National Commodity and Derivatives Exchange

Trading Gateway

FIX 5.0 SP2 Specification

Version	4.2
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1 DOCUMENT CONTROL

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Date	Ver	Sections	Description	
21 Apr 2015	1.00		First Draft	
15 Nov 2015	2.00		Added length to the fix fields	
28 May 2016	3.00	1.5	New abbreviations added	
		3.1.2.3	Order cancel by market operations	
		3.1.2.4	Order Type and TIF amendments included	
		3.3.2	Multi-leg Orders	
		3.5	Risk Messages	
		3.6	On Behalf of Order Entry by Exchange	
		4.1.2	New order – Multi-leg added	
		7.1.2.1	New order – Multi-leg added	
		7.3.1	New order – Multi-leg added	
		7.5.1	Account type default Client added Conditional mandatory clause added in Account	
		7.5.2	New order – Multi-leg – (new message)	
		7.5.6	New order – Multi-leg added Account type default Client added Conditional mandatory clause added in Account Internal Ref Flag tag added	
		7.6	Application Messages: Risk Management	
		10.1.1.1	Flow of market operations action added	
02 Jan 2017	3.1	4.3	Reference to the annexure for detailed write-up added	
		11	Annexure added for failover and recovery	
		7.5.6	Clarification regarding order ID's updated	
		7.5.1 7.5.2 7.5.5	Clarifications regarding client code length updated Clarification regarding operator ID's added	



02 Jun 2017	3.2	7.5.4 7.5.8	Changes done to incorporate mass cancellation based on segment
		7.5.2	Added new field OrderSource(30004) to New Order – Multileg message
		9.0	Added segment code table
		3.1.4	Clarity added to execution reports resulting out of iceberg orders
20 th June 2017	4.01	7.5.5	Added LastOptPx(32022) and Volatility(1188) to Execution Report message.
06 th Oct 2017	4.02		Updated the NNF ID related messages making the relevant fields required = Y. All messages with Order Entry Operator ID updated to denote that the field is mandatory and Updated the NNF ID related messages making the relevant fields required = Y in relevant sections.

1.3 References

FIXT 1.1 Specification FIX 5.0 (Service Pack 2) Specification

1.4 Exclusions

The given functionality is currently not supported by NCDEX

Sr. NO	Functionality	
1	Order Types	Market
		Market If Touched
		Trailing Stop
		Trailing Stop Limit
		Reserve
		Minimum Fill
		Named
		At the Open (OPG)
		Fill or Kill(FOK)
		At the Close (ATC)
		Good For Auction(GFA)



1		Good Till Time (GTT)
		Closing Price Cross
2	Give-up from CTCL Front end	
3	Negotiated Trades (EFP)	
4	Spread Instrument	Stop Stop_Limit
5	Strategies	BF CD

1.5 Definitions, Acronyms and Abbreviations

Client A participant or service bureau connected to the trading gateway.

FIX Version 5.0 (Service Pack 2) of the Financial Information Exchange Protocol.

FIX A b

A bi-directional stream of ordered messages between the client and server within a particular login. A FIX connection ends when the client logs out or if the TCP/IP

connection is terminated.

FIX Session A bi-directional stream of ordered messages between the client and server within a

continuous sequence number series. A single FIX session can exist across multiple

FIX connections.

FIXT Version 1.1 of the Financial Information Exchange Session Protocol.

MTM Mark-to-Market

MTM PL Mark-to-Market Profit/Loss

NCDEX National Commodity and Derivatives Exchange

NNF ID This should be a fifteen digit ID with the following breakup.

a. First 3 digits will be the identity code for distinguishing orders i.e. whether the orderis program generated (Automated Trading) or manually (CTCL Workstations) entered. Program generated (Automated trading) or manually entered should send the ATS/CTCL vendor code respectively.

eg. If an order is generated through CTCL workstation, they should enter the CTCL vendor code and if an order is generated thought ATS (also a CTCL workstation), they should enter the ATS vendor code.

b. Next 6 digits will be unique approved person code. (first 3 digits will be branch code and last 3 digits will be CTCL terminal Id)

c. Next 6 digits will be the Pin code.

Order Book Each instrument is traded across multiple separate and distinct order books (e.g.

regular, EFP order book, etc.). Each order submitted by a client should include an

indication of the instrument and order book to which it relates.

Server The trading gateway of NCDEX.



Trading Each order request must be submitted under a particular trading mnemonic. Trading Mnemonic

privileges are assigned to participants at the level of their trading mnemonics.

Market to This refers to NCDEX normal market order.

limit (MTL) orders

Identifier of the trading firm the interest is submitted under. This is trading member **Executing**

id provided by the exchange. Firm



2 OVERVIEW

This document describes the API to be used for communicating with the NCDEX Trading System. The interface is a point-to-point service based on the technology and industry standards TCP/IP, FIXT and FIX. The session and application event models and messages are based on versions1.1 and 5.0 (Service Pack 2) of the FIXT and FIX protocols respectively. Please refer to Section 7.2 for the instances where the server varies from the FIX protocol.

The encryption of messages between the client and server is not supported.

The exchange requires that the vendor/exchange's member undergo a conformance test upon completing development of the interface. The vendor/exchange's member must contact the exchange to schedule an appropriate period for testing.

The vendor/exchange's member may contact the CTCL division of the exchange to seek clarification

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3 SERVICE DESCRIPTION

3.1 Order Handling

3.1.1 Order Types

Clients may submit the order types outlined below via the New Order – Single message.



Order Type	Description	Relevant FIX Tags
Market	An order that will execute at the best available prices until it is fully filled. Any remainder will be cancelled.	OrderType (40) = 1
Limit	An order that will execute at or better than the specified price. The remainder, if any, is added to the order book or expired in terms of its TimeInForce (59).	OrderType (40) = 2 Price (44)
Stop	A market order that remains inactive until the market reaches a specified stop price.	OrderType (40) = 3 StopPx (99)
Stop Limit	A limit order that remains inactive until the market reaches a specified stop price.	OrderType (40) = 4 StopPx (99) Price (44)
Market If Touched	A market order that remains inactive until the market reaches a specified stop price.	OrderType (40) = J StopPx (99)
Market to Limit	An order that will execute at the best available prices until it is filled. Any remainder will be converted to a limit order at the last traded price.	OrderType (40) = K
Iceberg	An order that contains a disclosed quantity which will be the maximum quantity displayed in the order book. Once the displayed quantity is reduced to zero, it will be replenished by the lower of the disclosed quantity and the remainder.	DisplayQty (1138) OrderQty (38)
Minimum Fill	An order that contains a minimum quantity. If this quantity cannot be filled on receipt the order will immediately expire. If the minimum quantity is filled, the remainder, if any, is added to the order book as a regular order or expired in terms of its TimeInForce (59).	MinQty (110)
Named	An order for which the identity of the submitting member is disclosed in the market data feed.	PreTradeAnonymity (1091) = N
Day	An order that will expire at the end of the day.	TimeInForce (59) = 0
Immediate or Cancel (IOC)	An order that will be executed on receipt and the remainder, if any, immediately cancelled.	TimeInForce (59) = 3
Fill or Kill (FOK)	An order that will be fully executed on receipt or immediately cancelled.	TimeInForce (59) = 4
At the Open (OPG)	An order that may only be executed in the opening auction.	TimeInForce (59) = 2
At the Close (ATC)	An order that may only be executed in the closing auction.	TimeInForce (59) = 7
Good for Auction (GFA)	An order that may only be executed in an auction (e.g. opening, closing, re-opening, etc.).	TimeInForce (59) = 9
Good Till Date (GTD)	An order that will expire at the end of a specified day.	TimeInForce (59) = 6 ExpireDate (432)
Good Till Cancelled (GTC)	An order that will never expire.	TimeInForce (59) = 1



Closing Price	An order that may only be executed during the	TradingSessionID
Cross (CPX)	closing price cross.	(336) = a

3.1.1.1 Give Ups (Currently not supported from CTCL Frontend)

Clients are given the opportunity to trade through multiple trading members and the clearing process of the said clients will be handled by the clearing member the trading member is attached to.

As the CP Code is individually associated with a clearing member, the clearing process of a client with a CP Code will be handled via the CP Code's clearing member, regardless of through which trading member the trade takes place. This process is known as a Give Up and Take Up.

When submitting an order, the New Order - Single message will be sent defining the Client ID (investor account) on whose behalf the order is submitted in the field Account (1). AccountType (581) will define the type of the investor. If an order is entered by a trader on behalf of a client under him, the value of AccountType will be set to Client (1). If an order is entered by a trader on behalf of his own firm, the value of the AccountType (581) will be set to House (3).

If it is a Give Up order, the AccountType (581) field will be set to Client (1). In addition to that, it should also have the CP Code of the client defined in the AllocAccount (79) field for the order to be eligible for the Give Up.

3.1.2 Order Management¹

3.1.2.1 Cancellation

The remainder of a live order may be cancelled via the Order Cancel Request message. The server will respond with an Execution Report or Order Cancel Reject to confirm or reject the cancellation request respectively.

The client should identify the order being cancelled by either its OrigClOrdID (41) or OrderID (37). If an Order Cancel Request contains values for both OrigClOrdID (41) and OrderID (37), the server will only process the OrderID (37). If an order submitted under a different SenderCompID (49) is being cancelled, the Order Cancel Request should include its OrderID (37).

3.1.2.2 Mass Cancellation

A client may mass cancel live orders via the Order Mass Cancel Request message. The server will respond with an Order Mass Cancel Report to indicate, via the MassCancel Response (531) field, whether the request is successful or not. If the mass cancel request is processed by multiple partitions, an Order Mass Cancel Report will be transmitted for each partition.

If the mass cancel request is accepted by a partition, it will then transmit Execution Reports for each order that is cancelled and Order Cancel Rejects for each order that could not be cancelled. The ClOrdID (11) of all such messages will be the ClOrdID (11) of the Order Mass Cancel Request.

If the mass cancel request is rejected by a partition, the reason will be specified in the MassCancelRejectReason(532) field of the Order Mass Cancel Report.

Clients may use the Order Mass Cancel Request to mass cancel all orders or only those for a particular instrument or underlying.

A mass cancel request may apply to all the orders of the trading firm or only to those of a particular trading mnemonic. If the target party is not specified, the server will apply the

1

¹A privileged participant can manage orders on behalf of another user. If they are in two different firms, only the managing user will be receiving Execution Reports (8) generated due to order management actions performed by that user, on behalf of the actual owner.



request to the orders submitted by the client connected CompID. The mass cancelation will be limited to a single order book. In the absence of OrderBook (30001) field, the mass cancellation will apply only to the Normal order book

The FIX fields relevant to each of the supported mass cancel combinations are outlined below.

	Target Party			
	Submitting Mnemonic	Other Mnemonic	Trading Firm	
All Orders	MassCancelRequestType (530) = 7	MassCancelRequestType (530) = 7	MassCancelRequestType (530) = 7	
	OrderBook (30001) =1	TargetPartyRole (1464) = 53	TargetPartyRole (1464) = 1	
		TargetPartyID (1462)	TargetPartyID (1462)	
		OrderBook (30001) =1	OrderBook (30001) =1	
All Orders for an	MassCancelRequestType (530) = 1	MassCancelRequestType (530) = 1	MassCancelRequestType (530) = 1	
Instrument	Symbol (55)	Symbol (55)	Symbol (55)	
		TargetPartyRole (1464) = 53	TargetPartyRole (1464) = 1	
		TargetPartyID (1462)	TargetPartyID (1462)	
All Orders for an	MassCancelRequestType (530) = 2	MassCancelRequestType (530) = 2	MassCancelRequestType (530) = 2	
Underlying	UnderlyingSymbol (311)	UnderlyingSymbol (311)	UnderlyingSymbol (311)	
		TargetPartyRole (1464) = 53	TargetPartyRole (1464) = 1	
		TargetPartyID (1462)	TargetPartyID (1462)	

3.1.2.3 Cancellation by Market Operations

An unsolicited Execution Report will be sent to the client if an order is cancelled by market operations. The Exec Restatement Reason (378) of such a message will be Market (Exchange) option (8).It will not include an OrigClOrdID (41).

3.1.2.4 Amending an Order

The following attributes of a live order may be amended via the Order Cancel/Replace Request message:

- (i) Order quantity
- (ii) Disclosed quantity
- (iii) Price
- (iv) Stop price
- (v) Time qualifier
- (vi) Expiration date (GTD orders)
- (vii) Contra Firm (EFP orders)
- (viii) Client Order Link ID (EFP orders)
- (ix) Order Source
- (x) CP Code (AllocAccount)
- (xi) Client ID (Account)
- (xii) Account Type
- (xiii) Order Type²

² Only Order Type amendments from Limit to MTL/ Stop/ Stop Limit, from Stop to Limit/ Stop Limit and from Stop Limit to Limit/ Stop will be permitted.



(xiv) TIF Type³

The server will respond with an Execution Report or Order Cancel Reject to confirm or reject the amendment request respectively.

The client should identify the order being amended by either its OrigClOrdID (41) or OrderID (37). If an Order Cancel/Replace Request contains values for both OrigClOrdID (41) and OrderID (37), the server will only process the OrderID (37).

If an order submitted under a different SenderCompID (49) is being amended, the Order Cancel/Replace Request should include its OrderID (37). If the amendment is successful, the order will be treated as one submitted under the SenderCompID (49) that sent the Order Cancel/Replace Request.

Account (1), AccountType (581) and AllocAccount (79) fields in the Order Cancel/ Replace message enables the client to submit order amendment requests for 'non Give-up' and 'Give-up' trades.

An order will lose time priority if its order or disclosed quantity is increased or if its price is amended. A reduction in order or disclosed quantity of an order or the amendment of its time qualifier, expiration time or expiration date will not cause it to lose time priority.

Clients may not amend orders that are fully filled.

3.1.3 Order Status

As specified in the FIX protocol, the OrdStatus (39) field is used to convey the current state of an order. If an order simultaneously exists in more than one order state, the value with highest precedence is reported as the OrdStatus (39). The relevant order statuses are given below from the highest to lowest precedence.

Value	Meaning
E	Pending Replace
2	Filled
9	Suspended
4	Cancelled
С	Expired
1	Partially Filled
0	New
8	Rejected
A	Pending New

Please refer to Section 11.1.1 for process flow diagrams on the various statuses that may apply to an order.

3.1.4 Execution Reports

The Execution Report message is used to communicate many different events to clients.

The events are differentiated by the value in the ExecType (150) field as outlined below.

³ Only TIF Type amendments from DAY to GTC/ GTD/ GTT, from GTC to DAY/ GTT/ GTD, from GTT to GTC/ GTD/ DAY and from DAY/ GTC/ GTD to IOC will be permitted.



Exec Type	Usage	Ord Status
0	Order Accepted Indicates that a new order has been accepted.	0
	This message will also be sent unsolicited if an order was submitted by market operations on behalf of the client.	
A	Order Pending Indicates that a new order has been forwarded to the risk management system for validation.	А
8	Order Rejected Indicates that an order has been rejected. The reason for the rejection is specified in the field OrdRejReason (103).	8



Exec Type	Usage	Ord Status
F	Order Executed Indicates that an order has been partially or fully filled. The execution details (e.g. price and quantity) are specified.	1, 2
С	Order Expired	С
	This will be sent in the following scenarios:	
	 When orders are expired upon entering the order book when the number of orders in the order book is at the maximum allowed level. The reason for the expiration is specified in the Text (58) field. 	
	 When the remaining orders (except GTC and GTD) are expired at market close. 	
	 When orders are expired based on the auto cancellation on disconnect/log out feature. 	
4	Order Cancelled Indicates that an order cancel request has been accepted and successfully processed.	4
	This message will also be sent unsolicited if the order was cancelled by market operations. In such a scenario the Execution Report will include an ExecRestatementReason (378) of Market Option (8). It will not include an OrigClOrdID (41).	
5	Order Cancel/Replaced Indicates that an order cancel/replace request has been accepted and successfully processed.	0, 1
L	Triggered Indicates that a parked ATC, GFA, stop, or MIT order has been activated and is available for execution.	0, 1, A
9	Suspended Indicates that a GFA order that was active and was available for execution has been parked and is no longer available for execution.	0, 1, A
D	Order Cancel/Replace by Market Operations or has been impacted by an Automatic event. Indicates that an order has been amended by market operations or an automatic event in the system. The unsolicited message will include an ExecRestatementReason (378) of Market Option (8) when amended by market operations. It will include an ExecRestatementReason (378) of OrderRe-Priced (3) when automatically re-priced by the system.	0, 1
	An iceberg order which gets replenished after executing the visible quantity and the hidden quantity in one aggression (as opposed to executing hidden quantity after replenishment) will also have this exec type stamped with ExecRestatementReason (378) of Order Replenishment (100)	
E	Order Cancel/Replace Pending Indicates that an order cancel/replace request has been forwarded to the risk management system for validation.	E
Н	Trade Cancel Indicates that an execution has been cancelled. An ExecRefID (19) to identify the execution being cancelled will be included.	0, 1, E



G	Trade Correct	1, 2, E
	Indicates that an execution has been corrected. The message will include an ExecRefID (19) to identify the execution being corrected and the updated execution details.	

3.1.5 Order and Execution Identifiers

3.1.5.1 Client Order IDs

The server validates each ClOrdID (11) for uniqueness. Clients should comply with the FIX protocol and ensure unique ClOrdIDs across all messages (e.g. New Order – Single, Order Cancel Request, etc.) sent under a particular SenderCompID (49). As the server supports GTD and GTC orders, clients should ensure that their ClOrdIDs are unique across trading days (e.g. embed the date within the ClOrdID). The Execution Report transmitted to reject an order due to a duplicate ClOrdID (11) will not include the fields TransactTime (60), ExecID (17), OrderID (37), LeavesQty (151) and CumQty (14).It may also, under certain circumstances, not include AppIID (1180).The Order Cancel Reject transmitted to reject an Order Cancel Request due to a duplicate ClOrdID (11) will not include the field AppIID (1180).

Clients must, in terms of the FIX protocol, specify the ClOrdID (11) when submitting an Order Cancel Request, Order Mass Cancel Request or Order Cancel/Replace Request.

3.1.5.2 Order IDs

The server uses the OrderID (37) field of the Execution Report to affix the order identification numbers of the trading engine. Order IDs are unique across trading days.

In terms of the FIX protocol, unlike ClOrdID (11) which requires a chaining through cancel/replace requests and cancel requests, the OrderID (37) of an order will remain constant throughout its life.

Clients have the option of specifying the OrderID (37) when submitting an Order Cancel Request or Order Cancel/Replace Request.

3.1.5.3 Execution IDs

The server uses the ExecID (17) field to affix a unique identifier for each Execution Report. ExecIDs are unique across trading days.

3.1.5.4 Trade IDs

The server uses the TrdMatchID (880) field to affix a unique identifier for each trade. This identifier is referenced in the Trade Capture Reports published by the post trade system and the trade messages of the FAST market data feed. Trade IDs are unique across trading days. An Execution Report published to notify a client of a trade cancellation or correction includes the TradeID of the trade.

The field Secondary Trade ID (1040) is a numeric code generated by the system for each trade. This identifier is referenced in the Trade Capture Reports published by the post trade system and the trade messages of the FAST market data feed. The Secondary Trade IDs will be unique only for the current trading day. An Execution Report published to notify a client of a trade cancellation or correction includes the Secondary TradeID of the original trade.

3.2 EFP Trades

Participants may submit privately negotiated trades for registration. A separate EFP trade order book is available for a selected set of instruments for this purpose. This order book



supports the submission of orders only and can be configured to handle two configurations as described in detail below.

Negotiated non-disclosed orders: When the EFP Trade order book is configured for non-disclosure, the order book is not published to the market. Under this configuration, each party should submit an order to the EFP trade order book specifying the instrument, price, quantity, contra firm for the deal along with the deal identifier, which may be any text string no longer than ten characters, agreed with the counterparty.

Negotiated disclosed orders: When the EFP Trade order book is configured for disclosure, the order book is published to the market, such that other traders with interest can execute against these orders. Thus, under this configuration an interested party can submit an order to the block trade order book specifying the instrument, price and quantity.

A client should report a EFP trade via the New Order – Single message with an OrderBook (30001) of EFP (4). The contra firm and deal identifier should be specified via a PartyRole (452) of Contra Firm (17) and the ClOrdLinkID (583) field respectively, and are required based on the order book configuration.

Each order for the EFP trade order book is subject to a series of validations (e.g. price within permitted range, greater than a minimum size, valid counterparty, etc.). NCDEX will retain an accepted order for the remainder of the trading day and match it against a contra side order from the identified contra firm for the identical instrument, price, quantity and deal identifier. A matched EFP trade will be disseminated on the market data feed immediately.

3.3 Strategies

The server supports the trading of derivatives strategies (e.g. spreads, etc.).

Each strategy is implemented as a separate multi-legged instrument. The execution of an order for a multi-legged instrument will result in the generation of individual trades for the associated leg instruments (e.g. the execution of a trade for the Jan11-Feb11 spread will result in the generation of trades for the Jan11 future and the Feb11 future). Details of the individual leg trades will be forwarded to the clients that submitted the orders for the multi-legged instrument and to clearing.

The Price (44) and StopPx (99) of orders submitted for multi-legged instruments may contain negative prices.

If a client's order for a strategy receives an execution, it will receive an Execution Report message for the multi-legged instrument as well as separate Execution Reports for each of the associated leg instruments. The field MultiLegReportingType (442) should be used to determine whether a particular Execution Report relates to the multi-legged instrument or a leg instrument.

While the ClOrdID (11) of an Execution Report for a leg trade will be the same as the ClOrdID (11 of the order for the multi-legged instrument, the OrderID (37) will not. The SecondaryOrderID (198) for a leg trade will contain the OrderID (37) of the associated order for the multi-legged instrument.

3.3.1 Multi-leg Orders

Multi-leg orders are placed by clients to obtain a preferred spread price between two leg instruments. The two leg instruments on which executions are expected are stated in the New Order – Multi-leg request message.

The system will generate a market order with a TimeInForce (59) of IOC (3) on each of the two leg instruments specified in the request. Execution Reports will be sent out for the two system generated orders when they are rejected, expired, filled or partially filled.

The Execution Reports will include a unique indicator on MultiLeg ReportingType (442) = Multi-leg order on leg instruments (9), to indicate that such were generated for a multi-le order.



3.4 Party Identification

ID	Description	Relevant FIX Tags
Trading Mnemonic	Identifier of the trading mnemonic the message is submitted under. Trading privileges are assigned at the level of trading mnemonics.	PartyRole (452) = 53 and PartyID (448) or SenderCompID (49)
	If a PartyRole (452) of Trading Mnemonic (53) is not included in a message, the server will treat the SenderCompID (49) as the trading mnemonic.	
Executing	Identifier of the trading firm the interest is submitted	PartyRole (452) = 1
Firm	under.	PartyID (448)
Clearing Firm	The clearing member of the trading member submitting the order is specified here.	PartyRole (452) = 4
Investor	Identifier of the investor account on whose behalf	Account (1)
Account	the interest is submitted.	AccountType (581)
Contra Firm	Identifier of the counterparty trading firm in the case	PartyRole (452) = 17
	of a block trade.	PartyID (448)
NNF ID	The NNF ID of a Non-Neat FE is expected to be specified. If specified, the value will flow to the client via messages sent by the server	PartyRole (452) = 44 or TargetPartyRole (1464) = 44

It is mandatory to specify a Trading Mnemonic (Party Role (452) = 53) in New Order – Single, Order Cancel and Order Cancel/Replace messages; it will be optional to specify a Executing Firm (Party Role (452) = 1) in these messages. Contra Firm (Party Role (452) = 17) should never be specified in New Order – Single, Order Cancel and Order Cancel/Replace messages.



3.5 Risk Messages

3.5.1 Communicating Party Status Changes and Warnings

Handling Margin Limits

Members can set margin limits at trading member, user and CP code level.

Exchange monitors and ensures that margin utilization limits of those entities are within the allocated limits by communicating utilization changes and risk status of the entities via the Party Risk Limits Update Report of which, the RiskLimitType (1530) will be Total Margin (8).

If risk limit updates are generated as a warning based on the utilization of margin limits, RiskLimitAction (1767) communicates Warning (4) specifying the absolute utilization amount of set risk limit in RiskLimitUtiliszationAmount (1766) and specifying the risk limit utilization percentage in RiskLimitUtilizationPercent (1765).

The RiskLimitAction (1767) field value Square-Off (5) communicates a square-off of an entity while, Suspend (10) communicates a suspension. In a situation where the entity should be reinstated to a free to trade state, RiskLimitAction (1767) communicates value Re-instate (100).

The Party Risk Limit Update Report with RiskLimitType (1530) of Margin (8) sent to the trading system by the RMS will be routed via the FIX Trading Gateway to the Party mentioned in the message. This enables the party to know the margin utilization changes and risk states of its self.

Exchange may also move a party into square-off, suspend or reinstate state on utilized margins or other reasons. In such cases, the trading system generates the Party Risk Limit Update Report of which, the RiskLimitType (1530) will be Total Margin (8) and RiskLimitAction (1767) as Square-off (5), Suspended (10) or Re-instate (100).

Handling Position Limits

For the purpose of informing position limit utilizations and breach, a Party Risk Limits Update Report will be sent, with RiskLimitType (1530) as Position (1000). The RiskLimitAction (1767) will be set to Warning (4) if the messages are generated as warnings based on the utilization of position limits. The absolute utilization amount of position limits will be specified in RiskLimitUtilizzationAmount (1766) and the percentage of utilization will be specified in RiskLimitUtilizationPercent (1765).

RiskLimitAction (1767) will be set to Square-Off (5) if the entity is to be placed in a square off for position and if the entity should be suspended of trading, the field value will be Suspend (10). In a situation where the entity should be reinstated to a free to trade state, RiskLimitAction (1767) will be Re-instate (100).

3.5.2 Communicating Party Statistics

Exchange will communicate statistics via the Party Risk Limit Report with RiskLimitType (1530) as Total Collateral (0), MTM Margin (2), Initial Margin (9) or MTM PL (99) with the absolute amount specified in RiskLimitUtilizationAmount (1766).

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3.6 On Behalf of Order Entry by Exchange

Exchange user will be able to submit an order, order cancel request or order cancel/replace on request from member.

The client will be notified of the order, cancel request or cancel/replace request submitted on its behalf.

This feature is intended to help a client manage an emergency situation and should not be relied upon as a normal business practice.

3.7 Time stamps and Dates

The timestamps SendingTime (52), OrigSendingTime (122) and TransactTime (60) should be in UTC and in the YYYYMMDD-HH:MM:SS.sss format. ValidUntilTime (62) should be in UTC and in the YYYYMMDD-HH:MM:SS format.

All dates (i.e. MaturityDate (541),LegMaturityDate (611) and ExpireDate (432)) should be in the YYYYMMDD format and specified in the local date for the server (i.e. not in UTC)).

3.8 Announcements

The client will receive market announcements via the News message. It will contain the announcement headline, text, urgency, the time that it was generated and the list of instruments and underlying instruments if any, to which the announcement relates to.

The client will receive the announcements which are directed only to him as well as public Announcements which are directed to all market participants.

3.9 Repeating Groups (Components/Component Block)

If a repeating group is used in a message, the NoXXX field (for example NoPartyIDs field in the trading party repeating group) should be specified first before the repeating group starts. This is applicable for both the messages generated by the client and the server.

3.10 Validations

If a required tag is missing in a message sent by a client, the server will send a session reject message for that.

If a conditionally required tag is missing in a message sent by a client, the server will send a business reject message for that.

Server will also send a session reject message if the same FIX tag has been repeated within the client request.

Also if an unsupported value is sent with a tag, an execution report or an order cancel reject is sent by the server.

Session level validations are done first, and Business Rejects and rejections via Execution Reports follow in that order.

3.11 Logon

When a Logon (A) request is sent, it states the connection type (whether the user is connecting from a VSAT or an Internet connection) and the workstation type (whether the workstation used by the user is a NEAT FE or a Non-NEAT FE) of the user.

Hence a logon message indicates the Connection Type (22001) as VSAT (1) or Internet (2) and the Workstation Type (22002) as NEAT FE (79) or Non NEAT FE (2).





4 CONNECTIVITY

4.1 ComplDs

The CompID of each client must be registered with NCDEX before FIX communications can begin. A single client may have multiple connections to the server (i.e. multiple FIX sessions, each with its own CompID).

The CompID of the server will be FIX Gateway Comp ID. The messages sent to the server should contain the CompID assigned to the client in the field SenderCompID (49) and FIX Gateway Comp ID in the field TargetCompID (56). The messages sent from the server to the client will contain FIX Gateway Comp ID in the field SenderCompID (49) and the CompID assigned to the client in the field TargetCompID (56).

4.1.1 Passwords⁴

Each new CompID will be assigned a password on registration. Clients are strongly encouraged to change the password to one of their choosing via the Logon message. The acceptance of a login request indicates that the new password has been accepted. The new password will, if accepted, be effective for subsequent logins.

In terms of the password policy of NCDEX, the password of each CompID should be changed at least every <30> days. If not, the password will expire and the client will be unable to login to the server. In such a case, the client should contact NCDEX to have its password reset. The SessionStatus (1409) of the server's Logon message will be Password Due to Expire (2) for the last <5> days of a password's validity period.

4.1.2 NNF ID

Clients connecting to NCDEX trading systems via FIX will have connections from either a NEAT front end system or any other front end.

When submitting a message, irrespective of whether the client is connecting via a Non-NEAT front end or not, the Non-NEAT Frontend ID has to be communicated to the server (mandatory). Hence, the PartyRole (452) of the following messages will contain the role Order Entry Operator ID (44) .NNF ID should only contain numeric values (integers) and the maximum length should be 15 characters.

- (a) New Order Single
- (b) Order Cancel Request
- (c) Order Cancel/Replace Request
- (d) New Order Multi-leg

If the request message contains a PartyRole (452) of Order Entry Operator (44) then the reply back from the server, in the below mentioned messages, will include the NNF ID specified in Order Entry Operator (44)

(a) Execution Report

When submitting an Order Mass Cancel Request the TargetPartyRole (1464) should contain the NNF ID specified in Order Entry Operator (44).

If the NNF ID is not submitted via Order Entry Operator ID (44) of Party Role (452) field or is not in the correct format as stipulated above, in any of the client initiated messages (i.e. New Order Single (D), Order Cancel/ Replace (G), Order Cancel Request (F) or Order Mass Cancel Request (q)) such requests will be rejected with a 'Business Reject (j)' message with the reason as Other (0) and a text of 'Order Entry Operator ID is not submitted or format invalid'.

⁴ Delete this section if password validation is disabled.



4.2 Production IP Addresses and Ports

The IP address of each client must be registered with NCDEX before FIX communications can begin.

4.3 Failover and Recovery

The system has been designed with fault tolerance and disaster recovery technology that ensures that trading should continue in the unlikely event of a process or site outage.

In case, a failover of any gateway happens at the Exchange end, members are expected to instantaneously connect to the corresponding IP and port of the secondary gateway to continue with normal trading functions.

Please refer Annexure A for the detailed write-up of mechanism for automated failover.

4.4 Message Rate Throttling

NCDEX has implemented a scheme for throttling message traffic where each CompID is only permitted to submit up to a specified number of messages per second. The maximum rate may be negotiated with *NCDEX*.

Every message that exceeds the maximum rate of a CompID will be rejected via a Business Message Reject. Such a message will include a BusinessRejectReason (380) of Other (0) and an indication that the rejection was due to throttling in the Text (58) field.

A CompID will be disconnected by the server if its message rate exceeds its maximum rate more than <5> times in any <30> second duration. In such a case, the server will transmit a Logout message and immediately terminate the TCP/IP connection.



5 FIX CONNECTIONS AND SESSIONS

5.1 Establishing a FIX Connection

FIX connections and sessions between the client and server are maintained as specified in the FIXT protocol.

Each client will use the assigned IP address and port to establish a TCP/IP session with the server. The client will initiate a FIX session at the start of each trading day by sending the Logon message. The client will identify itself using the SenderCompID (49) field.

The server will validate the CompID, password and IP address of the client. Once the client is authenticated, the server will respond with a Logon message. The SessionStatus (1409) of this message will be Session Active (0).

The server will break the TCP/IP connection if messages are received before the exchange of Logons.

Immediately after the response to the Logon message, if the Logon was successful, the server will send a Test Request with a specific TestRequestID, to identify if the client is in sync with the server's outgoing Sequence Number prior to sending any (i.e. new or missed) Application Messages. If the client replies to the Test Request with a Heartbeat message with the same ID as in the Test Request, then that would imply that the client recognises the messages out going from the server and that the sequence numbers are in sync. The server would start sending any new or missed Application Messages to the client only after receiving this Heartbeat message. Any application messages submitted before responding to the Test Request will be rejected with a Business Message Reject. Such a message will include a BusinessRejectReason (380) of Session not in sync (30) and an indication that the rejection was due client session not being in sync with the server in the Text (58) field.

The client must send additional messages to the server only after responding to the Test Request. If the client sends any Application Messages (e.g. New Orders, Cancel Requests) before responding to the Test Request as mentioned above, those messages will be processed by the system but the client would not receive any responses to them as the server has not established that the client is in sync with the Server's outgoing sequence numbers.

If a logon attempt fails because of an invalid SenderCompID, TargetCompID, password or IP address, the server will break the TCP/IP connection with the client without sending a Logout or Reject. As the logon attempt failed, the server will not increment the next inbound message sequence number expected from the client.

If a logon attempt fails because of an expired password, a locked CompID or if logins are not currently permitted, the server will send a Logout message and then break the TCP/IP connection with the client. The server will increment the next inbound message sequence number expected from the client but will not increment its own outbound message sequence number.

If a logon attempt fails because of a session level failure (e.g. due to invalid EncryptMethod or DefaultApplVerID...etc) both inbound sequence number and the outbound sequence number will not be incremented. In this scenario the message sequence number 1 will be sent with the **Error! Reference source not found.** message.

However if a session level failure occurs due to a message sent by a client which contains a sequence number that is less than what is expected and the PossDupFlag (43) not being set to "Y", then the server will send a Logout message and terminate the FIX connection. In this scenario the inbound sequence number will not be incremented but the outbound sequence number will be incremented.

If during a logon of a SenderCompID, the server receives a second connection attempt via the same TCP/IP connection while a valid FIX session is already underway for that same SenderCompID, the server will send a Reject message and then break the TCP/IP connection with the client. The server will increment the next inbound message sequence number expected from the client as well as its own outbound message sequence number.



5.2 Maintaining a FIX Session

5.2.1 Message Sequence Numbers

As outlined in the FIXT protocol, the client and server will each maintain a separate and independent set of incoming and outgoing message sequence numbers. Sequence numbers should be initialized to 1 (one) at the start of the FIX session and be incremented throughout the session.

Monitoring sequence numbers will enable parties to identify and react to missed messages and to gracefully synchronize applications when reconnecting during a FIX session.

If any message sent by the client contains a sequence number that is less than what is expected and the PossDupFlag (43) is not set to "Y", the server will send a Logout message and terminate the FIX connection. The Logout will contain the next expected sequence number in the Text (58) field.

A FIX session will not continue to the next trading day. The server will initialize its sequence numbers at the start of each day. The client is expected to employ the same logic.

5.2.2 Heartbeats

The client and server will use the Heartbeat message to exercise the communication line during periods of inactivity and to verify that the interfaces at each end are available. The heartbeat interval will be the HeartBtInt (108) specified in the client's Logon message.

The server will send a Heartbeat anytime it has not transmitted a message for the heartbeat interval. The client is expected to employ the same logic.

If the server detects inactivity for a period longer than the heartbeat interval plus a reasonable transmission time, it will send a Test Request message to force a Heartbeat from the client. If a response to the Test Request is not received by a reasonable transmission time, the server will send a Logout and break the TCP/IP connection. The client is expected to employ similar logic if inactivity is detected on the part of the server.

5.2.3 Increasing Expected Sequence Number

The client or server may use the Sequence Reset message in Gap Fill mode if it wishes to increase the expected incoming sequence number of the other party.

The client or server may also use the Sequence Reset message in Sequence Reset mode if it wishes to increase the expected incoming sequence number of the other party. The MsgSeqNum (34) in the header of such a message will be ignored. The Sequence Reset mode should only be used to recover from an emergency situation. It should not be relied upon as a regular practice.

5.3 Terminating a FIX Connection

The client is expected to terminate each FIX connection at the end of each trading day before the server shuts down. The client will terminate a connection by sending the Logout message. The server will respond with a Logout to confirm the termination and then break the TCP/IP connection with the client. As recommended in the FIXT protocol, clients are advised to transmit a Test Request, to force a Heartbeat from the server, before initiating the logout process.

All open TCP/IP connections will be terminated by the server when it shuts down (a Logout will not be sent). Under exceptional circumstances the server may initiate the termination of a connection during the trading day by sending the Logout message. The server will terminate the TCP/IP connection (a Logout will not be sent) if the number of messages that are buffered for a client exceeds <1.000>.

If, during the exchange of Logout messages, the client or server detects a sequence gap, it should send a Resend Request.



5.4 Re-Establishing a FIX Session

If a FIX connection is terminated during the trading day it may be re-established via an exchange of Logon messages. Once the FIX session is re-established, the message sequence numbers will continue from the last message successfully transmitted prior to the termination.

5.4.1 Resetting Sequence Numbers: Starting a New FIX Session

5.4.1.1 Reset Initiated by the Client

If the client requires both parties to initialize (i.e. reset to 1) sequence numbers, it may use the ResetSeqNumFlag (141) field of the Logon message. The server will respond with a Logon with the ResetSeqNumFlag (141) field set to "Y" to confirm the initialization of sequence numbers.. In such cases, if the MsgSeqNo (34) of the Logon message is not reset to 1, the server will break the TCP/IP connection after sending a Logout. It will include a SessionStatus (1409) of Logout due to session level failure (101) and an indication of the rejection in the Text (58) field.

A client may also manually inform market operations that it would like the server to initialize its sequence numbers prior to the client's next login attempt.

These features are intended to help a client manage an emergency situation. Initializing sequence numbers on are-login should not be relied upon as a regular practice.

5.4.1.2 Reset Initiated by the Server

The system has been designed with fault tolerance and disaster recovery technology that should ensure that the server retains its incoming and outgoing message sequence numbers for each client in the unlikely event of an outage.

However, clients are required to support a manual request by NCDEX to initialize sequence numbers prior to the next login attempt.



6 RECOVERY

6.1 Resend Requests

The client may use the Resend Request message to recover lost messages. As outlined in the FIXT protocol, this message may be used in one of three modes:

- To request a single message. The BeginSeqNo (7) and EndSeqNo (16) should be the same.
- (ii) To request a specific range of messages. The BeginSeqNo (7) should be the first message of the range and the EndSeqNo (16) should be the last of the range.
- (iii) To request all messages after a particular message. The BeginSeqNo (7) should be the sequence number immediately after that of the last processed message and the EndSeqNo (16) should be zero (0).

The server caches the last <1,000> messages transmitted to each CompID. Clients are unable to use a Resend Request to recover messages not in the server's cache. If the client requests for a range of messages that have sequence numbers falling outside the cache size, a Sequence Reset message in Gap Fill mode will be sent for the missing messages and will send the available messages as per the request after that.

6.2 Possible Duplicates

The server handles possible duplicates according to the FIX protocol. The client and server will use the PossDupFlag (43) field to indicate that a message may have been previously transmitted with the same MsgSeqNum (34).

6.3 Possible Resends

6.3.1 Client-Initiated Messages

The server does not handle possible resends for client-initiated messages (e.g. New Order – Single etc.) and ignores the value in the PossResend (97) field of such messages.

6.3.2 Server-Initiated Messages

The server may, in the circumstances outlined in Section 6.4, use the PossResend (97) field to indicate that an application message may have already been sent under a different MsgSeqNum (34). The client should validate the contents (e.g. ExecID) of such a message against those of messages already received during the current trading day to determine whether the new message should be ignored or processed.

6.4 Transmission of Missed Messages

The Execution Report, Order Cancel Reject, Order Mass Cancel Report, and Business Message Reject messages generated during a period when a client is disconnected from the server will be sent to the client when it next reconnects. In the unlikely event the disconnection was due to an outage of the server, all such messages will include a PossResend (97) of "Y". Missed Security Definition messages will not be sent when the client reconnects.



7 MESSAGE FORMATS

This section provides details on the header and trailer, the seven administrative messages and twelve application messages utilized by the server. Client-initiated messages not included in this section are rejected by the server via a Reject or Business Message Reject.

7.1 Supported Message Types

7.1.1 Administrative Messages

All administrative messages may be initiated by either the client or the server.

Message	MsgType	Usage			
Logon	Α	Allows the client and server to establish a FIX session.			
Logout	5	Allows the client and server to terminate a FIX session.			
Heartbeat	0	Allows the client and server to exercise the communicati line during periods of inactivity and verify that the interfact at each end are available.			
Test Request	1	Allows the client or server to request a response from the other party if inactivity is detected.			
Resend Request	2	Allows for the recovery of messages lost during a malfunction of the communications layers.			
Reject	3	Used to reject a message that does not comply with FIXT.			
Sequence Reset	4	Allows the client or server to increase the expected incoming sequence number of the other party.			

7.1.2 Application Messages: Order Handling

7.1.2.1 Client-Initiated

Message	MsgType	Usage		
New Order – Single	D	Allows the client to submit a new order.		
New Order – Multi-leg	AB	Allows the client to submit an order for two leg instruments with expecting a price spread between the two.		
Order Cancel Request	F	Allows the client to cancel a live order.		
Order Mass Cancel Request	q	Allows the client to mass cancel: (i) All live orders. (ii) All live orders for a particular instrument. (iii) All live orders for a particular underlying. (iv) All live orders for a particular segment. The mass cancel may apply to the orders of a particular trading mnemonic or to all orders of the firm.		
Order Cancel/Replace Request	G	Allows the client to cancel/replace a live order.		



7.1.2.2 Server-Initiated

Message	MsgType	Usage			
Execution Report	8	Indicates one of the following: (i) Order accepted. (ii) Order pending. (iii) Order rejected. (iv) Order executed. (v) Order expired. (vi) Order cancelled. (vii) Order cancelled/replaced. (viii) Order cancel/replace pending. (ix) Trade cancelled. (x) Trade corrected.			
Order Cancel Reject	9	Indicates that an order cancel request or order cancel/replace request has been rejected.			
Order Mass Cancel Report	r	Indicates one of the following: (i) Mass order cancel request accepted. Mass order cancel request rejected.			
Party Risk Limits Update Report	CR	Initiated by the server indicating a client of a Suspension, Square-off, Warning or Re-instate			
Party Risk Limits Report	СМ	Initiated by the server indicating Collateral, Margins and MTM related statistics			

7.1.3 Application Messages: Market Data

Message	MsgType	Usage
News	В	Disseminates market announcements.

7.2 Variations from the FIX Protocol

The server conforms to the FIX protocol except as follows:

- (i) Many of the order messages include the custom fields OrderBook (30001) and OrderSource (30004). The data types of these fields are Int (i.e. integer) and String respectively.
- (ii) The Execution Report message includes the custom field OrderSource (30004). The data type of this field is String.
- (iii) The Order Cancel Reject and Order Mass Cancel Report, messages include the field ApplID (1180).
- (iv) The Order Cancel Reject message includes the NoPartyIDs (453) block which was introduced in Extension Pack 115.
- (v) The Logon (A) message includes the ConnectionType (22001) and WorkstationType (22002). The data types of the fields are 'Enums'.
- (vi) The Party Risk Limits Update Report (CR) message includes the ServiceDeskUserID (32024) and MemberUpdateSource (32025). The data types of the fields are string and 'Enums' respectively.





- 7.3 Message Header and Trailer
- 7.3.1 Message Header



Tag	Field Name	Req	Length	Description
8	BeginString	Υ	N/A	FIXT.1.1
9	BodyLength	Y	N/A	Number of characters after this field up to and including the delimiter immediately preceding the CheckSum.
35	MsgType	Y	132	ValueMeaning0Heartbeat1Test Request2Resend Request3Reject4Sequence Reset5Logout8Execution Report9Order Cancel RejectALogonBNewsDNew Order - SingleABNew Order - Multi-legFOrder Cancel RequestGOrder Cancel/ Replace RequestCMParty Risk Limits ReportCRParty Risk Limits Update ReportCSParty Risk Limits DefinitionRequestCTParty Risk Limits DefinitionRequest AckjBusiness Message RejectqOrder Mass Cancel RequestrOrder Mass Cancel Reject
49	SenderCompID	Υ	30	CompID of the party sending the message.
56	TargetCompID	Υ	30	CompID of the party the message is sent to.
34	MsgSeqNum	Υ	132	Sequence number of the message.
43	PossDupFlag	N	1	Whether the message was previously transmitted under the same MsgSeqNum (34). Absence of this field is interpreted as Original Transmission (N). Value Meaning Y Possible Duplicate N Original Transmission
97	PossResend	N	1	Whether the message was previously transmitted under a different MsgSeqNum (34). Absence of this field is interpreted as Original Transmission (N). Value Meaning Y Possible Resend N Original Transmission
52	SendingTime	Υ	30	Time the message was transmitted.



122	OrigSendingTime	N	30	Time the message was originally transmitted. If the original time is not available, this should be the same value as SendingTime (52). Required if PossDupFlag (43) is Possible Duplicate (Y).
1128	ApplVerID	N	1	Version of FIX used in the message. Required if the message is generated by the server. Value Meaning
				9 FIX50SP2

7.3.2 Message Trailer

Tag	Field Name	Req	Length	Description
10	CheckSum	Υ	30	



7.4 Administrative Messages

7.4.1 Logon

Tag	Field Name	Req	Length	Description		
Standa	Standard Header					
35	MsgType	Υ	132	A = Logon		
Messa	ge Body	•				
98	EncryptMethod	Υ	1	Method of encryption.		
				Value Meaning		
				0 None		
108	HeartBtInt	Υ	UI32	Indicates the heartbeat interval in seconds.		
141	ResetSeqNum Flag	N	1	Indicates whether the client and server should reset sequence numbers. Absence of this field is interpreted as Do Not Reset Sequence Numbers (N).		
				Value Meaning		
				Y Reset Sequence Numbers		
				N Do Not Reset Sequence Numbers		
554	Password	N	30	Password assigned to the CompID. Required if the message is generated by the client.		
925	NewPassword	N	30	New password for the CompID.		
1409	SessionStatus	N	UI32	Status of the FIX session. Required if the message is generated by the server.		
				Value Meaning		
				0 Session Active		
				2 Password Due to Expire		
1137	DefaultApplVerID	Υ	1	Default version of FIX messages used in this session.		
				Value Meaning		
				9 FIX50SP2		
22001	ConnectionType	Y	1	Describes the type of connection the user is logging from. Value Meaning		
				1 VSAT		
				0 Internet		
22002	WorkstationType	Y	2	Describes the type of the workstation the user is logging from.		
				Value Meaning		
				2 Non NEAT FE		
Ctoroll	and Tueiler					
Standard Trailer						



7.4.2 Logout

Tag	Field Name	Req		Description
Standard Header				
35	MsgType	Υ	I32	5 = Logout
Messa	age Body			
1409	SessionStatus	N	UI32	Status of the FIX session. Required if the message is generated by the server. Value Meaning
				4 Session logout complete
				6 Account locked
				7 Logons are not allowed at this time
				8 Password expired
				100 Other
				101 Logout due to session level failure
				102 Logout by market operations
58	Text	N	60	Text specifying reason for the logout. Required if SessionStatus (1409) is Other (100).
Stand	ard Trailer			

7.4.3 Heartbeat

Tag	Field Name	Req	Length	Description		
Stand	Standard Header					
35	MsgType	Υ	132	0 = Heartbeat		
Message Body						
112	TestReqID	N	N/A	Required if the heartbeat is a response to a Test Request. The value in this field should echo the TestReqID (112) received in the Test Request.		
Standard Trailer						

7.4.4 Test Request

Tag	Field Name	Req	Length	Description	
Stand	Standard Header				
35	MsgType	Υ	132	1 = Test Request	
Message Body					
112	TestReqID	Υ	N/A	Identifier for the request.	
Stand	Standard Trailer				



7.4.5 Resend Request

Tag	Field Name	Req		Description		
Stand	Standard Header					
35	MsgType	Υ	132	2 = Resend Request		
Message Body						
7	BeginSeqNo	Υ	132	Sequence number of first message in range.		
16	EndSeqNo	Υ	l32	Sequence number of last message in range.		
Stand	Standard Trailer					

7.4.6 Reject

Tag	Field Name	Req	Length	Description	
Stand	dard Header				
35	MsgType	Υ	132	3 = Reject	
				Message Body	
45	RefSeqNum	Υ	l32	MsgSeqNum (34) of the rejected message.	
372	RefMsgType	N	2	MsgType (35) of the rejected message.	
371	RefTagID	Ν	l32	If a message is rejected due to an issue with a particular field its tag number will be indicated.	
373	SessionReject Reason	N	132	Code specifying the reason for the reject. Please refer to Section 10.2.1for a list of reject codes.	
58	Text	N	60	Text specifying the reason for the rejection.	
Stand	Standard Trailer				

7.4.7 Sequence Reset

Tag	Field Name	Req	Length	Description		
Stand	dard Header					
35	MsgType	Υ	132	4 = Sequence Reset		
Mess	Message Body					
36	NewSeqNo	Υ	l32	Sequence number of the next message to be transmitted.		
123	GapFillFlag	N	1	Mode in which the message is being used. Absence of this field is interpreted as Sequence Reset (N).		
				Value Meaning		
				Y Gap Fill		
				N Sequence Reset		
Stand	Standard Trailer					



- 7.5 Application Messages: Order Handling
- 7.5.1 New Order Single



Tag	Field	Name	Req	Len gth	Description
Standa	rd Hea	ader			
35 MsgType Y I32		132	D = New Order - Single		
Messa	ge Boo	ly			
11	ClOrd	dib	Υ	20	Client specified identifier of the order.
453	NoPa	artyIDs	Y	I32	Number of party identifiers. (At least one block required to denote Order Entry Operator ID)
→	448	PartyID	Y	30	Identifier of the party.
→	447	PartyID	Y	1	Required if PartyID (448) is specified.
		Source			Valu e Meaning
					D Proprietary/Custom Code
→	452	Party Role	Y	132	Role of the PartyID (448). Required if PartyID (448) is specified.
					Valu e Meaning
					1 Executing Firm
					4 Clearing Firm
					Order Entry Operator ID (section 4.1.2) (Mandatory)
					53 Trading Mnemonic
1	Acco	unt	N	32	Identifier of the investor account on whose behalf the order is submitted.
					If AccountType (581) = 1, then Account tag is mandatory and cannot be blank.
					If it is more than 10 char, it will be rejected by the gateway
581	Acco	untType	N	132	Type of the investor account.
					Valu e Meaning
					1 Client (Default)
					3 House
79	Alloca	Account	N	30	Sub-account mnemonic. The CP Code of the Client ID will be mentioned here.
55	Symb	ool	Υ	30	Identifier of the instrument.
30001	30001 OrderBook N I32		132	Identifier of the order book. Absence of this field is interpreted as Regular (1).	
				Valu e Meaning	
					1 Regular
					4 EFP



40	OrdTy	/pe	Υ	1	Type of	the order.
					Value	Meaning
					2	Limit
					3	Stop
					4	Stop Limit
					K	Market to Limit (Same as NCDEX market orders)
					J	Market If Touched
59	Timel	nForce	N	132		alifier of the order. Absence of this field is ed as Day (0).
					Value	Meaning
					0	Day
					1	Good Till Cancel (GTC)
					2	At the Open (OPG)
					3	Immediate or Cancel (IOC)
					4	Fill or Kill (FOK)
					6	Good Till Date (GTD)
					7	At the Close (ATC)
					9	Good for Auction (GFA)
432	Expire	eDate	N	8	Date the (59) is G	e order expires. Required if TimeInForce TD (6)
386	NoTra Sessi	-	N	132		of sessions the order is valid for. If I, the value in this field should always be
→	336	Trading	N	30	Session	the order is valid for.
		Session			Value	Meaning
					а	Closing Price Cross ⁵
18	Execl	nst	N	15		separated field indicating specific ons to be carried out on the order due to its, user disconnect/logout and corporate
					Value	Meaning
					n	Do Not Cancel on Disconnect/Logout
54	Side		Υ	132	Side of t	he order.
					Value	Meaning
					1	Buy
					2	Sell
38	Order	Qty	Υ	30,8	Total ord	ler quantity.
1138	Displa	ayQty	N	30,8	Maximur	n quantity that may be displayed.

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⁵ A suitable value for tag 59 could not be identified when implementing CPX orders. Therefore, tag TradingSessionID(336) = "a" is used along with TIF(59)=0 to identify CPX orders



110	MinQty	N	30,8	Minimum quantity that must be filled.		
44	Price	N	30,8	Limit price. Required if OrderType (40) is Limit (2) or Stop Limit (4).		
99	StopPx	N	30,8	Stop price. Required if OrderType (40) is Stop (3) or Stop Limit (4).		
1091	PreTrade Anonymity	N	1	Whether the order is anonymous or named. Absence of this field is interpreted as Anonymous (Y).		
				Value Meaning		
				Y Anonymous		
				N Named		
583	ClOrdLinkID	N	20	Deal identifier agreed with counterparty. Required if OrderBook (30001) is EFP Trade (4) and order book configuration is to support negotiated non-disclosure orders		
30004	OrderSource	N	24	Free form text of up to 24 characters. The specified string will be included in all Execution Reports generated for the order.		
60	TransactTime	Υ	21	Time the order was created.		
Standa	Standard Trailer					



7.5.2 New Order – Multi-leg



Tag	Field	Name	Req	Len gth	Description
Standa	rd Hea	ader			
35	35 MsgType		Υ	132	AB = New Order – Multi-leg
Messag	ge Boo	ly			
11	ClOrd	dlb	Υ	20	Client specified identifier of the order. This will be stamped in as ClOrdID (11) on both orders created on the leg instrument.
453	NoPa	ırtylDs	Y	132	Number of party identifiers. (At least one block required to denote Order Entry Operator ID)
→	448	PartyID	Y	30	Identifier of the party.
→	447	PartyID Source	Y	1	Required if PartyID (448) is specified. Valu e Meaning
		00000			D Proprietary/Custom Code
					Role of the PartyID (448). Required if PartyID (448) is specified. Valu e Meaning
→	452	Party Role	Y	132	1 Executing Firm
		Role			4 Clearing Firm
				Order Entry Operator ID (section 4.1.2) (Mandatory)	
1	1 Account		N	32	53 Trading Mnemonic Identifier of the investor account on whose behalf the order is submitted. If AccountType (581) = 1, then Account tag is mandatory and cannot be blank. If it is more than 10 char, it will be rejected by the gateway
581	Acco	untType	N	132	Type of the investor account. Valu e
79	Alloc	Account	N	30	Sub-account mnemonic. The CP Code of the Client ID will be mentioned here.
55	Symb	ool	Υ	30	Identifier of the Leg 1 instrument of the multi-leg order.
54	Side		Υ	132	Side of the order. Valu e Meaning 1 Buy 2 Sell
38	OrderQty		Υ	30,8	Total order quantity.
44	Price		Υ	30,8	Spread price of the multi-leg order request.
LegOrd				· · · · ·	
555	NoLe	-	Υ	132	Used to communicate the Leg 2 instrument; should always be equal to 1.
→	600	LegSy mbol	Υ	30	Identifier of the Leg 2 instrument of the multi-leg order.



30004 60	OrderSource TransactTime	N Y	24	specified string will be included in all Execution Reports generated for the order. Time the order was created.		
Standard Trailer						



7.5.3 Order Cancel Request

Tag	Field Name	Req	Len gth	Description		
Standa	rd Header					
35	MsgType	Υ	132	F = Order Cancel Request		
Messag	ge Body					
11	ClOrdID	Υ	20	Client specified identifier of the cancel request.		
41	OrigClOrdID	N	25	ClOrdID (11) of the order being cancelled. Required if OrderID (37) is not specified.		
37	OrderID	N	12	Server specified identifier of the order being cancelled. Required if OrigClOrdID (41) is not specified.		
	onent Block ng Mnemonic>	Ν	Identi	fier of the trading mnemonic.		
55	Symbol	Υ	30	Must match the values in the order.		
30001	OrderBook	N	132	Identifier of the order book. Absence of this field is interpreted as Regular (1).		
				Value Meaning		
				1 Regular		
				4 EFP		
54	Side	Υ	132	Must match the value in the order.		
30004	OrderSource	N	24	Free form text of up to 24 characters. The specified string will be included in the Execution Report transmitted to confirm the cancellation.		
60	TransactTime	Υ	21	Time the order cancel request was created.		
Standa	Standard Trailer					



7.5.4 Order Mass Cancel Request



Tag	Field N	Name	Re q	Leng th	Description
Standa	rd Head	ler			
35	MsgTy	/pe	Υ	132	q = Order Mass Cancel Request
Messag	ge Body	,			
11	ClOrdl	D	Υ	20	Client specified identifier of mass cancel request.
530	MassC		Υ	1	Scope of the mass cancel request.
	Reque	stType			Valu e Meaning
					1 Cancel All Orders for Instrument
					2 Cancel All Orders for Underlying
					7 Cancel All Orders
					9 Cancel All Orders for Segment
1461	NoTar	getPartyIDs	Y	l32	Number of parties the mass cancel relates to. (At least one block required to denote Order Entry Operator ID)
→	1462	TargetPartyl D	Y	30	Identifier of the party the mass cancel relates to. Required if NoTargetPartyIDs (1461) is specified.
→	1463	TargetParty IDSource	Y	1	Required if NoTargetPartyIDs (1461) is specified.
					Valu e Meaning
					D Proprietary/Custom Code
•	1464	TargetParty Role	Y	132	Role of the TargetPartyID (1462). Required if NoTargetPartyIDs (1461) is specified.
					Valu Meaning e
					1 Executing Firm
					4 Clearing Firm
					44 Order Entry Operator ID
					53 Trading Mnemonic
55	Symbol		N	30	Identifier of the instrument the mass cancel relates to. Required if MassCancelRequestType (530) is Cancel All for Instrument (1).
311	Underl	yingSymbol	N	30	Identifier of the underlying the mass cancel relates to. Required if MassCancelRequestType (530) is Cancel All for Underlying (2).
1300	Market	tSegmentID	N	30	Identifier of the segment the mass cancel relates to. Required if MassCancelRequestType (530) is Cancel All for Segment (9). Refer Section 9 for valid segments.



60	TransactTime	Υ	21	Time the mass cancel request was created.		
30001	OrderBook	N	132	Identifier of the order book. Absence of this field is interpreted as Regular (1).		
				Val ue Meaning		
				1 Regular		
				4 EFP		
30004	OrderSource	N	24	Free form text (remarks) of up to 24 characters. The specified string will be included in all Execution Reports generated.		
Standa	Standard Trailer					



7.5.5 Order Cancel/Replace Request



Tag	Field	Name	Req		Description
Standa	ard Hea	der			
35	MsgT	уре	Υ	132	G = Order Cancel/Replace Request
Messa	ge Bod	у			
11	ClOrd	IID	Y	20	Client specified identifier of the cancel/replace request.
41	OrigC	lOrdID	N	25	ClOrdID (11) of the order being amended. Required if OrderID (37) is not specified.
37	Order	lD	N	12	Server specified identifier of the order being amended. Required if OrigClOrdID (41) is not specified.
453	NoPa	rtyIDs	Υ	132	Number of party identifiers.
→	448	PartyID	Υ	30	Identifier of the party.
→	447	PartyID	Y	1	Required if PartyID (448) is specified.
		Source			Valu e Meaning
					D Proprietary/Custom Code
→	452	Party Role	Y	132	Role of the PartyID (448). Required if PartyID (448) is specified.
					Valu e Meaning
					1 Executing Firm
					4 Clearing Firm
					Order Entry Operator ID (section 4.1.2) (Mandatory)
					53 Trading Mnemonic
1	Accou	unt	N	32	Identifier of the investor account on whose behalf the order is submitted.
					If AccountType (581) = 1, then Account tag is mandatory and cannot be blank.
					If it is more than 10 char, it will be rejected by the gateway
581	Accou	ıntType	N	132	Type of the investor account.
					Val ue Meaning
					1 Client
					3 House
79	Alloca	Account	N	30	Sub-account mnemonic. The CP Code of the Client ID will be mentioned here.
55	Symb	ol	Υ	30	Must match the values in the order.



30001	OrderBook	N	132	Identifier of the order book. Absence of this field is interpreted as Regular (1). Valu Meaning
				<u>e</u>
				1 Regular
				4 EFP
40	OrdType	Y	1	Must match the value in the order.
59	TimeInForce	N	132	Time qualifier of the order. Absence of this field is interpreted as Day (0).
				Valu e Meaning
				0 Day
				1 Good Till Cancel (GTC)
				2 At the Opening (OPG)
				3 Immediate or Cancel (IOC)
				4 Fill or Kill (FOK)
				6 Good Till Date (GTD)
				7 At the Close (ATC)
				9 Good for Auction (GFA)
432	ExpireDate	N	8	Date the order expires. Required if TimeInForce (59) is GTD (6)
386	NoTrading Sessions	N	132	Number of sessions the order is valid for. If specified, the value in this field should always be "1".
18	ExecInst	N	15	Space separated field indicating specific instructions to be carried out on the order due to the events and user disconnect/logout.
				Valu e Meaning
				n Do Not Cancel on Disconnect/Logout
54	Side	Υ	l32	Must match the value in the order.
38	OrderQty	Υ	30,8	Total order quantity.
1138	DisplayQty	N	30,8	Maximum quantity that may be displayed. If not specified, the quantity submitted in the amendment request will be considered as the DisplayQty.
44	Price	N	30,8	Limit price. Required if OrderType (40) is Limit (2) or Stop Limit (4).
99	StopPx	N	30,8	Stop price. Required if OrderType (40) is Stop (3), Stop Limit (4) or Market If Touched(J).
583	ClOrdLinkID	N	20	Deal identifier agreed with counterparty. Required if OrderBook (30001) is Block Trade (4) and order book configuration is to support negotiated non-disclosure orders



30004	OrderSource	N	24	Free form text of up to 24 characters. The specified string will be included in all subsequent Execution Reports generated for the order.				
60	TransactTime	Υ	21	Time the cancel/replace request was created.				
Standa	Standard Trailer							



7.5.6 Execution Report



Tag	Field Name	Req	Leng th	Description
Standa	ard Header			
35	MsgType	Υ	132	8 = Execution Report
Messa	ge Body			
1180	ApplID	Υ	I32	Identity of the partition.
17	ExecID	Υ	15	Server specified identifier of the message.
11	ClOrdID	Υ	20	Client specified identifier of the order ⁶ .
41	OrigClOrdID	N	25	ClOrdID (11), of the order which has been amended or cancelled. Stamped only in the immediate ER generated to convey an amendment/cancellation ⁷ .
37	OrderID	Y	12	Server specified identifier of the order. In case of spread day order, the order ID will be unique order ID for the leg
442	MultiLeg ReportingType	N	132	Type of Trade. Absence of this field is interpreted as Trade of Single Instrument (1).
				Valu Meaning e
				1 Trade of Single Instrument
				Leg Trade of a Multi-Leg Instrument Trade
				3 Trade of a Multi-Leg Instrument
				9 Multi-leg order on leg instruments
198	Secondary OrderID	N	21	Server specified identifier of the order for the multi-legged instrument. Required if MultiLegReportingType (442) is Leg Trade of a Multi-Leg Instrument Trade(2).
				In case of spread day order leg execution, this will refer to the common spread order ID

⁶In an amendment/cancellation the ClOrdID(11) submitted with the order cancel or cancel/replace request will be stamped here ⁷Any subsequent ERs sent regarding to any executions, expirations etc. of the order will not be stamped the OrigClOrdID(41).



150	ЕхесТуре	Υ	1	Reason the execution report was generated.
				Val Meaning ue
				0 New
				4 Cancelled
				5 Replaced
				8 Rejected
				9 Suspended
				A Pending New
				C Expired
				D Restated
				E Pending Replace
				F Trade
				G Trade Correct
				H Trade Cancel
				L Triggered
880	TrdMatchID	N	30	Identifier of the trade. Required if ExecType (150) is Trade (F) Trade Correct (G) or Trade Cancel (H).
1040	Secondary Trade ID	N	7	Numeric trade ID assigned for the trade. Required if ExecType (150) is Trade (F) Trade Correct (G) or Trade Cancel (H).
19	ExecRefID	N	25	Reference to the execution being cancelled or corrected. Required if ExecType (150) is Trade Cancel (H) or Trade Correct (G).
378	Exec Restatement Reason	N	2	Reason the order was restated or cancelled by Market Operations. Required if ExecType (150) is Restated (D) or if the execution report is sent for an unsolicited cancellation.
				Value Meaning
				3 Order Re-Priced
				8 Market Option



39	OrdSta	atus	Υ	1	Current stat	tus of the order.
					Valu e Me	aning
					0 Ne	w
					1 Par	rtially Filled
					2 Fille	ed
					4 Cai	ncelled
					8 Rej	jected
					9 Sus	spended
					A Per	nding New
					C Exp	pired
					E Per	nding Replace
636	Workin		N	1	Whether the	e order is currently being worked.
	Indicat	or			Valu e Me	eaning
					N Ord	der is Not in a Working State
					Y Ord	der is Being Worked
103	OrdRe	jReason	N	132	Please refe	cifying the reason for the reject. r to Section 10.1.1 for a list of reject uired if ExecType (150) is Rejected
58	Text		N	60		ying the reason for the rejection, or expiration
32	LastQt	у	N	20,8	•	xecuted in this fill. Required if 150) is Trade (F).
31	LastPx		N	20,8	Price of this Trade (F)	s fill. Required if ExecType (150) is
151	Leaves	sQty	Y	30,8	"0" if OrdSta	ailable for further execution. Will be atus (39) is Filled (2), Cancelled (4),) or Expired (C).
14	CumQ	ty	Υ	30,8	Total cumul	lative quantity filled.
6	AvgPx		N	30,8	Average pri	ce of all fills for the order.
55	Symbo	ol	Υ	30	Identifier of	the instrument.
30001	OrderE	Book	Υ	132	Identifier of	the order book.
					Valu e Me	eaning
					1 Re	gular
					4 EF	Р
453	NoPart	tyIDs	Y	I32	Number of p	party identifiers.
→	448	PartyID	Y	30	Identifier of	the party.



•	447	PartyID	Y	1	Required if PartyID (448) is specified.
		Source			Val ue Meaning
					D Proprietary/Custom Code
→	452	Party Role	Y	132	Role of the PartylD (448). Required if PartylD (448) is specified.
					Valu e Meaning
					1 Executing Firm
					4 Clearing Firm
					17 Contra Firm
					44 Order Entry Operator ID
					53 Trading Mnemonic
1	Accou	nt	N	32	Required if AccountType (581) is not specified or specified as Client (1)
					Identifier of the investor account.
581	Accou	ntType	N	132	Type of the investor account.
					Valu e Meaning
					1 Client (Default)
					3 House
79	AllocA	ccount	N	30	Sub-account mnemonic. The CP Code of the Client ID will be mentioned here.
40	OrdTy	ре	Υ	1	Value submitted with the order.
59	Timelr	Force	N	132	Value submitted with the order.
432	Expire	Date	N	8	Value submitted with the order.
336	Tradin Sessio		N	30	Value submitted with the order.
18	Exectr	ıst	N	15	Value submitted with the order.
54	Side		Υ	1	Value submitted with the order.
38	Order	Qty	Υ	30,8	Value submitted with the order.
1138	Displa	yQty	N	30,8	Quantity currently displayed in the order book.
110	MinQty	/	N	30,8	Value submitted with the order.
44	Price		N	30,8	Value submitted with the order.
99	StopP	K	N	30,8	Value submitted with the order.
1091	PreTra Anony		N	1	Value submitted with the order.
583	ClOrdl	inkID	N	20	Deal identifier of a block trade.
30004	OrderS	Source	N	24	Value submitted with the order, cancel request or amend request.8
22009	Interna	alRefFlag	N	15	Internal reference flag



60	TransactTime	Υ	21	Time the transaction represented by the Execution Report occurred.				
32022	LastOptPx	N	30,8	Converted price of the executed volatility of the options instrument.				
1188	Volatility	N	30,8	Converted volatility of the executed price of the options instrument.				
Standa	Standard Trailer							

⁸Execution Reports generated subsequent to the Order Cancel Reject message being generated would not consist of the data submitted by the user in the OrderSource (30004)Text (58) field of the rejected Order Cancel or Order Cancel/Replace Request message



7.5.7 Order Cancel Reject



Tag	Field Name	Req	Len gth	Description		
Standa	rd Header					
35	MsgType	Υ	132	9 = Order Cancel Reject		
Messag	ge Body					
1180	ApplID	Υ	132	Identity of the partition.		
11	ClOrdID	Υ	20	ClOrdID (11) that was submitted with the order cancel or cancel/replace request being rejected.		
41	OrigClOrdID	N	25	OrigClOrdID (41), if any, that was submitted with the order cancel or cancel/replace request being rejected.		
37	OrderID	Υ	12	Server specified identifier of the order for which the cancel or cancel/replace was submitted. Will be "NONE" if the order is unknown.		
	nent Block ng Mnemonic>	N		Values specified in the order cancel or cancel/replace request.		
39	OrdStatus	Y	1	Current status of the order. Will be Rejected (8) if the order is unknown or the request cannot be processed.		
				Valu e Meaning		
				0 New		
				1 Partially Filled		
				2 Filled		
				4 Cancelled		
				8 Rejected		
				9 Suspended		
				A Pending New		
				C Expired		
				E Pending Replace		
434	CxlRej	Υ	132	Type of request being rejected.		
	ResponseTo			Valu e Meaning		
				1 Order Cancel Request		
				2 Order Cancel/Replace Request		
102	CxlRejReason	Y	l32	Code specifying the reason for the rejection. Please refer to Section 10.1.2 for a list of reject codes.		
58	Text	N	60	Text specifying the reason for the rejection.		
60	TransactTime	Υ	21	Time the reject was generated.		



30001	OrderBook	N	132		of the order book. Absence of this field is ed as Regular (1).		
				Value Meaning			
				1	Regular		
				4 EFP			
Standa	Standard Trailer						

7.5.8 Order Mass Cancel Report

Tag	Field Name	Req	Len gth	Description
Standa	rd Header			
35	MsgType	Υ	132	r = Order Mass Cancel Report
Messag	ge Body			
1180	ApplID	Υ	4	Identity of the partition.
1369	MassActionReportID	Υ	N/A	Server specified identifier of the message.
11	CIOrdID	Y	20	Client specified identifier of mass cancel request. When mass cancellation is performed due to a partition failover, this will be the same value as MassActionReportID (1369).
530	MassCancel RequestType	Υ	1	Value specified in the mass cancel request. This field will be 'z' to indicate 'Partition Suspended'
531	MassCancel Response	Υ	1	Action taken by server.
	Теоропос			Valu e Meaning
				0 Mass Cancel Request Rejected
				Cancelled All Orders for Instrument
				2 Cancelled All Orders for Underlying
				7 Cancelled All Orders
				9 Cancelled All Orders for Segment
				z Cancelled All Orders for Partition
532	MassCancelReject Reason	N	1	Code specifying the reason for the rejection. Please refer to Section 10.1.3 for a list of reject codes. Required if MassCancelResponse (531) is Mass Cancel Request Rejected (0).
30001	OrderBook	N	132	Identifier of the order book. Absence of this field is interpreted as Regular (1).OrderBook (30001) is not sent when mass cancelled due to a partition failover
				Valu e Meaning
				1 Regular
				4 EFP
Standa	rd Trailer			



- 7.6 Application Messages: Risk Management
- 7.6.1 Risk Management
- 7.6.1.1 Party Risk Status Updates and Warnings
- 7.6.1.1.1 Party Risk Limits Update Report



Tag	Field N	lame		Req	Len gth	Description
Stand	ard Head	der				
35	MsgTy	pe		Y	132	CR = Party Risk Limits Update Report
Messa	age Body	/				
1667	RiskLir	nitRepoi	rtID	Υ	20	The unique identifier of the Party Risk Limits Update Report message.
79	AllocAd	ccount		N	30	Sub-account mnemonic. The CP Code of the Client ID will be mentioned here.
<party< td=""><td>/ Risk Li</td><td>mits Gr</td><td>oup></td><td></td><td></td><td></td></party<>	/ Risk Li	mits Gr	oup>			
1677	NoPart	yRiskLir	nits	N	132	The number of party risk limits. If specified, the value should always be 1.
→	1324	ListUp	odateAction	N	2	The source of the PartyID value. V al Meaning ue S Snapshot Required if NoPartyRiskLimits (1677) > 0.
	<partic< td=""><td>es Grou</td><td>p></td><td></td><td></td><td></td></partic<>	es Grou	p>			
→	1671	NoPa	rtyDetails	N	132	Number of Party IDs. When PartyDetailRole (1693) is Client ID (3) with Executing Firm (1), value should be 2, in all other scenarios the value should be 1.
→	→	169 1	PartyDetailID	N	30	The identifier of the party. Required if NoPartyDetails (1671) > 0.
→	→	169 2	PartyDetailIDS ource	N	1	The source of the PartyID value. V al Meaning ue D Proprietary/Custom Code Required if NoPartyDetails (1671) > 0.



							Val ue Meaning
							1 Executing Firm
→	→	→ 169 PartyDet	etailRole	N	132	3 Client ID	
		3	,_			.02	4 Clearing Firm
					53 Trader Mnemonic		
					1		Required if NoPartyDetails (1671) > 0.
	<risk< th=""><th>Limits (</th><th>Group></th><th></th><th></th><th></th><th></th></risk<>	Limits (Group>				
	4000	N 5.					The number of risk limits.
•	1669	NoRis	kLimits		N	1	If specified, the value should always be 1.
→	→	152 9	NoRisk es	:LimitTyp	N	1	The number of risk limit types. If specified, the value should always be 1. Required if NoRiskLimits (1669) > 0.
							The type of risk limit.
			1530 RiskLi mitTyp e			132	Val ue Meaning
				mitTyp	N		8 Total margin
-	7	7					10 00 Position
							Required if NoRiskLimitTypes (1592) > 0.
							The action to be taken due to the update.
							Val ue Meaning
				5			4 Warning
→	→	→	1767	RiskLi mitActi	N	132	5 Square-Off
				on			10 Suspend
							10 0 Re-instate
					Required if NoRiskLimitTypes (1529) > 0.		
							Communication of whether the RRM applies or not.
→	→	→	3203 3	RiskR educti onMod	N	132	Val ue Meaning
		e			0 Off		
							1 On



	•						
→	→	→	1766	RiskLi mitUtili zation Amou nt	N	30,8	Absolute amount of utilization of a party's RiskLimitType (1530) specified.
•	→	→	1765	RiskLi mitUtili zation Perce nt	N	30,8	Percentage of utilization of a party's RiskLimitType (1530) specified.
		<instr< th=""><th>ument Sc</th><th>ope Grou</th><th>ıp></th><th></th><th></th></instr<>	ument Sc	ope Grou	ıp>		
→	→	153 4	NoRisk entSco	Instrum pes	N		The number of instrument scopes. The value will always be 1 if specified. Required if RiskLimitType (1530) = Position (1000).
→	→	→	1535	Instru ment Scop Opera tor	N	1	Operator to perform on the instrument(s) specified. The value will always be 1 if specified. Required if NoRiskInstrumentScopes (1534) is specified.
→	→	→	1536	Instru ment Scop eSym bol	N	30	The symbol of the futures instrument the position limit applies to.
•	→	→	1544	Instru ment Scop eProd uctCo mplex	N	30	The base underlying the position limit applies to.
→	→	→	1545	Instru ment Scop eSec urityG roup	N	30	The base underlying to which the near month position limit applies to



•	•	-	167	Securi tyTyp e	N	30	Valid Values; Value Meaning FU T Futures only OO Options only AL Both Futures and L Options Required if InstrumentScopeSecurityGroup (1545) or InstrumentScopeProductComplex (1544) or Underlying Symbol (311) is specified
•	•	→	711	NoUn derlyi ngs	N	1	Number of underlyings. If present, the value in this field should always be "1".
+	•	•	•	Under lying Symb ol (311)	N	30	Symbol of the underlying. Required if NoUnderlyings (711) is specified.
58	Text				N	200	Free format text string
3202 4	Service	eDeskUs	serID		N	30	User ID of the market operation user performing the manual status update Required if MemberUpdateSource is Service Desk User ID (1)
3202 5	Membe	erUpdate	eSource		Υ	132	Identifies the source of RiskLimitAction (1767). Val ue Meaning
							0 RMS
							1 Service Desk User ID
Standa	rd Traile	er					



7.6.1.1.2 Party Risk Limit Report



Tag	Field	Name		Req	Len gth	Description
Stand	ard Hea	der				
35	MsgT	уре		Υ	l32	CM = Party Risk Limits Report
Messa	age Bod	ly				
1667	RiskL	imitRepoi	rtID	Y	16	The unique identifier of the Party Risk Limits Report message.
<party< td=""><td>Risk Li</td><td>imits Gro</td><td>eup></td><td></td><td></td><td></td></party<>	Risk Li	imits Gro	eup>			
1677	NoPa	rtyRiskLir	nits	N	I32	The number of party risk limits. If specified, the value should always be 1.
•	132	ListUpo	dateAction	N	2	The source of the PartyID value. Value Meaning S Snapshot Required if NoPartyRiskLimits (1677) > 0.
	<parti< td=""><td>es Group</td><td>)></td><td></td><td></td><td></td></parti<>	es Group)>			
•	167 1	NoPart	yDetails	N	1	Number of Party IDs. If specified the value should always be 1.
→	→	1691	PartyDetailID	N	30	The identifier of the party. Required if NoPartyDetails (1671) > 0.
•	+	1692	PartyDetailIDS ource	N	1	The source of the PartyID value. Va lu Meaning e D Proprietary/Custom Code Required if NoPartyDetails (1671) > 0.
•	→ <risk< th=""><th>1693</th><th>PartyDetailRole</th><th>N</th><th>132</th><th>Val Meaning 1 Executing Firm 53 Trader Mnemonic Required if NoPartyDetails (1671) > 0.</th></risk<>	1693	PartyDetailRole	N	132	Val Meaning 1 Executing Firm 53 Trader Mnemonic Required if NoPartyDetails (1671) > 0.
-4		I	-			Th
•	166 9	NoRisk	Limits	N	1	The number of risk limits. If specified, the value should always be 1.



•	•	1529	NoRiskl es	LimitTyp	N	1	The number of risk limit types. If specified, the value should always be 1. Required if NoRiskLimits (1669) > 0.
•	•	+	1530	RiskLi mitTy pe	Z	132	The type of risk limit. Val ue Meaning 0 Total Collateral 2 MTM Margin 9 Initial Margin 99 MTM PL Required if NoRiskLimitTypes (1592) > 0.
•	+	+	1766	RiskLi mitUtil izatio nAmo unt	N	30,8	Absolute amount of utilization of a party's RiskLimitType (1530) specified.
•		*	1765	RiskLi mitUtil izatio nPerc ent	N	30,8	Percentage of utilization of a party's RiskLimitType (1530) specified.
58	Text				N	60	Free format text string
Stand	ard Trai	iler					



- 7.7 Application Messages: Market Data
- 7.7.1 News



Tag	Field	Field Name		Req	Leng th	Description
Standa	Standard Header					
35	MsgT	уре		Υ	132	B = News
Messa	ige Boo	dy				
1180	AppllI)		Υ	132	Identifier of the partition.
42	OrigT	ime		Y	21	Time the announcement was published which will be specified in UTC and in the YYYYMMDD-HH:MM:SS format.
61	Urger	су		Υ	132	Level of urgency of the announcement.
						Valu Meaning e
						0 Normal
						1 Flash (High Priority)
						2 Background (Low Priority)
148	Head	line		Υ	60	Headline or the subject of the announcement.
33	NoLin	LinesOfText		Y	1	Number of lines of text. The value in this field will always be "1".
→	58	Tex	t	Υ	60	Text of the announcement.
→	146	NoF ym	RelatedS	N	1	Number of related instruments.
→	→	55	Symbol	N	30	Unique identifier of the instruments. Required if NoRelatedSym(146) is specified.
→	711	Nol gs	Jnderlyin	N	1	Number of related underlying instruments.
→	→	31 1	Underly ing Symbol	N	30	Unique identifier of the instruments. Required if NoUnderlyings(711) is specified.
215	NoRoutingIDs		N	132	Number of repeating groups of RoutingID (217) and RoutingType (216) values. Specifies the number of recipients to whom the announcement message should be sent by the service bureau.	
→	216	RoutingType		N	132	Indicates the type of RoutingID (217) specified. Required if NoRoutingIDs (215) is >0
						Val ue Meaning
						1 Firms
						10 Users



→	217	RoutingID	Z	30	Identifies the final recipient of the announcement message. RoutingID will be the Firm ID if RoutingType(216) is Firm(1). RoutingID will be a User ID if RoutingType(216) is User(10). Required if NoRoutingIDs (215) is >0		
Standa	Standard Trailer						



7.8 Application Messages: Others

7.8.1 Business Message Reject

Tag	Field Name	Req	Length	Description	
Stand	ard Header				
35	MsgType	Υ	132	j = Business Message Reject	
Messa	age Body				
379	BusinessReject RefID	N	25	Client specified identifier (e.g. ClOrdID) of the rejected message if it is available.	
45	RefSeqNum	Υ	132	MsgSeqNum (34) of the rejected message.	
372	RefMsgType	Υ	2	MsgType (35) of the rejected message.	
371	RefTagID	Ν	132	If a message is rejected due to an issue with a particular field its tag number will be indicated.	
380	BusinessReject Reason	Y	l32	Code specifying the reason for the rejection. Please refer to Section 10.2.2 for a list of reject codes.	
58	Text	N	60	Text specifying the reason for the rejection.	
Stand	Standard Trailer				



7.9 Components of Application Messages

7.9.1 Trading Mnemonic

Tag	Field Name		Req	Length	Descripti	on			
453	NoPartyIDs		Y	l32		of party identifiers. (At least one block o denote Order Entry Operator ID)			
•	448 PartyID Y 30		Identifier of is specifie	of the party. Required if NoPartyIDs (453)					
→	447	PartyID	Y	1	Required	if PartyID (448) is specified.			
		Source			Value	Meaning			
					D	Proprietary/Custom Code			
•	452	Party Role	,	,	,	Y	l32		he specified PartyID (448). Required if 448) is specified.
					Value	Meaning			
					1	Trading Firm			
					4	Clearing Firm			
						44	Order Entry Operator ID		
					53	Trading Mnemonic			



8 SUPPORTED STRATEGIES

The types of derivative strategies supported by NCDEX are given below. Information for the legs is specified from the <u>point of view of an order to purchase the strategy</u>. All legs are derivatives based on the same underlying.

Туре	Security SubType	Legs Specifications
Calendar Spread	CS	Leg 1 Instrument: Futures contract Side: Sell Ratio Quantity: 1
		Leg 2 Instrument: Futures contract that expires after the Leg 1 futures contract Side: Buy Ratio Quantity: 1

Valid Strategy vs Derivate combinations

Derivative	Security subtype (Strategy)	Description
Futures	CS	<u>Calendar Spread</u>



9 SEGMENTS

CFI Code	Description
Main	Main Board
Secondary	Secondary Board
Default	Default Board
FU	Futures
OP	Options
CS	Calendar Spreads



10 REJECT CODES

10.1 Order Handling

10.1.1 Execution Report

OrdRej Reason	Meaning
2	Exchange closed
3	Order exceeds limit (i.e. rejected by risk system)
5	Unknown order
6	Duplicate order (i.e. duplicate ClOrdID)
16	Price exceeds current price band

Please refer to the *Error! Reference source not found.* for the list of reject codes and meanings specific to NCDEX.

10.1.2 Order Cancel Reject

CxIRej Reason	Meaning
1	Unknown order
6	Duplicate ClOrdID
8	Price exceeds current price band

Please refer to the *Error! Reference source not found.* for the list of reject codes and meanings specific to NCDEX.

10.1.3 Order Mass Cancel Report

Mass Cancel Reject Reason	Meaning
1	Unknown instrument
2	Unknown underlying

Please refer to the *Error! Reference source not found.* for the list of reject codes and meanings specific to NCDEX.



10.2 Others

10.2.1 Reject

Session Reject Reason	Meaning
1	Required tag missing ⁹
2	Tag not defined for this message type
4	Tag specified without a value
5	Value is incorrect (out of range) for this tag
6	Incorrect data format for value
9	CompID problem
10	SendingTime accuracy problem
11	Invalid MsgType ¹⁰
13	Tag appears more than once
14	Tag specified out of required order
15	Repeating group fields out of order
16	Incorrect NumInGroup count for repeating group
18	Invalid or unsupported application version
99	Other

This reject reason is sent when all the required tags for the message are not present in a message that is recognized by the gateway. The exception to this is when SendingTime and OrigSendingTime tags are not present in a message. In these two cases, the system responds with reject reason 'Required SendingTime field missing' and 'Conditionally required OrigSendingTime field missing' respectively.

This reject reason is sent when a message that is not defined in the FIX data dictionary is received by the gateway



10.2.2 Business Message Reject

Business Reject Reason	Meaning
0	Other ¹¹
2	Unknown instrument
3	Unsupported message type ¹²
4	Application not available
5	Conditionally required field missing
30	Session not established

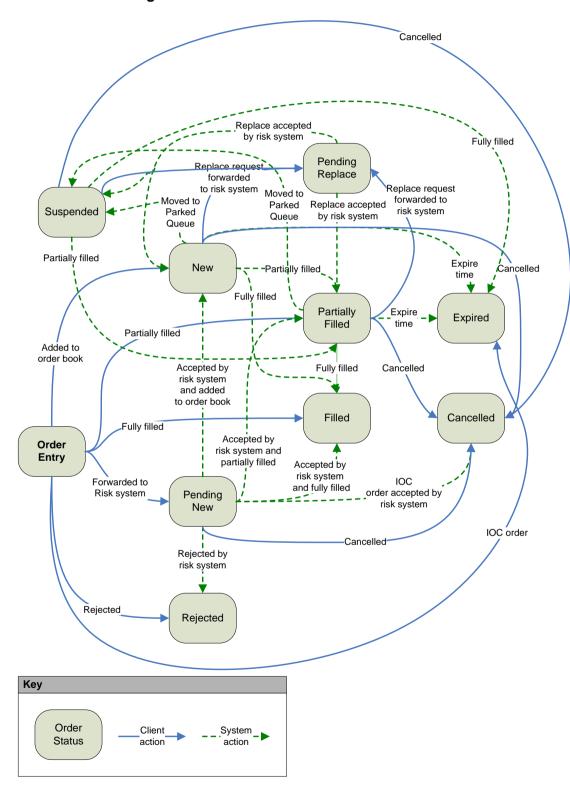
 ¹¹ This reject reason will be used with a description of 'Not a valid account number', when the syntax validation for the Client ID of the New Order Single or Order Cancel/ Replace Request fails.
 12 This reject reason is sent when the received message is not defined as a valid message for the Trading Gateway



11 PROCESS FLOWS

11.1 Order Handling

11.1.1 Order Status Changes





12 ANNEXURES

Annexure A





13 MARKET OPERATIONS ACTIONS

