

# UBS ATS

## *Subscriber FIX Specification Including Conditional Indications*

September 2018



# Table of Contents

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<b>1</b>	<b>Introduction</b>	<b>4</b>
<b>2</b>	<b>Overview</b>	<b>4</b>
2.1	Hours of Operation	4
2.2	Eligible Stocks	4
2.3	Accepted Instrument Types	4
<b>3</b>	<b>Order Types</b>	<b>4</b>
<b>4</b>	<b>Order Entry</b>	<b>4</b>
4.1	Minimum Quantity	4
4.2	Maximum Quantity	4
4.3	Routing Restrictions	4
4.4	Crossing Restrictions	4
4.5	Notification of Crossing Restrictions	5
4.6	Short Sale Orders	5
4.7	Availability	5
4.8	Cancel on Disconnect	5
<b>5</b>	<b>Subscriber FIX Messages</b>	<b>5</b>
5.1	Pegged Orders (Mid, Primary, Market)	5
5.2	Limit Order	6
5.3	Market Order	7
5.4	Execution Message	8
5.5	Order Cancel Replace Request	9
5.6	Order Cancel Request	10
5.7	Order Cancel Reject	10
<b>6</b>	<b>Overview of Conditional Indications</b>	<b>11</b>
6.1	Initial Transmission of a Conditional Indication	11
6.2	Invite to Trade	11
6.3	Transmission of a Firm-Up Order	11
6.4	Fills Resulting from the Firm-Up Order	11
6.5	Conditional Score	11
<b>7</b>	<b>Conditional Workflow Diagram</b>	<b>12</b>
<b>8</b>	<b>Conditional Indications FIX Messages</b>	<b>12</b>
8.1	Entering a New Conditional Indication	12

# Table of Contents

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- 8.2 Receiving an Invite Message \_\_\_\_\_ 14
- 8.3 Responding to an Invite \_\_\_\_\_ 14
- 8.4 Execution Messages for Firmed Up Orders \_\_\_\_\_ 16
- 9 Regulatory Reporting \_\_\_\_\_ 17**
- 10 Clearing \_\_\_\_\_ 17**
- 11 Contact Info \_\_\_\_\_ 18**
- 12 Examples \_\_\_\_\_ 18**
- 13 Change History \_\_\_\_\_ 18**

## **1 Introduction**

This document is intended to be a technical supplement to the UBS Form ATS filing, available on [www.ubs.com/ats](http://www.ubs.com/ats).

## **2 Overview**

The UBS ATS facilitates interaction among orders received from a broad range of clients and market participants, including institutional clients using UBS algorithms, broker-dealers, UBS trading desks, market makers, retail brokers, and active traders (sometimes referred to as High Frequency Traders or "HFT"). Subscriber and Sponsored Participant orders that are placed in the UBS ATS will have an opportunity to interact with UBS BD's US equity order flow – liquidity that includes client agency order flow, including Direct Market Access ("DMA") and algorithmic trading, and principal order flow from UBS BD trading desks. In addition, Subscriber orders will interact with orders from other Subscribers.

Orders routed to and received by the UBS ATS are not routed out to any other market center.

### **2.1 Hours of Operation**

Please see Section 2.1 in Exhibit F of our Form ATS filing for details on Hours of Operation.

### **2.2 Eligible Stocks**

All NMS Stocks, unless otherwise specified.

UBS ATS publishes a monthly list of disabled symbols that it will not trade which can be found at [www.ubs.com/ats](http://www.ubs.com/ats). All orders in these symbols submitted to the UBS ATS will be rejected.

If you would like to be added to our distribution list for email alerts please send an email to [ats@ubs.com](mailto:ats@ubs.com).

UBS ATS will accept, but not execute, production test symbols such as ZVZZT.

### **2.3 Accepted Instrument Types**

Only RIC code and US Ticker are supported.

## **3 Order Types**

Please see Section 2.2 in Exhibit F of our Form ATS filing for details on Order Types.

## **4 Order Entry**

### **4.1 Minimum Quantity**

Orders may be routed to the UBS ATS with a minimum quantity value specified. UBS ATS will only cross where at least this number of shares is available from a single eligible contra side order.

### **4.2 Maximum Quantity**

The UBS ATS will enforce a maximum order size equal to 50% of the stock's ADV, per order, subject to change. If 50% of the ADV is less than 500,000 shares the limit becomes 500,000 shares. All orders are subject to risk checks in compliance with SEC Rule 15c3-5.

### **4.3 Routing Restrictions**

Please see Section 3.1 in Exhibit F of our Form ATS filing for details on Routing Restrictions.

### **4.4 Crossing Restrictions**

Please see Section 3.3 in Exhibit F of our Form ATS filing for details on Crossing Restrictions.

#### 4.5 Notification of Crossing Restrictions

Please see Section 3.4 in Exhibit F of our Form ATS filing for details on Notice of Crossing Restrictions.

#### 4.6 Short Sale Orders

Please see Section 3.5 in Exhibit F of our Form ATS filing for details on Short Sale Orders.

#### 4.7 Availability

UBS reserves the right to temporarily disconnect Subscribers due to technology issues either with the UBS ATS, a Subscriber, or within the UBS BD. The UBS ATS support team will seek to provide notice as soon as reasonably practicable, but in some cases the notice may not be provided until after disconnection.

#### 4.8 Cancel on Disconnect

All open orders associated with a given FIX or UBP port will automatically cancel when the client inbound TCP session to the proxy is detected to be closed.

### 5 Subscriber FIX Messages

Any tags not explicitly supported as indicated in this section will be ignored.

#### 5.1 Pegged Orders (Mid, Primary, Market)

FIX Tag	Field Name	Required	Description / Comment
1	Account	N	If sent, the value will be echoed back.
11	ClOrdID	Y	Unique identifier of the order as assigned by institution. Max 25 Char.
15	Currency	N	If sent, value must be USD
18	ExecInst	Y	Can only be one of the following values: M (Mid-Price Peg), R (Primary Peg), P (Market Peg). Values unrelated to peg type will be ignored.
21	HandlInst	Y	1 (Automated execution order)
22	IDSource	N	Required if using RIC Code
38	OrderQty	Y	Number of shares ordered
40	OrdType	Y	P (Pegged)
44	Price	N	Absolute price constraint
47	OrderCapacity	Y	Must send A (Agency) or P (Principal)
48	SecurityID	N	Required if using RIC Code
54	Side	Y	1 (Buy), 2 (Sell), 5 (Sell Short), 6 (Sell Short Exempt)
55	Symbol	Y	Can include Symbol or Symbol, separator, and suffix. Separator must always be "." This field must be populated but will not be used if tags 22/48 are present.
65	SymbolSfx	N	Send Symbol Suffix in 65 if not included in tag 55. Do not include separator.
59	TimelnForce	Y	0 (Day), 3(IOC)
60	TransactTime	Y	Time the order was initiated
110	MinQty	N	Minimum quantity for each execution on the order
439	MPID	Y	Nasdaq Assigned MPID for of the routing Broker Dealer when applicable. Clearing firm assigned MPID for BD's that are not a member of Nasdaq or FINRA.

5301	PeggedMidpointMode	N	Valid only for MidPoint Pegged Order. How the crossing engine treats the midpoint (between the bid & ask) for a pegged order. 1 - FillToLimit: Fill to the limit price, meaning it could be away from the midpoint (default) 2 - FillToMidpoint: Executions that add liquidity will execute at the midpoint only. Executions removing liquidity may execute at a price better than the midpoint if the limit price of the order is equal to or more aggressive than the midpoint (ie. a buy order with a limit price at or above the midpoint or a sell order with a limit price at or below the midpoint).
5303	MinQuantityLeavesMode	N	If tag 110 (MinQty) is present, this tag specifies how the order is handled when the leaves quantity of an order becomes smaller than MinQty. Possible values are: 1 - No MinQty in affect when leaves < MinQty (default) 2 - MinQty becomes the leaves quantity when leaves < MinQty 3 - Remainder of order is cancelled if leaves < MinQty. An unsolicited cancel ack ("OUT") message is sent to the originator of the order and the order is removed from the book.
6884	ConditionallInviteGrade	N	Minimum Conditional Score required for a Conditional Indication to get invites from this order. 0: Do not generate any invitations to Conditional Indications (default if not sent) 1: invite all 2: invite if score is medium, high or UBS algo 3: invite if score is high or UBS algo 4: invite if score is UBS algo
9004	Crossing Restrictions	Y	1 - No restrictions 3 - Do not execute against UBS Principal orders 4 - Do not execute against own orders (e.g. do not cross two orders sent by the same source client) 5- Do not execute against UBS Principal orders or own orders S – Do not execute against Source Category 5 orders T – Do not execute against Source Category 5 or UBS Principal Orders U - Do not execute against Source Category 5 or UBS Principal or own orders V - Do not execute against Source Category 5 or own Orders
9007	RoundLotOnly	N	Y (Yes) – indicates round lot fills only

## 5.2 Limit Order

FIX Tag	Field Name	Required	Description / Comment
1	Account	N	If sent, the value will be echoed back.
11	CIOrdID	Y	Unique identifier of the order as assigned by institution. Max 25 Char.
15	Currency	N	If sent, value must be USD
21	HandlInst	Y	1 (Automated execution order)
22	IDSource	N	Required if using RIC code
38	OrderQty	Y	Number of shares ordered
40	OrdType	Y	2 (Limit)
44	Price	Y	Limit Price of order
47	OrderCapacity	Y	Must send A (Agency) or P (Principal)
48	SecurityID	N	Required if using RIC Code

54	Side	Y	1 (Buy), 2 (Sell), 5 (Sell Short), 6 (Sell Short Exempt)
55	Symbol	Y	Can include Symbol or Symbol, separator, and suffix. Separator must always be "." This field must be populated but will not be used if tags 22/48 are present.
65	SymbolSfx	N	Send Symbol Suffix in 65 if not included in tag 55. Do not include separator.
59	TimeInForce	Y	0 (Day), 3(IOC)
60	TransactTime	Y	Time the order was initiated
110	MinQty	N	Minimum quantity for each execution on the order
439	MPID	Y	Nasdaq Assigned MPID for of the routing Broker Dealer when applicable. Clearing firm assigned MPID for BD's that are not a member of Nasdaq or FINRA.
5303	MinQuantityLeavesMode	N	If tag 110 (MinQty) is present, this tag specifies how the order is handled when the leaves quantity of an order becomes smaller than MinQty. Possible values are: 1 - No MinQty in affect when leaves < MinQty (default) 2 - MinQty becomes the leaves quantity when leaves < MinQty 3 - Remainder of order is cancelled if leaves < MinQty. An unsolicited cancel ack ("OUT") message is sent to the originator of the order and the order is removed from the book.
6884	ConditionallInviteGrade	N	Minimum Conditional Score required for a Conditional Indication to get invites from this order. 0: Do not generate any invitations to Conditional Indications (default if not sent) 1: invite all 2: invite if score is medium, high or UBS algo 3: invite if score is high or UBS algo 4: invite if score is UBS algo
9004	Crossing Restrictions	Y	1 - No restrictions 3 - Do not execute against UBS Principal orders 4 - Do not execute against own orders (e.g. do not cross two orders sent by the same source client) 5- Do not execute against UBS Principal orders or own orders S – Do not execute against Source Category 5 orders T – Do not execute against Source Category 5 or UBS Principal Orders U - Do not execute against Source Category 5 or UBS Principal or own orders V - Do not execute against Source Category 5 or own Orders
9007	RoundLotOnly	N	Y (Yes) – indicates round lot fills only

### 5.3 Market Order

FIX Tag	Field Name	Required	Description / Comment
1	Account	N	If sent, the value will be echoed back
11	ClOrdID	Y	Unique identifier of the order as assigned by institution. Max 25 Char.
15	Currency	N	If sent, value must be USD
21	HandlInst	Y	1 (Automated execution order)
22	SecurityIDSource	N	Required if using RIC code
38	OrderQty	Y	Number of shares ordered
40	OrdType	Y	1 (Market)

47	OrderCapacity	Y	Must send A (Agency) or P (Principal)
48	SecurityID	N	Required if using RIC code
54	Side	Y	1 (Buy), 2 (Sell), 5 (Sell Short), 6 (Sell Short Exempt)
55	Symbol	Y	Can include Symbol or Symbol, separator, and suffix. Separator must always be "." This field must be populated but will not be used if tags 22/48 are present.
65	SymbolSfx	N	Send Symbol Suffix in 65 if not included in tag 55. Do not include separator.
59	TimeInForce	Y	0 (Day), 3(IOC)
60	TransactTime	Y	Time the order was initiated
110	MinQty	N	Minimum quantity for each execution on the order
439	MPID	Y	Nasdaq Assigned MPID for of the routing Broker Dealer when applicable. Clearing firm assigned MPID for BD's that are not a member of Nasdaq or FINRA.
5303	MinQuantityLeavesMode	N	If tag 110 (MinQty) is present, this tag specifies how the order is handled when the leaves quantity of an order becomes smaller than MinQty. Possible values are: 1 - No MinQty in affect when leaves < MinQty (default) 2 - MinQty becomes the leaves quantity when leaves < MinQty 3 - Remainder of order is cancelled if leaves < MinQty. An unsolicited cancel ack ("OUT") message is sent to the originator of the order and the order is removed from the book.
6884	ConditionallInviteGrade	N	Minimum Conditional Score required for a Conditional Indication to get invites from this order. 0: Do not generate any invitations to Conditional Indications (default if not sent) 1: invite all 2: invite if score is medium, high or UBS algo 3: invite if score is high or UBS algo 4: invite if score is UBS algo
9004	Crossing Restrictions	Y	1 - No restrictions 3 - Do not execute against UBS Principal orders 4 - Do not execute against own orders (e.g. do not cross two orders sent by the same source client) 5- Do not execute against UBS Principal orders or own orders S – Do not execute against Source Category 5 orders T – Do not execute against Source Category 5 or UBS Principal Orders U - Do not execute against Source Category 5 or UBS Principal or own orders V - Do not execute against Source Category 5 or own Orders
9007	RoundLotOnly	N	Y (Yes) – indicates round lot fills only

#### 5.4 Execution Message

Tag Id	Field Name	Required	Description / Comment
1	Account	N	Echo of value in Order message
6	AvgPx	Y	Average price of all fills on the order
11	ClOrdID	Y	Unique identifier of the order as assigned by the Subscriber. Max 25 Char.
14	CumQty	Y	Amount of executed shares on order
15	Currency	N	Echo value in the order message



17	ExecID	Y	Unique identifier of the execution message
19	ExecRefID	N	Sent on Trade Cancel
20	ExecTransType	Y	0=New 1=Cancel; ExecTransType=1 is used for busts from the ATS
22	IDSource	N	Echo value in the order message
29	LastCapacity	Y	2(Cross as Agent), 4(Principal) or 4(Principal) with Text "Riskless"
30	LastMkt	Y	MIC Code "UBSA". Can send "65" upon request.
31	LastPx	N	Price of last fill
32	LastShares	N	Qty bought/sold on last fill
37	OrderID	Y	Unique identifier of the order as assigned by the ATS.
38	OrderQty	Y	
39	OrdStatus	Y	Current Status of the order
40	OrdType	N	
41	OrigClOrdID	N	Conditionally required for response Cancel or Cancel/Replace
44	Price	N	
47	OrderCapacity	N	
48	SecurityID	N	
54	Side	Y	Side of order
55	Symbol	Y	Ticker Symbol
59	TimeInForce	N	
60	TransactTime	Y	Time the transaction represented by this ER occurred
65	SymbolSfx	N	Symbol suffix
75	TradeDate	N	
76	ExecBroker	Y	"UBSA"
110	MinQty	N	
132	BidPx	N	National best BID price known by the matching engine at the time of execution
133	OfferPx	N	National best Offer price known by the matching engine at the time of execution
150	ExecType	Y	Describes the type of execution report.
151	LeavesQty	Y	Amount of shares open for further execution
375	ContraBroker	Y	"UBSA"
167	SecurityType	Y	CS=Common Stock
527	SecondaryExecID	Y	Unique identifier assigned to both sides of a cross.
851	LastLiquidityInd	Y	1 (Adding Liquidity), 2 (Removing Liquidity), Y (Add vs Conditional), Z (Remove vs Conditional)

## 5.5 Order Cancel Replace Request

Only OrderQty, Price and MinQty can be modified. All other fields should be sent in accordance with FIX 4.2 requirements.

Tag Id	Field Name	Required	Description / Comment
1	Account	N	Must match original order
11	ClOrdID	Y	Unique identifier of replacement order assigned by Subscriber . Max 25 Char.
15	Currency	N	Must match original order
18	ExecInst	N	Must match original order

21	HandInst	Y	1 (Automated execution order)
22	IDSource	N	Must match original order
37	OrderID	N	
38	OrderQty	Y	Number of shares ordered
40	OrderType	Y	Must match original order
41	OrigCLOrdID	Y	As sent on the previous order
44	Price	N	Required for Limit OrdTypes. Absolute Price Constraint
47	OrderCapacity	N	Must match original order
48	SecurityID	N	Must match original order
54	Side	Y	Must match original order
55	Symbol	Y	Must match original order
59	TIF	Y	Must match original order
60	TransactTime	Y	Time the Replace was initiated
65	SymbolSfx	N	Symbol suffix
110	Min Qty	N	Can be replaced if present on the original order
439	MPID	N	Must match original order
5303	MinQuantityLeavesMode	N	Must match original order
6884	ConditionallInviteGrade	N	Must match original order
9004	CrossingRestrictions	N	Must match original order

## 5.6 Order Cancel Request

Tag Id	Field Name	Required	Description / Comment
11	CIOrdID	Y	Unique identifier of cancel request assigned by Subscriber. Max 25 Char.
22	IDSource	N	Must match original order
37	OrderID	N	
38	OrderQty	Y	
41	OrigCLOrdID	Y	As sent on the previous order
48	SecurityID	N	Must match original order
54	Side	Y	1 (Buy), 2 (Sell), 5 (Sell Short), 6 (Sell Short Exempt)
55	Symbol	Y	Must match original order
60	TransactTime	Y	Time the cancel request was originated
65	SymbolSfx	N	Symbol suffix

## 5.7 Order Cancel Reject

Tag Id	Field Name	Required	Description / Comment
11	CIOrdID	Y	As assigned by the order cancel or replace request. Max 25 Char.
37	OrderID	Y	
39	OrdStatus	Y	OrdStatus value after this cancel reject is applied
41	OrigCLOrdID	Y	As sent on the previous order
102	CxlRejReason	N	
22	IDSource	N	Echo value in the order message

48	SecurityID	N	
58	Text	N	
434	CxlRejResponseTo	Y	1 (Order cancel request), 2 (Order cancel/replace request)

## 6 Overview of Conditional Indications

Please see Section 3.2 in Exhibit F of our Form ATS filing for details on Conditional Indications.

### 6.1 Initial Transmission of a Conditional Indication

Conditional Indications are sent via the FIX (v4.2) protocol. The UBS ATS will accept incoming NewSingleOrder messages (Tag 35=D) identified as Conditional Indications by setting Tag 5253='C'.

A UBS ATS participant will be able to manage the Conditional Indication's Quantity, Minimum Quantity and Price using the Order Cancel/Replace Request message (Tag 35=G). Additionally, Conditional Indications can be cancelled using the Order Cancel Request message (Tag 35=F).

### 6.2 Invite to Trade

Once an opposing side Conditional Indication or Resident Order comes into the UBS ATS with appropriate parameters such that a match could occur, the originator of the Conditional Indication will receive an Invite Message telling them a matching opportunity exists. In the event there is more than one Conditional Indication at the same price, the UBS ATS will first send Invites to Conditional Indications with the largest quantity able to satisfy the contra side order. This priority feature is intended to maximize the execution of larger orders.

The Invite Message will be sent as an Unsolicited Cancel Execution Report (Tags 35=8, 150=4, 39=4). The Client Order Id ("CLOrdID") on the execution report will reference the CLOrdID from the Conditional Indication. Additionally, the Invite message will include a unique invite identifier in Tag 6214 ("InviteID").

### 6.3 Transmission of a Firm-Up Order

To respond to an Invite Message, the originator of the Conditional Indication should send a NewOrderSingle message for a Resident Order with a reference to the Invite, by placing the InviteId received on the Unsolicited Cancel Invite Message in Tag 6214. The Firm-Up order should be received by UBS within 100 milliseconds of the invite message.

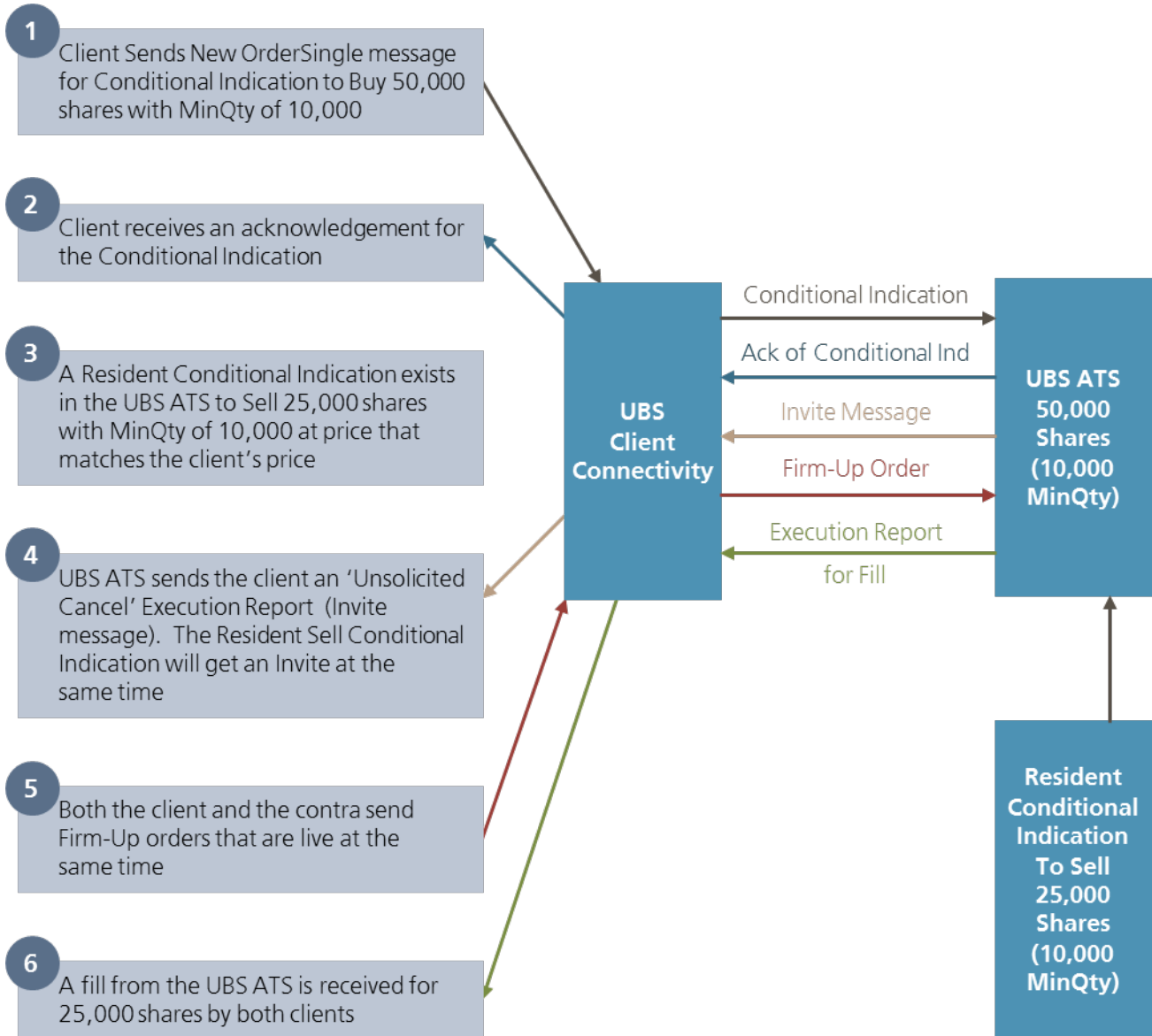
### 6.4 Fills Resulting from the Firm-Up Order

Standard execution reports identifying any fills resulting from the Firm-Up Order will be sent back to the client.

### 6.5 Conditional Score

Please see Sections 3.3 and 3.4 in Exhibit F of our Form ATS filing for details on Scoring of Conditional Indications.

## 7 Conditional Workflow Diagram



## 8 Conditional Indications FIX Messages

### 8.1 Entering a New Conditional Indication

UBS ATS Conditional Indications are sent using the NewOrderSingle (Tag 35=D) message. Conditional Indications will receive an Invite to trade when a suitable contra meeting the Conditional Indication's minimum quantity and price exists in the UBS ATS order book.

FIX Tag	Field Name	Required	Description / Comment
11	ClOrdID	Y	Unique identifier of the order as assigned by institution. Max 25 Char.
18	ExeInst	Y	Can only be one of the following values: M (Mid-Price Peg), R (Primary Peg), P (Market Peg) Values unrelated to peg type will be ignored.
21	HandlInst	Y	1 (Automated execution order)
22	IDSource	N	Required if using RIC Code

38	OrderQty	Y	Conditional Indication Quantity
40	OrdType	Y	1 (Market),2(Limit), P (Pegged)
44	Price	N	Limit Price
47	OrderCapacity	Y	Must send A (Agency) or P (Principal)
48	SecurityID	N	Required if using RIC Code
54	Side	Y	1 (Buy), 2 (Sell),5 (Sell Short), 6 (Sell Short Exempt)
55	Symbol	Y	Can include Symbol or Symbol, separator, and suffix. Separator must always be "." This field must be populated but will not be used if tags 22/48 are present.
65	SymbolSfx	N	Send Symbol Suffix in 65 if not included in tag 55. Do not include separator.
59	TimelnForce	Y	0 (Day)
60	TransactTime	Y	Time the order was initiated
110	MinQty	N	Conditional Minimum quantity
439	MPID	Y	Nasdaq Assigned MPID for of the routing Broker Dealer when applicable. Clearing firm assigned MPID for BD's that are not a member of Nasdaq or FINRA.
9004	Crossing Restrictions	Y	<p>1 - No restrictions</p> <p>3 - Do not execute against UBS Principal orders</p> <p>4 - Do not execute against own orders (e.g. do not cross two orders sent by the same source client)</p> <p>5- Do not execute against UBS Principal orders or own orders</p> <p>S – Do not execute against Source Category 5 orders</p> <p>T – Do not execute against Source Category 5 or UBS Principal Orders</p> <p>U - Do not execute against Source Category 5 or UBS Principal or own orders</p> <p>V - Do not execute against Source Category 5 or own Orders</p>
5253	OrdTypeExt	Y	C (Conditional Indication)
6884	ConditionallInviteGrade	Y	<p>Minimum Conditional Score required for a Conditional Indication to get invites from this order.</p> <p>0: Do not generate any invitations to Conditional Indications (default if not sent)</p> <p>1: invite all</p> <p>2: invite if score is medium, high or UBS algo</p> <p>3: invite if score is high or UBS algo</p> <p>4: invite if score is UBS algo</p>

## 8.2 Receiving an Invite Message

An Invite Message is represented as an UnsolicitedCancel Execution Report (Tag 35=8). The Invite is sent by the UBS ATS to notify the originator of the Conditional Indication that a suitable contra indication or order is on the UBS ATS book.

FIX Tag	Field Name	Required	Description / Comment
6	AvgPx	Y	Avg price of executions. 0 since there are no executions
11	ClOrdID	Y	Unique identifier of the order as assigned by institution. Max 25 Char.
14	CumQty	Y	Quantity Executed. 0 since there are no executions
17	ExecID	Y	Unique ID for each Execution Report message
20	ExecTransType	Y	Value of 0 (New)
31	LastPx	Y	Value of 0
32	LastShares	Y	Value of 0
44	Price	N	Absolute price constraint
38	OrderQty	Y	Number of shares ordered
37	OrderID	Y	Unique identifier of the order as assigned by the ATS.
39	OrdStatus	Y	Status of the order. Value of 4 (Cancelled)
54	Side	Y	1 (Buy), 2 (Sell),5 (Sell Short), 6 (Sell Short Exempt)
55	Symbol	Y	Can include Symbol or Symbol, separator, and suffix. Separator must always be "." This field must be populated but will not be used if tags 22/48 are present.
65	SymbolSfx	N	Send Symbol Suffix in 65 if not included in tag 55. Do not include separator.
22	IDSource	N	Required if using RIC Code
48	SecurityID	N	Required if using RIC Code
150	ExecType	Y	State of the Execution Report. Value of 4 (Cancelled)
151	LeavesQty	Y	Value of 0
6214	InviteID	Y	Unique ID to be used for reference on the Firm-Up Order

## 8.3 Responding to an Invite

The originator of the Conditional Indication is expected to respond to an Invite Message by sending a Resident Order (a "Firm-Up Order") (NewOrderSingle, Tag 35=D) message to the UBS ATS with a reference to the Conditional Indication.

Please note that Invite Grade (Tag 6884) is not supported on a Conditional Firm-Up order.

FIX Tag	Field Name	Required	Description / Comment
1	Account	N	If sent, the value will be echoed back.
11	ClOrdID	Y	Unique identifier of the order as assigned by institution. Max 25 Char.

15	Currency	N	If sent, value must be USD
18	Execlnst	Y	Can only be one of the following values: M (Mid-Price Peg), R (Primary Peg), P (Market Peg) Values unrelated to peg type will be ignored.
21	HandlInst	Y	1 (Automated execution order)
22	IDSource	N	Required if using RIC Code
38	OrderQty	Y	Number of shares ordered
40	OrdType	Y	1(Market), 2 (Limit), P(Pegged)
44	Price	N	Limit Price. Required for Limit orders.
47	OrderCapacity	Y	Must send A (Agency) or P (Principal)
48	SecurityID	N	Required if using RIC Code
54	Side	Y	1 (Buy), 2 (Sell),5 (Sell Short), 6 (Sell Short Exempt)
55	Symbol	Y	Can include Symbol or Symbol, separator, and suffix. Separator must always be "." This field must be populated but will not be used if tags 22/48 are present.
65	SymbolSfx	N	Send Symbol Suffix in 65 if not included in tag 55. Do not include separator.
59	TimeInForce	Y	0 (Day)
60	TransactTime	Y	Time the order was initiated
110	MinQty	N	Minimum quantity for each execution on the order
6214	InviteID	Y	Unique ID to reference the Invite
439	MPID	Y	Nasdaq Assigned MPID for of the routing Broker Dealer when applicable. Clearing firm assigned MPID for BD's that are not a member of Nasdaq or FINRA.
5301	PeggedMidpointMode	N	Valid only for MidPoint Pegged Order. How the crossing engine treats the midpoint (between the bid & ask) for a pegged order.  1 - FillToLimit: Fill to the limit price, meaning it could be away from the midpoint (default)  2 - FillToMidpoint: Executions that add liquidity will execute at the midpoint only. Executions removing liquidity may execute at a price better than the midpoint if the limit price of the order is equal to or more aggressive than the midpoint (ie. a buy order with a limit price at or above the midpoint or a sell order with a limit price at or below the midpoint).
5303	MinQuantityLeavesMode	N	If tag 110 (MinQty) is present, this tag specifies how the order is handled when the leaves quantity of an order becomes smaller than MinQty. Possible values are:  1 - No MinQty in affect when leaves < MinQty (default)  2 - MinQty becomes the leaves quantity when leaves < MinQty

			3 - Remainder of order is cancelled if leaves < MinQty. An unsolicited cancel ack ("OUT") message is sent to the originator of the order and the order is removed from the book.
9004	Crossing Restrictions	Y	1 - No restrictions 3 - Do not execute against UBS Principal orders 4 - Do not execute against own orders (e.g. do not cross two orders sent by the same source client) 5- Do not execute against UBS Principal orders or own orders S – Do not execute against Source Category 5 orders T – Do not execute against Source Category 5 or UBS Principal Orders U - Do not execute against Source Category 5 or UBS Principal or own orders V - Do not execute against Source Category 5 or own Orders
9007	RoundLotOnly	N	Y (Yes) – indicates round lot fills only

Note: The Firm-Up Order should not include Tag 5253 (OrdTypeExt).

#### 8.4 Execution Messages for Firmed Up Orders

Tag Id	Field Name	Required	Description / Comment
1	Account	N	Echo of value in Order message
6	AvgPx	Y	Average price of all fills on the order
11	ClOrdID	Y	Unique identifier of the order as assigned by the Subscriber. Max 25 Char.
14	CumQty	Y	Amount of executed shares on order
15	Currency	N	Echo value in the order message
17	ExecID	Y	Unique identifier of the execution message
19	ExecRefID	N	Sent on Trade Cancel
20	ExecTransType	Y	0=New 1=Cancel; ExecTransType=1 is used for busts from the ATS
22	IDSource	N	Echo value in the order message
29	LastCapacity	Y	2(Cross as Agent), 4(Principal) or 4(Principal) with Text "Riskless"
30	LastMkt	Y	MIC Code "UBSA". Can send "65" upon request.
31	LastPx	N	Price of last fill
32	LastShares	N	Qty bought/sold on last fill
37	OrderID	Y	Unique identifier of the order as assigned by the ATS.
38	OrderQty	Y	
39	OrdStatus	Y	Current Status of the order
40	OrdType	N	
41	OrigClOrdID	N	Conditionally required for response Cancel or Cancel/Replace
44	Price	N	



47	OrderCapacity	N	
48	SecurityID	N	
54	Side	Y	Side of order
55	Symbol	Y	Ticker Symbol
59	TimelnForce	N	
60	TransactTime	Y	Time the transaction represented by this ER occurred
65	SymbolSfx	N	Symbol suffix
75	TradeDate	N	
76	ExecBroker	Y	"UBSA"
110	MinQty	N	
132	BidPx	N	National best BID price known by the matching engine at the time of execution
133	OfferPx	N	National best Offer price known by the matching engine at the time of execution
150	ExecType	Y	Describes the type of execution report.
151	LeavesQty	Y	Amount of shares open for further execution
375	ContraBroker	Y	"UBSA"
167	SecurityType	Y	CS=Common Stock
527	SecondaryExeclD	Y	Unique identifier assigned to both sides of a cross.
851	LastLiquidityInd	Y	1 (Adding Liquidity), 2 (Removing Liquidity), Y (Add vs Conditional), Z (Remove vs Conditional)

## 9 Regulatory Reporting

Once a crossing opportunity has been identified, the UBS ATS will execute and report the trade to a recognized trade reporting facility of a self-regulatory organization.

The books and records of the activity of the UBS ATS will be created and maintained by UBS BD in compliance with Rules 17a-3 and 17a-4 of the Securities Exchange Act of 1934 and Rules 302 and 303 of Regulation ATS.

For OATS and OTS reporting orders sent to UBS ATS, please use the following information, for linkage:

Item	Related To	Value
Clearing Number	DTCC	642
Executing Broker	TRF	UBSA
Sent to Firm MPID	OATS	UBSA
Destination Code	OATS	M
Recipient's Market Participant Symbol	OTS	8-22651
Recipient Type	OTS	M
Last Market (UBS ATS)	FIX	65
MIC Code	FIX	UBSA

## 10 Clearing

The UBS ATS is a system operated by the UBS BD. UBS BD is a self-clearing broker dealer, a member of DTCC and has the operational capacity to clear and settle all of the trades executed by the UBS ATS. The UBS BD maintains

controls to ensure compliance with the regulatory requirements for the clearance and settlement of trades in equities securities.

## 11 Contact Info

If you have any questions or queries, please contact [ats@ubs.com](mailto:ats@ubs.com), or contact UBS ATS Support team at (203) 719-3775.

## 12 Examples

See the UBS ATS Form ATS Exhibit F for examples of crossing scenarios.

## 13 Change History

Date	Revision	Change made by:	Synopsis of Change
August 2017	1	Seth Slomiak / Ross Morganstein	Document created - New Specification for Direct FIX with Conditional messaging
July 2018	2	Seth Slomiak	Added Conditional Invite Grade and new liquidity codes

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