



# **Equiduct ITCHMD Specification**

Version 1.19



### **Revision History**

Version	Date	Notes			
V1.2	June 2010	Updated document to reflect UMTF symbology changes			
V1.3	November 2010	Added new values for field Side in <b>Trade</b> message for Uncrossing			
		trades and Trade Reports			
V1.4	January 2011	Added a description for the format of the Order ID field which is applicable for VBBO prices			
		applicable for VBBO prices			
V1.5	February 2011	Added support for Equiduct Consolidated Tape			
V1.6	May 2011	Added long-form ITCH messages for Consolidated Tape			
V1.7	August 2012	Added text to explain end-of-day/overnight behaviour			
V1.8	January 2014	Added long-form ITCH messages for HybridBook			
V1.9	March 2014	Added <b>Price</b> message for real-time index values			
V1.10	September 2015	Update to VBBO feed to include PartnerEx and SpotVBBO			
		maximum trade sizes.			
V1.11	January 2016	Update to include details of data feed segmentation			
V1.12	Spring 2017	Changes for MiFID II			
		Added <i>Trade Flags</i> to <b>Order Executed</b> and <b>Trade</b> messages.			
		Added description of MMT mappings for trades.			
		Removed Trade Cancel message. Trade cancels are published as			
		a <b>Trade</b> message with the <i>Trade Flags Modification Indicator</i> set			
		to "C".			
V1.13	Autumn 2017	Further MiFID II change			
		Timestamps now provide microsecond resolution.			
		Also clarified uniqueness of Order and Trade IDs.			
V1.14	April 2018	New trading status detail in the <i>Reason</i> field of the <b>Instrument</b>			
		Trading Status message.			
		Updated trade type descriptions and MMT mappings for trades occurring at the VBBO.			
		Removed references to reported trades which are no longer supported on Equiduct.			
		Added Section 3.5 – Recovery.			
V1.15	July 2020	Enhanced Instrument Trading Status <i>Reasons</i> .			
		Added Off-book / On-Exchange Negotiated Trade Report Trade Type			
V1.15a	July 2020	Clarification of specific use of Off-book / On-Exchange Negotiated Trade Report Trade Type			



V1.15b	June 2021	Update references of PartnerEx to Apex, SpotVBBO to Zenith
V1.16	November 2021	Added Apex Liquidity Provision orders and resultant trades. Update to include ALP order market data feed
V1.17	January 2023	Add <b>Trade (Extended)</b> message to support trade reporting service – see Section 5.10 Removed Trade type = "N" from existing <b>Trade</b> and <b>Trade (Long</b>
		form) messages
V1.18	July 2023	Included "Not specified" ("-") as a valid value for MMT Level 3.2 in section 5.10.1 Extended Trade Flags
V1.19	November 2023	Included statement on "Price Notation" in section 3.1 - Message Format and section 5 – Market Data Messages

### **Related Documents**

Name	Link	Version	Comment
Equiduct Market Model	www.equiduct.com	4.6	
Description			
Equiduct Market	www.equiduct.com	Feb 2022	
Configuration			
Equiduct FIX	www.equiduct.com	2.23	
Specification			
Market Model Typology	https://www.fixtrading.org/mmt/		



### **Table of Contents**

1	Intro	oduc	tion	6
	1.1	Doo	cument Purpose	6
	1.2	Inte	nded Audience	6
2	Fun	ctior	nal Overview	7
3	ITC	HMC	O Session Protocol	8
	3.1	Me	ssage Format	8
	3.2	Orc	ler and Trade Identification	8
	3.3	Sym	nbology	9
	3.4	Ove	ernight Behaviour	9
	3.5	Rec	overy	9
	3.6	Cor	nnectivity and Instrument Universe Availability	9
4	Ses	sion	Level Messages	
	4.1	Inbo	ound	
	4.1.	1	Login Request	10
	4.1.	2	Logout Request	10
	4.1.	3	Heartbeat	11
	4.1.	4	Debug Message	11
	4.2	Out	tbound	11
	4.2.	1	Login Accepted	11
	4.2.	2	Login Rejected	12
	4.2.	3	Heartbeat	12
	4.2.	4	Debug Message	12
	4.2.	5	Sequenced Message	12
5	Mar	ket [	Data Messages	13
	5.1	Syst	tem Event	13
	5.2	Add	d Order	13
	5.3	Add	d Order (Long Form)	14
	5.4	Orc	ler Executed	14
	5.4.	1	Trade Flags	15
Fc	nuiduct I	тсни	MD Specification v1 19	Page 4 of 21

## equiduct

5.5	Ord	Order Executed (Long Form)					
5.6	Ord	ler Cancel	15				
5.7	Ord	ler Cancel (Long Form)	16				
5.8	Trac	de	16				
5.8	.1	MMT Mappings	17				
5.9	Trac	de (Long Form)	18				
5.10	Trac	de (Extended)	18				
5.1	0.1	Extended Trade Flags	19				
5.11	Insti	rument Trading Status	20				
5.1	1.1	Trading Status Reasons	20				
Append	A xib	MMT Trade Type Mappings	21				



### **1 Introduction**

### 1.1 Document Purpose

This document describes how to programmatically access the Equiduct ITCHMD feed for Equiduct Market Data.

### 1.2 Intended Audience

This document is aimed at systems developers of Equiduct members and Market Data Vendors who want to develop applications to consume Equiduct market data.

This document does not provide all the business level information pertinent to Equiduct: see "Related Documents" for details of further system documentation. Updates to this and other key documents can be found at <u>www.equiduct.com</u>.



### 2 Functional Overview

For a full specification of Equiduct functions please see the appropriate Market Model Description documents available from Equiduct.

The Equiduct ITCHMD interface provides four separate data feeds:

- 1. *Equiduct HybridBook*, providing:
  - Full order book depth (*excluding* Apex Liquidity Provision orders)
  - Equiduct trades (including cross and auction trades)
  - Instrument (security) trading status
- 2. Equiduct VBBO: pre-trade transparency for the Apex and Zenith trading services
- 3. Equiduct Market by Limit, providing:
  - Consolidated pan-European order book
  - Consolidated pan-European trades
- 4. *Equiduct ALP Order Feed,* providing:
  - Full book depth for Apex Liquidity Provision orders only
  - Instrument (security) trading status

In general, the Equiduct ITCHMD feed specification and behaviour is consistent with the ITCH-flavoured feeds delivered by other European markets.



### **3 ITCHMD Session Protocol**

An ITCHMD session is built on top of a standard TCP/IP connection. Message exchange consists of unsequenced session level messages and sequenced application level messages. Sequenced messages can be recovered/replayed in failure scenarios.

### 3.1 Message Format

ITCHMD messages are fixed-length sequences of ASCII bytes.

Certain messages exist in a standard form and an alternative 'long form'. Long form messages are generated automatically when the price or quantity values cannot be accommodated by the standard messages.

Messages are made up of fields of four possible types:

- **Text** (alphanumeric) fields are padded on the right with spaces up to their specified field width.
- Integer fields are padded on the left with spaces.
- **Price** fields are sent as integers with an implied decimal point; standard prices are ten digits with the implied decimal point after the sixth digit (i.e. four decimal places). Long form prices are nineteen digits with the implied decimal point after twelve digits (i.e. seven decimal places).

All price fields are expressed in monetary value (Price notation = "MONE")<sup>1</sup>.

• **Timestamp** fields are integers, giving the number of microseconds elapsed since midnight UTC.

Equiduct reserves the right to add new message types, and to extend existing messages by adding new fields before the terminator (0x0A). In order to be future-proof, a client application should ignore unknown message types and support messages being extended beyond their specified size (by ignoring unexpected data at the end of a message).

### 3.2 Order and Trade Identification

The ITCHMD feed publishes 12-character alphanumeric identifiers for Orders *(Order ID)* and for Trades *(Execution ID)*. *Order IDs* are globally unique at any point of the trading day but may be re-used after an order has been cancelled or filled. *Execution IDs* are globally unique for a given trading day.

<sup>&</sup>lt;sup>1</sup> As outlined in Commission Delegated Regulation (EU) 2023/944 of January 2023 Equiduct ITCHMD Specification v1.19



Note: The *Order IDs* used for Equiduct VBBO prices will have "RMS", "SMS", "PEX" or "SVB" as the first three characters as applicable, with "PEX" indicating Apex and "SVB" indicating Zenith liquidity.

### 3.3 Symbology

In common with several other European markets, Equiduct uses *uniform symbology* where symbols consist of six characters or less and are constructed from the home market code with a trailing lowercase character that identifies the home market. For example: VODI, FTEp, VOWd.

### 3.4 Overnight Behaviour

When a new ITCH session is started at the start of a new trading day, a 'snapshot' containing all currently active orders is delivered to client applications, meaning that client systems can and should 'forget' orders left in the book at the end of the previous session/trading day.

### 3.5 Recovery

When a client system reconnects after an intraday disconnection, the default behaviour should be to provide the previously active session and the last-received sequence number in the **Login Request** message. If the requested session is still active, the ITCHMD gateway will immediately transmit any missed messages and resume normal message dissemination.

In rare outage cases, the previously active session may no longer be available. In such cases, client applications should revert to start-of-day behaviour (see *3.4 Overnight Behaviour* above).

### 3.6 Connectivity and Instrument Universe Availability

The ITCH data feed is available for all Equiduct traded instruments. Each instrument is statically allocated to one of (currently) four trading groups, and as such, the feed is segmented across four network ports. To receive all instruments, it is necessary to connect to all network ports. Port details will be provided to clients subscribing to the ITCH data feed.



### **4 Session Level Messages**

### 4.1 Inbound

Messages sent from client applications to the ITCHMD server.

#### 4.1.1 Login Request

LOGIN REQ	LOGIN REQUEST								
Field	Offset	Length	Type/Value	Comments					
Message type	0	1	"L"						
Username	1	6	Text						
Password	7	10	Text						
Session ID	17	10	Text	If blank this indicates a request for the <i>current</i> session – should be used at start-of-day. Otherwise, should contain the session ID from a previous login session – used in conjunction with <i>Sequence</i> # when recovering after an intraday disconnection.					
Sequence #	27	10	Integer	Requested starting sequence number: 0 – current system sequence (no recovery) 1 – start-of-day (all messages) N – replay starting at N					
Terminator	37	1	0x0A						

#### 4.1.2 Logout Request

There is no response to the **Logout Request** message, upon receipt the server will drop the connection automatically.

LOGOUT REQUEST								
Field	Offset	Length	Type/Value	Comments				
Message type	0	1	"O"					
Terminator	1	1	0x0A					



#### 4.1.3 Heartbeat

Client applications should send periodic heartbeats to Equiduct to maintain their session. If the ITCHMD feed observes that a client has not sent a heartbeat for more than fifteen seconds, it may assume the client is no longer listening and drop the connection.

HEARTBEAT								
Field	Offset	Length	Type/Value	Comments				
Message type	0	1	"R"					
Terminator	1	1	0x0A					

#### 4.1.4 Debug Message

Can be used for testing and troubleshooting and will be ignored by the ITCHMD server.

DEBUG MESSAGE							
Field	Offset	Length	Type/Value	Comments			
Message type	0	1	"+"				
Text	1	Variable	Text	Free form text			
Terminator	Variable	1	0x0A				

### 4.2 Outbound

Messages sent to client applications from the ITCHMD server.

#### 4.2.1 Login Accepted

LOGIN ACCEPTED							
Field	Offset	Length	Type/Value	Comments			
Message type	0	1	"A"				
Session ID	1	10	Text	Current session for this connection			
Sequence #	11	10	Integer	Sequence number for <u>next</u> sequenced			
				message to be received			
Terminator	21	1	0x0A				



#### 4.2.2 Login Rejected

LOGIN REJECTED							
Field	Offset	Length	Type/Value	Comments			
Message type	0	1	"၂"				
Reason	1	1	Text	Reason for login failure:			
				A – Invalid username/password			
				S – Invalid session ID requested			
Terminator	2	1	0x0A				

#### 4.2.3 Heartbeat

HEARTBEAT							
Field	Offset	Length	Type/Value	Comments			
Message type	0	1	"H"				
Terminator	1	1	0x0A				

#### 4.2.4 Debug Message

Can be used for testing/troubleshooting. Should be ignored by client applications.

DEBUG MESSAGE					
Field	Offset	Length	Type/Value	Comments	
Message type	0	1	"+"		
Text	1	Variable	Text	Free form text	
Terminator	Variable	1	0x0A		

#### 4.2.5 Sequenced Message

Sequenced data packets are used to transmit market data information and are reliable in that they can be recovered after a disconnection. As the underlying transport is sequenced and reliable (TCP/IP) there is no need for explicit sequence numbers – the first message for a given session ID has implied sequence number one and this increments for each subsequent message.

SEQUENCED DATA				
Field	Offset	Length	Type/Value	Comments
Message type	0	1	"S"	
Data	1	Variable	ASCII text	Message body
Terminator	Variable	1	0x0A	Always follows the message body



### 5 Market Data Messages

Market data messages are sequenced messages sent from ITCHMD to client applications to communicate changes in the Equiduct book, trades etc.

Note that the Equiduct VBBO and ALP Order feeds do not disseminate trades so the Order Executed and Trade messages can be ignored by clients intending to process VBBO/ALP only.

Price Notation: All prices are expressed in monetary values (MONE).

### 5.1 System Event

This message signals an event which affects the entire Equiduct trading platform.

SYSTEM EVENT				
Field	Offset	Length	Type/Value	Comments
Timestamp	0	11	Integer	
Message type	11	1	"S"	
Event code	12	1	Text	"S" – Start-of-day (first message of the day)
				"E" – End-of-day (last message of the day)
				Note: Not currently supported

### 5.2 Add Order

The Add Order message is used to signal the arrival of a new order into the book and may also be used to increase the quantity of an order already in the book.

ADD ORDER	2			
Field	Offset	Length	Type/Value	Comments
Timestamp	0	11	Integer	
Message type	11	1	"A"	
Order ID	12	12	Text	Order ID, globally unique at any point in time,
				may be re-used once the previous order is filled
				or cancelled
Side	24	1	Text	"B" – Buy
				"S" – Sell
Quantity	25	6	Integer	Visible order quantity
Instrument	31	6	Text	e.g. VODI, RDSAa
Price	37	10	Price	
Display flag	47	1	Text	"Y" – HybridBook
				"N" – VBBO
				"T" – Market by Limit ("tape")
				"A" – ALP order



### 5.3 Add Order (Long Form)

ADD ORD	ADD ORDER (LONG)						
Field	Offset	Length	Type/Value	Comments			
Timestamp	0	11	Integer				
Message	11	1	"a"				
type							
Order ID	12	12	Text	Order ID, globally unique at any point in			
				time, may be re-used once the previous			
				order is filled or cancelled			
Side	24	1	Text	"B" – Buy			
				"S" – Sell			
Quantity	25	10	Integer	Visible order quantity			
Instrument	35	6	Text	e.g. VODI, RDSAa			
Price	41	19	Long Price				
Display	60	1	Text	"Y" – HybridBook			
flag				"N" – VBBO			
				"T" – Market by Limit ("tape")			
				"A" – ALP order			

### 5.4 Order Executed

The **Order Executed** (and corresponding 'long form') message is used to report trades in Equiduct's central limit order book. In MMT terms this corresponds to Market Mechanism '1' (Central limit order book), Trading Mode '2' (Continuous trading).

Note that the price of the trade is always equal to the price of the order which has been executed, and so is omitted from this message.

ORDER EXECUTED					
Field	Offset	Length	Type/Value	Comments	
Timestamp	0	11	Integer		
Message type	11	1	"E"		
Order ID	12	12	Text	Identifier of the Order which has been partially or fully traded	
Shares traded	24	6	Integer		
Execution ID	30	12	Text	Day-unique trade identifier	
Trade flags	42	2	Text	See Section 5.4.1 – Trade Flags	



#### 5.4.1 Trade Flags

Messages which report a trade all include a two-character 'flags' field to provide further information about the trade. Where possible these flags are consistent with the MMT standard – as a result, where flag does not apply this is indicated by the presence of a '-' character.

TRADE FLAGS					
Offset	MMT Level	MMT Fieldname	Comments		
0	3.4	Modification Indicator	"C" – Trade Cancellation		
			"-" – New trade		
1	3.9	Algorithmic Indicator	"H" – Algorithmic trade		
			"-" – Non-algorithmic trade		

### 5.5 Order Executed (Long Form)

ORDER EXECUTED (LONG)				
Field	Offset	Length	Type/Value	Comments
Timestamp	0	11	Integer	
Message type	11	1	"e"	
Order ID	12	12	Text	Identifier of the Order which has been partially or fully traded
Shares traded	24	10	Integer	
Execution ID	34	12	Text	Day-unique trade identifier
Trade flags	46	2	Text	See Section 5.4.1 – Trade Flags

### 5.6 Order Cancel

Used when the visible quantity of an Order is decreased, or the Order is removed from the book. Note that once an Order is removed from the book the corresponding ID becomes available for re-use and so may be sent in a new **Add Order** message.

ORDER CANCEL						
Field	Offset	Length	Type/Value	Comments		
Timestamp	0	11	Integer			
Message	11	1	"X"			
type						
Order ID	12	12	Text	Identifier of the Order which has been cancelled or		
				had a quantity decrease		
Quantity	24	6	Integer	Number of shares removed – will be equal to the		
decrement				Order quantity for a cancellation		



### 5.7 Order Cancel (Long Form)

ORDER CANCEL (LONG)				
Field	Offset	Length	Type/Value	Comments
Timestamp	0	11	Integer	
Message type	11	1	"x"	
Order ID	12	12	Text	Identifier of the Order which has been
				cancelled or had a quantity decrease
Quantity	24	10	Integer	Number of shares removed – will be equal
decrement				to the Order quantity for a cancellation

### 5.8 Trade

The **Trade** message is sent for on-Exchange executions which do not correspond to a visible order, for example auction trades. It is also used to report trade cancels, regardless of whether the original trade was reported via an **Order Executed** message or a **Trade** message.

This message is also used to report consolidated trades in the Market by Limit feed.

TRADE				
Field	Offset	Length	Type/Value	Comments
Timestamp	0	11	Integer	
Message type	11	1	"P"	
Order ID	12	12	Text	Non-visible order identifier
Trade type	24	1	Text	"B" – VBBO trade (buy side aggressor)
				"S" – VBBO trade (sell side aggressor)
				"b" – ALP order trade (buy side aggressor)
				"s" – ALP order trade (sell side aggressor)
				"A" – Auction trade
				"O" – Opening cross trade
				"C" – Closing cross trade
				"U" – Uncrossing trade
				"T" – Consolidated trade (Market by Limit)
Shares traded	25	6	Integer	
Instrument	31	6	Text	
Price	37	10	Price	Trade price
Execution ID	47	12	Text	Day-unique trade identifier
Trade flags	59	2	Text	See Section 5.4.1 – Trade Flags



#### 5.8.1 MMT Mappings

TRAD	DE TYPE TO		PING
MMT	MMT	MMT Value	Trade Type(s)
Level	Fieldname		
1	Market	"1" –	"T", "O", "U", "A", "C", "b", "s"
	Mechanism	Central limit	
		order book	
1	Market	"7" – Hybrid	"B", "S"
	Mechanism		
2	Trading	"2" –	"B", "S", "b", "s", "T"
	Mode	Continuous	
		trading	
2	Trading	"O" –	"O", "U"
	Mode	Opening	
		auction	
2	Trading	"K" –	"C"
	Mode	Closing	
		auction	
2	Trading	"U" –	"A"
	Mode	Unscheduled	
		auction	

The Trade Type flag in the **Trade** message can be mapped to MMT flags as follows:

To avoid confusion, please note that the *HybridBook* is Equiduct's central limit order book and is <u>not</u> related to the MMT *Hybrid* Market Mechanism, the latter being applicable for VBBO trading on Equiduct.

Additional trade typology information may be provided in the *Trade flags* field, see Section 5.4.1 – Trade Flags. To view detailed MMT mappings, see Appendix A.



### 5.9 Trade (Long Form)

Note that due to historical message size limitations, the **Trade (Long Form)** message drops the *Order ID* field from the **Trade** message and includes only the *Execution ID* field.

TRADE (LONG)									
Field	Offset	Length	Type/Value	Comments					
Timestamp	0	11	Integer						
Message type	11	1	"p"						
Execution ID	12	12	Text	Day-unique trade identifier					
Trade type	24	1	Text	"B" – VBBO trade (buy side aggressor)					
				"S" – VBBO trade (sell side aggressor)					
				"b" – ALP order trade (buy side aggressor)					
				"s" – ALP order trade (sell side aggressor)					
				"A" – Auction trade					
				"O" – Opening cross trade					
				"C" – Closing cross trade					
				"U" – Uncrossing trade					
				"T" – Consolidated Trade (Market by Limit)					
Shares traded	25	10	Integer						
Instrument	35	6	Text						
Price	41	19	Long Price	Trade price					
Trade flags	60	2	Text	See Section 5.4.1 – Trade Flags					

### 5.10 Trade (Extended)

The Trade (Extended) message is sent for off-book on-exchange trade reporting.

Trade (Extended)												
Field	Offset	Length	Type/Value	Comments								
Timestamp	0	11	Integer									
Message type	11	1	"v"									
Execution ID	12	12	Text	Day-unique trade identifier								
Shares traded	24	10	Integer									
Instrument	34	6	Text									
Price	40	19	Long Price									
Trade date	59	8	Text	Date on which trade occurred in								
				YYYYMMDD format								
Trade time	67	5	Integer	Time at which trade occurred, encoded as								
				number of seconds since midnight UTC on								
				the Trade date								
Extended trade	72	7	Text	MMT trade flags – see Section 5.10.1								
flags				Extended trade flags								



#### 5.10.1 Extended Trade Flags

EXTENDED TRADE FLAGS MMT MAPPING									
Offset	MMT Level	MMT Fieldname MMT Value							
0	3.2	Negotiated Trade or Pre- Trade Transparency Waiver	<ul> <li>"1" – Negotiated trade in liquid financial instrument</li> <li>(NLIQ)</li> <li>"2" – Negotiated trade in illiquid financial instrument</li> <li>(OLIQ)</li> <li>"3" – Negotiated trade subject to conditions other</li> <li>than the current market price (PRIC)</li> <li>"-" – Not specified</li> </ul>						
1	3.4	Modification Indicator	"A" – Modification of a previously reported trade "C" – Cancellation of a previously reported trade "-" – New reported trade						
2	3.5	Benchmark Indicator	"B" – Benchmark "-" – Not specified						
3	3.7	Off Book Automated Indicator	"Q" – Automated "M" – Manual "-" – Not specified						
4	3.8	Contribution to Price Formation or the Price Discovery Process	"P" – Standard trade						
5	3.9	Algorithmic Indicator	"H" – Algorithmic trade "-" – Non-algorithmic trade						
6	4.1	Publication Mode / Post- Trade Deferral Reason	"1" – Trade reported late without permitted deferral "2" – Deferred LIS trade (LRGS) "-" – No deferral (immediate publication)						

Not all MMT field values are supported on Equiduct – the table above shows those values which are possible on Equiduct.

Two key MMT fields <u>not</u> included in the message, because the values are always the same, are:

1: Market Mechanism, always "4" (Off Book)

2: Trading Mode, always "5" (Trade Reporting On Exchange)

For all other MMT fields not included in the message the applicable value is "-" meaning "Not Applicable" or "Not Specified".



### 5.11 Instrument Trading Status

INSTRUMENT TRADING STATUS									
Field	Offset	Length	Type/Value	Comments					
Timestamp	0	11	Integer						
Message type	11	1	"H"						
Instrument	12	6	Text						
Trading status 18 1 Text		"T" – Trading							
				"H" – Halted					
				"A" – Auction*					
				(*) HybridBook feed only					
Reason	son 19 4 Text		Text	For the HybridBook feed, provides more					
				detailed trading status information (see					
				5.10.1 Trading Status Reasons). Otherwise					
				reserved for future use.					

#### 5.11.1 Trading Status Reasons

When the *Trading status* is not "T" (Trading) the *Reason* field of the Instrument Trading Status message consists of one or more characters which provide detailed information about the current status of trading on Equiduct. The current set of possible values is as follows:

TRADING STATUS REASONS							
Trading Status	Reason	Description					
Н	S	Instrument is suspended from trading					
Н	Н	Instrument is halted					
Н	HE	Instrument is halted due to external market status					
Н	CO	Instrument is in pre-opening phase (order management available)					
Н	CC	Instrument in post-closing phase (order management available)					
Н	С	Market is closed (order management not available)					
А	AU	Unscheduled (intraday) auction					
А	AE	Auction due to external market status					
А	AV	Auction due to volatility interruption					
А	AO	Opening procedure					
А	AOF	Opening procedure, order book frozen					
А	AC	Closing procedure					
А	ACF	Closing procedure, order book frozen					



### Appendix A MMT Trade Type Mappings

These mappings apply for the Trade and Order Executed messages. The Trade (Extended) message includes detailed MMT flags.

Message Type	Trade Type	Description	1 Market Mechanism	2 Trading Mode	3.1 Transaction Category	3.2 Negotiated Indicator	3.3 Crossing Indicator	3.4 Modification Indicator	3.5 Benchmark Indicator	3.6 Dividend Indicator	3.7 Off Book Automated Indicator	3.8 Price Discovery Indicator	3.9 Algorithmic Indicator	4.1 Publication Mode/Post Trade Deferral Type	5 Duplicative Indicator
Order Executed	n/a	Standard CLOB trade	1	2	-	-	-		-	-	-	Р		-	-
Trade	В	VBBO trade (buy side aggressor)	7	2	-	-	-		-	-	-	Р		-	-
Trade	S	VBBO trade (sell side aggressor)	7	2	-	-	-	[O]	-	-	-	Р	[1]	-	-
Trade	b	ALP order trade (buy side aggressor)	1	2	-	-	-	ags	-	-	-	Р	ags	-	-
Trade	S	ALP order trade (sell side aggressor)	1	2	-	-	-	le fla	-	-	-	Р	le fla	-	-
Trade	Α	Auction trade	1	U	-	-	-	Trade	-	-	-	Р	Trade	-	-
Trade	0	Opening cross trade	1	0	-	-	-	to	-	-	-	Р	to	-	-
Trade	С	Closing cross trade	1	К	-	-	-	Set	-	-	-	Р	Set	-	-
Trade	U	Uncrossing trade	1	0	-	-	-		-	-	-	Р		-	-
Trade	Т	Consolidated trade (Market by Limit)	1	2	-	-	-		-	-	-	Р		-	-
Trade (Extended)	n/a	Off-book, on-exchange trade reporting	4	5	-	*	-	*	*	-	*	Р	*	*	-

Fields marked (\*) should be populated from the Extended trade flags provided in the Trade (Extended) message.