Aquis Stock Exchange

FIX 4.4 Protocol Technical Specification

April 2024

Version 1.1.6

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Version History

Version	Date	Comments
1.0	October 2019	Initial version
1.1	June 2020	Removal of PO, POCR and Order Cancel/Replace message types
1.1.1	July 2020	Quote Cancel: 295 is only required when 298=1 Correction: Mass Quote Acknowledgement possible values for tag 297 Removal of legacy TrdTypes: 828 = 104, 105 & 106 Addition of Reject Message & Sequence Numbers Correction: MsgType in Supported Session Messages Trade Capture Report: 5997 not required when 1134=Y Correction: Removal of Clearing Configuration
1.1.2	August 2020	Correction of supported value for Tag 301 in Mass Quote message Correction: Addition of Tag 830 in Trade Capture Report message
1.1.3	August 2020	Addition of Price Entry Correction: Removal of legacy Z trade default if a Trade Capture Report message is submitted without TrdType (828) and TrdSubType (829) values. Tag 828 and Tag 829 now mandatory. Clarification of unsolicited messages in Trade Cancellation and Trade Capture Report Acknowledgement Clarification of quote amendment behaviour in Mass Quote Correction: Removal of Tag 20710 in Order Cancel Request message
1.1.4	Sept 2020	Tag 828 and 829 not mandatory in Trade Capture Report message and Acknowledgement Absence of tag 828 in Trade Capture Report message defaults to a regular trade Clarification of Tag 829 values
1.1.5	February 2021	Clarification of Quote Status Report behaviour with unsolicited cancels Updated ADT value source following Brexit
1.1.6	April 2024	Marketing and branding update.

1 Introduction

This document describes the FIX 4.4-based implementation developed by Aquis Exchange (Aquis) to provide counterparties (direct trading Members or third party vendors) with access to Aquis Stock Exchange (AQSE).

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

This document should be read together with the AQSE Rulebook, which provides an overview of the services and functionality offered by Aquis.

1.1 Enquiries / Support

Please contact the Aquis Support team at AQSEOperationsSupport@aquis.eu with any questions relating to this document.

2 Connectivity and Configuration

2.1 Network Connectivity

Aquis will provide trading Members (or their representatives) with IP address and port information to establish a TCP/IP connection for the trading session.

One or more connections will be provided to the Customer Test (CT) environment and, on successful certification, connection details to the primary and backup Production trading environments will be supplied. Connectivity options (co-location, leased line, extranet) should be discussed with the Aquis Networks team.

2.2 Trading Session Configuration

Aquis will agree *SenderCompID* / *TargetCompID* values with the counterparty to identify their trading session and to identify AQSE as the intended trading venue. These fields are case-sensitive, with a maximum field size of 16 characters.

These configuration fields are also case-sensitive, with a maximum field size of 16 characters.

2.3 Cancel on Disconnect

By default, all open **orders** and **quotes** are cancelled automatically if the trading Member ends their session or the connection drops.

If the Member does not want Cancel on Disconnect behaviour to apply, they should notify AQSE Support during the onboarding process.

2.4 Self-Trade Prevention

When a Member has multiple trading connections, AQSE offers the option for self-trade prevention to be configured across these trading sessions. This prevents a Member from trading with themselves by cancelling the resting order that would otherwise match.

- **Cancel Resting Order** – If an incoming (or price modified) order would trade with another order from that Member that is already on the AQSE order book, the existing resting order is automatically cancelled. The incoming order may trade with other orders, or is posted to the order book, as normal.

If required, self-trade prevention can be configured by the AQSE Support team to apply to the Member's trading sessions. It does not require any changes to the FIX messaging for order entry and order management.

2.5 Auction on Demand

Aquis Stock Exchange offers Auction on Demand (AoD) functionality. The AoD is a separate order book to AQSE continuous trading and has a separate segment MIC.

There will be no interaction between the AoD and the existing AQSE lit continuous order book.

Members can enter buy/sell orders for stocks which will either rest on the AoD order book until they can be matched with another valid order on the other side.

The following order types will be permitted with the Auction on Demand (AOD):

    a) Limit Order only;

    b) Limit Order with 'Trade at Middle' option (allows price improvement on executions which can occur at mid-tick).

The auction process is triggered when a valid order is entered into the book which can successfully match with an existing resting order. At this point the lit auction process begins.

See the Aquis Rulebook for details of the AoD functionality.

2.6 Timestamping

AQSE FIX timestamps will be to microsecond (µs) granularity.

3 FIX Message Header and Trailer

The following sections detail the FIX tags and values that AQSE expects and supports in the header and trailer of incoming and outgoing FIX 4.4 messages.

3.1 Header on messages to Aquis

Aquis will process the following header fields on incoming messages and will ignore all others:

Tag	Field Name	Req'd	Comments
8	BeginString	Y	FIX 4.4 (Always unencrypted, must be first field in message)
9	BodyLength	Y	(Always unencrypted, must be second field in message)
35	MsgType	Y	(Always unencrypted, must be third field in message)
34	MsgSeqNum	Y	Message sequence number (inbound to Aquis) for today's trading session
43	PossDupFlag	N	Set to Y on retransmitted messages (e.g. following a Resend Request)
49	SenderCompID	Y	ID of sending firm, as agreed with Aquis
52	SendingTime	Y	Time of message transmission in UTC
56	TargetCompID	Y	ID representing AQSE, as agreed
97	PossResend	N	Set to Y to indicate that message may contain information that has been sent under another sequence number. Aquis will process Order Cancel Request messages that are flagged as possible re-sends under a new sequence number. Aquis will not process New Order Single or Order Cancel/Replace Request messages that are flagged as re-sent under a new sequence number
122	OrigSendingTime	N	For retransmitted messages (*PossDupFlag* = Y), the time in UTC that the message was initially sent. If not available, then set to same value as *SendingTime*

3.2 Header on messages from Aquis

Aquis will only include the following header fields on outgoing messages:

Tag	Field Name	Req'd	Comments
8	BeginString	Y	FIX 4.4 (Always unencrypted, will be first field in message)
9	BodyLength	Y	(Always unencrypted, will be second field in message)
35	MsgType	Y	(Always unencrypted, will be third field in message)
34	MsgSeqNum	Y	Message sequence number (inbound from Aquis) for today's trading session
43	PossDupFlag	N	Set to Y on retransmitted messages (e.g. following a Resend Request)
49	SenderCompID	Y	ID representing AQSE, as agreed
52	SendingTime	Y	Time of message transmission in UTC
56	TargetCompID	Y	ID of counterparty firm, the value originally sent to Aquis as the *SenderCompID* in the related incoming message

| 122 | OrigSendingTime | N | For retransmitted messages (*PossDupFlag* = Y), the time in UTC that the message was initially sent. If not available, then set to same value as *SendingTime* |

Please note that Aquis will not re-transmit application messages other than in response to a Resend Request, and so does not use *PossResend*.

3.3 Message Trailer

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

4 FIX Session Level Management

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

The structure of these messages corresponds to the standard FIX 4.4 protocol and their use is discussed in more detail below.

4.1 Supported Session Messages

AQSE supports the following session level FIX messages:

Message	MsgType	Direction
Logon	A	Incoming/Outbound
Heartbeat	0	Incoming/Outbound
TestRequest	1	Incoming/Outbound
ResendRequest	2	Incoming/Outbound
SequenceReset	4	Incoming/Outbound
Reject	3	Outbound ONLY
Logout	5	Incoming/Outbound

4.2 User ID *(CompID)*

An AQSE trading system user ID is associated with a FIX Session *CompID*. Each Aquis user ID is associated with an Aquis member ID. Therefore, participants with 2 Aquis member IDs must have 2 FIX sessions for example.

Participant connections are tied to a specific IP address and port number combination – no password authentication is needed.

The following Logon message is supported:

Tag	Field Name	Req'd	Comments
Standard Header		Y	*MsgType* (35) = A
98	EncryptMethod	Y	Always unencrypted Supported value: 0
108	HeartbtInt	Y	Same value used by both sides.

4.3 Sequence Numbers

Aquis will re-set inbound and outbound sequence numbers back to one overnight, ready for the next trading day. Trading counterparties should do the same.

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

4.4 Reject Messages

Aquis will use a session level Reject message (MsgType = 3) to respond to messages that break the session protocol or contain missing or incorrect fields. However this should be rare, and where possible Aquis will respond with application level reject messages, such as OrderCancelReject or Execution Report – OrdStatus Rejected.

5 Trading Models

For each AQSE security, there are several possible trading boards that specify:

- Whether the security is liquid or non-liquid according to the CESR
- The currency
- Exchange (ISDX)

The naming convention of a board which consists of the ISO currency code or GBX as applicable, exchange (ISDX), board mnemonic and whether the security is defined as liquid or non-liquid by CESR:

<div align="center">CCC/ISDX-exl</div>

Whereby **CCC** identifies the currency of the security trading board and **l** indicates whether the security is defined as liquid or non-liquid.

AQSE supports the following boards:

EUR/ISDX-exl
USD/ISDX-exl
EUR/ISDX-exn
GBX/ISDX-exl
USD/ISDX-exn
GBX/ISDX-exn
GBP/ISDX-exl
SEK/ISDX-exn
GBP/ISDX-exn
CHF/ISDX-exl
NOK/ISDX-exl

6 Trade Reporting

6.1 Trade Price Conditions

If the trade price in *LastPx* (31) differed from the prevailing market price at time of execution, then the trade must be identified as having a price difference by setting the *ReportedPxDiff* (1134) = "Y".

If one or more specific trade conditions existed that caused the price difference, then these should be specified using the *TradePriceConditions* (5998) repeating group.

NoTradePriceConditions (5997) is set to the number of trade price conditions that caused the price difference. There is one *TradePriceCondition* (5998) provided for each applicable trade price condition.

Note that if you have indicated that there is a *ReportedPxDiff* (1134) = "Y" but have not sent a *TradePriceCondition* (5998) then the Price Condition will default to D.

The following table outlines the trading price conditions:

FIX Value (5998)	Mnemonic	Description
0	CD	Special cum dividend
1	CR	Special cum rights
2	XD	Special ex dividend
3	XR	Special ex rights
4	CC	Special cum coupon
5	CP	Special cum capital repayments
6	XC	Special ex coupon
7	XP	Special ex capital repayments
8	CS	Cash settlement
9	CB	Special cum bonus
10	SP	Special price
11	XB	Special excluding bonus
12	GD	Special guaranteed delivery

6.2 Deferred Publication

The AQSE system will automatically delay the publication of trades that qualify for deferred publication under MiFID II. The duration of the delay is calculated using the ADT value for the relevant security and the consideration.

A trade qualifies for deferred publication if:

- The consideration of the trade meets the size criteria as per the Trading Rules

- The transaction is between a member dealing on own account with a client:
  - *OrderCapacity* (528) must be P, and
  - *TrdSubType* (829) must not be 15 (Broker to Broker trade),18 (Market Maker to Market Maker trade), 22 (portfolio trade), 26 (Riskless Principal trade), 37 (Cross trade)

Note: AQSE will use the latest updates on ADT/SMS values from the FCA Financial Instruments Transparency System and daily currency updates from the European Central Bank website in its calculations

Reporting members may instruct the trading system to immediately publish trades that would otherwise be delayed by setting *TradePublishIndicator* (1390) to "1".

6.3 Parties Block

The trade capture report states that the *NoPartyIDs* (453) when submitting a trade should always be set to the value of 2. This is because the first repeating group should identify the counterparty and the second the venue. The values used to identify the counterparty can be found below:

Field	Value
PartyID (448)	If the counterparty is an Aquis Stock Exchange member send the Aquis Stock Exchange firm ID If the counterparty is an investment firm that is an LSE member send the LSE member ID for the member If the counterparty is an investment firm that is neither an Aquis Stock Exchange nor LSE member send the Bank Identifier Code (BIC, ISO 9362) If the counterparty/client is not an investment firm, the client should be identified using the code "CLIENT"
PartyIDSource (447)	B = BIC Code
PartyRole (452)	17 = ContraFirm

The party ID sent depends on whether the counterparty is a member or not.

The trade must occur on one of the following venues:

• Anonymous Systematic Internaliser

• Over the Counter

• Recognised Systematic Internaliser

• Aquis Stock Exchange

Note that the above venues are only applicable to certain AQSE boards. The values used to identify the venue are illustrated below:

6.3.1 Anonymous Systematic Internaliser

Field	Value
PartyID (448)	SI
PartyIDSource (447)	B = BIC Code
PartyRole (452)	73 = Executing Venue

6.3.2 OTC (Over the Counter)

Field	Value
PartyID (448)	OTC
PartyIDSource (447)	B = BIC Code
PartyRole (452)	73 = Executing Venue

6.3.3 Recognised Systematic Internaliser

Field	Value
PartyID (448)	Bank Identifier Code (BIC, ISO 9362)
PartyIDSource (447)	B = BIC Code
PartyRole (452)	63 = Systematic Internaliser

6.3.4 Executed on Aquis Stock Exchange

Field	Value
PartyID (448)	ISDX
PartyIDSource (447)	G = MIC Code
PartyRole (452)	73 = Executing Venue

7 FIX Application Messages

This section describes the application messages used for order entry, order management and trade reporting. In particular, it identifies the specific fields and field values used by Aquis to provide its trading services.

Aquis Stock Exchange is a hybrid market of quoting, trade reporting and continuous trading functionality. Please refer to the below as a breakdown of the messages Aquis supports:

Message	Value
Trade Capture Report	Trade Reporting
Trade Capture Report Acknowledgement	Trade Reporting
Mass Quote	Market Maker Quoting
Mass Quote Acknowledgement	Market Maker Quoting
Quote Cancel	Market Maker Quoting
Quote Status Report	Market Maker Quoting
New Order Single	Continuous Trading
Order Cancel Request	Continuous Trading
Order Cancel/Replace Request	Continuous Trading
Execution Report	Continuous Trading
Order Cancel Reject	Continuous Trading

7.1 Price Entry

AQSE will process prices up to 5 decimal places. Prices submitted with greater than 5 decimal places will be truncated.

7.2 Trade Capture Report Message

In order to complete *LastPx* (31) and *LastQty* (32), please refer to the below:

- For equities, this is an integer representing the number of shares bought/sold. *E.g. 5,000 shares bought at 123.5 GBX would equate to a consideration of £6,175*

- For Fixed Income, this is the number (may include decimal places) bought/sold priced in lots dealt. *E.g. Qty 5,000 bought at 123.5 GBX (per nominal value 100) would have a consideration of £61.75*

- For CFDs, this is an integer representing the total quantity. *E.g Qty 5,000 of a CFD bought at 123.5 GBX (with a standard contract size of 100) would have a consideration of £6,175*

Tag	Field Name	Req'd	Comments
	Standard Header	Y	*MsgType* (35) = AE
571	TradeReportID	Y	User-generated reference for the transaction. This must be unique within at the least the last five business days and a maximum of 30 characters.
487	TradeReportTransType	Y	Identifies Trade Report message transaction type Values supported by Aquis: 0 = New 1 = Cancel 2 = Replace
828	TrdType	N	Type of trade. Aquis supported values: 0 = Regular Trade (O) 38 = Large in Scale (L) 101 = Negotiated Trade in Liquid Financial Instruments 102 = Negotiated Trade in Illiquid Financial Instruments 103 = Negotiated Trade Subject to Conditions Other Than the Current Market Price Absence of TrdType defaults to a Regular Trade.
829	TrdSubType	N	Further qualification to the trade type. Aquis supported values: 15 = B (Broker to broker trade) 18 = M (Market maker to market maker trade) 22 = P (Portfolio trade) 26 = R (Riskless principal trade) 37 = X (Cross trade)
830	TrdTypeBenchRef	N	Aquis supported values: 0 = No Benchmark or Reference Price Trade 1 = Benchmark Trade 2 = Reference Price Trade
5997	NoTradePriceConditions	N	The number of trade price conditions. Not required if *ReportedPxDiff* (1134) = Y.
5998*	TradePriceCondition	N	Indicates the condition under which the bargain was struck Aquis supported values: 0 = CD 1 = CR 2 = XD 3 = XR 4 = CC 5 = CP 6 = XC 7 = XP 8 = CS 9 = CB 10 = SP 11 = XB 12 = GD If no price condition has been provided but the *ReportedPxDiff* (1134) has been set to Y, then the price condition will default to D trade price condition. This means

			the trade is subject to conditions other than the current market price. Please refer to 6.1 for Trade Price Conditions
1134	ReportedPxDiff	N	Indicator to report a price that is different from the current market price. Aquis supported values: Y = Yes N = No If set to Y and no price conditions have been set, then the *TradePriceCondition* (5998) will default to D.
881	SecondaryTradeReport RefID	N	When amending/cancelling a Trade Report, set to the *SecondaryTradeReportID* (818) that was returned in the original *TradeCaptureReportAck.*
55	Symbol	N	Not validated as the ISIN is used to identify the security. Set to [N/A].
48	SecurityID	Y	The ISIN of the security being referenced.
22	SecurityIDSource	Y	4 = ISIN Note this is the only acceptable value (default if not supplied).
32	LastQty	Y	The number of shares agreed to be traded.
31	LastPx	Y	The price at which the trade was agreed, denominated in the currency specified in the board *TradingSessionID* (336).
75	TradeDate	Y	Aquis ignore this field. Date information is retrieved from *TransactTime* (60).
60	TransactTime	Y	Date and time when the transaction occurred.
64	SettlDate	N	The date on which the trade is agreed to settle; For equities, this is the settlement date. For CFDs, this is the contract expiry/optional if open-ended contract.
1390	TradePublishIndicator	N	Immediate trade publication indicator. Aquis supported values: 1 = Publish immediately Please refer to 6.2 for the Deferred Publication section.
552	NoSide	Y	Indicates number of *Side* (54) repeating group instances* Aquis supported values: 1 = One side
54*	Side	Y	1 = Buy 2 = Sell
37*	OrderID	Y	Set to [N/A].
453*	NoPartyIDs	Y	Indicates number of *PartyID* (448), *PartyIDSource* (447) and *PartyRole* (452) repeating group instances⁺ When reporting a trade, set to a value of 2.
448⁺	PartyID	Y	Used to identify the source of *PartyID.* Required if *PartyIDSource* (447) is specified. Required if *NoPartyIDs* (453) > 0. Please refer to 6.3 for the Parties Block section.
447⁺	PartyIDSource	Y	Used to identify class or source of the *PartyID* (448). Aquis supported values: B = BIC G = MIC Required if *PartyID* (448) is specified. Please refer to 6.3 for the Parties Block section.
452⁺	PartyRole	Y	Identifies the type of *PartyID* (448) e.g. Executing Broker.

			Aquis supported values: 17 = Contra Firm 73 = Executing Venue 63 = Systematic Internaliser Required if *NoPartyIDs* (453) > 0. Please refer to 6.3 for the Parties Block section.
528*	OrderCapacity	N	The capacity in which the reporting member is trading. Aquis supported values: A= Agency P= Principal
336*	TradingSessionID	Y	The identifier of the board to which the trade report is being submitted. Aquis supported values: EUR/ISDX-exl USD/ISDX-exl EUR/ISDX-exn GBX/ISDX-exl USD/ISDX-exn GBX/ISDX-exn GBP/ISDX-exl SEK/ISDX-exn GBP/ISDX-exn CHF/ISDX-exl NOK/ISDX-exl

* = repeating group

⁺ = repeating group

7.2.1 Trade Cancellation

Trades on Aquis Stock Exchange may be cancelled by the user for up to five business days from the day on which the trade was reported. After this time, the AQSE regulation department must be contacted in order to cancel the trade.

Trade cancellations require a Trade Capture Report message to be sent with the *TradeReportTransType* (487) ="1" (Cancel) and the *SecondaryTradeReportRefID* (881) set to the trading system generated identifier *(SecondaryTradeReport ID (*818)) that was returned in the (Trade Capture Report Ack) message in response to the original trade submitted.

A Trade Capture Report Acknowledgement message will be returned by the trading system that indicates whether the cancellation request was successful.

Trades can also be cancelled by Market Operations and will result in an unsolicited Trade Capture Report Acknowledgement.

7.2.2 Trade Amendments

Trades on the trading system may be amended by the user for up to five business days from the day on which the trade was reported. After this time the AQSE regulation department must be contacted to amend the trade.

Trades are amended by sending a Trade Capture Report message with the required amendments, *TradeReportTransType* (487) = "2" (Replace) and the *SecondaryTradeReportRefID* (881) populated with the trading system trade identifier (*SecondaryTradeReportID* (818)). The system will then:

• cancel the original trade and

• issue a new trade report with a new trading system-generated trade identifier

A Trade Capture Report Acknowledgement message will be returned by the trading system that will indicate whether the amendment request was successful.

7.3 Trade Capture Report Acknowledgement

In response to a member submitted Trade Capture Report new, cancel and amendment message, Aquis will send the member back the acknowledgement detailed below.

An unsolicited Trade Capture Report Acknowledgement will also be sent when a trade is cancelled by Market Operations.

Tag	Field Name	Req'd	Comments
	Standard Header	Y	*MsgType* (35) = AR
571	TradeReportID	Y	User-generated unique identifier for the Trade Capture Report.
487	TradeReportTransType	N	Identifies Trade Report message transaction type. Values sent by Aquis: 0 = New 1 = Cancel 2 = Replace
828	TrdType	N	Type of trade. Values sent by Aquis: 0 = Regular Trade (O) 101 = Negotiated Trade in Liquid Financial Instruments 102 = Negotiated Trade in Illiquid Financial Instruments 103 = Negotiated Trade Subject to Conditions Other than the Current Market Price
829	TrdSubType	N	Further qualification to the trade type. Values sent by Aquis: 15 = B 18 = M 22 = P 26 = R 37 = X
830	TrdTypeBenchRef	N	Values sent by Aquis: 0 = No Benchmark or Reference Price Trade 1 = Benchmark Trade 2 = Reference Price Trade
939	TrdRptStatus	N	Status of Trade Report. 0 = Accepted 1 = Rejected

751	TradeReportRejectReason	N	Reason for the rejection of Trade Report. 2 = Unknown Instrument 4 = Invalid Trade Type 99 = Other 100 = Duplicate *TradeReportID* (571)
818	SecondaryTradeReportID	N	Aquis defined Trade Report ID.
48	SecurityID	Y	The ISIN of the security being referenced.
22	SecurityIDSource	Y	4 = ISIN
60	TransactTime	N	Time ACK was issued by the matching engine, trading system or counterparty.
58	Text	N	This field is returned when the Trade Capture Report message is rejected.
336	TradingSessionID	Y	Echoed back from the Trade Capture Report.

7.4 Market Maker Quoting

Members may register as market makers in one or more stocks on the on-exchange boards. Such registrations oblige the market maker to publish firm, continuous, two-way quotes in at least EMS for all securities they are registered in during the mandatory quote period for the particular securities.

7.4.1 Mass Quote

The Mass Quote message is used by AQSE market makers to submit two-sided quotes into the market. Two-sided quotes for multiple securities can be submitted at the same time. The trading system validates each Bid and Ask and if either is invalid, the entire quote for that security is rejected.

Members can amend quotes by sending a new Mass Quote message for the securities to be updated.

Tag	Field Name	Req'd	Comments
	Standard Header	Y	*MsgType* (35) = i
117	QuoteID	Y	The *QuoteID* is required to identify the Mass Quote and will be used as a reference on the response Mass Quote Acknowledgement message. The field will be prepended to the *QuoteEntryID* as the internal reference. Maximum length 50 characters.
301	QuoteResponseLevel	N	1 = Acknowledge rejected quotes only If omitted, the quotes will be acknowledged. If this field is provided, only errors will be acknowledged.
296	NoQuoteSets*	Y	Aquis supports 1 quote set. Set value to 1.
302*	QuoteSetID	Y	Unique identifier for the quote set. Maximum length 16 characters. This field is not validated by Aquis.
304*	TotNoQuoteEntries	N	Total number of quotes for the quote set across all messages.

Tag	Field Name	Req'd	Comments
893*	LastFragment	N	Aquis supported values: N = Message is continued Y = Last message
295*	NoQuoteEntries	Y	The number of quote entries for the *QuoteSet* repeating group+
299+	QuoteEntryID	Y	This field is not validated by Aquis.
55+	Symbol	N	This field is not validated as Aquis use ISIN's to identify the security.
48+	SecurityID	Y	The ISIN of the security being referenced.
22+	SecurityIDSource	Y	This field must always be set to the *IDSource* for ISIN. 4 = ISIN
132+	BidPx	Y	Price of the available bid quantity
133+	OfferPx	Y	Price of the available offer quantity
134+	BidSize	Y	Number of bid shares available
135+	OfferSize	Y	Number of offer shares available
60+	TransactTime	N	Time of execution/ order execution (expressed in UTC)
336+	TradingSessionID	Y	The identifier of the board to which the trade report is being submitted. Aquis supported values: EUR/ISDX-exl USD/ISDX-exl EUR/ISDX-exn GBX/ISDX-exl USD/ISDX-exn GBX/ISDX-exn GBP/ISDX-exl SEK/ISDX-exn GBP/ISDX-exn CHF/ISDX-exl NOK/ISDX-exl

+ = a repeating group

* = a repeating group

7.4.2 Mass Quote Acknowledgement

In response to a member submitted Mass Quote message, Aquis will send the member back the following acknowledgement.

In the event of a reject, Aquis will return an Acknowledgement with the reject reason in *SecurityID* (48) with any individual quote detail in *QuoteEntryRejectReason* (368).

Tag	Field Name	Req'd	Comments
	Standard Header	Y	*MsgType* (35) = b
117	QuoteID	Y	Required when Acknowledgement is in response to a Quote message.
297	QuoteStatus	Y	Status of the Mass Quote Acknowledgement. Values sent by Aquis: 0 = Accepted 5 = Rejected

Tag	Field Name	Req'd	Comments
			100 = Partially Accepted
300	QuoteRejectReason	N	Reason quote was rejected. Value sent by Aquis: 99 = Other
301	QuoteResponseLevel	N	Level of Response requested from the receiver of the Quote messages. Echoed back to the counterparty. 1 = Acknowledge rejected quotes only
58	Text	N	Description of error message if failed
296	NoQuoteSets	N	The number of sets of quotes in the message
302*	QuoteSetID	N	Unique ID for the Quote Set
304*	TotNoQuoteEntries	N	Total number of quotes for the quote set across all messages.
893*	LastFragment	N	Values sent by Aquis: N = Message is continued Y = Last message
295*	NoQuoteEntries	N	The number of quote entries for the *QuoteSet* repeating group+
299+	QuoteEntryID	N	Uniquely identifies the quote as part of a Quote set
55+	Symbol	N	This field will always be set to [N/A].
48+	SecurityID	N	The ISIN of the security being referenced.
22+	SecurityIDSource	N	This field will always be set to the *IDSource* for ISIN 4 = ISIN.
132+	BidPx	N	Bid price/rate
133+	OfferPx	N	Offer price/rate
134+	BidSize	N	Quantity of bid
135+	OfferSize	N	Quantity of offer
60+	TransactTime	N	Time of execution/ order execution (expressed in UTC)
336+	TradingSessionID	Y	The identifier of the board to which the trade report is being submitted.
1167+	QuoteEntryStatus	N	Values sent by Aquis: 0 = Accepted 5 = Rejected 100 = Bid Rejected, Ask Accepted 101 = Ask Rejected, Bid Accepted
368+	QuoteEntryRejectReason	N	Values sent by Aquis: 1 = Unknown Security ID 2 = Exchange Closed 4 = Too late to enter 8 = Invalid Price 9 = Not Authorised 99 = Other 112 = Invalid Quantity 115 = Invalid due to market maker protection 116 = Security Suspended 117 = Security Withdrawn

7.4.3 Quote Cancel

The Quote Cancel message is used by the originator of quotes to cancel quotes.

Tag	Field Name	Req'd	Comments
	Standard Header	Y	*MsgType* (35) = Z
117	QuoteID	Y	Unique identifier for quote
298	QuoteCancelType	Y	Identifies the type of Quote Cancel request. Aquis supported values: 1 = Cancel for Symbol 4 = Cancel All Quotes. This will cancel all active quotes on the specified board.
336	TradingSessionID	Y	The identifier of the board to which the trade report is being submitted.
295	NoQuoteEntries	N	The number of quote entries for the *QuoteSet* repeating group+ Required when 298=1
55+	Symbol	N	This field is not validated as Aquis use ISIN's to identify the security.
48+	SecurityID	N	The ISIN of the security being referenced. Note: This field is required when 298=1
22+	SecurityIDSource	N	This field must always be set to the *IDSource* for ISIN. 4 = ISIN Note: We do not enforce this field being required for legacy reasons.

7.4.4 Quote Status Report

In response to a member submitted Quote Cancel message, Aquis will send the member back the following acknowledgement.

At the end of the Open period, any open quotes will be pulled by the system (unless the participant is configured otherwise) and will result in a series of Quote Status Report messages. An unsolicited Quote Status Report will also be sent when a quote is cancelled by Market Operations.

Tag	Field Name	Req'd	Comments
	Standard Header	Y	*MsgType* (35) = AI
117	QuoteID	Y	Unique identifier for quote
336	TradingSessionID	Y	The identifier of the board to which the trade report is being submitted.
55	Symbol	N	This field is not validated as Aquis use ISIN's to identify the security.
48	SecurityID	N	The ISIN of the security being referenced.
22	SecurityIDSource	N	This field must always be set to the *IDSource* for ISIN. 4 = ISIN
54	Side	N	This field is not used.
60	TransactTime	N	Time of execution/ order execution (expressed in UTC)
297	QuoteStatus	N	Values sent by Aquis: 0 = Accepted 5 = Rejected
58	Text	N	Description of error message if failed.

7.5 New Order Single

Aquis supports the FIX New Order Single message for order entry as detailed below:

Tag	Field Name	Req'd	Comments
	Standard Header	Y	*MsgType* (35) = D
1	Account	N	Optional account field to specify House or Client Account for use with clearing CCP. If not supplied, Aquis will assume House
11	ClOrdID	Y	Unique for each order on this session for the trading day. Maximum length 20 characters. Note that for performance reasons Aquis only validates that ClOrdID is unique, rejecting any duplicates, against currently open orders

15	Currency	N	Required if ISIN is used to identify the security, *IDSource* (22) = 4 (ISIN)
			Values accepted:
			  GBX – Sterling (in pence)
			  GBP – Sterling (in pounds)
			  EUR – Euro
			  CHF – Suisse Franc
			  DKK – Danish Krone
			  NOK – Norwegian Krone
			  SEK – Swedish Krona
			  USD – United States Dollar

21	HandlInst	N	1 = Automated execution order (private, no broker intervention). Note this is the only acceptable value (default if not supplied)

22	IDSource	N	Values supported by Aquis:
			  4 = ISIN
			  5 = RIC

38	OrderQty	Y	Number of shares
40	OrdType	Y	2 = Limit *Note that the order type value supplied in this tag will be overridden by the 'Aquis Order Attribute' supplied in tag 27010*
44	Price	N	Limit price is required for limit orders;
528	OrderCapacity	N	Values supported by Aquis: A = Agency P = Principal R= Riskless Principal
48	SecurityID	N	If using alternative symbology, RIC (primary or Aquis) or ISIN depending on the value of *IDSource* (22)
54	Side	Y	1 = Buy 2 = Sell
55	Symbol	N	Uniform symbology code for the security (not required if alternative symbology is used)
59	TimeInForce	N	0 = Day (default if tag not supplied) 3 = Immediate or Cancel (IOC) 4 = Fill or Kill (FOK) 6 = Good Till Date – will expire at time in *ExpireTime* (126) field. Date must be today's date.
60	TransactTime	Y	Time this order entry request was initiated by the trading Member.

Tag	Field Name	Req'd	Comments
126	ExpireTime	N	Date/time in UTC of order expiry for a Good Till Date order, with *TimeInForce* (59) = 6. Date must be today's date.
207	SecurityExchange	N	Required if ISIN is used to identify the security, *IDSource* (22) = 4 (ISIN). Aquis will accept valid MICs.
453	NoPartyIDs	Y	Indicates number of instances of repeating group*

448*	PartyID	Y	4-byte short code representing decision maker (mapping to long code)
			  0 = NONE (no client ID)
			  1 = AGGR (aggregated)
			  2 = PNAL (pending allocation)
			  3 = CLIENT (order instructed by client)
			  4 to 4,294,967,295 = Member-specified short code

447*	PartyIDSource	Y	P = short code

452*	PartyRole	Y	Specifies the role of the party to the trade
			  3 = Client ID
			  12 = Executing Decision ID
			  122 = Investing Decision ID

2376*	PartyRoleQualifier	Y	*0 = None (default should short code = 0, 1, 2 or 3)*
			  22 = Algorithm (PartyRole = 12 or 122)
			  23 = Firm or LEI (PartyRole = 3)
			  24 = Natural Person (PartyRole = 3, 12 or 122)

1724	DEAFlag	N	Whether the order originates from a Direct Electronic Access Client (default if tag not supplied = No) 5 = Yes

8015	OrderAttribute	N	Tag can contain multiple values (separated by spaces). The presence of a value indicates the following:
			  2 = Liquidity provision activity
			  4 = Algorithmic order

27010	AquisOrderAttribute	N	Values supported by Aquis:
			  3 = Auction on Demand Limit Order
			  4 = Auction on Demand Limit Trade at Middle Order

* = repeating group

7.5.1 Account Field

The Account (1) field may be used by Members to specify whether trades against a particular order should be allocated to the House account at the CCP or to a specific client account.

The value 'H' should be used to nominate the House account and the value 'C' to nominate a default client account, pre-agreed with the CCP. The field may also be used to nominate a specific account using a value in the format 'C:123456' where '123456' is the required client account ID.

If the field is not supplied, then allocation to the House account is assumed by default and is echoed back in execution messages.

7.5.2 Symbology

Aquis accepts ISIN and RIC as security identifiers. To do so, the *IDSource* (22) field must be set to indicate the chosen symbology: value 4 for ISIN, 5 for RIC.

If using an ISIN to identify a security, the ISIN must be provided in the *SecurityID* (48) field and the fields *Currency* (15) and *SecurityExchange* (207) must also be set to the required currency and market (MIC) in order to uniquely identify the security.

If using a RIC to identify a security, the AQSE RIC must be provided in the *SecurityID* (48) field.

If choosing to use the *IDSource* option to specify the security by ISIN or RIC then the *Symbol* (55) field will no longer be validated against the Aquis security database.

Subsequent FIX Execution Report messages from Aquis will include the same symbology information as was supplied in the initial New Order Single.

7.6 Order Cancel Request

AQSE supports the FIX Order Cancel Request message to fully cancel an open order, as detailed below:

Tag	Field Name	Req'd	Comments
Standard Header		Y	*MsgType* (35) = F
11	ClOrdID	Y	Unique identifier of the cancel request. Maximum length 20 characters
15	Currency	N	As provided on the original order
22	IDSource	N	As provided on the original order
41	OrigClOrdID	Y	Identifier for the original or last modified version of the order
48	SecurityID	N	As provided on the original order
54	Side	Y	As provided on the original order
55	Symbol	N	As provided on the original order
60	TransactTime	Y	Time this order cancel request was initiated by the trading Member
453+	NoPartyIDs	N	Indicates number of instances of repeating group*

448*	PartyID	N	4-byte short code representing decision maker (mapping to long code)
			  0 = NONE (no client ID)
			  1 = AGGR (aggregated)
			  2 = PNAL (pending allocation)
			  3 = CLIENT (order instructed by client)
			  4 to 4,294,967,295 = Member-specified short code

447*	PartyIDSource	N	P = short code

452*	PartyRole	N	Specifies the role of the party to the trade
			  3 = Client ID
			  12 = Executing Decision ID
			  122 = Investing Decision ID

2376*	PartyRoleQualifier	N	*0 = None (default should short code = 0, 1, 2 or 3)*
			  22 = Algorithm (PartyRole = 12 or 122)
			  23 = Firm or LEI (PartyRole = 3)
			  24 = Natural Person (PartyRole = 3, 12 or 122)

1724+	DEAFlag	N	Whether the order originates from a Direct Electronic Access Client (default if tag not supplied = No) 5 = Yes

Tag	Field Name		Req'd	Comments

8015+	OrderAttribute		N	Tag can contain multiple values (separated by spaces). The presence of a value indicates the following:
				  2 = Liquidity provision activity
				  4 = Algorithmic order

<div align="right">* = repeating group</div>

<div align="right">+ = optional for Cancels, defaults to original order value</div>

Note that PartyIDs are optional for cancel requests e.g. in the event that the order canceller differs from the original order submitter.

7.7 Execution Report

Aquis uses the FIX Execution Report message to accept or to reject a New Order Single, and to accept an Order Cancel Request or an Order Cancel/Replace Request.

Trade reports, and any subsequent trade busts, are also sent using the Execution Report.

The fields and values provided by Aquis are detailed below:

Tag	Field Name	Req'd	Comments
	Standard Header	Y	*MsgType* (35) = 8
1	Account	N	Account is returned for Order Acknowledgements, Trade Acknowledgements and Rejects.
6	AvgPx	Y	Average price of quantity so far traded on this order (zero if no trade)
11	ClOrdID	Y	The current *ClOrdID* identifier of the order, or the *ClOrdID* of the request that is being accepted
14	CumQty	Y	Cumulative quantity so far traded on this order (zero if no trade)
15	Currency	N	Currency in which the security is traded
17	ExecID	Y	Unique ID for the trading day for this Execution Report Corresponds to the TVTIC (RTS 24 Art.12 & RTS 22 Field 3 Table 2). Please note, for the purposes of transaction reporting the letter prefix (e.g. 'B' or 'S') should be removed from the unique ID and only the numeric code reported
19	ExecRefID	N	Sent for a trade bust (*ExecTransType* = 1) to identify the earlier Execution Report for the trade
22	IDSource	N	As provided on the original order
30	LastMkt	N	Provides the Aquis Stock Exchange MIC for the execution: NEXL – Equity Main Board NEXD – Non-Equity Main Board NEXT – Equity MTF Trading NEXN – Non-Equity MTF Trading NEXG – Equity Growth Market NEXF – Non-Equity Growth Market
31	LastPx	Y	Price of this trade (zero if not a trade)
32	LastShares	Y	Quantity of this trade (zero if not a trade)
37	OrderID	Y	Aquis order reference number
38	OrderQty	Y	Quantity of the order

39	OrdStatus	Y	Status of the order, values sent by Aquis:
			  0 = New
			  1 = Partially Filled

Tag	Field Name	Req'd	Comments
			2 = Filled 4 = Cancelled 5 = Replaced 8 = Rejected C = Expired
40	OrdType	N	As provided on the original order
41	OrigClOrdID	N	ClOrdID of the order that is being cancelled or replaced (for solicited cancel or replace responses only)
44	Price	N	Limit price, if provided on the original order
528	OrderCapacity	N	As provided on the original order
48	SecurityID	N	As provided on the original order
54	Side	Y	As provided on the original order
55	Symbol	Y	Uniform symbology code for the security
58	Text	N	To provide error text in case of a reject message or cancellation reason if a resting order is force cancelled
59	TimeInForce	N	As provided on the original order
60	TransactTime	Y	Time of this event in UTC
126	ExpireTime	N	As provided on the original order
150	ExecType	Y	Reason for this report, values sent by Aquis: 0 = New 4 = Cancelled 5 = Replaced 8 = Rejected C = Expired D = Restated F = Trade
151	LeavesQty	Y	Quantity still open for execution
198	SecondaryOrderID	N	The Aquis market data order ID for tracking purposes
207	SecurityExchange	N	As provided on the original order
375	ContraBroker	N	Only provided on trade reports, the identifier of the CCP unless a CCP-suppressed 'self-trade' where the value is set to 'SELF'
382	NoContraBrokers	N	Only provided on trade reports, if present value will = 1
851	LastLiquidityInd	N	Only provided on trade reports, values sent by Aquis: 1 = Added liquidity 2 = Removed liquidity 4 = Auction (for AoD trades)

7.7.1 Auction on Demand (AoD)

Members can enter buy/sell orders for stocks which will rest on the AQSE AoD order book until they can be matched with another valid order on the other side. At this stage the auction is triggered.

Orders in the AoD cannot be modified (i.e. using cancel/replace) - only cancelled and subsequently replaced with a New Order Single, if required

Once an AoD comes to an end trade reports are then sent to the Member for successful matches. Note that these Execution Report messages carry *LastLiquidityInd* (851) = 4 (Auction).

7.8 Order Cancel Reject

Aquis rejects an Order Cancel Request or an Order Cancel/Replace Request that it cannot act upon with a FIX Order Cancel Reject message.

The fields and values provided by Aquis are detailed below:

Tag	Field Name	Req'd	Comments
	Standard Header	Y	*MsgType* (35) = 9
11	ClOrdID	Y	The *ClOrdID* of the request that is being rejected
37	OrderID	Y	Aquis order reference number. If an unknown order, value will be 0
39	OrdStatus	Y	Status of the order that failed to be cancelled or replaced If an unknown order, value will be set to 8 (Rejected)
41	OrigClOrdID	Y	The ClOrdID that could not be cancelled or replaced.
44	Price	N	Limit price, if provided on the original order
58	Text	N	To provide a reason for the reject
434	CxlRejResponseTo	Y	The type of request that this is a response to: 1 = Order Cancel Request 2 = Order Cancel/Replace Request