



MATCHNOWSM

FIX Specification

For Conditional Orders

Version 1.8

Supported Versions: 4.2

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Revision History

Date	Version	Author	Description
2018/06/01	1.0	Vince Poil	Initial Document
2018/06/17	1.1	Vince Poil	Rule 80A updates / Diagram Addition/ Price description update / Results update
2018/09/26	1.2	Vince Poil	Spelling mistakes / Currency Required changed to N / Firm order add Tag 50 & 47
2018/10/01	1.3	Vince Poil	Typographical errors
2018/11/20	1.4	Vince Poil	Fixed missing Anonymous Tag and Reg ID tag in Firm orders
2019/05/01	1.5	Vince Poil	Fixed missing and removed unnecessary tags from Firm-Up requests
2019/11/20	1.6	Vince Poil	Added information about min order size for conditionals and firm orders
2021/02/01	1.7	Vince Poil	Address change and Add LEI Tags
2021/03/01	1.8	Vince Poil	Added Tag 47 value missed in previous version 'MC'

Contents

- Revision History2
- MATCHNow Conditionals FIX Protocol.....4
 - FIX 4.2 Support4
 - Conditional Order Requirements4
 - Firm Order Requirements.....4
 - Conditionals Workflow5
 - Conditional Order5
 - Invitation.....5
 - Response.....5
 - Result6
- FIX Protocol.....7
 - Conditional Orders7
 - Cancel / Replace Conditional order8
- Cancel Request for Conditional10
- Firm Up Request.....11
- Submit Firm Order.....12

MATCHNow Conditionals FIX Protocol

This document describes the FIX 4.2 implementation used to access MATCHNow via conditional orders, including:

- General FIX specification required for each transmission.
- User-Defined FIX tags.

FIX 4.2 Support

MATCHNow Conditionals are FIX 4.2 compliant. We use the standard FIX 4.2 protocol published by the FIX Protocol Organization. For complete versions of any of the FIX Protocol Specification manuals, please visit the Specifications page of the FIX web site (<http://www.fixprotocol.org>).

Conditional Order Requirements

The FIX new order type message (35=D) with Conditional Flag (8002=0) is used to send a new conditional order. The OrderQty tag (Tag 38) will contain the number of shares that are available to trade.

The minimum order size for conditional orders is 5000 shares OR \$100,000 in value. Anything less will be rejected.

As the quantity and/or price change throughout the day, the client should send an Order Cancel/Replace message (35=G) to indicate the new quantity or price.

To cancel, use the Cancel Request message (35=F). If changing the parameters of the conditional or firm order, do not send Cancel Request (35=F) followed by New Single Order (35=D). Send a Cancel/Replace request (35=G) with the new order quantity, new price, etc.

Only a limited number of fields on the Conditional orders may be changed using the Order Cancel/Replace(35=G) message:

- OrderType (40): Use only when changing to or from Market or Limit.
- Price (44): Increase and decrease the value.
 - Price should only be sent on the conditional order if the trader intends to send the firm order with a limit price.
 - Price should not be on the conditional order if the trader intends to send the firm order at market.
- OrderQty (38): Increase and decrease the quantity.
- Min Qty (110): Increase and decrease the minimum quantity to fill. Do not include the tag if there is no minimum.

Note: All other FIX fields must be retransmitted as sent on the previous conditional order. MATCHNow rejects the update if a mandatory tag is not sent.

Firm Order Requirements

Firm Orders must have parameters that match with their corresponding conditional orders. However, OrderQty (38) and Price(44) on the firm order may not always match the conditional order – this is only reasonable due to available quantity not being the same from when the order was first placed or last updated.

The minimum order size for firm orders is 5000 shares OR \$100,000 in value. Anything less will be rejected.

Note: All other FIX fields must be retransmitted as sent on the last corresponding conditional order. MATCHNow will reject the firm order if a mandatory tag is not sent or if they do not match those on the conditional.

Legal Entity Identifier – LEI

On April 15, 2019, the applicable securities regulatory authorities approved amendments (Amendments) to the Universal Market Integrity Rules and the Dealer Member Rules to include client identifiers and/or certain designations on:

-each order for a listed security that is sent to a marketplace

-each reportable trade in a debt security.

- MATCHNow does not support intentional crosses, so only a subset of the new FIX tags are relevant. These new tags are laid out in the FIX Message sections below.
- LEI tags are only necessary on FIRM orders and not on Conditional orders
- All LEI tags will be echoed back on execution reports.

The new LEI rules will come in to place on July 26th, 2021. With a soft launch on April 5th, 2021.

More information can be found here <https://www.iiroc.ca/industry/Client-Identifiers/Pages/Frequently-Asked-Questions.aspx>

Conditionals Workflow

The MATCHNow conditional two-step process consists of conditional order matching (uncommitted orders) and firm order crossing (committed orders). Refer to Appendix A for a flow diagram.

Conditional Order

- Conditional orders to MATCHNow represent uncommitted quantity and order parameters that the participant is willing to trade. MATCHNow will only use conditional orders to match participants together and it will only execute trades once firm orders are received.
- Conditional orders must be of “large” size and meet the UMIR requirements of >50 boardlots or >\$100,000 CAD notional value. Any orders submitted below this threshold will be rejected.

Invitation

- When MATCHNow finds a contra to the conditional order, a request is sent inviting the client to firm up. The invitation will always be for the full conditional order quantity sent to MATCHNow so that no size information about the contra-party will be disclosed.
- The firm up request comes in the form of an unsolicited cancel FIX message, of the original conditional order with tag 8005 = 5. The subscriber is expected to send a firm up order on receipt of the invitation, within 1 second.

Response

- The participant responds to the invitation by sending a firm order to the MATCHNow conditionals destination.

- The participant should never send a firm order to the MATCHNow conditionals destination if there is no outstanding invitation. MATCHNow will reject any firm orders that are not in response to a live invitation.

Result

- By the end of the 1 second time-out window or earlier, the participant will receive an execution report with a fill, partial fill, or Done for Day order status. Any unfilled quantity will be cancelled back to the user. Orders may not trade due to constraints placed on the firm order(s) such as limit price, min quantity or the contra-side not responding in time to their own invitation.
- The participant should send a new conditional order after the cross to represent the remaining quantity in the MATCHNow conditional venue.
- All trades will be priced at the Mid-Point of the current Protected National Best Bid/Offer ('PNBBO')
- All trades will be broker preferenced

FIX Protocol

Conditional Orders

Inbound Message

Participant sends conditional order to MATCHNow Conditionals destination

- Conditional orders represent un-committed order quantity that a participant is willing to trade in MATCHNow if there is a natural contra party.
- All conditionals expire at 16:00:00.

Field Name	FIX Tag	Mandatory	Valid Values	Comments
MsgType	35	Yes	D	D = New Order
ClOrdID	11	Yes		Client Order ID
Currency	15	No	See Comments	Currency value must be the industry standard valid value (or native currency)
Symbol	55	Yes	See Comments	Ticker Symbol.
SenderSubID	50	Yes	See Comments	Must contain "BrokerNumber:TSXTraderID" i.e. 50=090:IT999IS
Side	54	Yes	1, 2, 5	1 = Buy 2 = Sell 5 = Sell Short
Price	44	See Comments		Price per share. Mandatory if OrdType(40) = Limit(2). If present, the value must be greater than zero.
OrderQty	38	Yes		Quantity that the user is indicating to MATCHNow that they are willing to trade.
MinQty	110	No		
OrdType	40	Yes	1, 2	1 = Market 2 = Limit
TimeInForce	59	No	0	Only Day orders. 0 = Day
HandlInst	21	Yes	1	

Field Name	FIX Tag	Mandatory	Valid Values	Comments
Rule80A	47	Yes	IN / NC / CL / ST / MP / OF / OT / BU / MC	CL Client ST Specialist NC Non-client IN Inventory MP ME Pro Order OF Options Firm Account OT Options Market Maker BU Bundled MC Multi Client
Conditionals Msg Flag	8002	See Comments	0	Signifies if the order is conditional or firm. 0 = Conditional order message

Cancel / Replace Conditional order

Inbound Message

Participant sends a cancel / replace message to change parameters on an outstanding conditional order. The following modifications are allowed:

- Increase and decrease OrderQty (38).
- Increase decrease in Price (44)
- Change in OrderType (40) such as from MKT to LMT and vice versa.

MATCHNow responds to the Cancel / Replace with a standard FIX Replaced report

Field Name	FIX Tag	Mandatory	Valid Values	Comments
MsgType	35	Yes	G	G = Order Cancel/Replace Request
CIOrdID	11	Yes		Client Order ID
OrigCIOrdID	41	Yes		Original client order ID.
Currency	15	No	See Comments	Currency value must be the industry standard valid value (or native currency)
Symbol	55	Yes	See Comments	Ticker Symbol.
SenderSubID	50	Yes	See Comments	Must contain "BrokerNumber:TSXTraderID"
Side	54	Yes	1, 2, 5	1 = Buy 2 = Sell 5 = Sell Short

Field Name	FIX Tag	Mandatory	Valid Values	Comments
Price	44	See Comments		Price per share. Mandatory if OrdType(40) = Limit(2). If present, the value must be greater than zero.
OrderQty	38	Yes		Order quantity that the user is indicating to MATCHNow that they are willing to trade.
MinQty	110	No		
OrdType	40	Yes	1, 2	1 =Market 2 = Limit
TimeInForce	59	No	0	Only Day orders. 0 = Day
HandlInst	21	Yes	1	
Rule80A	47	Yes	IN / NC / CL / ST / MP / OF / OT / BU / MC	CL Client ST Specialist NC Non-client IN Inventory MP ME Pro Order OF Options Firm Account OT Options Market Maker BU Bundled MC Multi Client
Conditionals Msg Flag	8002	See Comments	0	Conditionals Msg Flag signifies if the order is conditional or firm. 0 = Conditional order message

Cancel Request for Conditional

Inbound Message

Participant sends cancel request message to MATCHNow Conditional destination to cancel an outstanding conditional order.

- Conditional orders should be cancelled when there is no longer interest in trading the order
- If participant is updating parameters of the order, do not update in form of Cancel Request and New Order Messages. Instead, send the Cancel Replace Request (35=G)
- MATCHNow responds to the Cancel Request with a standard FIX Canceled report. It will not have Conditionals message flag (8005) present

Field Name	FIX Tag	Mandatory	Valid Values	Comments
MsgType	35	Yes	F	F = Cancel Request
CIOrdID	11	Yes		Client Order ID
OrigCIOrdID	41	Yes		Original client order ID.
Symbol	55	Yes	See Comments	Ticker Symbol.
SenderSubID	50	Yes	See Comments	Must contain "BrokerNumber:TSXTraderID"
Side	54	Yes	1, 2, 5	1 = Buy 2 = Sell 5 = Sell Short
OrderQty	38	Yes		Order quantity that the user is indicating to MATCHNow that they are willing to trade.
Conditionals Msg Flag	8002	See Comments	0	Conditional Msg Flag signifies if the order is conditional or firm. 0 = Conditional order message

Firm Up Request

Outbound Message

When MATCHNow finds a marketable contra for a conditional order, the conditional participants are informed of the opportunity to trade.

MATCHNow invites the participant to send a firm order.

- The request is an unsolicited cancel message on the execution report, with Conditionals Msg flag 8002=0 and Conditionals Status flag 8005=5

Field Name	FIX Tag	Valid Values	Comments
MsgType	35	8	8 = Execution Report
Account	1		Echo back what client sends
CIOrdID	11		Same as CIOrdID on the conditional order
OrigCIOrdID	41		Original client order ID.
TransactTime	60		Time this message was created
OrderID	37		Mimics CIOrdID
ExecID	17		Internal Execution Ref
Currency	15	See Comments	Currency value must be the industry standard valid value (or native currency)
Symbol	55	See Comments	Ticker Symbol.
OrdStatus	39	4	4 = Canceled
ExecType	150	4	4 = Canceled
CumQty	14	0	0
AvgPx	6	0	0
LeavesQty	151	0	0
Rule80A	47	IN / NC / CL / ST / MP / OF / OT / BU / MC	Echo back what client sends
LastPx	31	0	0
LastShares	32	0	0
Side	54	1, 2, 5	1 = Buy 2 = Sell 5 = Sell Short
ExecTransType	20	0	0 = New

Field Name	FIX Tag	Valid Values	Comments
Price	44		Same as Price on the conditional order
OrderQty	38	See Comments	Same as OrderQty on the conditional order.
Text	58	Text	Text
OrdType	40	1, 2, P	1 = Market 2 = Limit P = Pegged
Conditionals Msg Flag	8002	0	Msg Flag signifies if the order is conditional or firm. 0 = Conditional order message
Conditionals Status Flag	8005	5	Describes the status of the order. 5 = Firm order request message

Submit Firm Order

Inbound Message

Participant sends firm order to MATCHNow Conditional destination

- Firm order sent in response to a firm up request only
- MATCHNow will respond to the Firm Up Order with a standard FIX Acknowledgement report

Note that the Conditionals Msg flag should be set to say this is a firm order (tag 8002 = 1). Also, the firm order should set IOId tag 23 to the ClOrdID (11) of the invited conditional order.

Field Name	FIX Tag	Mandatory	Valid Values	Comments
MsgType	35	Yes	D	D = New Order
ClOrdID	11	Yes		Client Order ID
IOId	23	Yes		Same as the Client Order ID (11) of the invited conditional order. This is used as a reference for the firm order.
Currency	15	No	See Comments	Currency value must be the industry standard valid value (or native currency)

Field Name	FIX Tag	Mandatory	Valid Values	Comments
Rule80A	47	Yes	IN / NC / CL / ST / MP / OF / OT / BU / MC	CL Client ST Specialist NC Non-client IN Inventory MP ME Pro Order OF Options Firm Account OT Options Market Maker BU Bundled MC Multi Client
Symbol	55	Yes	See Comments	Ticker Symbol.
SenderSubID	50	Yes	See Comments	Must contain "BrokerNumber:TSXTraderID"
OrderQty	38	Yes		Order quantity that is intended to be traded. Value should be as close as possible to the order quantity on the corresponding conditional order.
OrdType	40	Yes	1, 2	1 = Market 2 = Limit
Price	44	See Comments		Price per share. Mandatory if OrdType(40) = Limit(2). If present, the value must be greater than zero.
Side	54		1, 2, 5	1 = Buy 2 = Sell 5 = Sell Short
TimeInForce	59	No	0	Only Day orders. 0 = Day
MinQty	110	No		Minimum quantity to be executed on an order. Must be less than or equal to value in OrderQty(38).
Anonymous	7012	No	Y,N	Anonymous firm orders that trade will display Broker '001' on the tape – this does not affect broker preferencing
RegID	7013	No	SS / IA	Significant Shareholder / Insider markers. Does not affect order handling but is passed to the regulators.
LEI Customer Account	8025	No		Account number for clients not eligible for an LEI (2*20 Aphanumeric)

Field Name	FIX Tag	Mandatory	Valid Values	Comments
LEI Order Origination	1724	No	5, 6, 7	5 = Order received from a direct access customer (DEA) 6 = Order received from a foreign dealer equivalent (FDE) 7 = Order received from an execution-only service (OEO)
Customer LEI	8027	No		Client LEI for those eligible to receive an LEI or foreign dealer equivalent. (52 Alphanumeric) Encryption required.
Broker LEI	8028	No		Non-PO IIROC Dealer Member (20 Alphanumeric)
LEI Routing Arrangement	2883	No	0, 1	Routing arrangement indicator 0= No routing arrangement 1= Routing arrangement in place
LEI Algo ID	8026	No		Unique identifier for the end-client for orders automatically generated on a predetermined basis. (2*20 Alphanumeric)
Conditionals Msg Flag	8002	See Comments	1	Conditionals Msg Flag signifies if the order is conditional or firm. 1 = Firm order message

Appendix A

