



By SBI Digital Asset Holdings and SIX

Drop Copy FIX 4.2 Technical Specification

For Crypto Derivatives Market

Version 1.3

Table of Contents

Version History	iii
1 Introduction.....	1
1.1 Enquiries / Support.....	1
2 Connectivity and Configuration	2
2.1 Network Connectivity	2
2.2 Drop Copy Session Configuration.....	2
3 FIX Message Header and Trailer	3
3.1 Message Header	3
3.2 Message Trailer.....	3
4 FIX Session Level Management	4
4.1 Sequence Numbers	4
4.2 Logon	4
4.3 Recovery	4
4.4 Heartbeat and Test Request.....	5
4.5 Logout	5
4.6 Reject	6
5 Drop Copy Report Messages.....	7
5.1 Execution Report.....	7
6 Disclaimer.....	9

Version History

Version	Date	Comments
1.0	Dec 2023	First Version
1.1	Mar 2024	Execution Report: Updated description of Tag 59(TimelnForce)
1.2	July 2024	Execution Report: Added Day TimelnForce
1.3	Jan 2025	Execution Report: Added Tags - NoAllocs and AllocAccount

1 Introduction

This document describes the FIX 4.2-based trade drop copy service developed by Aquis Technologies for AsiaNext Exchange (AsiaNext) to provide trading Members with a real-time feed of their trading activity. A single drop copy session can be configured to provide reports for trading activity across all of the Member's trading sessions to AsiaNext, whether they use FIX 4.2 connections, or binary ATP (Aquis Trading Protocol) connections, or a mixture of both. Members wishing to have more than one drop copy session should contact onboarding@asianext.com.

The document is intended to supplement the FIX Protocol specification available at www.fixprotocol.org by describing the message types, fields and values that are supported. Both necessary and optional parameters are identified, along with any specific usage and meaning adopted by AsiaNext.

1.1 Enquiries / Support

Please contact the AsiaNext support team at onboarding@asianext.com for any questions relating to this document.

2 Connectivity and Configuration

2.1 Network Connectivity

AsiaNext will provide trading Members (or their representatives) with IP address and port information to establish a TCP/IP connection for the drop copy session. Connectivity options (co-location, leased line, extranet) should be discussed with the AsiaNext team.

AsiaNext can provide a drop copy service from the AsiaNext test environment, and subsequently from both the primary and backup production trading environments, as required.

2.2 Drop Copy Session Configuration

AsiaNext will agree *SenderCompID* / *TargetCompID* values with the Member to identify their drop copy session and to identify AsiaNext as the source venue. These fields are case-sensitive, with a maximum field size of 16 characters.

AsiaNext expects the Member to be the initiator of the session for the drop copy service.

3 FIX Message Header and Trailer

The following sections detail the FIX tags and values that AsiaNext expects and supports in the header and trailer of incoming and outgoing FIX 4.2 messages.

3.1 Message Header

AsiaNext will only include the following header fields on outgoing messages. Similarly, AsiaNext will only process these header fields on incoming messages and will ignore all others:

Tag	Field Name	Req'd	Comments
8	BeginString	Y	FIX.4.2 (Always unencrypted, must be first field in message)
9	BodyLength	Y	(Always unencrypted, must be second field in message)
35	MsgType	Y	(Always unencrypted, must be third field in message)
34	MsgSeqNum	Y	Message sequence number (two independent streams inbound to AsiaNext and outbound from AsiaNext)
43	PossDupFlag	N	Set to Y on retransmitted messages (e.g. after Resend Request)
49	SenderCompID	Y	ID representing AsiaNext (on messages from AsiaNext); ID of trading Member session receiving the drop copy, as agreed with AsiaNext (on messages from the drop copy recipient)
52	SendingTime	Y	Time of message transmission in UTC
56	TargetCompID	Y	ID of trading Member session receiving the drop copy, as agreed with AsiaNext (on messages from AsiaNext); ID representing AsiaNext (on messages from the drop copy recipient)
122	OrigSendingTime	N	For retransmitted messages (<i>PossDupFlag</i> = Y), the time in UTC that the message was initially sent. If not available, current sending time may be used

3.2 Message Trailer

In the FIX message trailer, AsiaNext expects and supports only the mandatory *Checksum* (10) as the last field in each message.

4 FIX Session Level Management

This section identifies the messages used to establish, maintain and conclude a FIX drop copy session, and to re-establish a session after a disconnection including the recovery of any missed messages.

The structure of these messages corresponds to the standard FIX 4.2 protocol and their use is discussed in more detail below.

4.1 Sequence Numbers

Messages must be sent, received, and processed, in strict sequential order. During an established FIX session, if a message is received with a lower than expected sequence number (i.e. number already seen) then AsiaNext will logout the session and drop the connection. If a message is received with an unexpectedly high sequence number, then AsiaNext will respond with a Resend Request to recover the missing messages before proceeding.

AsiaNext sequence numbers (*MsgSeqNo*) are `uint(64)`.

4.2 Logon

The first message AsiaNext expects to receive on a drop copy session after the TCP/IP connection has been established is a Logon message (*MsgType* (35) = A).

The *SenderCompID* and *TargetCompID* fields are validated by AsiaNext against the expected configuration. If this validation fails, the connection is terminated without sending any message.

If all is well, AsiaNext responds with a Logon message to the counterparty. The *SenderCompID* and *TargetCompID* fields are validated by AsiaNext against the expected trading configuration. If this validation fails, the connection is terminated without sending any message.

The heartbeat interval *HeartBtInt* (108) will also be specified in the Logon message. This value is specified in seconds and is recommended to be set at 30 seconds

The sequence number on the initial Logon for each trading session should be one. If the Logon is to re-establish a broken connection, the sequence number should correspond to the next expected inbound sequence number. If there have been connection problems, or following a drop in connectivity where messages were lost, the sequence number may be higher than expected and message recovery will follow (see below). However, if the sequence number is unexpectedly low then AsiaNext will drop the connection.

If unexpectedly high sequence numbers are detected by either party, message recovery should be initiated. Otherwise the session is now established and should be maintained throughout the trading session.

4.3 Recovery

After a drop in connectivity, it is possible that the counterparty will have missed messages (execution reports). This will be detected by the counterparty receiving an unexpectedly high sequence number on the Logon message from AsiaNext and they should initiate message recovery by sending a Resend Request (*MsgType* = 2).

A Resend Request should be processed, even if it is received with a high sequence number.

As per the FIX protocol, the Resend Request may be for a set range of messages, or open ended by setting *EndSeqNo* (16) = 0. AsiaNext handles either type of request.

AsiaNext will respond to the Resend Request by resending any application messages that have been missed and by using the Sequence Reset – Gap Fill message (*MsgType* = 4, *GapFillFlag* (123) = Y) to cover consecutive administrative messages. All retransmitted messages will be sent with *PossDup* (43) = Y.

Similarly, if there have been connectivity problems, it is possible that the sequence number on the Logon response from the counterparty will be unexpectedly high. AsiaNext will issue a Resend Request for the missed messages. As there are no application messages sent to AsiaNext over the drop copy session, the counterparty should be able to reply with a Sequence Reset – Gap Fill message to allow AsiaNext to reset sequence numbers.

4.4 Heartbeat and Test Request

AsiaNext will send a Heartbeat message (*MsgType* = 0) if no other messages have been sent for the agreed heartbeat interval, *HeartBtInt*.

Similarly, if no messages have been received for *HeartBtInt* +1 seconds then AsiaNext will send a Test Request message (*MsgType* = 1) to test the connection and the responsiveness of the counterparty application. The Test Request message carries a *TestReqID* (112) value and the expected response is a Heartbeat message echoing back this *TestReqID* value.

If there is no response to the Test Request and overall no messages have been received for 2 x *HeartBtInt* seconds then AsiaNext will logout the client and terminate the connection.

AsiaNext expects the counterparty FIX application to behave similarly, in order to maintain the session and to detect and react to abnormal behaviour.

4.5 Logout

Either side may send a Logout message (*MsgType* = 5) to end the FIX session. Unless there has already been a break in connectivity, the sender should continue to process messages until it receives a Logout message in response and it may then terminate the connection.

A network level disconnection or an absence of messages for two heartbeat intervals are also treated by AsiaNext as if the counterparty had logged out.

Under normal circumstances, AsiaNext will maintain the FIX session throughout the trading session and only issue a Logout prior to a scheduled port upgrade. In this scenario, the client will receive a logout message with *Text* (58) = MAINTENANCE. Clients should reconnect to continue trading on the platform.

4.6 Reject

AsiaNext uses a session level Reject message (*MsgType* = 3) to respond to messages that break the session protocol or contain missing or incorrect fields. However, this should be rare, as the counterparty should only be sending simple session level messages to AsiaNext.

If AsiaNext does receive application (trading) messages on a drop copy session this indicates a serious misconfiguration and rather than reject AsiaNext will Logout to alert both sides to this problem.

5 Drop Copy Report Messages

5.1 Execution Report

Drop copy trade reports (and any trade bust reports) are sent as FIX Execution Report messages (*MsgType* = 8).

In addition, unless configured for trade reports only, the drop copy service publishes FIX Execution Reports corresponding to order add, order cancel and order cancel/replace acknowledgements on the trading Member's related trading sessions.

Please note that rejected messages on the trading sessions are not reported by the drop copy service.

The fields and values provided by AsiaNext on these reports are detailed below (a key detailing whether the field applies to order acknowledgments, trade reports or both is included):

Tag	Field Name	Key	Comments
	<i>Standard Header</i>	A	<i>MsgType</i> (35) = 8
1	Account	O	Account Information
6	AvgPx	A	Average price of quantity so far traded on this order (zero if not a trade)
11	ClOrdID	A	Encodes the related trading session and the FIX order ID or the ATP order reference (depending on how order was entered) Format is <sessionID>#<orderID> e.g. FIRM01#123A07
14	CumQty	A	Cumulative quantity traded on this order
17	ExecID	A	ID for the report
19	ExecRefID	T	Sent for a trade bust (<i>ExecTransType</i> = 1) to identify the earlier trade
20	ExecTransType	A	Values sent by AsiaNext drop copy: 0 = New (for order related messages and trade reports) 1 = Cancel (for a trade bust)
22	IDSource	A	8 = Exchange Symbol
30	LastMkt	T	Provides the AsiaNext MIC for execution: XAND AsiaNext Derivatives Exchange
31	LastPx	A	Price of a trade report
32	LastQty	A	Quantity of a trade report
37	OrderID	A	Order reference number
38	OrderQty	A	Quantity of original order
39	OrdStatus	A	Status of the order, values sent by AsiaNext drop copy: 0 = New 1 = Partially Filled 2 = Filled 4 = Cancelled 5 = Replaced C = Expired

Tag	Field Name	Key	Comments
40	OrdType	A	Order type, values sent by AsiaNext drop copy: 2 = Limit
41	OrigClOrdID	O	Encodes the related trading session and the previous FIX order ID (for a solicited FIX Cancel or Cancel/Replace) Format is <sessionID>#<orderID> e.g. FIRM01#101A06
44	Price	A	Limit price, if provided on the original order
47	OrderCapacity	O	Order capacity, values sent by AsiaNext drop copy: A = AOTC P = DEAL R = MTCH
48	SecurityID	A	Security ID of the contract traded on AsiaNext
58	Text	A	
54	Side	A	Side of the order or trade
59	TimeInForce	A	Time in force, values sent by AsiaNext drop copy: 0 = Day (Only for RFQ Quote) 3 = Immediate or Cancel (IOC) 4 = Fill or Kill (FOK) 6 = Good Till Date
60	TransactTime	A	Time of this event in UTC
78*	NoAllocs	A	Number of repeating entries, maximum entry is 1
79*	AllocAccount	A	Specifies sub-account
126	ExpireTime	O	Date/time in UTC of order expiry for a Good Till Date order, with <i>TimeInForce</i> (59) = 6
150	ExecType	A	Reason for this report, values sent by AsiaNext drop copy: 0 = New 1 = Partially Filled 2 = Filled 4 = Cancelled 5 = Replaced C = Expired
151	LeavesQty	A	Quantity still open for execution
375	ContraBroker	T	AsiaNext
382	NoContraBrokers	T	If present value will = 1
851	LastLiquidityInd	T	Trade liquidity indicator, values sent by AsiaNext drop copy: 1 = Added liquidity 2 = Removed liquidity
880	TVTIC	T	The trading venue transaction identification code (TVTIC) required for transaction reporting purposes
1724	DEAFlag	A	Whether the order originates from a Direct Electronic Access Client 0 = No (Default) 5 = Yes

O = applies to order acknowledgments only
T = applies to trade reports only
A = applies to all (orders & trades)

6 Disclaimer

This Document is intended solely for the purpose of providing users with information on the AsiaNext Platform and must not be copied, reproduced, published, distributed, or passed (whether in whole or in part) to others. The recipient further agrees that it will, and will ensure its directors, officers, employees, advisers, and representatives keep the information in the Document confidential. AsiaNext reserves the right to require the return of the Document and any additional documentation or information provided to the recipient at any time. Upon request therefore, the recipient will promptly return the Document together with any copies thereof. AsiaNext reserves the right to amend, supplement or replace the Document at any time.

Whilst we have used best efforts to ensure that the document is complete and accurate, it is subject to change and revision. Although AsiaNext may provide additional information to the recipient, AsiaNext is not obliged to affirm or update the information in the Document or to correct any inaccuracies that may become apparent or to provide, update or correct any additional information.

AsiaNext nor its affiliates (nor any of their respective shareholders, directors, managers, officers, employees, advisers or representatives) accept any responsibility for, nor make any representation, warranty or undertaking, express or implied, as to the truthfulness, accuracy, completeness, fairness or reasonableness of any information supplied in the Document, their contents or any written, electronic or oral communication in connection with AsiaNext and neither AsiaNext shall have any responsibility or liability (direct, indirect, consequential or otherwise) for the information contained in, or any omissions from, the Document, nor for any of the written, electronic or oral communications transmitted to the recipient in the course of the recipient's own investigation and evaluation of AsiaNext

In particular, but without limitation, no representation or warranty is given as to the achievement or reasonableness of, and no reliance should be placed on, any projections, targets, estimates, or forecasts contained in the Document or in such other written, electronic or oral information. Nothing in the Document is, or should be relied upon as, a representation or warranty as to the future. The recipient of the Document hereby releases and discharges each of AsiaNext and any of AsiaNext's affiliates (and any of their respective shareholders, directors, managers, officers, employees, advisers, or representatives) from all losses, damages, costs, and expenses incurred by the recipient or any party as a result of, or arising from, the Document herein or the use thereof.

Access to the trading platform is governed by the platform terms and conditions, a copy of which is accessible here: <https://www.asianext.com/terms-conditions/>

By accepting the Document, the recipient agrees with and acknowledges the obligations and limitations set out herein.