same value in NoTradeKey will not be matched against each other, regardless of participant. If the order is not fully-filled, the order will rest on the book. It is a positive integer and max value is 2147483647.
8174	NoSelfTrade	N	Identified as Self-Trade Prevention (STP) order. Orders from the same participant with the same NoSelfTrade key will not be allowed to match with each other. If the order is not fully-filled, the order will rest on the book.

			It is a positive integer and max value is 2147483647.
	Message Trailer	Y	

Table 3: Order Replace Acknowledgment

5.5 Order Cancel Reject or Cancel/Replace Reject

Kai-X sends Order Cancel Reject after rejecting Order Cancel or Replace Requests from participant.

In addition to the standard header and trailer, Kai-X provides the following fields in a Cancel Reject message.

TAG	FIELD NAME	REQ'D	COMMENTS
	Message Header	Y	MsgType=9
11	ClOrdID	Y	Kai-X populates this field with the value assigned by the client in the corresponding Order Cancel Request message
37	OrderID	Y	Kai-X order reference number.
39	OrdStatus	Y	OrdStatus value after this reject is applied.
41	OrigClOrdID	Y	ClOrdID of the previous order (not the initial order) as assigned by the client.
58	Text	N	Text message explaining rejection reason
76	ExecBroker	N	Identifier of a participant in Kai-X.
109	ClientID	N	Internal Connection ID assigned by Kai-X.
434	CxlRejResponseTo	Y	Type of request to which this is a response: 1=Order Cancel Request 2=Order Cancel/Replace request
	Message Trailer	Y	

Table 4: Order Cancel Reject

5.6 Unsolicited Order Cancel Response

An unsolicited order cancel response is generated if order is cancelled by Kai-X. For example, an IOC order, or post-only order that would take liquidity on initial entry.

In addition to the standard header, trailer and Kai-X accepted symbol definition fields; Kai-X provides the following fields in an Execution Report message:

TAG	FIELD NAME	REQ'D	COMMENTS
	Message Header	Y	MsgType=8
6	AvgPx	Y	The average price of all shares traded.
11	ClOrdID	Y	Kai-X populates this field with the value assigned by the client.
14	CumQty	Y	Total shares executed.
17	ExecID	Y	A unique identifier of execution message as assigned by Kai-X
20	ExecTransType	Y	0 = New.
31	LastPx	Y	Default to 0 for unsolicited order cancel response
32	LastShares	Y	Default to 0 for unsolicited order cancel response
37	OrderID	Y	Kai-X order reference number.
38	OrderQty	Y	Quantity of order.
39	OrdStatus	Y	4 = Cancelled.
40	OrdType	N	P = Pegged
41	OrigClOrdID	Y	Same as ClOrdID
44	Price	N	Limit Price
54	Side	Y	1 = Buy 2 = Sell 5 = Sell short 6 = Sell short exempt
55	Symbol	Y	Kai-X Symbol.
58	Text	N	Reason for unsolicited cancel
59	TimeInForce	N	Will be returned with the original value if supplied in the original New Order Single message. 0 = Day will be returned if not supplied.
60	TransactTime	N	Time of unsolicited cancel acknowledgement (expressed as GMT). If nanoseconds is enabled by the administrator: YYYYMMDD-HH-MM-SS.nnnnnn000
76	ExecBroker	N	Identifier of a participant in Kai-X.
109	ClientID	N	Internal connection ID of the client assigned by Kai-X
111	MaxFloor	Y	Always 0
150	ExecType	Y	4 = Cancelled.
151	LeavesQty	Y	0
	Message Trailer	Y	

Table 5: Unsolicited Order Cancel Response

5.7 Execution Report – Indicative Fill

Kai-X sends execution reports via the Execution Report messages. In addition to the standard header, trailer, and Kai-X accepted symbol definition fields, Kai-X provides only the following fields in an execution report:.

TAG	FIELD NAME	REQ'D	COMMENTS
	Message Header	Y	MsgType=8
1	Account	N	Kai-X always populates this field with the original value supplied by the participant
6	AvgPx	Y	Average price of shares executed.
11	ClOrdID	Y	Kai-X will populate this field with the ClOrdID from the current status of the order.
14	CumQty	Y	Total shares executed.
17	ExecID	Y	A unique identifier of execution message as assigned by Kai-X
20	ExecTransType	Y	Values supported by : 0 = New indicative fill
29	LastCapacity	N	Supported values are 1 = Agent

			2 = Cross as agent 3 = Cross as principal 4= Principal Values of 2 or 3 essentially indicate that the client has executed against themselves.
31	LastPx	Y	Price of shares bought or sold on this fill.
32	LastShares	Y	Quantity of shares bought or sold on this fill.
37	OrderID	Y	Kai-X order reference number.
38	OrderQty	Y	Quantity of order.
39	OrdStatus	Y	1 = Partially filled 2 = Filled
40	OrdType	N	Values supported by Kai-X: P = Pegged
44	Price	N	Limit Price
47	OrderCapacity	Y	A = Agency single order P = Principal
54	Side	Y	Values supported by Kai-X: 1 = Buy 2 = Sell 5 = Sell short 6 = Sell short exempt
55	Symbol	Y	Kai-X Symbol.
59	TimeInForce	N	Absence of this field indicates a day order. 0 = Day – Day orders are in effect until the client cancels the order, or until the Kai-X system is shut down for maintenance 3 = Immediate or Cancel - As much of the order as possible must be executed immediately. Any part of the order that is not executed immediately gets cancelled. 4 = Fill Or Kill (FOK) – Fill the order in its entirety or cancel it immediately.
60	TransactTime	N	Time and date of execution in Kai-X (expressed as GMT). If nanoseconds is enabled by the administrator: YYYYMMDD-HH-MM-SS.nnnnnn000
76	ExecBroker	N	Identifier of a participant in Kai-X.
109	ClientID	N	Internal connection ID assigned by Kai-X.
150	ExecType	Y	1 = Partially filled 2 = Filled
151	LeavesQty	Y	Amount of shares open for further execution.
375	ContraBroker	Y	JSDA member number of the contra broker for confirmed execution
544	CashMargin	N	Will be returned if value is supplied in the original New Order Single message.
851	LastLiquidityInd	N	Indicator to identify whether this fill was a result of a liquidity provider providing or liquidity taker taking the liquidity. Valid values: 1 = Added Liquidity 2 = Removed Liquidity
6226	Indicative	Y	Y = Is an indicator fill
8031	PrimaryLastPx	N	Primary exchange last traded price at the time of indicative fill
8032	PrimaryBidPx	Y	Primary exchange best bid price at the time of indicative fill
8033	PrimaryAskPx	Y	Primary exchange best ask price at the time of indicative fill
	Message Trailer	Y	

Table 6: Execution Report – Indicative Fill

5.8 Execution Correction – ToSTNet Confirmation

After ToSTNeT confirmed the indicative fill, Kai-X sends Execution Correction Report to provide ToSTNeT order ID, execution ID, and transaction time.

In addition to the standard header, trailer, and Kai-X accepted symbol definition fields, Kai-X provides only the following fields in an Execution Report:

TAG	FIELD NAME	REQ'D	COMMENTS
	Message Header	Y	MsgType=8
1	Account	N	Kai-X populates this field with the original value assigned in the New Order Single message.
6	AvgPx	Y	Average price of shares executed.
11	ClOrdID	Y	Kai-X will populate this field with the ClOrdID from the current state of the order
14	CumQty	Y	Total shares executed.
17	ExecID	Y	A unique identifier of execution message as assigned by Kai-X
19	ExecRefID	N	When ToSTNet confirmation arrives, this tag will carry the previous execution ID which is to be corrected.
20	ExecTransType	Y	Values supported by : 2 = Correct – ToSTNeT fill confirmation
29	LastCapacity	N	Supported values are 1 = Agent 2 = Cross as agent 3 = Cross as principal 4 = Principal Values of 2 or 3 essentially indicate that the client has executed again themselves.
31	LastPx	Y	Same as previous Indicative Fill value
32	LastShares	Y	Same as previous Indicative Fill value
37	OrderID	Y	Kai-X order reference number.
38	OrderQty	Y	Quantity of order.
39	OrdStatus	Y	1 = Partially filled 2 = Filled 4 = Canceled (ToSTNet confirmation sent after IOC cancellation)
40	OrdType	N	Values supported by Kai-X: P – Pegged
44	Price	N	Limit Price
47	OrderCapacity	Y	Refer to New Order Single message for description
54	Side	Y	Values supported by Kai-X: 1 = Buy 2 = Sell 5 = Sell short 6 = Sell short exempt
55	Symbol	Y	Kai-X Symbol.
59	TimeInForce	N	Absence of this field indicates a day order. 0 = Day – Day orders are in effect until the client cancels the order, or until the Kai-X system is shut down for maintenance 3 = Immediate or Cancel - As much of the order as possible must be executed immediately. Any part of the order that is not executed immediately gets cancelled. 4 = Fill Or Kill (FOK) – Fill the order in its entirety or cancel it immediately.
60	TransactTime	N	Time and date of execution in Kai-X (expressed as GMT) If nanoseconds is enabled by the administrator: YYYYMMDD-HH-MM-SS.nnnnnn000
76	ExecBroker	N	Identifier of a participant in Kai-X.
109	ClientID	N	Internal connection ID of the client assigned by Kai-X
150	ExecType	Y	1 = Partially filled 2 = Filled 4 = Canceled (ToSTNet confirmation sent after IOC cancellation)
151	LeavesQty	Y	Amount of shares open for further execution.
375	ContraBroker	N	JSDA member number of the contra broker for confirmed execution

544	CashMargin	N	Will be returned if value is supplied in the original New Order Single message.
851	LastLiquidityInd	N	Indicator to identify whether this fill was a result of a liquidity provider providing or liquidity taker taking the liquidity. Valid values: 1 = Added Liquidity 2 = Removed Liquidity
6226	Indicative	Y	N = Is not an indicator fill
8031	PrimaryLastPx	N	Primary exchange last traded price at the time of indicative fill
8032	PrimaryBidPx	Y	Primary exchange best bid price at the time of indicative fill
8033	PrimaryAskPx	Y	Primary exchange best ask price at the time of indicative fill
8101	ToSTNeTOrderID	Y	Order Acceptance Number in ToSTNeT
8102	ToSTNeTExecutionID	Y	Execution Notice number in ToSTNeT
8106	ToSTNeTTransactTime	Y	Transaction time in ToSTNeT (expressed as GMT)
	Message Trailer	Y	

Table 7: Execution Correction – ToSTNet Confirmation

5.9 Execution Cancel – ToSTNet Rejection or Manual Cancel

After ToSTNeT rejected the indicative fill, Kai-X sends Execution Cancel Report to cancel the previous indicative fill and provide the ToSTNeT transaction time. Execution Cancel Report can also be sent if the indicative fill is manually cancelled by operations. Presence or absence of tag 8106 can be used to differentiate between the two cases.

In addition to the standard header, trailer, and Kai-X accepted symbol definition fields, Kai-X provides only the following fields in an Execution Report:

TAG	FIELD NAME	REQ'D	COMMENTS
	Message Header	Y	MsgType=8
1	Account	N	Kai-X populates this field with the original value assigned in the New Order Single message.
6	AvgPx	Y	Average price of shares executed.
11	ClOrdID	Y	Kai-X will populate this field with the ClOrdID from the current state of the order
14	CumQty	Y	Total shares executed.
17	ExecID	Y	A unique identifier of execution message as assigned by Kai-X
19	ExecRefID	N	This tag will carry the previous execution ID which is to be cancelled.
20	ExecTransType	Y	Values supported by : 1 = Cancel
29	LastCapacity	N	Supported values are 1 = Agent 2 = Cross as agent 3 = Cross as principal 4 = Principal Values of 2 or 3 essentially indicate that the client has executed again themselves.
31	LastPx	Y	Always 0
32	LastShares	Y	Always 0
37	OrderID	Y	Kai-X order reference number.
38	OrderQty	Y	Quantity of order.
39	OrdStatus	Y	0 = New (order has only one fill, then ToSTNeT reject or manual cancel) 1 = Partially filled 2 = Filled
40	OrdType	N	Values supported by Kai-X: P – Pegged
44	Price	N	Limit Price
47	OrderCapacity	Y	Refer to New Order Single message for description
54	Side	Y	Values supported by Kai-X: 1 = Buy

			2 = Sell 5 = Sell short 6 = Sell short exempt
55	Symbol	Y	Kai-X Symbol.
58	Text	N	Reason for rejection if available
59	TimeInForce	N	Refer to New Order Single message for description
60	TransactTime	N	Time and date of execution in Kai-X (expressed as GMT) If nanoseconds is enabled by the administrator: YYYYMMDD-HH-MM-SS.nnnnnn000
76	ExecBroker	N	Identifier of a participant in Kai-X.
109	ClientID	N	Internal connection ID of the client assigned by Kai-X
150	ExecType	Y	0 = New (order has only one fill, then ToSTNeT reject or manual cancel) 1 = Partially filled 2 = Filled
151	LeavesQty	Y	Amount of shares open for further execution.
375	ContraBroker	N	JSDA member number of the contra broker for confirmed execution
6226	Indicative	Y	N = Is not an indicator fill
8106	ToSTNeTTransactTime	N	Transaction time in ToSTNeT (expressed as GMT) if it is ToSTNeT rejection. This tag will not be sent if it is manual cancel.
	Message Trailer	Y	

Table 8: Execution Cancel – ToSTNet Rejection or Manual Cancel

5.10 Done For Day Order Status Report

At the end of the continuous matching session, outstanding orders will be cancelled. Kai-X sends a done for day order report via the Execution Report messages.

TAG	FIELD NAME	REQ'D	COMMENTS
	Message Header	Y	MsgType=8
1	Account	N	Kai-X always populates this field with the original value supplied by the participant
6	AvgPx	Y	Average price of shares executed.
11	ClOrdID	Y	Kai-X will populate this field with the ClOrdID from the current status of the order, which is assigned by the participant.
14	CumQty	Y	Total shares executed.
17	ExecID	Y	A unique identifier of message as assigned by Kai-X.
20	ExecTransType	Y	3 = Status
37	OrderID	Y	Kai-X order reference number.
38	OrderQty	Y	Quantity of order.
39	OrdStatus	Y	3 = Done for day.
40	OrdType	N	Values supported by Kai-X: P = Pegged
44	Price	N	Limit Price
54	Side	Y	Values supported by Kai-X: 1 = Buy 2 = Sell 5 = Sell short 6 = Sell short exempt
55	Symbol	Y	Kai-X Symbol.
76	ExecBroker	N	Identifier of a participant in Kai-X.
109	ClientID	N	Internal connection ID assigned by Kai-X.
150	ExecType	Y	3 = Done for day.
151	LeavesQty	Y	0
	Message Trailer	Y	

Table 9: Done for Day Order Report

5.11 Peg Order Suspended Report

When there is problem with reference price source so that pricing information from primary exchanges are not available, corresponding peg order will be suspended.

Kai-X sends peg order suspended report via the Execution Report messages.

TAG	FIELD NAME	REQ'D	COMMENTS
	Message Header	Y	MsgType=8
1	Account	N	Kai-X populates this field with the original value supplied
6	AvgPx	Y	Average price of shares executed.
11	ClOrdID	Y	Kai-X will populate this field with the ClOrdID from the current state of the order
14	CumQty	Y	Total shares executed.
17	ExecID	Y	A unique identifier of execution message as assigned by Kai-X.
20	ExecTransType	Y	3 (Status)
37	OrderID	Y	Kai-X order reference number.
38	OrderQty	Y	Quantity of order.
39	OrdStatus	Y	9 = Suspended
54	Side	Y	Values supported by Kai-X: 1 = Buy 2 = Sell 5 = Sell short 6 = Sell short exempt
55	Symbol	Y	Kai-X Symbol.
76	ExecBroker	Y	Identifier of a participant in Kai-X.
109	ClientID	Y	Internal connection ID of the client assigned by Kai-X.
150	ExecType	Y	9 = Suspended
151	LeavesQty	Y	Amount of shares open for further execution.
	Message Trailer	Y	

Table 10: Peg Order Suspended Report

5.12 Peg Order Resume Report

When the problem of the reference price from primary exchanges is resolved, corresponding peg order will be resumed.

Kai-X sends you peg order resume report via the Execution Report messages.

TAG	FIELD NAME	REQ'D	COMMENTS
	Message Header	Y	MsgType=8
1	Account	N	Kai-X populates this field with the original value supplied
6	AvgPx	Y	Average price of shares executed.
11	ClOrdID	Y	Kai-X will populate this field with the ClOrdID from the current state of the order
14	CumQty	Y	Total shares executed.
17	ExecID	Y	A unique identifier of execution message as assigned by Kai-X.
20	ExecTransType	Y	3 = Status
37	OrderID	Y	Kai-X order reference number.
38	OrderQty	Y	Quantity of order.
39	OrdStatus	Y	Last order status before suspended
54	Side	Y	Values supported by Kai-X: 1 = Buy 2 = Sell 5 = Sell short 6 = Sell short exempt
55	Symbol	Y	Kai-X Symbol.
76	ExecBroker	Y	Identifier of a participant in Kai-X.
109	ClientID	Y	Internal connection ID of the client assigned by Kai-X.

150	ExecType	Y	D = Restated
151	LeavesQty	Y	Amount of shares open for further execution.
378	ExecRestatementReason	N	3 = Repricing of order
	Message Trailer	Y	

Table 11: Peg Order Resume Report

5.13 Additional Security Identifier

The Kai-X Symbol is always placed in the *Symbol* (55) field for Drop Copy sessions. Apart from the symbol in the *Symbol* (55) field, one of the following additional security identifiers can be included in execution report messages by setting in the session configuration.

Security Identifier	*IDSource* (22)	*SecurityID* (48)	*SecurityExchange* (207)
ISIN	4	ISIN value	For identifying the market where the ISIN executes in.
RIC	5	RIC value	N/A
Exchange Local Symbol	8	Exchange local symbol	For identifying the market where the Exchange Local Symbol executes in.

6 Kill Switch Service

Kill Switch service allows a client to stop or resume their FIX sessions and ToSTNeT session by submitting a FIX message called "Session Command Request" (please see chapter 6.1). There are two types of control available in this service:

- Stop ToSTNeT – client can **"stop"** their ToSTNeT session from placing new orders to ToSTNeT. Open orders on all client FIX sessions will be cancelled and new FIX orders will be rejected. The client is still able to receive execution report messages through those sessions.
- Resume ToSTNeT – client can re-enable ToSTNeT session which has been previously **"stop"** and resume normal matching for all their FIX sessions and sending new orders to ToSTNeT.

After server accepted the "Session Command Request", it sends "Session Command Requests Response Message" with "Status" set to 3 – "Request Accepted" to client for acknowledgment. After the backend server processed the request, it sends the "Session Command Requests Response Message" with "Status" set to 5 – "Request processed" to client to confirm the request has been processed.

6.1 Session Command Requests Message

TAG	FIELD NAME	REQ'D	COMMENTS
	Message Header	Y	MsgType=U1 which indicates this is a user defined message
8200	MsgSubType	Y	This tag is used to supplement the user defined message. Here are the possible values: SR_REQUEST - Risk Control Request
8201	Request Type	Y	This tag further describes the type of the request. Here are the possible request types: STOP_TOSTNET Stop ToSTNeT session from placing new orders to ToSTNeT. This also stops all client FIX sessions from placing new orders and cancel all open orders. RESUME_TOSTNET Re-enable the client's ToSTNeT session and all client FIX sessions.
8202	SRRequestID	Y	Client should fill it with a unique ID (less than 20 characters). This ID with be included in the response message, so that client can correlate it to its request. The uniqueness must be guaranteed during the day.
	Message Trailer	Y	

6.2 Session Command Requests Response Message

TAG	FIELD NAME	REQ'D	COMMENTS
	Message Header	Y	MsgType=U1 which indicates this is a user defined message
8200	MsgSubType	Y	This tag is used to supplement the user defined message. Here are the possible values: SR_RESPONSE – Indicates this message is the acknowledgement of the receipt of the Risk Control request. The SRRequestID tag contains the ID of the corresponding request. SR_REQUEST_REJ – Indicates the request is rejected. The SRRequestID tag contains the ID of the corresponding request.
8201	Request Type	N	This tag is populated with the request type in the original request. Here are the possible request types: STOP_TOSTNET RESUME_TOSTNET Please refer to the Request session for more descriptions on this tag.
8202	SRRequestID	Y	This request id is included in all corresponding response messages so that the client can correlate the responses to its requests.
8206	Status	Y	Response Status: 2 – request rejected 3 – request accepted 4 – request failure (cannot be processed by back end server) 5 – request processed (processed by back end server)
8207	RejectCode	N	This tag indicates the type of REQUEST_REJ 1- Invalid Request There are various reasons for the invalid requests. For example, the request type is not recognizable by the SR service or the request is not authorized. Please refer to the Text tag for more information.
58	Text	N	This tag provides more information on the reject / failure reasons.
	Message Trailer	Y	

7 Appendix A – Session Command Request Matrices

7.1 Session Command Request - Stop ToSTNeT Session

Time	Message Received	Message Sent	MsgSubType	SRRequestID	SRRequestType	Status	Comment
1	U1		SR_REQUEST	X	STOP_TOSTNET		Request to stop ToSTNeT session and all FIX sessions
2		U1	SR_RESPONSE	X	STOP_TOSTNET	3	Request accepted
2		*U1*	*SR_REQUEST_REJ*	*X*	*STOP_TOSTNET*	*2*	*If request rejected*
3		U1	SR_RESPONSE	X	STOP_TOSTNET	5	Request processed by backend server
3		*U1*	*SR_RESPONSE*	*X*	*STOP_TOSTNET*	*4*	*If fail to process by backend server*

7.2 Session Command Request – Resume ToSTNeT Session

Time	Message Received	Message Sent	MsgSubType	SRRequestID	SRRequestType	Status	Comment
1	U1		SR_REQUEST	X	RESUME_TOSTNET		Request to resume ToSTNeT session and all FIX sessions
2		U1	SR_RESPONSE	X	RESUME_TOSTNET	3	Request accepted
2		*U1*	*SR_REQUEST_REJ*	*X*	*RESUME_TOSTNET*	*2*	*If request rejected*
3		U1	SR_RESPONSE	X	RESUME_TOSTNET	5	Request processed by backend server
3		*U1*	*SR_RESPONSE*	*X*	*RESUME_TOSTNET*	*4*	*If fail to process by backend server*