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## **DOCUMENT HISTORY**

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0.2	13 Sep. 2010	FBO, BA Team, NYSE Euronext IT	Added Spread and Yield fields in application messages D, G and 8.	Draft
0.4	24 Sep. 2010	FBO, BA Team, NYSE Euronext IT	Removed Spread and Yield fields from input messages D and G.	Draft
0.5	27 Sep. 2010	FBO, BA Team, NYSE Euronext IT	Specified that some fields in messages D and G are not ignored, but forbidden for this trading platform.	Draft
1.0	1 Oct. 2010	FBO, BA Team, NYSE Euronext IT	Cosmetic changes. Finalization after internal review and official platform name availability.	Deliverable



## **PREFACE**

#### **Document Purpose**

This document sets out the message specifications for the Common Customer Gateway (CCG), based on the Financial Information Exchange (FIX) v4.2 protocol. More specifically, it describes the contents of the CCG's message headers and trailers, the contents of the administrative (or session) messages and application messages, and provides detailed field descriptions.

This document is not intended as a guide in how to build a FIX client solution.

#### **Associated Documents**

The following associated documents should either be read in conjunction with this document or provide other relevant information for the user:

- Official FIX 4.2 Specifications: "fix-42-with\_errata\_20010501.doc"
- CCG binary message specifications

### **Navigation Used Within This Document**

Hyperlinks let you navigate sections of the document, as well as between tag definitions and field descriptions.

- Click the hyperlinks in administrative or application messages to view field descriptions.
- $\bullet$  To return to the hyperlink, press [ALT] + [  $\leftarrow$  ] (the back/left/previous arrow).
- $\bullet\ \ \,$  To follow a chain of messages or fields, click another hyperlink.µ

#### **Conventions Used Within This Document**

A right handed arrow ( $\rightarrow$ ) in an indented column in a message table indicates a field used in a repeating data group.

295	NoQuoteEntries	Number of entries in the Quotes repeating group	✓	Int	3	1150	106
<b>→</b> 55	Symbol	Instrument identifier	✓	String	12	Alphanumericat. ISIN format.	118
<b>→</b> 132	BidPx	Bid price	+	Price	10	Price	88
<b>→</b> 133	OfferPx	Offer price	+	Price	10	Price	107
<b>→</b> 135	OfferSize	Quantity of offer	0	Qty	9	Quantity	107
	Message Trailer		1				

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## 1 SESSION MANAGEMENT

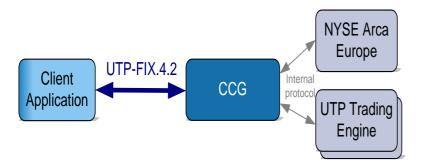
UTP-FIX.4.2 is a protocol allowing a client, or firm, to communicate with the Trading Platform.

As UTP-FIX.4.2 protocol is derived from FIX 4.2 - and FIX 4.4 regarding the Logon management -, this document assumes the reader thoroughly understands the FIX 4.2 and FIX 4.4 protocols available at http://www.fixprotocol.org/. This document is not intended as a guide in how to build a FIX client solution.

#### 1.1 ARCHITECTURE

The CCG is the equipment hosting the UTP-FIX.4.2 interface.

The UTP-FIX.4.2 interface uses TCP/IP sockets. Each client connection sends messages to its assigned IP and port. The CCG then routes the messages to the appropriate trading platform.



An inbound message is a message sent by the client application and received by the CCG.

An outbound message is a message sent by the CCG and received by the client application.

## **2 ORDER MANAGEMENT**

Several entities and notions are involved in the sending of orders from clients to trading platforms, in the identification of these orders, and in the constraints associated with the identification of these orders. They are introduced hereunder.

#### 2.1 CLIENT ORDER IDENTIFIER

Each order sent by a client has a reference identifier associated with it. This information is contained in the ClOrdID field in the messages sent or received by the client or the trading platform.

#### 2.2 FIRM IDENTIFIER

Each client has a Firm Identifier, which is the reference identifier for the client, "Firm" being the term used for "Client of Exchange". This information is contained in the OnBehalfOfCompID (in Client requests messages) and DeliverToCompID

(in Trading Platform responses messages) fields in the messages sent or received by the client or the trading platform.

#### 2.3 FIRM ACCESS TYPES

A Firm Access allows the Firm to access the Trading Platform. The 2 different Firm Access types, which can both be used by a given Firm, are Regular Access and Service Bureau Access, as described below:

• Regular Access: when a firm contracts directly its own and exclusive order entry access means with NYSE Euronext, the Firm Trading Solution type is called Regular Access (or sometimes Direct Access).

• Service Bureau Access: when a 3<sup>rd</sup> party customer, also named Service Bureau, contracts order entry access means with NYSE Euronext to act as an order carrier on behalf of several firms, the Firm Trading Solution type is called Service Bureau Access.

Note: The term "Firm Trading Solution type" can also be used instead of Firm Access type. The term "Direct access" can also be used instead of "Regular Access".

Important note: there are 2 types of Service Bureau, depending on if they generate ClOrdID or not, or in other words if they just transmit the ClOrdID values directly generated by the Firm on behalf of which the Service Bureau sends messages, or not. If a Service Bureau doesn't generate ClOrdIDs and just transmits them, it is called a "Pass Through" Service Bureau, can be assimilated to a Regular Access Trading Solution type, and must therefore feature the Regular Access ClOrdID format presented in next sections. The firms, on behalf of which a "Pass Through" Service Bureau sends messages, are required to generate ClOrdID in the same manner as for Regular Access, as described in next sections.

#### 2.4 FIRM ACCESS CONNECTIONS

A Firm Access can establish connections to the Trading Platform by logging onto CCG using the logon process (see also Session Management). These Firm Access connections are established by applications, also called Firm Trading Applications as described in the next section, each of which can establish several connections.

#### 2.5 FIRM TRADING APPLICATION INSTANCES

A given Firm can have several Firm Trading Application Instances. A Firm Trading Application is an application allowing a Firm to trade (i.e. to send orders, to receive trade notices, etc.). Firm Trading Application instances may be independent from each other, and each one:

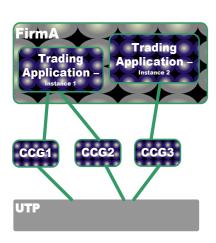
• can use different software solutions ("In-House" or a "Software vendors").

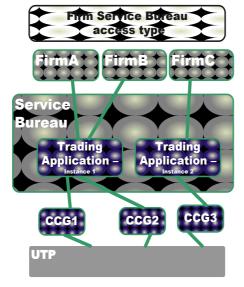
- manages its own pool of CCG connections.
- can run in different branches of the same firm.

# 2.6 FIRM ACCESS/TRADING APPLICATIONS/CONNECTIONS ARCHITECTURE OVERVIEW

An overview of the architecture of the set of the entities presented in previous sections is given below, according to the Firm Access type.







#### 2.7 CLORDID UNIQUENESS - FORMAT OVERVIEW

The ClOrdID value assigned to any given order must be unique for the Firm across all available connections for the current trading day. This constraint also applies to any orders placed on a previous trading day that still remain on the order book. As an example, the ClOrdID assigned to a GTC or GTD order not fully executed on the day of its entry and not yet cancelled cannot be used for a new order placed on a subsequent day.

Remark: This applies to the following requests: New Order (D) and Order Cancel/Replace Request (G) where ClOrdlD is used as an order reference identifier. But uniqueness doesn't apply to Order Cancel Request (F), where ClOrdlD is used as a reference for the request and is optional.

To ensure for a given Firm that there is no conflict between Regular Access and Service Bureau Access, the exchange has put in place a "mandatory prefix policy" for Service Bureau Access (see Section Mandatory prefix: Service Bureau vs Regular Access for details).

The exchange also highly recommends an optional "instance prefix policy" for all Firms (regardless of the access type used) to ensure that there is no conflict between multiple Trading Solution or Connection instances within the Firm (see Recommended Instance prefix for details).

The **ClOrdID** length is 30 characters.

**Note:** ClOrdID format also applies for Warrant bulk quotes. However, unlike orders for which retransmitted orders will be rejected, duplicates won't be checked for retransmitted bulk quotes by the Exchange. Therefore, customer connections must not retransmit any bulk quotes following a disconnection. Please refer also to the CCG HA availability section.

## 2.8 MANDATORY PREFIX: SERVICE BUREAU VS REGULAR ACCESS

Clients are required to implement available ranges according to the following general rules:



- Regular Access must not start any ClOrdID value with the '-' character.
- Service Bureau Access:
  - Must start all ClordID values with the '-' character.

#### **AND**

The next three characters must be populated with the unique 3-digit number assigned to the Service Bureau by the exchange.

#### 2.9 RECOMMENDED INSTANCE PREFIX

It is recommended that "In-house" and "Software Vendors" developers implement a configurable prefix in order to allow Firms to easily integrate several application instances to ensure ClOrdID uniqueness across the Firm's orders.

The exchange recommends that a 2-character prefix is used (must be numerical if Firm requires UTP-Direct vs UTP-FIX.4.2 compatibility – see also section 2.11). This prefix should be placed in the following locations within the ClOrdID value, depending on access type:

 Regular Access: The 2 leading characters, keeping in mind the "mandatory prefix policy" constraint detailed in Mandatory prefix: Service Bureau vs Regular Access section. Service Bureau Access: The next 2 characters after the mandatory '-'
character and the 3-character Service Bureau prefix (see also
Mandatory prefix: Service Bureau vs Regular Access section).

"Software Vendors" and "In-house" developers must be able to extend the instance prefix size for a firm which has more instances than the available 2-character prefix combinations can cover.

## 2.10 APPLICATION INSTANCE CLORDID AVAILABLE RANGE OVERVIEW

An overview of the ClOrdID value available range, in ASCII format, for a Firm Application Instance, according to the Firm Access type is presented below.

Reminder: UTP-FIX4.2 admissible ascii values are:

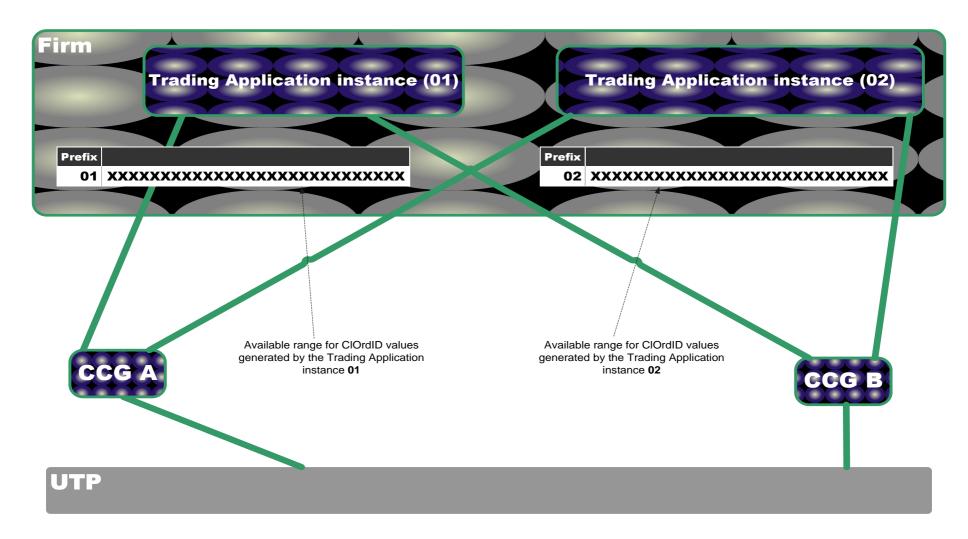
0..9 a..z A..Z "#\$&()-./:;<=>@[]^\_`#{} blank.

In this section:

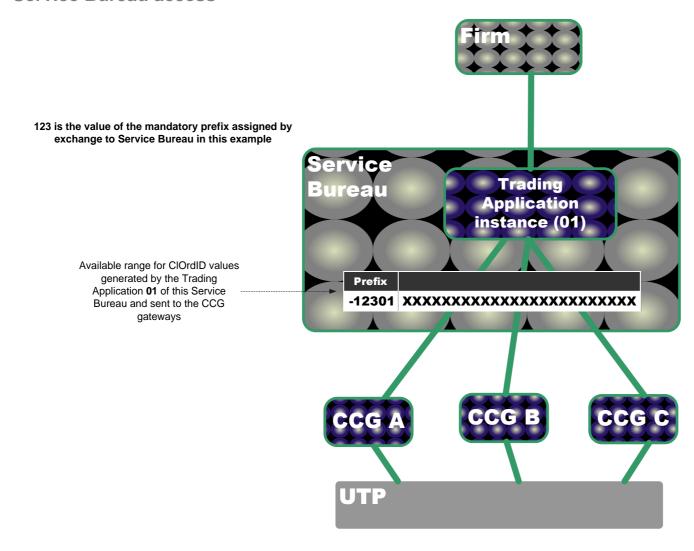
2 equals the Firm Application Instances prefix sizes and **01** and **02** the 2 values associated with the 2 instances.

123 is the Service bureau mandatory prefix.

### 2.10.1.1 Regular access



#### 2.10.1.2 Service Bureau access



## 2.11 UTP-FIX.4.2 VS UTP-DIRECT COMPATIBILITY

As UTP-Direct can only handle numerical ClientOrderID values, clients needing to ensure UTP-FIX.4.2 / UTP-Direct compatibility must restrict the range of ClientOrderID values used in the UTP-FIX.4.2 protocol to numerical values only, in a range that is compatible with the UTP-Direct protocol.

An order entered through a UTP-FIX.4.2 connection with non-numerical characters in its ClientOrderID value cannot be modified or cancelled through a UTP-Direct connection and the associated order trade notices cannot be received through a UTP-Direct drop-copy connection.

#### 2.12 KINEMATICS

In the present section, Execution Report (8) with signature = xyz means that Execution Report (8) carries Tag 150=x, Tag 20=y, Tag 39=z. For more details about signature, please refer to the section Execution Report message Signature Tags within Execution Report (8) paragraph.

Responses are either Execution Report (8) message with specific signature or Order Cancel Reject (9).

In the case of acknowledgement messages, the ClOrdID field sends back the value provided within the firm request.

In case of acknowledgement of a firm's cancel/replace or cancel request, the OrigClOrdID field identifies the order concerned by the request.

In case of replacement notices sent by the trading engine (Execution Report (8) message with signature = 501 or 505), the ClOrdID and OrderID fields identify the new order.

In case of cancellation notices (as a response to an Order Cancel Request (F)) sent by the trading engine (Execution Report (8) message with signature = 404), the OrigClOrdID and OrderID fields identify the cancelled order.

In case of elimination notices sent by the trading engine (Execution Report (8) message with signature = 404), for example a GTT order eliminated at its expiration time, the ClOrdID and OrderID fields identify the eliminated order.

If the case of a reject message, an Execution Report (8) message (with signature = 808) or an Order Cancel Reject (9) message is sent back, providing the client order ID of the request in the ClOrdID field, and the original client order ID in the OrigClOrdID field.

#### 2.13 CREATING AN ORDER

The firm creates an order using the New Order (D) request.

If the new order request is accepted, the trading engine answers with an Execution Report (8) message. This message contains the OrderID field that should be used for subsequent requests regarding the created order (cancel/replace, cancel).



If the new order request is rejected, the trading engine answers with an Execution Report (8) with a specific signature and rejection reason.



Note: a new order request may be acknowledged (Execution Report (8) message), then rejected (Execution Report (8) message with signature = 808) for collar crossing.

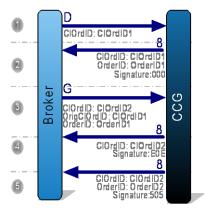
## 2.13.1 Replacing an Order

The firm replaces an existing order using the Cancel/Replace Order (G) message. This request enables any valid attribute of a live order to be changed (i.e. reduce or increase quantity, change limit price, change instructions, etc.).

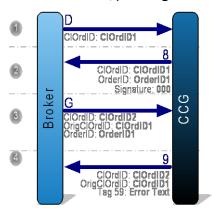
Any attribute of the original order must be repeated as is in the cancel/replace request, unless this attribute is to be modified.

The OrderID field or the OrigClOrdID field identifies which order to replace. Using OrderID is recommended (for better performance), and in this case OrigClOrdID is not taken into account even if, for FIX standard compliancy, it must be provided. Using OrderID is optional when replacing an order, however, and if not provided, the order is then identified by the OrigClOrdID field (see "2.14-Confirming an Order" for the only functional case where, in the Cancel/Replace Order (G) message, both OrderID and OrigClOrdID must be provided and are taken into account).

If the Cancel/Replace request is accepted, the trading engine answers with two Execution Report (8) messages. The first one acknowledges the request, and holds the information associated with the modified order, and the second one indicates the successful process, and holds the information associated with the modifying order (new order created after modification):



 If the Cancel/Replace request is rejected, an Order Cancel Reject (9) message is sent back instead, providing the reason for the rejection.



**Note**: a cancel/replace request may be acknowledged (Execution Report (8) message with signature = E0E), then rejected (Order Cancel Reject (9) message) for collar crossing.

#### **Order Quantity**

To increase or decrease an order quantity, the firm must specify the new total quantity (whatever the already executed quantity of the order to replace).

Example: new order 1 with a total quantity  $Q_{tot1}$ =1000 is executed for 700, hence its remaining quantity  $Q_{rem1}$  is 300.

If the new total quantity is strictly greater than the difference between the original total quantity and the remaining quantity, the Cancel/Replace request is accepted.

In the example above, order 1 is then replaced by a new order 2 with a total quantity  $Q_{tot2}$  of 800, hence the quantity of order 2 is:

$$Q_{rem2} = Q_{rem1} - (Q_{tot1} - Q_{tot2}) = 300 - (1000 - 200) = 100.$$

If the new total quantity is less than or equal to the difference between the original total quantity and the remaining quantity, the Cancel/Replace request is rejected.

In the example above, if the firm attempts to replace order 1 with a new order 2 with a total quantity  $Q_{tot2}$  of 500, the request is rejected as:

$$Q_{rem1}$$
 -  $(Q_{tot1}$ - $Q_{tot2})$  = 300 -  $(1000$ -500) <= 0.

#### 2.14 CONFIRMING AN ORDER

New Order (D) and Cancel/Replace Order (G) messages both contain the ConfirmFlag field. This indicator is used in two situations:

#### **Order Size Confirmation**

If the order exceeds the amount (equities) or total quantity (bonds) predefined at the class level, it is rejected and needs to be entered once again with the confirmation indicator set (however, firms may choose to avoid rejects for confirmation by systematically setting the confirmation indicator to new order requests in the first place).

#### **Collar Crossing Confirmation**

If a new order can be executed upon entry, but the matching price hits a collar, the remaining quantity of that order is rejected.

However a firm can force the collar crossing by reactivating the rejected order within a short time period using a Cancel/Replace Order (G) with the same price and quantity and the confirmation indicator set. Collars are therefore adjusted around the hit collar before the confirmed order is processed.

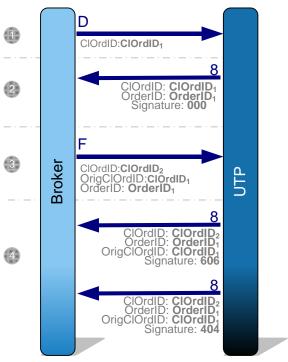
In that situation, the firm must provide both the OrigClOrdID and OrderID fields in the Cancel/Replace Order (G) message.

#### 2.15 CANCELLING AN ORDER

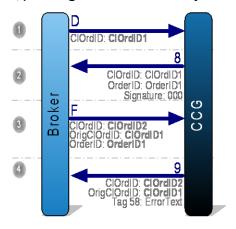
A firm may cancel the remaining quantity of a live order using the Order Cancel Request (F) message.

The OrderID field or the OrigClOrdID field identifies which order to cancel. Using OrderID is recommended (for better performance), and in this case OrigClOrdID is not taken into account even if, for FIX standard compliancy, it must be provided. Using OrderID is optional when cancelling an order, however, and if not provided, the order is then identified by the OrigClOrdID field.

If the Cancel request is accepted, the trading engine always answers this firm request with an Execution Report (8) message (with signature = 606). Then, if the order cancellation is committed, an Execution Report (8) message (with signature = 404) message is sent back.



 If the Cancel request is rejected, an Order Cancel Reject (9) message is sent back instead, providing the reason for the rejection.



#### 2.16 CANCELLING SEVERAL ORDERS

A firm may cancel the remaining quantity of several live orders using the Erreur! Source du renvoi introuvable. message. The following conditions must be met:

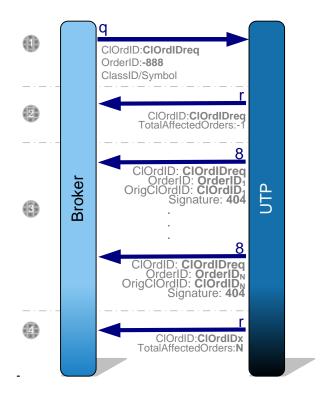
- Either the ClassID field or the Symbol field must be populated;
- Optional additional criteria may be specified with the <u>CancelByLocationID</u>, <u>Side</u>, <u>TechnicalOrdType</u> and <u>Rule80A</u> fields. If no optional criteria are specified, all remaining orders of the issuing firm are cancelled for the populated ClassID or Symbol.

#### **Important Note:**

 If CancelByLocationID criteria are not specified, all remaining orders of all connections of the issuing firm, are cancelled for the populated ClassID or Symbol along with the other additional criteria. Following a valid Mass Cancel request, the UTP trading engine will send the following messages:

- A first message Erreur! Source du renvoi introuvable., sent back to the connection that issued the Mass Cancel request;
- One message 8 "Order Mass Cancel Request (q) responses" for each order cancelled, sent to the connection that owns the order;
- A second and final message Erreur! Source du renvoi introuvable., sent back to the connection that issued the Mass Cancel request.

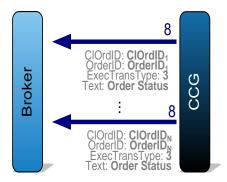
Please refer to the Erreur! Source du renvoi introuvable. message for further details.



#### 2.17 ORDER BOOK RETRANSMISSION

For Exchange Disaster Recovery scenario purposes, Order Book Retransmission consists of retransmitting all orders present in the central orderbook for a given firm as follow:

Execution Report (8) messages (with ExecTransType = 3) will be sent to related client connection, one for each order in the book.



#### Notes:

- To request an order book retransmission, a firm must contact the Market Desk.
- Clients working with several firms will need to contact the Market Desk to apply for retransmission requests for all relevant firm identifiers.

Firms who applied for Order Book Retransmission must empty their local order book of any remaining orders in order to receive the incoming data with a clean sheet.

## 3 MESSAGE HEADER & TRAILER

The general format of a CCG message is a standard header, followed by the message body fields and ending with a standard trailer.

This section describes the standard header and trailer of the private (or directed) messages used to communicate with the Common Customer Gateway (CCG) application, which provides access to members to the Universal Trading Platform in its cash market versions (including Regulated Market, NYSE Arca Europe, Warrants, SmartPool and TCS).

#### **Field Formats**

A FIX message is composed of a collection of "<Field tag>=<Field value>" format. Every FIX field has an associated data type that limits the possible values for the characters used to fill this field.

#### According to Fix4.2, all Tags must have a value specified.

The table below provides the mapping for the types specified in the 'Type' column of message tables - described in chapters 1, 2, 3 in this document - and the official FIX types described in the official FIX 4.2 specifications document "fix-42-with errata 20010501.doc".

Туре	Len	FIX type
Char	1	char
String	N (> 1)	String
Bool	1	Boolean
Int	N	int
Qty	N	Qty
Price	N	Price
Float	N	Float
PrOff	N	PriceOffset
TmSt	17	UTCTimestamp. UTC is also known as GMT. Format is YYYYMMDD-HH:MM:SS

Туре	Len	FIX type
Date	8	UTCDate. UTC is also known as GMT. Format is YYYYMMDD

#### **Type column - Alphanumerical fields**

- Are shown with a blue background.
- Authorised characters are the following ones: 0...9 a...z A...Z " # \$ & () + -. , /:; < = >@[]^\_`~{}

#### **Type column - Numerical fields**

- · Are shown with a white background.
- Although binary data exist in FIX protocol (notion of raw data used by fields with FIX type 'data'), such data are not used in the FIX messages for UTP.
   Numerical fields are expressed in ASCII characters "0" – "9".

#### Len column

- When a value is provided (e.g. 1 or 17), it indicates that the field value must have the exact length indicated.
- When N is used, it indicates that related FIX type has no defined length according to FIX specifications (e.g. String or Price types). However, a value is usually provided in the message tables, indicating the maximum length of the field value according to UTP (value may actually be shorter).

Please read the official FIX 4.2 specifications document (chapter FIX MESSAGE FORMAT AND DELIVERY, section Data Types) for further details.

#### 3.1 Message Header

#### **Message Fields**

✓ Always required / + Conditionally required / o Optional / I Ignored

Tag	Field	Description	Req	Туре	Len	Values	Pg
8	BeginString	Beginning of message identifier	✓	String	7	FIX.4.2	50
9	BodyLength	Message Length	1	Int	5	Integer	50
35	MsgType	Message type	<b>✓</b>	String	2	Administrative messages: A, 0, 1, 2, 3, 4, 5 Inbound application messages: D, F, G, H, q, UI, UD, UT, UF, Up Outbound application messages: 8, 9, h, j, r, UJ, Uy, Ua, U8, Ut	61
34	MsgSeqNum	Message Sequence Number	✓	Int	15	Sequential	61
49	SenderCompID	Identifier of the message sender (Firm ID or Service Bureau ID in Inbound messages)	✓	String	11	Inbound: Firm ID (agreed upon clearing value) Outbound: 'EURONEXT'	67
56	TargetCompID	Identifier of the message receptor (Firm ID or Service Bureau ID in Outbound messages	<b>✓</b>	String	11	Inbound 'EURONEXT' Outbound: Firm ID (agreed upon clearing value)	69
115	OnBehalfOfCompID	Identifier of the Firm to which the order belongs (Inbound messages)	+	String	11	Firm ID (agreed upon clearing value)	62
128	DeliverToCompID	Identifier of the Firm to which the order belongs (Application Outbound messages	+	String	11	Firm ID (agreed upon clearing value)	55
142	SenderLocationID	Firm's Front-end server ID	+	String	11	Firm's Front-end server ID (agreed with Exchange)	67
52	SendingTime	Time of message transmission	✓	TmSt	17	YYYYMMDD-hh:mm:ss	67

Tag	Field	Description	Req	Туре	Len		Values	Pg
43	PossDupFlag	Message possible retransmission indicator	0	Bool	1	Y N	Possible duplicate Original transmission	65
97	PossResend	Indicator of message containing information already sent	0	Bool	1	Y N	Possible resend Original transmission	65

#### **Header Usage**

The header identifies the type, length, destination, sequence number, time and point of origin of each CCG-FIX.4.2 message.

Origin and destination information of a message is held by the SenderCompID, TargetCompID, OnBehalfOfCompID and DeliverToCompID fields, whose usage differs according to the message direction (outbound or inbound).

Two fields help with the resending of messages. PossDupFlag is set to Y when resending a message as the result of a session level event (i.e. the retransmission of a message reusing a sequence number). PossResend is set to Y when reissuing a message with a new sequence number (e.g. resending an order). The receiving application should process these messages as follows:

- PossDupFlag if a message with this sequence number has been previously received, ignore the message; if not, process normally.
- PossResend forward the message to the application and determine if previously received (i.e. verify order ID and parameters).

#### 3.2 Message Trailer

#### **Message Fields**

✓ Always required / + Conditionally required / o Optional / I Ignored

Tag	Field	Description	Req	Туре	Len	Values	Pg	
10	CheckSum	CheckSum	✓	String	3	Numerical	51	

#### **Trailer Usage**

The trailer is used to segregate messages and contains the three-digit character representation of the checksum value.

## **4 ADMINISTRATIVE MESSAGES**

With the exception of Reject (3) which is only an outbound message, administrative messages are both inbound and outbound messages. These messages are Logon (A), Heartbeat (0), Test Request (1), Resend Request (2), Sequence Reset (4) and Logout (5).

## 4.1 LOGON (A)

#### **Message Fields**

✓ Always required / + Conditionally required / o Optional / I Ignored / F Forbidden

Tag	Field	Description	Req	Туре	Len	Values	Pg
	Message HEADER		✓			A Logon	18
98	EncryptMethod	Method of encryption	<b>1</b>	Int	1	None / Other	55
108	HeartBtInt	Heartbeat interval	$\checkmark$	Int	5	Numerical	58
141	ResetSeqNumFlag	Sequence numbers reset flag	0	Bool	1	Y Yes, reset sequence numbers N No reset	66
789	NextExpectedMsgS eqNum	Next Expected Message Sequence Number	+	Int	15	Integer (15)	61
	Message TRAILER		✓				18

#### **Message Usage**

The issuer of this message can be either the client application or the  $\ensuremath{\mathsf{CCG}}.$ 

This message is used to establish a CCG-FIX.4.2 session logon.

## **4.2 HEARTBEAT (0)**

#### **Message Fields**

✓ Always required / + Conditionally required / o Optional / I Ignored / F Forbidder

Tag	Field	Description	Req	Туре	Len	Values	Pg
	Message HEADER		<b>✓</b>			0 Heartbeat	18
112	TestReqID	Test request message identifier	+	String	24	Numerical	69
	Message TRAILER		<b>✓</b>				18

#### **Message Usage**

The issuer of this message can be either the client application or the CCG.

The Heartbeat message monitors the status of the communication link during periods of inactivity. The HeartBtInt field of the Logon message is used to declare at logon the timeout interval for generating heartbeats. If HeartBtInt is set to zero then no regular heartbeat messages are generated.

When either end of the connection has not sent any data for <HeartBtInt value> seconds, it transmits a Heartbeat message. When either end of the connection has not received any data for [<HeartBtInt value> + "some reasonable transmission time"] seconds, it transmits a Test Request (1) message.

If there is still no Heartbeat message received after [<HeartBtInt value> + "some reasonable transmission time"] seconds then the connection must be considered lost.

On the CCG side, "some reasonable transmission time" is set to 5 seconds.

Note that a Test Request (1) message can be sent independently of the HeartBtInt value, which forces a Heartbeat message. Heartbeats issued as the result of sending a Test Request (1) message must contain the TestReqID value transmitted in the Test Request (1) message. This is used to verify that the Heartbeat is the result of the Test Request and not the result of a regular timeout.

## 4.3 TEST REQUEST (1)

#### **Message Fields**

✓ Always required / + Conditionally required / o Optional / I Ignored / F Forbidden

Tag	Field	Description	Req	Туре	Len	Values	Pg
	Message HEADER		<b>✓</b>			1 Test Request	18
112	TestReqID	Test request message identifier	+	String	24	Numerical	69
	Message TRAILER		✓				18

#### **Message Usage**

The issuer of this message can be either the client application or the CCG.

This message forces a Heartbeat (0) message from the opposite side. The test request message checks the sequence numbers or verifies the status of the communication line.

The opposite application responds to the Test Request with a Heartbeat (0) message containing the TestReqID. The TestReqID is used to verify that the opposite application is generating the Heartbeat (0) as the result of a Test Request and not the result of a normal timeout.

Any string can be used as the TestReqID.

## 4.4 RESEND REQUEST (2)

#### **Message Fields**

✓ Always required / + Conditionally required / o Optional / I Ignored / F Forbidden

Tag	Field	Description	Req	Туре	Len	Values	Pg
	Message HEADER		✓			2 Resend Request	18
7	BeginSeqNo	Sequence number beginning of messages to be resent	✓	Int	15	Integer	50

Tag	Field	Description	Req	Туре	Len	Values	Pg
16	EndSeqNo	Sequence number ending of messages to be resent	✓	Int	15	Integer	55
	Message TRAILER		✓				18

#### **Message Usage**

The issuer of this message is either the client application or the CCG.

This message is sent by the receiving application to initiate the retransmission of messages.

This function is used when a gap in the sequence numbers is detected, if the receiving application loses a message, or as a function of the initialisation process.

The resend request is used to request a single message, a range of messages, or all messages subsequent to a particular message:

- To request a single message: BeginSeqNo = EndSeqNo.
- To request a range of messages: BeginSeqNo = first message of range, EndSeqNo = last message of range.
- To request all messages subsequent to a particular message: BeginSeqNo = first message of range, EndSeqNo = 0 (represents infinity).

In all messages that are sent as the result of a Resend Request, the PossDupFlag field must be set to Y. Messages lacking the PossDupFlag field or with PossDupFlag set to N are treated as original transmissions.

Upon receipt of a Resend Request, the resending application responds in one of three ways. It can:

- Retransmit the requested messages (in order) with the original sequence numbers and PossDupFlag set to Y.
- Issue a message with the PossDupFlag set to Y to replace the retransmission of Administrative or Application messages.
- Combine these two possibilities.

## 4.5 REJECT (3)

#### **Message Fields**

✓ Always provided / + Conditionally provided / o Optionally provided / I Not provided

Tag	Field	Description	Req	Туре	Len	Values	Pg
	Message HEADER		<b>✓</b>			3 Reject	18
45	RefSeqNum	Reference sequence number of the message rejected	✓			3 Reject	66
371	RefTagID	Field tag reference	0	Int	15	Integer	66
372	RefMsgType	Message type reference	0	Int	5	Integer	65
373	SessionRejectReas on	Session reject reason code	0	String	2	Value received in the rejected inbound message, if any.	67
58	Text	Request status or error text	0	Int	2	<ul> <li>Invalid tag number</li> <li>Required tag missing</li> <li>Tag not defined for this message type</li> <li>Undefined Tag</li> <li>Tag specified without a value</li> <li>Value is incorrect (out of range) for this tag</li> <li>Incorrect data format for value</li> <li>Decryption problem</li> <li>Signature problem</li> <li>CompID problem</li> <li>SendingTime accuracy problem</li> <li>Invalid MsgType</li> </ul>	70
	Message TRAILER		✓	String	10	Alphanumerical	18

#### **Message Usage**

The issuer of this message can only be the CCG, which generates the message as per FIX.4.2 specifications.

If the CCG receives this message from the client application, it sends a Logout (5) message.

## 4.6 SEQUENCE RESET (4)

#### **Message Fields**

✓ Always required / + Conditionally required / o Optional / I Ignored / F Forbidder

Tag	Field	Description	Req	Туре	Len	Values	Pg
	Message HEADER		<b>✓</b>			4 Reset	18
123	GapFillFlag	Sequence Reset mode indicator	+	Bool	1	Y Gap Fill message, MsgSeqNum field valid N Sequence Reset, ignore MsgSeqNum	58
36	NewSeqNo	New Sequence Number	$\checkmark$	Int	15	Integer (15)	61
	Message TRAILER		✓				18

#### **Message Usage**

The issuer of this message can either be the client application or the CCG. This message can be sent in two modes according to the GapFillFlag value: the GapFill mode if GapFillFlag =  $\mathbf{N}$  or if GapFillFlag is not present. However:

- This message is not used by the CCG in Reset mode.
- This message, if received from a client by the CCG and in Reset mode, is not accepted, and the CCG responds with a Logout (5) message.
- The Sequence Reset message can be used in the following situations:
  - During normal resend processing, the sending application may choose not to send a message (e.g. an aged order). The Sequence Reset can be used to mark the place of that message.
  - During normal resend processing, a number of administrative messages are not resent; the Sequence Reset message is used to fill the sequence gap created.

#### In both cases:

• GapFillFlag must be set to Y.



- PossDupFlagmust be set to Y.
- MsgSeqNum must conform to standard message sequencing rules (i.e. the MsgSeqNum of the SequenceReset-GapFill message must represent the beginning MsgSeqNum in the GapFill range because the remote side is expecting that as the next message).

## 4.7 LOGOUT (5)

#### **Message Fields**

✓ Always required / + Conditionally required / o Optional / I Ignored / F Forbidden

Tag	Field	Description	Req	Туре	Len	Values	Pg
	Message HEADER		<b>✓</b>			5 Logout	18
58	Text	Request status or error text	0	String	100	Alphanumerical	70
	Message TRAILER		<b>✓</b>				18

#### **Message Usage**

This message is used to initiate and confirm a nominal termination of a CCG-FIX.4.2 session. A session disconnection without exchange of these messages is interpreted as an abnormal condition.

## **5 APPLICATION MESSAGES**

Application messages are inbound (requests sent by members to CCG) or outbound (responses and unsolicited messages sent by CCG to members), not both. Supported inbound application messages are as follows:

- New Order Single (D);
- Order Cancel Request (F);
- Order Mass Cancel Request (q);
- Order Cancel/Replace Request (G);
- Order Status Request (H) (Future Use);
- Price Input (UI).

Supported outbound application messages are as follows:

- Execution Report (8);
- Order Cancel Reject (9);
- Order Mass Cancel Report (r);
- Trading Session Status (h);
- Business Message Reject (j);
- Request Ack Message (Uy).

## 5.1 New Order Single (D)

#### **Message Fields**

✓ Always required / + Conditionally required / o Optional / I Ignored / F Forbidden

Tag	Field	Description	Req	Туре	Len	Values	Pg
	Message HEADER		✓			D New Order – Single	18
11	ClOrdID	Client Order Identifier	$\checkmark$	String	30	Any	53

Tag	Field	Description	Req	Туре	Len	Values	Pg
55	Symbol	Instrument identifier	✓	String	12	Alphanumericat. ISIN format.	68
54	Side	Order Side	<b>✓</b>	Char	1	1 Buy 2 Sell 8 Cross	67
40	OrdType	Order Type	✓	Char	1	1 Market 2 Limit	64
59	TimeInForce	Time in Force Validity	0	Char	1	<ul> <li>0 Day</li> <li>3 IOC (Immediate Or Cancel)</li> <li>4 FOK (Fill Or Kill)</li> <li>6 GTD (Good Till Time)</li> </ul>	70
18	Execlnst	Execution Instruction	+	Char	1	blank None G All or None X Cross	56
44	Price	Price	+	Price	10	Price	65
99	StopPx	Not used, forbidden	F	Price	10		
38	OrderQty	Total Order Quantity	$\checkmark$	Qty	9	Quantity	63
110	MinQty	Minimum Quantity	+	Qty	9	Quantity	60
111	MaxFloor	Not used, forbidden	F	Qty	9		
126	ExpireTime	Expiration Time	+	TmSt	17	YYYYMMDD-hh:mm:ss	57
432	ExpireDate	Not used, forbidden	F	Date	8		
388	DiscretionInst	Not used, forbidden	F	Char	1		
389	DiscretionOffset	Not used, forbidden	F	PrOff	10		
211	PegDifference	Not used, forbidden	F	PrOff	10		
60	TransactTime	Transaction Time	I	TmSt	17	YYYYMMDD-hh:mm:ss	71
21	Handlinst	structions for order handling on Broker trading floor	1	Char	1	Automated execution order, private     Automated execution order, public     Manual order, best execution	5 {
9941	TechnicalOrdType	Order Technical Origin	0	Char	1	<ul> <li>I Index trading arbitrage</li> <li>P Portfolio strategy</li> <li>G Unwind order</li> <li>A Other orders</li> <li>C Cross margining</li> </ul>	69
9930	ConfirmFlag	Confirmation Indicator	0	Char	1	<ul><li>0 Not confirmed (default)</li><li>1 Confirmed</li></ul>	54
9932	Routing	Not used, forbidden	F	Char	1		
9949	MIC	Market Identification Code	0	String	4	ISO 10383 standard	60
15	Currency	Currency code	0	String	3	ISO 4217 standard	54



Tag		Field	Description	Req	Туре	Len	Values	Pg
9933	No	ClearingEntries	Number of entries in the Clearing Data repeating group	<b>✓</b>	Int	1	1 or 2	62
<b>→</b> 47		Rule80A	Order Origin	<b>✓</b>	Char	1	1 Client 2 House 6 Liquidity Provider 7 Related Party	66
<b>→</b> 1		Account	Client Account Number	0	String	12	Any	50
<b>→</b> 10:	9	ClientID	Client Identifier	0	String	8	Any	52
<b>→</b> 99:	52	FreeText	Free Text	0	String	18	Any	58
<b>→</b> 43	9	ClearingFirm	Give-up Firm Identifier	0	String	8	Firm ID (agreed upon clearing value)	52
<b>→</b> 77		OpenClose	Posting Action	0	Char	1	O Open C Close	63
→993	38	ClearingHandli ngType	Clearing Operation Mode	0	Char	1	0 Manual mode 1 Automatic extraction 2 Automatic allocation	52
386	NoT	radingSessions	Number of entries in the TradingSessionID repeating group	0	Int	1	1, 2 or 3	62
<b>→</b> 3	36	TradingSessio nID	Trading Session Identifier	+	String	3	<ol> <li>Early session</li> <li>Core session</li> <li>Late session</li> <li>Early and Core sessions</li> <li>Early and Late sessions</li> <li>Core and Late sessions</li> <li>All sessions</li> </ol>	70
	Mes	sage TRAILER		✓				18

#### **Message Usage**

The New Order Single message is used to create a new order.

The following fields constitute the clearing date information: Rule80A, Account, ClearingFirm, ClientID, FreeText, OpenClose and ClearingHandlingType. For a cross order NoClearingEntries must be set to '2' and two sets of clearing data must be used to provide the buyer and seller counterpart clearing information: the first set for buyer and the second set for seller.

#### **Conditionally Required Fields**

Please refer to the Combinations section for specific conditions concerning the Price, StopPx, MinQty, MaxFloor, DiscretionOffset, and PegDifference fields.

## **5.2 ORDER CANCEL REQUEST (F)**

#### **Message Fields**

✓ Always required / + Conditionally required / o Optional / I Ignored / F Forbidden

Tag	Field	Description	Req	Туре	Len	Values	Pg
	Message HEADER		✓			F Order Cancel Request	18
37	OrderID	Engine Order Identifier	0	String	24	Alphanumerical	63
11	ClOrdID	Client Order Identifier	$\checkmark$	String	30	Any	53
41	OrigClOrdID	Original Client Order Identifier	✓	String	30	ClOrdID of the order to be modified / cancelled	64
55	Symbol	Instrument identifier	✓	String	12	Alphanumericat. ISIN format.	68
38	OrderQty	Total Order Quantity	- 1	Qty	9	Quantity	63
60	TransactTime	Transaction Time	- 1	TmSt	17	YYYYMMDD-hh:mm:ss	71
9949	MIC	Market Identification Code	0	String	4	ISO 10383 standard	60
15	Currency	Currency code	0	String	3	ISO 4217 standard	54
	Message TRAILER		✓				18

#### **Message Usage**

The Order Cancel Request message requests the cancellation of the entire remaining quantity of an existing order.

The OrderID values -777 and -888 are forbidden and rejected with the appropriate message Business Message Reject (j) with BusinessRejectReason set to 0 and text = "Invalid value tag OrderID (37)". These values are reserved to manage internal network disconnection.

#### Important Note

If a Broker wants its orders to be automatically cancelled on a network disconnection (SLE or CCG disconnection), it has to be duly declared in the relevant table managed by the CCG administrator.

When an Automated Bulk Cancellation due to network disconnection is performed, the cancellation involves only orders entered on the current day. All still active orders, entered the previous days, remain in the order book.

## 5.3 ORDER MASS CANCEL REQUEST (Q)

#### **Message Fields**

✓ Always required / + Conditionally required / o Optional / I Ignored / F Forbidden

Tag	Field	Description	Req	Туре	Len	Values	Pg
	Message HEADER		<b>✓</b>			q Order Mass Cancel Request	18
11	ClOrdID	Client Order Identifier	0	String	30	Any	53
55	Symbol	Instrument identifier	+	String	12	Alphanumericat. ISIN format.	68
9945	ClassID	Class Identifier	+	String	2	Any	51
530	MassCancelReque stType	Specifies if a mass cancellation criteria is requested	I	Char	1	<ul> <li>7 Cancel all orders belonging to the specified ClassID or Symbol</li> <li>8 Cancel orders matching the specified criteria</li> </ul>	60
54	Side	Order Side	+	Char	1	1 Buy 2 Sell	67
9941	TechnicalOrdType	Order Technical Origin	+	Char	1	I Index trading arbitrage P Portfolio strategy G Unwind order A Other orders C Cross margining	69
47	Rule80A	Order Origin	+	Char	1	1 Client 2 House 6 Liquidity Provider 7 Related Party	66

Tag	Field	Description	Req	Туре	Len	Values	Pg
1	Account	Client Account Number	1	String	12	Any	50
9960	CancelByLocationI D	Identifier of the Issuing Agency whose orders are to be cancelled	+	String	11	SenderLocationID value	51
60	TransactTime	Transaction Time	- 1	TmSt	17	YYYYMMDD-hh:mm:ss	71
	Message TRAILER		✓				18

#### **Message Usage**

The Order Mass Cancel Request message requests the cancellation of the entire remaining quantity of a group of orders that match criteria within the request. The Order Mass Cancellation function is also called Bulk Cancel. The following conditions must be met:

- Either the ClassID field or the Symbol field must be populated;
- Optional additional criteria are specified with the CancelByLocationID, Side, TechnicalOrdType and Rule80A fields. If no optional criteria are specified, all remaining orders of the issuing firm are cancelled for the populated ClassID or Symbol.

## 5.4 ORDER CANCEL/REPLACE REQUEST (G)

#### **Message Fields**

✓ Always required / + Conditionally required / o Optional / I Ignored / F Forbidden

Tag	Field	Description	Req	Туре	Len	Values	Pg
	Message HEADER		<b>✓</b>			G Order Cancel/Replace Request	18
37	OrderID	Engine Order Identifier	0	String	24	Alphanumerical	63
11	ClOrdID	Client Order Identifier	$\checkmark$	String	30	Any	53
41	OrigClOrdID	Original Client Order Identifier	✓	String	30	ClOrdID of the order to be modified / cancelled	64
55	Symbol	Instrument identifier	<b>✓</b>	String	12	Alphanumericat. ISIN format.	68

Tag	Field	Description	Req	Туре	Len	Values	Pg
54	Side	Order Side	<b>✓</b>	Char	1	1 Buy 2 Sell	67
40	OrdType	Order Type	✓	Char	1	<ul><li>1 Market</li><li>2 Limit</li></ul>	64
59	TimeInForce	Time in Force Validity	0	Char	1	<ul> <li>0 Day</li> <li>3 IOC (Immediate Or Cancel)</li> <li>4 FOK (Fill Or Kill)</li> <li>6 GTD (Good Till Time)</li> </ul>	70
18	ExecInst	Execution Instruction	+	Char	1	blank None G All or None X Cross	56
44	Price	Price	+	Price	10	Price	65
99	StopPx	Not used, forbidden	F	Price	10		
38	OrderQty	Total Order Quantity	$\checkmark$	Qty	9	Quantity	63
111	MaxFloor	Not used, forbidden	F	Qty	9		
126	ExpireTime	Expiration Time	+	TmSt	17	YYYYMMDD-hh:mm:ss	57
432	ExpireDate	Not used, forbidden	F	Date	8		
388	DiscretionInst	Not used, forbidden	F	Char	1		
389	DiscretionOffset	Not used, forbidden	F	PrOff	10		
211	PegDifference	Not used, forbidden	F	PrOff	10		
21	Handlinst	Instructions for order handling on Broker trading floor	ı	Char	1	Automated execution order, private     Automated execution order, public     Manual order, best execution	58
60	TransactTime	Transaction Time	1	TmSt	17	YYYYMMDD-hh:mm:ss	71
9941	TechnicalOrdTyp e	Order Technical Origin	0	Char	1	I Index trading arbitrage P Portfolio strategy G Unwind order A Other orders C Cross margining	69
9930	ConfirmFlag	Confirmation Indicator	0	Char	1	Not confirmed (default)     Confirmed	54
47	Rule80A	Order Origin	<b>✓</b>	Char	1	1 Client 2 House 6 Liquidity Provider 7 Related Party	66
1	Account	Client Account Number	0	String	12	Any	50

Ta	ag	Field	Description	Req	Туре	Len	Values	Pg
10	)9	ClientID	Client Identifier	0	String	8	Any	52
99	52	FreeText	Free Text	0	String	18	Any	58
43	39	ClearingFirm	Give-up Firm Identifier	0	String	8	Firm ID (agreed upon clearing value)	52
7	7	OpenClose	Posting Action	0	Char	1	O Open C Close	63
99	38	ClearingHandling Type	Clearing Operation Mode	0	Char	1	<ul> <li>Manual mode</li> <li>Automatic</li> <li>extraction</li> <li>Automatic</li> <li>allocation</li> </ul>	52
99	49	MIC	Market Identification Code	0	String	4	ISO 10383 standard	60
1	5	Currency	Currency code	0	String	3	ISO 4217 standard	54
38	36	NoTradingSessio ns	Number of entries in the TradingSessionID repeating group	0	Int	1	1, 2 or 3	62
+	<b>→</b> 33	6 TradingSes sionID	Trading Session Identifier	0	String	3	1 Early session 2 Core session 3 Late session 12 Early and Core sessions 13 Early and Late sessions 23 Core and Late sessions 123 All sessions	70
Message TRAILER			✓				18	

#### **Message Usage**

The Cancel/Replace request is used in two situations:

- Changing any valid attribute of an open order (i.e. reduce or increase quantity, change limit price, change instructions, etc.). However, this message is not used to cancel the remaining quantity of an outstanding order (use Cancel Order (F) message for this purpose).
- Confirming a new order that can be executed upon entry, but whose matching price hits a collar (in that case, the remaining quantity of that order is rejected).

## 5.5 ORDER STATUS REQUEST (H)

#### **Message Fields**

✓ Always required / + Conditionally required / o Optional / I Ignored / F Forbidden

Tag	Field	Description	Req	Туре	Len	Values	Pg
	Message HEADER		✓			H Order Status Request	18
37	OrderID	Engine Order Identifier	+	String	24	Alphanumerical	63
11	ClOrdID	Client Order Identifier	+	String	30	Any	53
55	Symbol	Instrument identifier	✓	String	12	Alphanumericat. ISIN format.	68
54	Side	Order Side	1	Char	1	1 Buy 2 Sell	67
9956	FilterOnGatewayID	Gateway filter	0	String	11	Gateway ID (agreed with Exchange)	58
9957	FilterOnLocationID	Firm's Front-end server filter	0	String	11	Firm's Front-end server ID (agreed with Exchange)	57
9949	MIC	Market Identification Code	0	String	4	ISO 10383 standard	60
15	Currency	Currency code	0	String	3	ISO 4217 standard	54
	Message TRAILER		✓				18

#### **Message Usage**

#### For future use; this message is not currently supported.

The Order Status request is used by a Firm to retrieve order(s) by receiving Order Status Request (H) status response message(s) back from the trading system; this request may also be used to change the routing information, i.e. the Firm's Frontend server (SenderLocationID) and the gateway (CCG) IDs associated to the retransmitted order(s) (order location migration).

The different possible requests allowed by this message are:

 Simply retransmit one order without location migration. The order is routed using the routing information hold by the order, even if they differ from those of the Order Status request. This is done by setting the OrderID or the ClOrdID field in the request (if OrderID is valuated, ClOrdID is ignored) and not populating the FilterGatewayID and FilterOnLocationID fields.

 Simply retransmit a filtered set of orders without location migration. The orders are routed using the routing information hold by the orders, even if they differ from those of the Order Status request.

This is done by setting the OrderID to -888 in the request and by using the FilterGatewayID and/or FilterOnLocationID as filters to select orders to be retransmitted.

- Migrate one order to a new location. The order is updated and routed using the FilterGatewayID and FilterOnLocationID fields hold in the Order Status request. This is done by populating the OrderID or the ClOrdID field in the request (if OrderID is valued, ClOrdID is ignored), and by using the FilterGatewayID and/or FilterOnLocationID fields. When FilterOnLocationID is populated with the SenderLocationID that issued the order, this one is migrated to the SenderLocationID that issued the Order Status request. When FilterGatewayID is populated with the CCG ID that issued the order, the order is migrated to the the CCG ID that issued the Order Status request.
- Migrate a filtered set of orders to a new location. The orders are updated and routed using the FilterGatewayID and/or FilterOnLocationID fields hold in the Order Status request (not yet implemented).

This is done by setting the the OrderID to -999 in the request, and by using the FilterGatewayID and/or FilterOnLocationID fields. When FilterOnLocationID is populated, all orders filtered on this value are retransmitted and migrated to the SenderLocationID that issued the Order Status request. When FilterGatewayID is populated, all orders filtered on this value are retransmitted and migrated to the CCG ID that issued the Order Status request (not yet implemented).

## 5.6 PRICE INPUT (UI)

#### **Message Fields**

✓ Always required / + Conditionally required / o Optional / I Ignored / F Forbidden

Tag	Field	Description	Req	Туре	Len	Values	Pg
	Message HEADER		✓			UI Price Input	18
11	ClOrdID	Client Order Identifier	+	String	30	Any	53
55	Symbol	Instrument identifier	✓	String	12	Alphanumericat. ISIN format.	68

Tag	Field	Description	Req	Туре	Len	Values	Pg
44	Price	Price	+	Price	10	Price	65
9950	InputPxType	Input Price Type	<b>✓</b>	Char	1	V Valuation trade A Alternative Indicative Price (AIP)	59
9949	MIC	Market Identification Code	0	String	4	ISO 10383 standard	60
15	Currency	Currency code	0	String	3	ISO 4217 standard	54
	Message TRAILER		✓				18

#### **Message Usage**

This message is used to inject prices into the trading engine or to update the reference price of an instrument with either a valuation price or an external price from a primary market.

The trading engine acknowledges the request by sending back a Request Ack Message (Uy) message.

The type of price is specified in the InputPxType field:

- If set to **V** (Valuation Trade), a public Execution Report message is broadcast to market participants for one lot size either at the price provided in the message or at the reference price, depending on the instrument class configuration.
  - Also depending on instrument class configuration, a public Price Output message may be broadcast.
- If set to **A** (Alternative Indicative Price), the instrument's reference price is updated with the price provided in the message and a public Price Output message is broadcast with the new reference price.

## 5.7 EXECUTION REPORT (8)

#### **Message Fields**

✓ Always provided / + Conditionally provided / o Optional / I Not propvided

Tag	Field	Description	Req	Туре	Len	Values	Pg
	Message HEADER		✓			8 Execution Report	18

Tag	Field	Description	Req	Туре	Len	Values	Pg
11	ClOrdID	Client Order Identifier	+	String	30	Any	53
41	OrigClOrdID	Original Client Order Identifier	+	String	30	ClOrdID of the order to be modified / cancelled	64
37	OrderID	Engine Order Identifier	+	String	24	Alphanumerical	63
17	ExecID	Execution Report Identifier	✓	String	24	Numerical. Sequential	56
20	ExecTransType	Transaction Type	✓	Char	1	<ul><li>New</li><li>Cancel</li><li>Correct (future use)</li><li>Status</li></ul>	57
60	TransactTime	Transaction Time	$\checkmark$	TmSt	17	YYYYMMDD-hh:mm:ss	71
103	OrdRejReason	Order Rejection Reason	+	Int	1	<ul> <li>Broker option</li> <li>Unknown symbol</li> <li>Exchange closed</li> <li>Order exceeds limit</li> <li>Too late to enter</li> <li>Unknown Order</li> <li>Duplicate Order</li> <li>Duplicate of a verbally communicated order</li> <li>Stale Order</li> </ul>	64
39	OrdStatus	Order Status	<b>✓</b>	Char	1	<ol> <li>New</li> <li>Partially filled</li> <li>Filled</li> <li>Done for Day</li> <li>Cancelled</li> <li>Replaced</li> <li>Pending Cancel</li> <li>Rejected</li> <li>Expired</li> <li>Pending Replace</li> <li>Cancelled by Market</li> <li>Operation</li> <li>Eliminated by</li> <li>corporate event</li> </ol>	64

Tag	Field	Description	Req	Туре	Len	Values	Pg
150	ExecType	Execution Type	<b>✓</b>	Char	1	0 New 1 Partially filled 2 Filled 3 Done for Day 4 Cancelled 5 Replaced 6 Pending Cancel 8 Rejected C Expired E Pending Replace G Trade Creation by Market Operation S Cancelled by Market Operation O Eliminated by corporate event	57
19	ExecRefID	Trade Reference Identifier by day for all instruments	+	String	24	Alphanumerical	56
31	LastPx	Price of Fill	+	Price	10	Price	59
32	LastShares	Quantity of Fill	+	Qty	9	Quantity	59
6	AvgPx	Average Price of Fills	$\checkmark$	Price	10	Price	50
55	Symbol	Instrument identifier	+	String	12	Alphanumericat. ISIN format.	68
54	Side	Order Side	+	Char	1	1 Buy 2 Sell	67
40	OrdType	Order Type	+	Char	1	1 Market 2 Limit	64
59	TimeInForce	Time in Force Validity	+	Char	1	<ul> <li>0 Day</li> <li>3 IOC (Immediate Or Cancel)</li> <li>4 FOK (Fill Or Kill)</li> <li>6 GTD (Good Till Time)</li> </ul>	70
126	ExpireTime	Expiration Time	+	TmSt	17	YYYYMMDD-hh:mm:ss	57
432	ExpireDate	Not used	+	Date	8		
18	Execlnst	Execution Instruction	+	Char	1	blank None G All or None X Cross	56
44	Price	Price	+	Price	10	Price	65
99	StopPx	Not used	+	Price	10		
38	OrderQty	Total Order Quantity	+	Qty	9	Quantity	63
151	LeavesQty	Leaves Quantity	✓	Qty	9	Quantity	59
14	CumQty	Cumulated Quantity	<b>✓</b>	Qty	9	Quantity	54

Tag	Field	Description	Req	Туре	Len	Values	Pg
388	DiscretionInst	Not used	+	Char	1		
389	DiscretionOffset	Not used	+	PrOff	10		
211	PegDifference	Not used	+	PrOff	10		
9941	TechnicalOrdType	Order Technical Origin	+	Char	1	I Index trading arbitrage P Portfolio strategy G Unwind order A Other orders C Cross margining	69
47	Rule80A	Order Origin	+	Char	1	1 Client 2 House 6 Liquidity Provider 7 Related Party	66
1	Account	Client Account Number	+	String	12	Any	50
109	ClientID	Client Identifier	+	String	8	Any	52
9952	FreeText	Free Text	+	String	18	Any	58
439	ClearingFirm	Give-up Firm Identifier	+	String	8	Firm ID (agreed upon clearing value)	52
77	OpenClose	Posting Action	0	Char	1	O Open C Close	63
9938	ClearingHandlingTy pe	Clearing Operation Mode	+	Char	1	<ul><li>Manual mode</li><li>Automatic extraction</li><li>Automatic allocation</li></ul>	52
9731	UTPExID	Trade Reference Identifier by day for a given instrument	+	Int	24	1▶999999999	71
9730	LiquidityIndicator	Effect Indicator on Liquidity	+	Char	1	A Add liquidity R Remove liquidity, or Cross order X Routed (future use) O Opening trade or Trade creation by MO	60
336	TradingSessionID	Trading Session Identifier	ı	String	3	1 Early session 2 Core session 3 Late session 12 Early and Core sessions 13 Early and Late sessions 23 Core and Late sessions 123 All sessions	70

Tag	Field	Description	Req	Туре	Len	Values	Pg
9955	ErrorCode	Error code	+	Int	5	Numerical	56
58	Text	Request status or error text	<b>✓</b>	String	100	Alphanumerical	70
382	NoContraBrokers	Number of entries in the ContraBrokers repeating group	+	Int	1	1	62
<b>→</b> 37	ContraBroker	ID of the counterpart firm in case of internal matching	+	String	11	Firm ID (agreed upon clearing value)	54
9962	CollarRejType	Type of collar hit in case of rejection	+	Char	1	<ul><li>H High collar</li><li>L Low collar</li></ul>	54
9963	CollarRejPx	Price of collar hit in case of rejection	+	Price	10	Price	53
549	CrossType	Not used	+	Char	1		
111	MaxFloor	Not used	+	Qty	9		
9949	MIC	Market Identification Code	+	String	4	ISO 10383 standard	60
15	Currency	Currency code	+	String	3	ISO 4217 standard	54
236	Yield	Yield Yo Maturity	+	Price	10	Price	72
218	Spread	Bond spread	+	Price	10	Price	68
	Message TRAILER		✓				18

#### **Message Usage**

The Execution Report message is used to:

- · Respond to:
  - A New Order Single (D) request when the request is accepted and the order created. In this case the Execution Report message is referred to as the "New Order (D) request creation response".
  - A New Order Single (D) request when the request is rejected. In this case the Execution Report message is referred to as the "New Order (D) request rejection response".

Note

If the term "New Order (D) request responses" is used, it refers to the Execution Reports in both cases.

• An Order Cancel/Replace Request (G) when the request is accepted and the modified order cancelled then the modifying order created. In this case two Execution Report messages are successively sent. The 1<sup>st</sup> one is referred to as the "Order Cancel/Replace Request (G) pending response". It indicates that the Order Cancellation/Replacement is being processed and holds information associated with the order to be modified. The 2<sup>nd</sup> one is referred to as the "Order Cancel/Replace Request (G) replaced response". It indicates that the Order Cancellation/Replacement is done and holds information associated with the new order.

#### Notes

If the term "Order Cancel/Replace Request (G) responses" is used, it refers to both the "pending" and "replaced" Execution Reports described above.

When an Order Cancel/Replace Request (G) is rejected, an Order Cancel Reject (9) message is sent.

An Order Cancel Request (F) when the request is accepted and the order cancelled. In this case two Execution Reports messages are successively sent. The 1<sup>st</sup> one is referred to as the "Order Cancel Request (F) pending response". It indicates that the Order Cancellation is being processed. The 2<sup>nd</sup> one is referred to as the "Order Cancel Request (F) cancelled response". It indicates that the Order Cancellation is done.

#### Notes

If the term "Order Cancel Request (F) responses" is used, it refers to both the "pending" and "cancelled" Execution Reports described above.

When an Order Cancel Request (F) is rejected, an Order Cancel Reject (9) message is sent.

 An Order Mass Cancel Request (q) when the request is accepted and the orders cancelled. In this case one Execution Report message is sent for each cancelled order. They are referred to as the "Order Mass Cancel Request (q) responses".

#### **Notes**

In the case of an Order Mass Cancel Request (q) following a CCG disconnection, the ClOrdId field is not filled in the Execution Report (8) message. The reference of the order cancelled in the Execution Report (8) message is contained in the OrigClOrdId field.

When an Order Cancel Request (F) is rejected, an Order Cancel Reject (9) message is sent.

- An Order Status Request (H) request when the request is accepted and the status of the order is sent. In this case the Execution Report message is referred to as the "Order Status Request (H) status response".
- An Order Status Request (H) request when the request is rejected. In this
  case the Execution Report message is referred to as the "Order Status
  Request (H) rejection response".

#### Note

If the term "Order Status Request (H) response" is used, it refers to both the "status" and "rejection" Execution Reports described above.

- Relay unsolicited order status information reports in case:
  - An order has been created by the Trading Desk. In this case the Execution Report message is referred to as the "<u>Trading Desk order creation report</u>".
  - An order has been executed (partially filled or filled). In this case the
    Execution Report message is referred to as the "Order partial fill execution
    report" in case of partial order execution, or the "Order fill execution report"
    in case of full order execution.

#### Note

If the term "Order execution reports" is used, it refers to both the "partial fill execution" and "fill execution" Execution Reports described above.

- An order has expired. In this case the Execution Report message is referred to as the "Order expiration report".
- An order book retransmission in case of disaster recovery is underway. In this case the Execution Report is referred to as the <u>Order Book</u> <u>Retransmission reports</u>".

 An order has been rejected for collars. In this case the Execution Report message is referred to as the "Order collar rejection reports".

#### Note

When an order is rejected for collars, before this rejection it is first created or modified -at least-, can also be partially filled, and the rejection for collars always immediately follows these "before rejection" events. When the term "Order collar rejection reports" is used, it includes the associated Execution Reports to these events.

- Of trading desk Trade Creation. In this case the Execution Report messages (one for each order of the trade created) are referred to as the "Trade creation reports".
- Of trading desk Trade Cancellation. In this case the Execution Report messages (one for each order of the trade cancelled) are referred to as the "Trade cancellation reports".

#### Note

if the term "<u>Unsolicited reports</u>" is used, it refers to all the Execution Reports described in this "Relay unsolicited order status information reports" section.

#### Notion of "Order information reports"

Each of these different Execution Report sending cases provides, among all fields listed in the Execution Report message description, only some of them and not the same ones according to the case (for example Trade cancellation reports report information linked to orders having been executed and whose execution is cancelled, but not all the information reported in Order execution reports linked to the same orders when they had been executed). Most of these Execution Report sending cases can be grouped in a "higher-level case", the "Order information reports" case. It is often referenced, in section Field Descriptions (p.47), for the fields identified as used in the Execution Report message, to specify their "Condition" part, as it includes Execution Report sending cases reporting commonly held information, depending on the "order" mentioned in the group name "Order execution reports".

This "Order information reports" is constituted of:

- New Order (D) request creation response: in this case, the "order" is the one that is created.
- Order Cancel/Replace Request (G) responses: in this case, the "orders" are firstly the order being requested to be modified but not yet modified, and secondly the modifying order.
- Order Cancel Request (F) responses: in this case, the "order" is the cancelled order.
- Trading Desk order creation report: in this case, the "order" is the one being created.
- Order execution reports; in this case, the "order" is the one being executed.
- Order expiration report: in this case, the "order" is the one that has expired.
- Trade creation reports: in this case, the "orders" are the two orders executed in this trade.
- Only the New Order (D) request rejection response and Trade cancellation reports are not included in the Order information reports Execution Reports group.

Each execution report contains three fields which are used to communicate both the current state of the order as understood by the broker and the purpose of the message: OrdStatus, ExecType and ExecTransType.

In an execution report the OrdStatus is used to convey the current state of the order. If an order simultaneously exists in more than one order state, the value with highest precedence is the value that is reported in this field. Table 1 provides order status sorted by precedence.

Table 1: Order Status

Precedence	Order Status	Description
8	Pending Cancel	Order with a Cancel Order (F) request pending, used to confirm receipt of an Order Cancel Request. Does not indicate that the order has been canceled.
7	Pending Replace	Order with a Cancel/Replace Order (G) request pending, used to confirm receipt of an Order Cancel/Replace Request. <u>Does not indicate that the order has been replaced.</u>
6	Done for Day	Order not, or partially, filled; no further executions forthcoming for the trading day.
5	Filled	Order completely filled (no remaining quantity).
4	Cancelled	Cancelled order with or without executions.

Precedence	Order Status	Description			
4	Expired	Order has been canceled in broker's system due to time in force instructions.			
3	Partially filled	Outstanding order with executions and remaining quantity.			
2	Replaced	Replaced order with or without executions.			
1	New	Outstanding order with no executions.			
1	Rejected	Order has been rejected by broker.  Note: An order can be rejected subsequent to order acknowledgment, i.e. an order can pass from New to Rejected status.			

The ExecType is used to identify the purpose of the Execution Report message. To transmit a change in OrdStatus for an order, the Trading Engine sends an Execution Report with the new OrdStatus value in both the ExecType and the OrdStatus fields to signify this message is changing the state of the order. The only exception to this rule is that when rejecting a Cancel Order (F) or Cancel/Replace Order (G) request the Cancel Reject (9) message is used both to reject the request and to communicate the current OrdStatus. An ExecType of Pending Cancel or Pending Replace is used to indicate that a cancel or cancel/replace request is being processed. An ExecType of Cancelled or Replace is used to indicate that the cancel or cancel/replace request has been successfully processed.

Any fills which occur and need to be communicated to the customer while an order is "pending" and waiting to achieve a new state (i.e. via an Cancel/Replace Order (G) request) contains the "original" (current order prior to state change request) order parameters (i.e. ClOrdID, OrderQty, Price, etc). These fills will cause the CumQty and AvgPx to be updated. An order cannot be considered replaced until it has been explicitly accepted and confirmed to have reached the replaced status via an execution report with ExecType=Replace, at which time the effect of the replacement (ClOrdID, new quantity or limit price, etc.) will be seen. Note that due to the precedence rules above, in reports where ExecType=Replace, OrdStatus may not be Replaced. For example, for an order first partially filled and then replaced, in the Execution Report where ExecType=Replace, OrdStatus is Partially filled.

Requests to cancel or cancel/replace an order are only acted upon when there is an outstanding order quantity. Requests to replace the OrderQty to a level less than the CumQty will be rejected by the Trading Engine. Requests to modify a filled order will be rejected. The OrderQty, CumQty, LeavesQty and AvgPx fields should be calculated to reflect the cumulative result of all versions of an order. For example, if partially filled order A were replaced by order B, the OrderQty, CumQty,

LeavesQty and AvgPx on order B's fills should represent the cumulative result of order A plus those on order B.

The general rule is: The OrderQty=CumQty+LeavesQty.

There can be exceptions to this rule when ExecType and/or OrdStatus are Cancelled, DoneForTheDay (e.g. on a day order), Expired, or Rejected in which case the order is no longer active and LeavesQty could be 0.

Execution report messages are transmitted with a transaction type (ExecTransType) Not Trade Cancellation, Trade Cancellation or Status. Transaction type Trade Cancellation modifies the state of the message identified in field ExecRefID, and is used to cancel a previously reported execution.

- The Not Trade Cancellation transaction type indicates that this message represents a new order, a change in status of the order, or a new fill against an existing order. The combination of the ExecTransType, ExecType and OrdStatus fields will indicate how the message is to be applied to an order.
- The *Trade Cancellation* transaction type applies at the execution level. The *Trade Cancellation* transaction will be used to cancel an execution which has been reported in error. The cancelled execution will be identified in the ExecRefID field.

 The Status transaction type indicates that this message just reports the status of an order.

#### **Execution Report Message Signature Tags**

As described in the previous section, the Execution Report (8) message can be sent in several different situations. The table below allows you to identify what the exact situation was that led to the sending of the message, and what exactly is being reported by the message.

The second column describes the general sending cases described in the previous "Message Usage" section.

The third column describes sub-cases of the previous general cases.

The fourth column reminds the associated designations, given in this document, of the general sending cases.

The next columns give the values of fields allowing you to identify the cases described by means of Tags 150, 20 and 39. In a given line, the signature of the described "General Execution Report sending case" or "sub-case" is the set of Fields/Values combinations in green in the line.

Sending Case ID	General Execution Report sending cases  Description of the general message sending cases. An  Execution Report is sent	Sub-cases Description of particular sub-cases of general cases described in 1st column.	General case associated designation in current document	ExecType [150]	ExecTransType [20]	OrdStatus [39]	Text [58]
1	in response to a New Order Single (D)request received and accepted, to report this order creation, or to report an order creation by the Trading Desk.	I	New Order (D) request creation response Or Trading Desk order creation report	0	0	0	New order
2	in response to a New Order Single (D) request received and rejected, to report the order rejection.	The sub-cases of this general case are all the possible errors on a New Order request -> see "UTP for Equities - Error List" document for their specification	New Order (D) request rejection response	8	0	8	Depending on rejection reason -> see "UTP for Equities - Error List"
3	in 1st response to an Order Cancel/Replace Request (G) received and accepted, to report the acceptation of the request and the pending modification.	I	Order Cancel/Replace Request (G) pending response	E	0	E	Cancel/Replace pending
4	in 2 <sup>nd</sup> response to an Order Cancel/Replace Request (G) received and accepted, to report the order modification.	Sub-cases ↓	Order Cancel/Replace Request (G) replaced response	5	0	Depending on sub-case	Replaced

Sending Case ID	General Execution Report sending cases  Description of the general message sending cases. An  Execution Report is sent	Sub-cases Description of particular sub-cases of general cases described in 1st column.	General case associated designation in current document	ExecType [150]	ExecTransType [20]	OrdStatus [39]	Text [58]
4.1	Sub-case →	Order partially filled, then modified.		5	0	1	Replaced
4.2	Sub-case →	Order, whose status is not Partial Fill, modified.		5	0	5	Replaced
5	in response to an Order Cancel Request (F) sent from a member and accepted, to report the acceptation of the request and the pending cancellation.	I	Order Cancel Request (F) pending response	6	0	6	Cancel pending
6	in response to an Order Cancel Request (F) received and accepted, to report the order cancellation.	Sub-cases ↓	Order Cancel Request (F) cancelled response	4	0	Depending on sub-case	Depending on sub-case ↓
6.1	Sub-case →	The cancel request is a request sent from a member		4	0	4	Cancelled by User
6.2	Sub-case →	The cancel request is a request sent from the Trading Desk		4	0	S	Cancelled by Trading Desk
7	in response to an Order Mass Cancel Request (q) received and accepted, to report the order rejection.	Sub-cases ↓	Order Mass Cancel Request (q) responses	4	0	Depending on sub-case	Depending on sub-case ↓
7.1	Sub-case →	The mass cancel request is a request sent from a member		4	0	4	Cancel Bulk
7.2	Sub-case →	The mass cancel request is a request sent from the Trading Desk		4	0	s	Canceled by Trading Desk
8	to report an order execution.	Sub-cases ↓	Order execution reports	Depending on sub-case ↓	0	Depending on sub-case ↓	Depending on sub-case ↓
8.1	Sub-case →	Order partial execution		1	0	1	Partial Fill
8.2	Sub-case →	Order full execution		2	0	2	Fill
9	to report an order expiration or automatic cancellation.	Sub-cases ↓	Order expiration report	Depending on sub-case ↓	0	Depending on sub-case ↓	Depending on sub-case ↓

Sending Case ID	General Execution Report sending cases  Description of the general message sending cases. An  Execution Report is sent	Sub-cases Description of particular sub-cases of general cases described in 1st column.	General case associated designation in current document	ExecType [150]	ExecTransType [20]	OrdStatus [39]	Text [58]
9.1	Sub-case →	Order expired (VFA/VFC order eliminated at the end of the auction, GTT/GTD order eliminated at its expiration time/date, etc)		3	0	3	Depending on sub-sub-cases
9.2	Sub-case →	IOC order partially filled then cancelled at its entry		4	0	4	Expire remaining IOC
9.3	Sub-case →	Order eliminated by a Corporate Event		0	0	0	Cancelled due to OST
9.4	Sub-case →	Order eliminated at PS		С	0	С	Depending on sub-sub-cases
10	to report a trade creation by the Trading Desk.	1	Trade creation reports	G	0	2	Fill
11	to report a trade cancellation by the Trading Desk.	Sub-cases ↓	Trade cancellation reports	2	1	Depending on sub-case ↓	Trade break
11.1	Sub-case →	Order partially filled, then the trade leading to this order execution is cancelled.		2	1	1	Trade break
11.2	Sub-case →	Order filled, then the trade leading to this order execution is cancelled.		2	1	2	Trade break
11.3	Sub-case →	VFA or VFC order partially filled at auction, then cancelled, then the trade leading to this order execution is cancelled.		2	1	3	Trade break
11.4	Sub-case →	IOC order partially filled then cancelled at its entry, then the trade leading to this order execution is cancelled.		2	1	4	Trade break
11.5	Sub-case →	Order partially filled, then modified, then the trade leading to the order partial fill execution is cancelled.		2	1	5	Trade break
11.6	Sub-case →	Order partially filled then rejected for collars at its entry, then the trade leading to this order execution is cancelled.		2	1	8	Trade break

Sending Case ID	General Execution Report sending cases  Description of the general message sending cases. An  Execution Report is sent	<u>Sub-cases</u> Description of particular sub-cases of general cases described in 1st column.	General case associated designation in current document	ExecType [150]	ExecTransType [20]	OrdStatus [39]	Text [58]
12	to report an order retransmission	<i>Sub-cases</i> ↓	Order execution reports	Depending on sub-case ↓	3	Depending on sub-case ↓	Depending on sub-case ↓
12.1	Sub-case →	Order without any execution		0	3	0	Order Status
12.2	Sub-case →	Order partially filled		1	3	1	Order Status

## 5.8 ORDER CANCEL REJECT (9)

#### **Message Fields**

✓ Always provided / + Conditionally provided / o Optional / I Not provided

Tag	Field	Description	Req	Туре	Len	Values	Pg
	Message HEADER		✓			9 Cancel Reject	18
11	ClOrdID	Client Order Identifier	+	String	30	Any	53
41	OrigClOrdID	Original Client Order Identifier	+	String	30	ClOrdID of the order to be modified / cancelled	64
37	OrderID	Engine Order Identifier	+	String	24	Alphanumerical	63
55	Symbol	Instrument identifier	<b>✓</b>	String	12	Alphanumericat. ISIN format.	68
18	ExecInst	Execution Instruction	I	Char	1	blank None G All or None X Cross	56
39	OrdStatus	Order Status	<b>✓</b>	Char	1	<ol> <li>New</li> <li>Partially filled</li> <li>Filled</li> <li>Done for Day</li> <li>Cancelled</li> <li>Replaced</li> <li>Pending Cancel</li> <li>Rejected</li> <li>Expired</li> <li>Pending Replace</li> <li>Cancelled by Market Operation</li> <li>Eliminated by corporate event</li> </ol>	64
9955	ErrorCode	Error code	<b>✓</b>	Int	5	Numerical	56
58	Text	Request status or error text	✓	String	100	Alphanumerical	70
102	CxlRejReason	Reason for Cancel Rejection	<b>✓</b>	Int	1	<ul> <li>Too late to cancel</li> <li>Unknown order</li> <li>Broker Option</li> <li>Order already in Pending Cancel or Pending Replace status</li> </ul>	55

Tag	Field	Description	Req	Туре	Len	Values	Pg
434	CxlRejResponseTo	Origin of Cancel Rejection	<b>✓</b>	Char	1	<ul><li>Cancel Order request</li><li>Cancel/Replace Order request</li></ul>	55
	Message TRAILER		✓				18

#### **Message Usage**

The message is sent by the trading engine upon receipt of a cancel request or cancel/replace request message which cannot be honoured. Requests to change price or decrease quantity are executed only when an outstanding quantity exists. Filled orders cannot be changed.

When rejecting a cancel/replace Request, the Order Cancel Reject message provides the ClOrdID and OrigClOrdID values which were specified on the cancel/replace request message for identification.

The Execution Report (8) message responds to accepted cancel request and cancel/replace request messages.

## 5.9 ORDER MASS CANCEL REPORT (R)

#### **Message Fields**

✓ Always provided / + Conditionally provided / o Optional / I Not provided

Tag	Field	Description	Req	Туре	Len	Values	Pg
	Message HEADER		<b>✓</b>			r Order Mass Cancel Report	18
11	ClOrdID	Client Order Identifier	+	String	30	Any	53
55	Symbol	Instrument identifier	+	String	12	Alphanumericat. ISIN format.	68
9945	ClassID	Class Identifier	+	String	2	Any	51

Tag	Field	Description	Req	Туре	Len	Values	Pg
530	MassCancelReque stType	Specifies if a mass cancellation criteria is requested	<b>✓</b>	Char	1	<ul> <li>7 Cancel all orders belonging to the specified ClassID or Symbol</li> <li>8 Cancel orders matching the specified criteria</li> </ul>	60
54	Side	Order Side	+	Char	1	1 Buy 2 Sell	67
9941	TechnicalOrdType	Order Technical Origin	+	Char	1	I Index trading arbitrage P Portfolio strategy G Unwind order A Other orders C Cross margining	69
47	Rule80A	Order Origin	+	Char	1	1 Client 2 House 6 Liquidity Provider 7 Related Party	66
1	Account	Client Account Number	I	String	12	Any	
9960	CancelByLocationI D	Identifier of the Issuing Agency whose orders are to be cancelled	+	String	11	SenderLocationID value	51
533	TotalAffectedOrder s	Number of orders cancelled	✓	Int	9	<b>-1</b> or <b>0 999999999</b>	70
60	TransactTime	Transaction Time	1	TmSt	17	YYYYMMDD-hh:mm:ss	71
	Message TRAILER		✓				18

#### **Message Usage**

This message is used to:

- Acknowledge an Order Mass Cancel Request (q) (in case of Bulk Cancel request rejection, the Order Cancel Reject (9) message is used). In this case the TotalAffectedOrders field is set to -1.
- Report the end of the mass cancel processing. In this case the TotalAffectedOrders field is set to <Number of orders cancelled by the Mass Cancel request>.

Following the sending of the Order Mass Cancel Report (r) acknowledgment message, and before the sending of the Order Mass Cancel Report message, an Execution Report (8) message is sent for each order concerned by the mass cancel. This message reports the cancellation of the order and is sent to the order issuer. As such, the Order Mass Cancel Report message allows the issuer of the request, who is possibly different from any issuer of any other cancelled orders, to get an answer to his or her request.

## 5.10 TRADING SESSION STATUS (H)

#### **Message Fields**

✓ Always provided / + Conditionally provided / o Optional / I Not provided

Tag	Field	Description	Req	Туре	Len	Values	Pg
	Message HEADER		✓			h Trading Session Status	18
9945	ClassID	Class Identifier	+	String	2	Any	51
9947	ClassStatus	Class Status	+	String	4	EAMO Early Monitoring COCA Core Call COAU Core Auction COCO Core Continuous CLCA Closing Call CLAU Closing Auction CTAL Core Trading At Last LTAL Late Trading At Last COMO Core Monitoring LAMO Late Monitoring HALT Halted CLSD Closed	51
336	TradingSessionID	Trading Session Identifier	<b>√</b>	String	3	1 Early session 2 Core session 3 Late session 12 Early and Core sessions 13 Early and Late sessions 23 Core and Late sessions 123 All sessions	70

Tag	Field	Description	Req	Туре	Len	Values	Pg
340	TradSesStatus	Trade Session Status	ı	Int	1	1 Halted 2 Open 3 Closed 4 PreOpen 5 PreClose	71
9977	MktPhaseChgTime	Time of Market Phase Change	+	TmSt	17	YYYYMMDD-hh:mm:ss or not provided if field is not significant	60
9948	OrdEntryAllowed	Order Entry Allowed Indicator	+	Char	1	<ul><li>Order entry forbidden</li><li>Order entry allowed</li></ul>	63
	Message TRAILER		<b>✓</b>				18

#### **Message Usage**

The Trading Session Status message is sent by the Trading Engine to all market participants whenever the status of an instrument class changes. This occurs in one of the following conditions:

- Market phase change
- Market halted
- Order entry allowed or forbidden by Market Operations.

## 5.11 BUSINESS MESSAGE REJECT (J)

#### **Message Fields**

✓ Always provided / + Conditionally provided / o Optional / I Not provided

Tag	Field	Description	Req	Туре	Len	Values	Pg
	Message HEADER		<b>✓</b>			j Business Message Reject	18
45	RefSeqNum	Reference sequence number of the message rejected	<b>✓</b>	Int	15	Integer	66
379	BusinessRejectRefl D	Identifier of the message rejected	+	String	30	ClOrdID of the rejected message	51

Tag	Field	Description	Req	Туре	Len	Values	Pg
372	RefMsgType	Message type reference	+	String	2	Value received in the rejected inbound message, if any.	65
380	BusinessRejectRea son	Business message reject reason code identifier	<b>V</b>	Char	1	0 Other 1 Unkown ID 2 Unknown Symbol 3 Unsupported Message Type 4 Application not available 5 Conditionally required field missing	50
58	Text	Rejected message	+	String	100	Alphanumerical	70
	Message TRAILER		✓				18

#### **Message Usage**

This message is used to reject an inbound message which fulfils session level rules and cannot be rejected via any other means. If the message fails a session-level rule, it is rejected with a Reject (3) message.

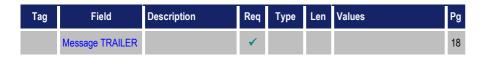
## 5.12 REQUEST ACK MESSAGE (UY)

### **Message Fields**

✓ Always provided / + Conditionally provided / o Optional / I Not provided

Tag	Field	Description	Req	Туре	Len	Values	Pg
	Message HEADER		✓			Uy Request Ack Message	18
55	Symbol	Instrument identifier	✓	String	12	Alphanumericat. ISIN format.	68
11	ClOrdID	Client Order Identifier	+	String	30	Any	53
372	RefMsgType	Message type reference	<b>✓</b>	String	2	Value received in the rejected inbound message, if any.	65
9955	ErrorCode	Error code	$\checkmark$	Int	5	Numerical	56
58	Text	Request status or error text	+	String	100	Alphanumerical	70





#### **Message Usage**

This message is a generic response to a request.

- ClOrdID and RefMsgType fields identify the request message and its type (response to Price Input (UI) message).
- ErrorCode provides the reason in case of request rejection. If the request is accepted, ErrorCode is set to 0 (success).
- Text is a human readable translation of ErrorCode.

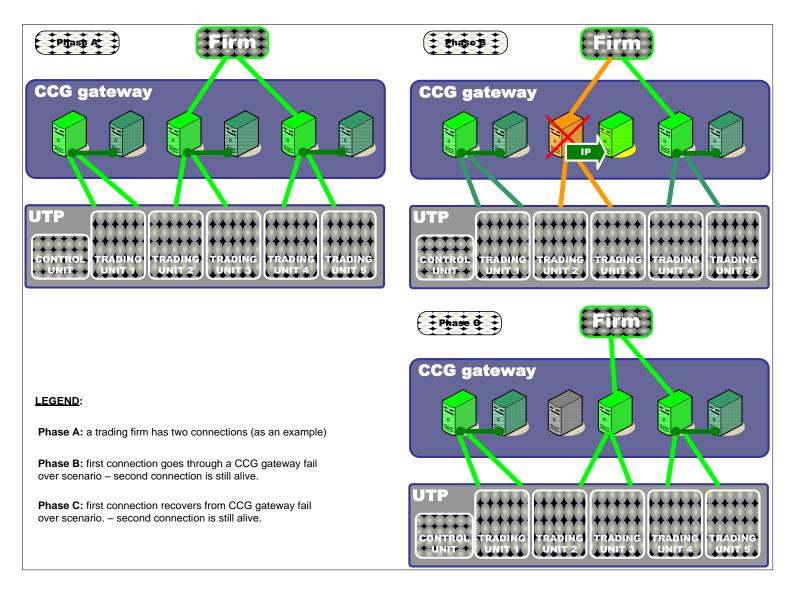
## **6 CCG HIGH AVAILABILITY**

### **6.1 FAILOVER IMPLEMENTATION OVERVIEW**

In the unlikely, yet possible, event of CCG hardware failure, the CCG application will allow client connections to run a smooth and 100 % safe recovery as follows:

- Clients will be able to reconnect immediately and transparently without changing the destination IP address and port (owing to clustering technology)
- The CCG ensures no data loss within outbound messages delivered to clients by sending duplicate messages if necessary. However, duplication will be kept to a minimum (a minimal amount of duplicate messages owing to SAN technology)

The following diagram provides an illustration of a CCG failover scenario.



CCG failover scenario

### **6.2 CLIENT RECOVERY METHOD**

Client applications will need to implement conservational measures to address the event of CCG failover. Basically, client applications will need to detect the likelihood of duplicate outbound messages and to deal with the likelihood of inbound messages gaps.

From the customer perspective, these conservational measures are as follows:

- During failover period:
- Even though the failover period is very short (typically a few seconds), clients may choose to access their previously entered orders from any of their other surviving connections; e.g., clients may choose to issue a bulk cancel by specifying the username of the connection that is experiencing a failover with the field CancelByLocationID.
  - After the failover period:
  - Messages received: Client applications must be able to detect any duplicate messages sent by the CCG. As mentioned in the previous section, a minimal amount of duplicates may be sent by the CCG to prevent any outbound data loss.

 Messages sent: Customer Application must be able to detect any gaps by checking NextExpectedMsgSeqNum contained in logon response from CCG Binary. Any gaps must then be dealt with according to Customer policy, i.e., choice between resending messages or not. If the Customer chooses to resend, UTP will reject any duplicates - thanks to ClOrdId uniqueness.

**Note**: However, unlike orders for which retransmitted order will be rejected, duplicates won't be checked for retransmitted warrant bulk quotes by the Exchange. Therefore, customer connections must not retransmit any bulk quotes following a disconnection.

Regarding the outbound messages (messages received by customer) duplicate detection method, in addition to Possressend flag set to Yes, Customer Application will need to use the following fields, dependant upon message type:

Order fill execution report: DeliverToCompID, Symbol, UTPExID, Side

Trade Creation Report: DeliverToCompID, Symbol, UTPExID

Request Ack (y): DeliverToCompID, Symbol, OrigMsgType, OrigMsgSegNum

All other received messages: DeliverToCompID, Symbol, CIOrdID, OrderID.

#### 6.3 6.3 CCG RECOVERY PROTOCOL KINEMATICS

The two diagrams below provide an illustration of the two possible UTP-FIX.4.2 recovery protocol kinematics: firstly the "With Resend" one, and secondly the "With GapFill" one:

Firm Persist Files

**After Crash** 

Inbound

Orderld Seq

ID-001 2

ID-004 3

ID-002 4

OutBound

Seq OrderId

3 ID-002

4 ID-003

5 ID-004

6 ID-005

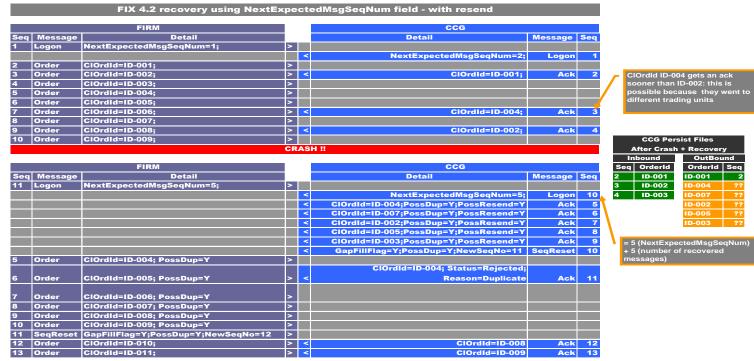
7 ID-006

8 ID-007

9 ID-008

10 ID-009

ID-001



	Final state						
Orderid	Comment						
ID-001	Acked						
ID-002	Dup-Acked						
ID-003	Acked						
ID-004	Dup-Acked						
ID-005	Acked						
ID-006	Acked						
ID-007	Acked						
ID-008	Acked						
ID-009	Acked						
ID-010	pending						
ID-011	pending						

Firm Persist Files

**After Crash** 

Inbound

Orderld Seq

ID-001

ID-004

ID-002

OutBound

ID-001

ID-002

ID-003

ID-004

ID-005

ID-006

ID-007 ID-008

10 ID-009

Seq Orderld

#### FIX 4.2 recovery using NextExpectedMsgSeqNum field - with gap fill FIRM Seq Message Detail Detail Message Seq Logon NextExpectedMsgSeqNum=1; > NextExpectedMsgSeqNum=2; Logon ClOrdId=ID-001; Order > ClOrdId ID-004 gets an ack Order ClOrdId=ID-002; CIOrdId=ID-001; Ack sooner than ID-002: this is possible because they went to Order CIOrdId=ID-003; > different trading units Order ClOrdId=ID-004; > Order ClOrdId=ID-005; Order CIOrdId=ID-006; > < ClOrdid=ID-004; Ack Order CIOrdid=ID-007; > Order CIOrdId=ID-008; > < ClOrdId=ID-002; Ack 10 Order CIOrdId=ID-009; > CCG Persist Files CRASH !! After Crash + Recovery Inbound OutBound Orderld Seq CCG Seq Orderld Message Seq ID-001 Seq Message Detail Detail ID-001 11 Logon NextExpectedMsgSeqNum=5; ID-002 ID-004 NextExpectedMsgSeqNum=5; ID-003 Logon 10 D-007 ClOrdId=ID-004;PossDup=Y;PossResend=Y Ack 5 ID-002 ClOrdId=ID-007;PossDup=Y;PossResend=Y Ack 6 Ack ClOrdId=ID-002;PossDup=Y;PossResend=Y ID-003 ClOrdId=ID-005;PossDup=Y;PossResend=Y Ack ClOrdId=ID-003;PossDup=Y;PossResend=Y Ack = 5 (NextExpectedMsgSeqNum) + GapFillFlag=Y;PossDup=Y;NewSeqNo=11 SeqReset 10 5 (number of recovered SeqReset GapFillFlag=Y;PossDup=Y;NewSeqNo=12 messages) 12 Order CIOrdid=ID-010; > 13 Order CIOrdId=ID-011;

	Final state					
Orderld	Comment					
ID-001	Acked					
ID-002	Dup-Acked					
ID-003	Acked					
ID-004	Dup-Acked					
ID-005	Acked					
ID-006	Gap-Filled					
ID-007	Acked					
ID-008	Gap-Filled					
ID-009	Gap-Filled					
ID-010	pending					
ID-011	pending					

## 7 FIELD DESCRIPTIONS

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8	BeginString	
9	BodyLength	
10	CheckSum	
11	CIOrdID	
14		
15	Currency	
16	EndSeqNo	5
17	ExecID	50
18	Execlnst	50
19	ExecRefID	-
20	ExecTransType	
21	Handlinst	
31	LastPx	
32	LastShares	E
	MedSedNim	



# CCG for NYSE BondMatch® FIX 4.2 Protocol

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44	Price	65
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## 7.2 DESCRIPTIONS

#### Account

Client Account Number		
FIX Tag	1	
Description	Client Account Number of the investor account.	
Туре	String	
Length	12	
Possible values	Any	
Condition	In New Order Single (D) and Order Cancel/Replace Request (G): Optional.  In Order Mass Cancel Request (q): Ignored. For possible future use, as a Bulk Cancel optional criterion. In Execution Report (8): In Order information reports and Trade cancellation reports: Provided with the Account value associated with the order, if any. In New Order (D) request rejection response: Provided with the Account value of the request, if any.	
Used In	New Order Single (D) Order Mass Cancel Request (q) Order Cancel/Replace Request (G) Execution Report (8) Order Mass Cancel Report (r)	

#### **AvgP**x

Average Price of Fills	
FIX Tag	6
Description	Calculated average price of all fills on this order.
Туре	Price
Length	10
Possible values	Price
Condition	Always provided. Set to '0' if the order has not been executed.
Used In	Execution Report (8)

### **BeginSeqNo**

Sequence number beginning of messages to be resent	
FIX Tag	7
Description	Message sequence number of first message in range to be resent.
Туре	Int
Length	15

Sequence number beginning of messages to be resent	
Possible values	Integer
Condition	Mandatory
Used In	Resend Request (2)

#### **BeginString**

Beginning of message identifier		
FIX Tag	8	
Description	Identifies beginning of message and protocol version. Must be first field in message. Always unencrypted.	
Туре	String	
Length	7	
Possible values	FIX.4.2	
Condition	Inbound messages: Mandatory. Outbound messages: Always provided.	
Used In	Message Header	

### BodyLength

Message Length	
FIX Tag	9
Description	Message length, in bytes, forward to checksum field. Must be second field in message. Always unencrypted.
Туре	Int
Length	5
Possible values	Integer
Condition	Inbound messages: Mandatory. Outbound messages: Always provided.
Used In	Message Header

#### BusinessRejectReason

Business message reject reason code identifier	
FIX Tag	380
Description	Field used to identify the reason of rejection.



Business message reject reason code identifier		
Туре	Char	
Length	1	
Possible values	<ul> <li>Other</li> <li>Unkown ID</li> <li>Unknown Symbol</li> <li>Unsupported Message Type</li> <li>Application not available</li> <li>Conditionally required field missing</li> </ul>	
Condition	Always provided.	
Used In	Business Message Reject (j)	

### BusinessRejectRefID

Identifier of the message rejected	
FIX Tag	379
Description	Field used to identify the message rejected. This field is valuated with the ClOrdID value of the rejected message, when there is one.
Туре	String
Length	30
Possible values	ClOrdID of the rejected message
Condition	Provided with the CIOrdID value of the rejected message, if any.
Used In	Business Message Reject (j)
See also	CIOrdID

### CancelByLocationID

Identifier of the Issuing Agency whose orders are to be cancelled	
FIX Tag	9960
Description	Identifier of a firm's agency to which the order to cancel belongs.  Used as criterion for selecting the orders to cancel in case of bulk cancellation.
Туре	String
Length	11
Possible values	SenderLocationID value
Condition	In Order Mass Cancel Request (q): Optional criterion. In Order Mass Cancel Report (r): Provided with the value of the Order Mass Cancel Request (q), if any.
Used In	Order Mass Cancel Request (q) Order Mass Cancel Report (r)

Identifier of the Issuing Agency whose orders are to be cancelled	
See also	Rule80A (Order Origin) Side (Order Side) TechnicalOrdType (Order Technical Origin)

#### CheckSum

CheckSum	
FIX Tag	10
Description	Simple checksum. Always 3 bytes. Always unencrypted. Always last field in message.
Туре	String
Length	3
Possible values	Numerical
Condition	Inbound messages: Mandatory. Outbound messages: Always provided.
Used In	Message Trailer

#### ClassID

Class Identifier	
FIX Tag	9945
Description	Identifier of an instrument class.
Туре	String
Length	2
Possible values	Any
Condition	In Order Mass Cancel Request (q): Mutually exclusive with Symbol. One, and only one, of these 2 fields must be specified. In Order Mass Cancel Request (q) responses: Provided with the value of the request, if any.
Used In	Order Mass Cancel Request (q) Order Mass Cancel Report (r) Trading Session Status (h)
See also	Symbol

#### ClassStatus

Class Status	
FIX Tag	9947
Description	Class status representing the current market trading phase for instruments belonging to that class and whose status is inherited.



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Class Status		
Type	String	
Length	4	
Possible values	EAMO Early Monitoring COCA Core Call COAU Core Auction COCO Core Continuous CLCA Closing Call CLAU Closing Auction CTAL Core Trading At Last LTAL Late Trading At Last COMO Core Monitoring LAMO Late Monitoring HALT Halted	
	CLSD Closed	
Condition	Always provided.	
Used In	Trading Session Status (h)	

### ClearingFirm

Give-up Firm Identifier		
FIX Tag	439	
Description	Identifier of the Give-up firm when a Give-up is executed.  A Give-up is a trade executed by one firm for the client of another firm, referred to as the Give-up Firm.	
Туре	String	
Length	8	
Possible values	Firm ID (agreed upon clearing value)	
Condition	In New Order Single (D) Order Cancel/Replace Request (G): Optional In Execution Report (8) and Order information reports: Provided with the ClearingFirm value associated with the order, if any. In New Order (D) request rejection response: Provided with the ClearingFirm value of the request, if any. In Trade cancellation reports: Never provided.	
Used In	New Order Single (D) Order Cancel/Replace Request (G) Execution Report (8)	

### ClearingHandlingType

Clearing Operation Mode	
FIX Tag	9938
Description	Indicates the pre-posting and give-up action to be taken by the clearing system when a trade has occurred, following a given order.  Manual mode (or Manual pre-posting and/or pre-give-up): the clearing system redirects the information to the member's back office workstation without processing it. It does not post the trade to the designated account or give up the trade to the designated give-up member.  Automatic extraction (or Automatic posting): the clearing system immediately posts the trade to the designated account.  Automatic allocation (or Automatic give-up): the clearing system immediately gives up the trade to the designated give-up member. If an account number is provided, it also performs a pre-posting.  Systematic posting. This means pre-posting if the account number is given, and Pre-Give-up if the data item ID of clearing system member that is the beneficiary of a give-up is provided. To indicate systematic posting, leave this tag empty.
Type	Char
Length	1
Possible values	<ul> <li>Manual mode</li> <li>Automatic extraction</li> <li>Automatic allocation</li> </ul>
Condition	In New Order Single (D) and Order Cancel/Replace Request (G): Optional. Absence of this field is interpreted as 'Systematic posting' In Execution Report (8) and Order information reports: Provided with the ClearingHandlingType value associated with the order, if any. Absence of this field is interpreted as 'Systematic posting'. In New Order (D) request rejection response: Provided with the ClearingHandlingType value of the request, if any. Absence of this field is interpreted as 'Systematic posting'. In Trade cancellation reports: Never provided.
Used In	New Order Single (D) Order Cancel/Replace Request (G) Execution Report (8)

#### ClientID

Client Identifier	
FIX Tag	109
Description	Field used to identify the client (investor).
Туре	String
Length	8
Possible values	Any

Client Identifier	
Condition	In New Order Single (D) and Order Cancel/Replace Request (G): Optional In Execution Report (8) and Order information reports: Provided with the ClientID value associated with the order, if any. In New Order (D) request rejection response: Provided with the ClientID value of the request, if any. In Trade cancellation reports: Never provided.
Used In	New Order Single (D) Order Cancel/Replace Request (G) Execution Report (8)
See also	OnBehalfOfCompID (Identifier of the Firm to which the order belongs (Inbound messages))  DeliverToCompID (Identifier of the Firm to which the order belongs (Application Outbound messages))

#### ClOrdID

Client Order Identifier	
FIX Tag	11
Description	Field used to identify an order or cancellation. The client order ID is defined by front-end applications and used to identify an order or a cancellation and match messages received from the Trading Engine (order outcome, order rejection notices, execution notices, etc.).  This field may also be used for the multiplexing of different traders connected to the same Broker order entry application.  This ID must be unique for all orders & cancellations sent a given day by a Broker.  Members who trade on several markets that have routing links between them must manage their ClOrdIDs globally—that is, use unconnected ClOrdID value ranges on different markets, since a ClOrdID entered by a firm on one market might be routed to another market.  Orders may also be identified by the OrderID field.
Туре	String
Length	30 (but 16 on TCS)
Possible values	Any

Client Order Identifier	
Condition	In New Order Single (D), Order Mass Cancel Request (q) and Order Cancel/Replace Request (G):  Mandatory.  In Execution Report (8):  Conditionally provided  In New Order (D) request responses:  Always provided with the value indicated in the request (and so the value associated with the created order).  In New Order (D) request rejection response:  Provided with the value indicated in the request except in case of rejection for "ClOrdID not valuated" reason.  In Order Cancel/Replace Request (G) responses:  Always provided with the value indicated in the request.  In Order Cancel Request (F) responses and Order Mass Cancel Request (q) responses:  Always provided with the value indicated in the request.  In Unsolicited reports:  Always provided with the ClOrdID value associated with the concerned order of the report.  In Order Cancel Reject (9) and Order Cancel/Replace Request (G) request rejection responses:  Provided with the value indicated in the request, except in case of rejection for "ClOrdID not valuated" reason.  In Order Cancel Request (F) and Order Mass Cancel Request (q) rejection responses:  Provided with the value indicated in the request, if any. Else not provided.
Used In	New Order Single (D) Order Cancel Request (F) Order Mass Cancel Request (q) Order Cancel/Replace Request (G) Order Status Request (H) Price Input (UI) Execution Report (8) Order Cancel Reject (9) Order Mass Cancel Report (r) Request Ack Message (Uy)
See also	OrderID (Engine Order Identifier) OrigClOrdID (Original Client Order Identifier)

### CollarRejPx

Price of collar hit in case of rejection	
FIX Tag	9963
Description	Hit collar price in case of order rejection due to collar breach.
Туре	Price
Length	10
Possible values	Price
Condition	Provided only in Order collar rejection reports.



Price of collar hit in case of rejection	
Used In	Execution Report (8)

### CollarRejType

Type of collar hit in case of rejection	
FIX Tag	9962
Description	Hit collar type (high or low) in case of order rejection due to collar breach.
Туре	Char
Length	1
Possible values	H High collar L Low collar
Condition	Provided only in Order collar rejection reports.
Used In	Execution Report (8)

### ConfirmFlag

Confirmation Indicator	
FIX Tag	9930
Description	Indicates if the order entry or modification is confirmed by the broker issuing the order or not.  If the order is not confirmed by the issuing broker, additional checks on price and quantity are performed by the Trading Engine. On the other hand, a confirmed order is not subject to these additional checks.  Field also used in cancel/replace request to confirm a collar pass-through in case of rejection due to collar breach.
Туре	Char
Length	1
Possible values	<ul><li>Not confirmed (default)</li><li>Confirmed</li></ul>
Condition	Optional. Absence of this field is interpreted as 'Not confirmed'.
Used In	New Order Single (D) Order Cancel/Replace Request (G)

#### ContraBroker

ID of the counterpart firm in case of internal matching	
FIX Tag	375
Description	Identifier of the counterpart firm in case the execution report concerns an internal matching (IMS).
Туре	String
Length	8
Possible values	Firm ID (agreed upon clearing value)

ID of the counterpart firm in case of internal matching	
Condition	Part of the optional Contrabrokers repeating group, introduced by NoContraBrokers  Provided only when NoContraBrokers is present.  Please refer to NoContraBrokers for further details concerning the Conditions.
Used In	Execution Report (8)
See also	NoContraBrokers (Number of entries in the ContraBrokers repeating group)

### CumQty

Cumulated Quantity	
FIX Tag	14
Description	Total number of shares filled. If an order is partially filled for a quantity $q_1$ then partially filled for a quantity $q_2$ , in the first execution report message CumQty= $q_1$ and in the second execution report message CumQty= $q_1+q_2$ .
Туре	Qty
Length	9
Possible values	Quantity
Condition	Always provided. Set to '0' if the order has not been executed.
Used In	Execution Report (8)
See also	OrderQty (Total Order Quantity) LeavesQty (Leaves Quantity)

#### Currency

Currency code	
FIX Tag	15
Description	Identifier for a currency as defined by the ISO 4217 standard. Identifies currency used for price. Absence of this field is interpreted as the default currency for the instrument. It is recommended that systems provide the currency value whenever possible.
Туре	String
Length	3
Possible values	ISO 4217 standard
Condition	In <u>inbound messages</u> : optional. In <u>outbound messages</u> : Conditionally provided.
Used In	New Order Single (D) Order Cancel Request (F) Order Cancel/Replace Request (G) Order Status Request (H) Price Input (UI) Execution Report (8)



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Currency code	
See also	Symbol (Instrument identifier) MIC (Market Identification Code)

### CxIRejReason

Reason for Cancel Rejection	
FIX Tag	102
Description	Code identifying the reason for cancel rejection.
Туре	Int
Length	1
Possible values	<ul> <li>Too late to cancel</li> <li>Unknown order</li> <li>Broker Option</li> <li>Order already in Pending Cancel or Pending Replace status</li> </ul>
Condition	Always provided.
Used In	Order Cancel Reject (9)

#### CxIRejResponseTo

Origin of Cancel Rejection	
FIX Tag	434
Description	Identifies the type of request that a Cancel Reject is in response to.
Туре	Char
Length	1
Possible values	<ul><li>1 Cancel Order request</li><li>2 Cancel/Replace Order request</li></ul>
Condition	Always provided.
Used In	Order Cancel Reject (9)

### DeliverToComplD

Identifier of the Firm to which the order belongs (Application Outbound messages	
FIX Tag	128
Description	Identifier, in Outbound messages, of the Firm to which the order belongs. In other words, it's the identifier of the Firm targeted to receive the message. This field holds the same information than the one held by the OnBehalfOfCompID field in Inbound messages.
Туре	String
Length	11
Possible values	Firm ID (agreed upon clearing value)

Identifier of the Fi	Identifier of the Firm to which the order belongs (Application Outbound messages	
Condition	In Inbound (Administrative or Application) messages: Ignored. In Outbound Application messages: Always provided with the reference identifier of the Firm (mandatory OnBehalfOfCompID field in Inbound Application messages). In Outbound Administrative messages: Never provided.	
Used In	Message Header	
See also	OnBehalfOfCompID (Identifier of the Firm to which the order belongs (Inbound messages))  TargetCompID (Identifier of the message receptor (Firm ID or Service Bureau ID in Outbound messages)	

### EncryptMethod

Method of encryption	
FIX Tag	98
Description	Method of encryption for the new FIX session.
Туре	Int
Length	1
Possible values	0 None / Other
Condition	In Inbound Logon (A): Mandatory. In Outbound Logon (A): Always provided.
Used In	Logon (A)

### EndSeqNo

Sequence number ending of messages to be resent	
FIX Tag	16
Description	Message sequence number of last message in range to be resent. If request is for a single message BeginSeqNo =EndSeqNo.  If request is for all messages subsequent to a particular message, EndSeqNo = "0" (representing infinity).
Туре	Int
Length	15
Possible values	Integer
Condition	Mandatory.
Used In	Resend Request (2)



#### **ErrorCode**

Error code	
FIX Tag	9955
Description	Error code. Significant (> 0) only in case of rejection; else = '00000' (no error).
Туре	Int
Length	5
Possible values	Numerical
Condition	Always provided ('00000' means no error).
	Execution Report (8)
Used In	Order Cancel Reject (9)
	Request Ack Message (Uy)

#### **ExecID**

Execution Report Identifier	
FIX Tag	17
Description	Unique identifier for Execution Report (8) message type, assigned by UTP by Member (OnBehalfOfCompID) and by Trading Unit of the UTP trading engine. Set to zero for ExecTransType =3.  When provided in Execution Report (8), uniqueness will be guaranteed within a single trading day only by Member (OnBehalfOfCompID) and by Trading Unit of the UTP trading engine.  Note: ExecID identifies the physical message 8 Execution Report. Order executions/trades are identified by fields ExecRefID and UTPExID.
Туре	String
Length	24
Possible values	Numerical. Sequential
Condition	Always provided
Used In	Execution Report (8)
See also	ExecTransType (Transaction Type)  ExecRefID (Trade Reference Identifier by day for all instruments)  UTPEXID (Trade Reference Identifier by day for a given instrument)

#### ExecInst

Execution Instruction	
FIX Tag	18
Description	Field used as instruction for order handling on exchange trading floor. Please note that the type of this field is 'char' (vs MultipleValueString in standard FIX 4.2 specifications).
Туре	Char
Length	1
Possible values	blank None G All or None X Cross

Execution Instruction	
Condition	In New Order Single (D):  Must be X if OrdType = 2 (Limit) and Side = 8 (Cross)  Can be G if OrdType = 2 (Limit)  Else Forbidden.  In Order Cancel/Replace Request (G):  Can be G if OrdType = 2 (Limit)  Else Forbidden: Cross Orders cannot be modified in UTP.  In Execution Report (8):  In Order information reports:  Provided with the Execlnst value associated with the concerned order, if any.  In New Order (D) request rejection response:  Provided with the Execlnst specified value in the request, if any.  In Trade cancellation reports:  Never provided.  In Erreur! Source du renvoi introuvable.:  Never provided.
Used In	New Order Single (D) Order Cancel/Replace Request (G) Execution Report (8) Order Cancel Reject (9)
See also	OrdType (Order Type) Side (Order Side)

#### ExecRefID

Trade Reference Identifier by day for all instruments	
FIX Tag	19
Description	Field used as a reference identifier for a trade performed on a given Trading Unit; uniqueness is guaranteed within a single trading day by Trading Unit. This field is provided in case of fill, partial fill, or trade cancellation.  For example, if x is the reference identifier of a given trade, x is reported in the 2 Execution Report sent for the 2 sides of the trade, and if this trade is cancelled, x is again reported in the 2 Execution Report sent for the 2 sides of the trade.  Reminder:  ExecRefID: trade ID unique for all instruments listed on a Trading Unit for a given day.  UTPEXID: trade ID unique for a given instrument for a given day.  ExecID: identifies a physical message 8 Execution Report.
Туре	String
Length	24
Possible values	Alphanumerical



Trade Reference Identifier by day for all instruments	
Condition	In Order execution reports and Trade cancellation reports: Provided with the reference identifier of the concerned execution, unique for the current day and for all instruments. Not provided in other cases.
Used In	Execution Report (8)
See also	UTPEXID (Trade Reference Identifier by day for a given instrument)  ExecID (Execution Report Identifier)

### ExecTransType

Transaction Type	
FIX Tag	20
Description	Field used to identify transaction type.
Туре	Char
Length	1
Possible values	<ul><li>New</li><li>Cancel</li><li>Correct (future use)</li><li>Status</li></ul>
Condition	Always '0' in Order Book Retransmission reports. Always '1' in Trade cancellation reports. Always '0' in other cases.
Used In	Execution Report (8)

### ExecType

Execution Type	
FIX Tag	150
Description	Field used to describe the specific execution report (e.g. <i>Pending Cancel</i> ) while OrdStatus will always identify the current order status (e.g. <i>Partially Filled</i> ).
Туре	Char
Length	1
Possible values	0 New 1 Partially filled 2 Filled 3 Done for Day 4 Cancelled 5 Replaced 6 Pending Cancel 8 Rejected C Expired D Restated E Pending Replace G Trade Creation by Market Operation S Cancelled by Market Operation O Eliminated by corporate event

Execution Type	
Condition	Always provided. See Execution Report Message Signature Tags section for further details and possible values.
Used In	Execution Reports (8)
See also	OrdStatus (Order Status)

### ExpireTime

Expiration Time	
FIX Tag	126
Description	Time of order expiration expressed in local market date and time. The date part (YYYYMMDD) must be the current date.
Туре	TmSt
Length	17
Possible values	YYYYMMDD-hh:mm:ss
Condition	In New Order Single (D) and Order Cancel/Replace Request (G):  Mandatory if TimeInForce = 6.  Ignored if TimeInForce ≠ 6.  In Execution Report (8):  In Order information reports:  Provided with the ExpireTime value associated with the concerned order, if any.  In New Order (D) request rejection response:  Provided with the ExpireTime value of the request, if any.  In Trade cancellation reports: Never provided.
Used In	New Order Single (D) Order Cancel/Replace Request (G) Execution Report (8)
See also	TimeInForce (Time in Force Validity)

#### FilterOnLocationID

Firm's Front-end server filter	
FIX Tag	9957
Description	Field used as a filter in the Order Status Request (H). It can be used to filter the orders whose Order Status Request (H) status response Execution report is requested, and/or to indicate the new Firm's Front-end server (SenderLocationID used in Logon) value to be associated with the order(s). Refer to Order Status Request (H) Message Usage for more information.
Туре	String
Length	11
Possible values	Firm's Front-end server ID (agreed with Exchange)
Condition	Optional



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Firm's Front-end server filter	
Used In	Order Status Request (H)
See also	SenderLocationID Order Status Request (H) Message Usage

### FilterOnGatewayID

Gateway filter	
FIX Tag	9956
Description	Field used as a filter in the Order Status Request (H). It can be used to filter the orders whose Order Status Request (H) status response Execution report is requested, and/or to indicate the new gateway (CCG) value to be associated with the order(s).  Refer to Order Status Request (H) Message Usage for more information.
Туре	String
Length	11
Possible values	Gateway ID (agreed with Exchange)
Condition	Optional
Used In	Order Status Request (H)
See also	OrderID Order Status Request (H) Message Usage

#### FreeText

Free Text	
FIX Tag	9952
Description	Free form text manually entered by the Trader issuing the order.
Туре	String
Length	18
Possible values	Any
Condition	In New Order Single (D) and Order Cancel/Replace Request (G): Optional. In Execution Report (8): In Order information reports: Provided with the FreeText value associated with the order, if any. In New Order (D) request rejection response: Provided with the FreeText value of the request, if any. In Trade cancellation reports: Never provided.
Used In	New Order Single (D) Order Cancel/Replace Request (G) Execution Report (8)

### GapFillFlag

Sequence Reset mode indicator	
FIX Tag	123
Description	Field used to indicate that the Sequence Reset message is replacing administrative or application messages that will not be resent.
Туре	Bool
Length	1
Possible values	Y Gap Fill message, MsgSeqNum field valid N Sequence Reset, ignore MsgSeqNum
Condition	In Inbound Sequence Reset (4): Optional. Absence of this field is interpreted as "Sequence Reset, ignore MsgSeqNum". In Outbound Sequence Reset (4): Always provided with Y.
Used In	Sequence Reset (4)

#### Handlinst

structions for order handling on Broker trading floor	
FIX Tag	21
Description	Instructions for order handling on Broker trading floor
Туре	Char
Length	1
Possible values	<ol> <li>Automated execution order, private</li> <li>Automated execution order, public</li> <li>Manual order, best execution</li> <li>No broker intervention in case 1; broker intervention is OK in case 2.</li> </ol>
Condition	Ignored, not used in UTP. This field is specified for compliancy with the FIX protocol.
Used In	New Order Single (D) Order Cancel/Replace Request (G)

#### HeartBtInt

rtbeat interval	
FIX Tag	108



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rtbeat interval	
Description	Heartbeat interval in seconds. Field used to declare the timeout interval for generating heartbeats (same value used by both sides). The HeartBtInt value should be agreed upon by both sides and specified by the Logon initiator and sent back by the logon acceptor (CCG). Heartbeats can be disabled by setting HeartBtInt to zero.
Туре	Int
Length	5
Possible values	Numerical
Condition	In Inbound Logon (A): Mandatory. In Outbound Logon (A): Always provided.
Used In	Logon (A)

### InputPxType

Input Price Type	
FIX Tag	9950
Description	Type of the input price.  If set to valuation trade, an Execution Report (8) message is broadcasted to market participants with the provided price or the reference price depending on the instrument class configuration.  If set to Alternative Indicative Price (AIP), the instrument's reference price is updated with the provided price and is broadcasted to market participants.
Туре	Char
Length	1
Possible values	<ul><li>V Valuation trade</li><li>A Alternative Indicative Price (AIP)</li></ul>
Condition	Mandatory
Used In	Price Input (UI)
See also	Price (Price)

#### LastPx

Price of Fill	
FIX Tag	31
Description	Price of the last fill. Not provided for ExecTransType=3 (Status).
Туре	Price
Length	10
Possible values	Price

Price of Fill	
Condition	In Order execution reports and Trade cancellation reports: Provided with the price of the concerned execution. In other cases: Always '0'.
Used In	Execution Report (8)
See also	LastShares (Quantity of Fill) ExecTransType (Transaction Type)

#### LastShares

Quantity of Fill		
FIX Tag	32	
Description	Quantity of shares bought/sold on this (last) fill. Not provided for ExecTransType=3 (Status).	
Туре	Qty	
Length	9	
Possible values	Quantity	
Condition	In Order execution reports and Trade cancellation reports:  Always provided with the quantity executed in the concerned execution.  In other cases:  Always '0'.	
Used In	Execution Report (8)	
See also	LastPx (Price of Fil.) ExecTransType (Transaction Type)	

### LeavesQty

Leaves Quantity	
FIX Tag	151
Description	Amount of shares open for further execution.  If OrdStatus is Canceled, DoneForTheDay, Expired, Calculated or Rejected (in which case the order is no longer active), then LeavesQty can be 0.  Otherwise LeavesQty = OrderQty - CumQty.
Туре	Qty
Length	9
Possible values	Quantity
Condition	Always provided. Set to '0' if the order has no remaining quantity or is no longer active (see Description above).
Used In	Execution Report (8)
See also	CumQty (Cumulated Quantity) OrderQty (Total Order Quantity) OrdStatus (Order Status)



### LiquidityIndicator

Effect Indicator on Liquidity	
FIX Tag	9730
Description	Proprietary field sent on execution reports for OTC, Listed, and Bulletin Boards trades to indicate what effect an order has had on the liquidity of the book. Client's rates are determined by whether an order adds or removes liquidity from the book.  This is a configurable setting that is turned on at the request of the customer.
Туре	Char
Length	1
Possible values	A Add liquidity R Remove liquidity, or Cross order X Routed (future use) O Opening trade or Trade creation by MO
Condition	Provided only in Order execution reports and Trade cancellation reports.
Used In	Execution Report (8)

### MassCancelRequestType

	. 21	
Specifies if a mass cancellation criteria is requested		
FIX Tag	530	
Description	Specifies if the Order Mass Cancellation is to be applied on all orders belonging to the specified ClassID or Symbol, or if one or more criteria are to be applied on this request.	
Туре	Char	
Length	1	
Possible values	<ul> <li>Cancel all orders belonging to the specified ClassID or Symbol</li> <li>Cancel orders matching the specified criteria</li> </ul>	
Condition	In Order Mass Cancel Request (q): Ignored, not used in UTP. This field is specified for compliancy with the FIX protocol. In Order Mass Cancel Report (r): Always provided.	
Used In	Order Mass Cancel Request (q) Order Mass Cancel Report (r)	
See also	ClassID (Class Identifier) Symbol (Instrument identifier) CancelByLocationID (Identifier of the Issuing Agency whose orders are to be cancelled) Rule80A (Order Origin) Side (Order Side) TechnicalOrdType (Order Technical Origin)	

#### MIC

Market Identification Code	
FIX Tag	9949
Description	Identifier for a market place as defined by the ISO 10383 standard.  It is recommended that systems provide the MIC value whenever possible.
Туре	String
Length	4
Possible values	ISO 10383 standard
Condition	In inbound messages: Optional. In outbound messages: Conditionally provided.
Used In	New Order Single (D) Order Cancel Request (F) Order Cancel/Replace Request (G) Order Status Request (H) Price Input (UI) Execution Report (8)
See also	Symbol (Instrument identifier) Currency (Currency code)

#### MinQty

Minimum Quantity	
FIX Tag	110
Description	Minimum quantity to be executed.
Туре	Qty
Length	9
Possible values	Quantity
Condition	Optional. Forbidden in the following cases: OrdType = 1 (Market), 3 (Stop), 4 (Stop Limit) or P (Pegged) TimeInForce = 4 (FOK) Current phase type is call.
Used In	New Order Single (D)
See also	OrdType (Order Type) TimeInForce (Time in Force Validity)

#### MktPhaseChgTime

Time of Market Phase Change	
FIX Tag	9977
Description	Indicates the time of market phase change.
Туре	TmSt
Length	17
Possible values	YYYYMMDD-hh:mm:ss



Time of Market Phase Change	
	or not provided if field is not significant
Condition	Conditionally provided
Used In	Trading Session Status (h)

### MsgID

Message ID in case of CAP failure	
FIX Tag	9262
Description	For recovery purpose in case of CAP failure
Туре	Char
Length	19
Possible values	Any
Used In	Message Header

### MsgSeqNum

Message Sequence Number	
FIX Tag	34
Description	Internal message sequence number.
Туре	Int
Length	15
Possible values	Sequential
Condition	In inbound messages: Mandatory. In outbound messages: Always provided.
Used In	Message Header

### MsgType

Message type	
FIX Tag	35
Description	Defines message type. Always third field in message. Always unencrypted.
Туре	String
Length	2

Message type	
Possible values	Administrative messages: A, 0, 1, 2, 3, 4, 5 Inbound application messages: D, F, G, H (future use), q, UI Outbound application messages: 8, 9, h (future use), j, r, Uy
Condition	In inbound messages: Mandatory. In outbound messages: Always provided.
Used In	Message Header

### NextExpectedMsgSeqNum

Next Expected Message Sequence Number	
FIX Tag	789
Description	Next expected MsgSeqNum value to be received.  This field is used to support a new messages sequence numbers check way at logon.
Туре	Int
Length	15
Possible values	Integer (15)
Condition	In Inbound Logon (A) message: Optional. In Outbound Logon (A) message: Provided with the value indicated in the Logon (A) request, if any. Else not provided. Refer to the CCG_FIX_4.2_Session document for further information concerning the FIX 4.2 administrative messages.
Used In	Logon (A)
See also	MsgSeqNum (Message Sequence Number) FIX 4.2 session document: CCG_FIX_4.2_Session_V0.1_Draft

### NewSeqNo

New Sequence Number	
FIX Tag	36
Description	If SequenceReset is in Reset mode: Contains the sequence number of the next message to be transmitted. If SequenceReset is in GapFill mode: Contains the sequence number of the highest administrative message in this group, plus 1. See also Sequence Reset (4) message and its GapFillFlag field.
Туре	Int



New Sequence Number	
Length	15
Possible values	Integer (15)
Condition	In inbound messages: Mandatory. In outbound messages: Always provided.
Used In	Sequence Reset (4)

### NoClearingEntries

Number of entries in the Clearing Data repeating group	
FIX Tag	9933
Description	Number of Clearing Data repeating group instances.  If Side ≠ 8 (Cross):  NoClearingEntries=1.  If Side = 8 (Cross):  NoClearingEntries=2.
	The first entry of the Clearing Data repeating group describes the buy order and the second entry describes the sell order.
	For each entry, at least the field Rule80A (first mandatory field of the repeating group) must be provided. Extra entries are ignored by the gateway.
Туре	Int
Length	1
Possible values	1 or 2
Condition	Mandatory
Used In	New Order Single (D)
See also	Side (Order Side) Rule80A (Order Origin)

#### **NoContraBrokers**

Number of entries in the ContraBrokers repeating group	
FIX Tag	382
Description	Number of ContraBrokers repeating group instances.  Only provided in case of IMS (Internal Matching Service) execution.  When provided, ContraBroker field is also provided (only field in the repeating group).
Туре	Int
Length	1
Possible values	1
Condition	In Order execution reports and Trade cancellation reports: Provided with '1' in case of IMS execution.

Number of entries in the ContraBrokers repeating group	
	In other cases: Not provided.
Used In	Execution Report (8)
See also	ContraBroker (ID of the counterpart firm in case of internal matching)

### NoTradingSessions

Number of entries in the TradingSessionID repeating group	
FIX Tag	386
Description	Number of Trading Sessions ID's repeating group instances.
Туре	Int
Length	1
Possible values	1, 2 or 3
Condition	Optional.  When provided, TradingSessionID field must also be provided (only field in the repeating group). Extra entries are ignored by the gateway.  Note that the notion of Session is disabled in UTP for the moment. UTP ignores this fied and assumes the 'All sessions' value. The Trading Session repeating group is thus specified for future use. Please see also the preliminary remark in TradingSessionID's Condition.
Used In	New Order Single (D) Order Cancel/Replace Request (G)
See also	TradingSessionID

### OnBehalfOfComplD

Identifier of the Firm to which the order belongs (Inbound messages)	
FIX Tag	115
Description	Identifier of the firm to which the order belongs.  In outbound Application messages, this information is sent back into the DeliverToComplD field.
Туре	String
Length	11
Possible values	Firm ID (agreed upon clearing value)
	In inbound Administrative messages: Ignored. In outbound Administrative messages: Never provided. In inbound Application messages: Mandatory.
Condition	In case of Direct Access, must be the same value as the SenderCompID (reference identifier of the Firm) given at logon.  In case of Service Bureau Access, must be the reference identifier of the Firm on behalf of which the Service Bureau sends the message.  In outbound Application messages: Never provided.



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Identifier of the Firm to which the order belongs (Inbound messages)	
Used In	Message Header
See also	DeliverToCompID (Identifier of the Firm to which the order belongs (Application Outbound messages) SenderCompID (Identifier of the message sender (Firm ID or Service Bureau ID in Inbound messages))

### OpenClose

Posting Action	
FIX Tag	77
Description	Indicates whether the resulting position after a trade should be an opening position or closing position.
Туре	Char
Length	1
Possible values	O Open C Close
Condition	In New Order Single (D) and Order Cancel/Replace Request (G): Optional In Execution Report (8): In Order information reports: provided with the OpenClose value associated with the order, if any. In New Order (D) request rejection response: Provided with the OpenClose value of the request, if any. In Trade cancellation reports: Never provided.
Used In	New Order Single (D) Order Cancel/Replace Request (G) Execution Report (8)

### OrdEntryAllowed

Order Entry Allow	Order Entry Allowed Indicator		
FIX Tag	9948		
Description	Indicator whether order entry is allowed or not for instrument class or instrument.		
Туре	Char		
Length	1		
Possible values	<ul><li>Order entry forbidden</li><li>Order entry allowed</li></ul>		
Condition	Always provided		
Used In	Trading Session Status (h)		

#### OrderID

Engine Order Identifier	
FIX Tag	37
Description	Unique identifier for Order assigned by exchange
Туре	String
Length	24
Possible values	Alphanumerical
Condition	In Order Cancel Request (F) and Order Cancel/Replace Request (G): Optional In Order Cancel Reject (9): Provided with the OrderID value of the request, if any. In Execution Report (8): In Order information reports and in Trade cancellation reports: Always provided with the value associated with the order. In New Order (D) request rejection response: Never provided.
Used In	Order Cancel Request (F) Order Cancel/Replace Request (G) Order Status Request (H) Execution Report (8) Order Cancel Reject (9)
See also	ClOrdID (Client Order Identifier)

#### OrderQty

Total Order Quantity	
FIX Tag	38
Description	Number of shares ordered.
Туре	Qty
Length	9
Possible values	Quantity
Condition	In New Order Single (D) and Order Cancel/Replace Request (G):  Mandatory. In Order Cancel Request (F): Ignored. In Execution Report (8) In Order information reports and Trade cancellation reports: Always provided with the value associated with the order. In New Order (D) request rejection response: Provided with the value of the request, except in case of rejection for "OrderQty not valuated" reason.
Used In	New Order Single (D) Order Cancel Request (F) Order Cancel/Replace Request (G) Execution Report (8)
See also	CumQty (Cumulated Quantity) LeavesQty (Leaves Quantity)

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### OrdRejReason

Order Rejection Reason	
FIX Tag	103
Description	Field used as a code to identify reason for order rejection.
Туре	Int
Length	1
Possible values	<ul> <li>Broker option</li> <li>Unknown symbol</li> <li>Exchange closed</li> <li>Order exceeds limit</li> <li>Too late to enter</li> <li>Unknown Order</li> <li>Duplicate Order</li> <li>Duplicate of a verbally communicated order</li> <li>Stale Order</li> </ul>
Condition	Provided only in New Order (D) request rejection response and Order collar rejection reports.
Used In	Execution Report (8)

#### **OrdStatus**

Order Status	
FIX Tag	39
Description	Field used to identify the current status of an order.
Туре	Char
Length	1
Possible values	0 New 1 Partially filled 2 Filled 3 Done for Day 4 Cancelled 5 Replaced 6 Pending Cancel 8 Rejected C Expired E Pending Replace S Cancelled by Market Operation O Eliminated by corporate event
Condition	Always provided.
Used In	Execution Reports (8) Order Cancel Reject (9)

### OrdType

Order Type	
FIX Tag	40
Description	Price type of the order.
Туре	Char
Length	1
Possible values	1 Market 2 Limit
Condition	In New Order Single (D) and Order Cancel/Replace Request (G): Mandatory. In Execution Report (8): In Order information reports and Trade cancellation reports: Always provided with the value associated with the order. In New Order (D) request rejection response: Provided with the OrdType value of the request, except in case of rejection for "OrdType not valuated" reason.
Used In	New Order Single (D) Order Cancel/Replace Request (G) Execution Report (8)

### OrigClOrdID

Original Client Order Identifier	
FIX Tag	41
Description	Field used to identify the order to modify or cancel in an order Cancel/Replace or Cancel request. It refers to the Client Order Identifier of the order to modify or cancel.
Туре	String
Length	30
Possible values	ClOrdID of the order to be modified / cancelled
Condition	In Order Cancel Request (F) and Order Cancel/Replace Request (G):  Mandatory. In Execution Report (8):  In New Order (D) request responses: Never provided. In Order Cancel/Replace Request (G) responses, Order Cancel Request (F) responses, Order Mass Cancel Request (q) responses and Unsolicited reports:  Always provided with the ClOrdID value of the order (modified, cancelled or whose trade is cancelled). In Order Cancel Reject (9): Provided with the OrigClOrdID value of the request, except in case of rejection for "OrigClOrdID not valuated" reason.
Used In	Order Cancel Request (F) Order Cancel/Replace Request (G) Execution Report (8) Order Cancel Reject (9)
See also	ClOrdID (Client Order Identifier)



#### PossDupFlag

Message possible retransmission indicator	
FIX Tag	43
Description	Indicates possible retransmission of message with this sequence number.
Туре	Bool
Length	1
Possible values	Y Possible duplicate N Original transmission
Condition	Optional. If not present, to be interpreted as "Original transmission".
Used In	Message Header

#### **PossResend**

Indicator of message containing information already sent	
FIX Tag	97
Description	Indicates that message may contain information that has been sent under another sequence number.
Туре	Bool
Length	1
Possible values	Y Possible resend N Original transmission
Condition	Optional. If not present, to be interpreted as "Original transmission".
Used In	Message Header

#### Price

Price	
FIX Tag	44
Description	Price for an instrument, per unit of quantity (e.g. per share).
Туре	Price
Length	10
Possible values	Price (used as well when Fund manager indicates the price of a pre matched TCS with Operation TypeIndicator=I dealt by quantity)

Price	
Condition	In New Order Single (D) and Order Cancel/Replace Request (G):  If OrdType = 2 (Limit: Mandatory.  If OrdType = 1 (Mkt): Forbidden.  In Price Input (UI):  If InputPxType = V AND ClassValuationType* = F: Mandatory.  If InputPxType = V AND ClassValuationType* = R: Forbidden.  If InputPxType = A AND ClassAlPType* = F: Mandatory.  Else: Ignored.  ClassValuationType*: UTP parameter used to handle the Valuation Trades at the instrument class level.  F=Firm input, R=Reference Price, A=Automatic valuation.  ClassAlPType*: UTP parameter used to handle the Alternative Indicative Prices at the instrument class level.  F=Firm input, T=Triggered signal, O=Order entry  In Execution Report (8):  In Order information reports and Trade cancellation reports:  Provided with the value associated with the concerned order, if any.  In New Order (D) request rejection response:  Provided with the value in the request, if any.
Used In	New Order Single (D) Order Cancel/Replace Request (G) Price Input (UI) Execution Report (8)

### RefMsgType

Message type ref	Message type reference	
FIX Tag	372	
Description	The type of the message being referenced.	
Туре	String	
Length	2	
Possible values	Value received in the rejected inbound message, if any.	
Condition	In Reject (3): Optional. In Business Message Reject (j): Always provided with the value of the MsgType field value received in the rejected message, except in the case of rejection for "MsgType field not valuated" reason.	
Used In	Reject (3) Business Message Reject (j) Request Ack Message (Uy)	
See also	MsgType (Message type)	



### RefSeqNum

Reference sequen	Reference sequence number of the message rejected	
FIX Tag	45	
Description	Reference sequence number of the message rejected	
Туре	Int	
Length	15	
Possible values	Integer	
Condition	Always provided.	
Used In	Reject (3) Business Message Reject (j)	

### RefTagID

Field tag reference	
FIX Tag	371
Description	The tag number of the FIX field being referenced.
Туре	Int
Length	5
Possible values	Integer
Condition	Optional.
Used In	Reject (3)

### ResetSeqNumFlag

Sequence numbers reset flag	
FIX Tag	141
Description	Indicates that the both sides of the FIX session should reset sequence numbers.
Туре	Bool
Length	1
Possible values	Y Yes, reset sequence numbers N No reset
Condition	Optional. If not present, to be interpreted as "No reset".
Used In	Logon (A)
See also	MsgSeqNum (Message Sequence Number)

### Rule80A

Order Origin	
FIX Tag	47
Description	Indicates the account type for which the order is entered.
Туре	Char
Length	1
Possible values	<ul> <li>Client</li> <li>House</li> <li>Liquidity Provider</li> <li>Related Party</li> </ul>
Condition	In New Order Single (D):  Mandatory. Must be the first tag of the Clearing Data repeating group.  In Order Cancel/Replace Request (G):  Mandatory.  In Order Mass Cancel Request (q): Optional criterion.  In Order Mass Cancel Report (r): Provided with the value of the Order Mass Cancel Request (q), if any. In Execution Report (8): In Order information reports: always Provided with the Rule 80A value associated with the order. In New Order (D) request rejection response: Provided with the Rule80A value of the request, if any. In Trade cancellation reports: Never provided.
Used In	New Order Single (D) Order Mass Cancel Request (q) Order Cancel/Replace Request (G) Execution Report (8) Order Mass Cancel Report (r)
See also	NoClearingEntries (Number of entries in the Clearing Data repeating group)  CancelByLocationID (Identifier of the Issuing Agency whose orders are to be cancelled)  Side (Order Side)  TechnicalOrdType (Order Technical Origin)



### SenderCompID

Identifier of the message sender (Firm ID or Service Bureau ID in Inbound messages)	
FIX Tag	49
Description	In inbound messages: Direct access: Firm identifier Service Bureau access: Service Bureau identifier. In outbound Application messages, this information is sent back into the TargetCompID field.
	In outbound messages: Identifier of the gateway (= 'EURONEXT').
Туре	String
Length	11
Possible values	Inbound: Firm ID (agreed upon clearing value) Outbound: 'EURONEXT'
Condition	In inbound (Administrative or Application) messages: Mandatory. Direct access: reference identifier of the Firm. Service Bureau access: reference identifier of the Service Bureau. In outbound (Administrative or Application) messages: Always provided with the identifier of the CCG.
Used In	Message Header
See also	TargetCompID (Identifier of the message receptor (Firm ID or Service Bureau ID in Outbound messages) OnBehalfOfCompID (Identifier of the Firm to which the order belongs (Inbound messages))

#### SenderLocationID

Firm's Front-end server ID	
FIX Tag	142
Description	Identifier of the Firm's Front-end server (Trading Application Issuer). Mandatory only in the inbound Logon (A) message. The gateway checks the value against the connection name. In case of failure, a Logout (5) message is issued with appropriate reject reason.
Туре	String
Length	11
Possible values	Firm's Front-end server ID (agreed with Exchange)
Condition	Mandatory only in Inbound Logon (A). In every other case, the SenderLocationID field is ignored in inbound messages and never provided in outbound messages.
Used In	Message Header

### SendingTime

Time of message transmission	
FIX Tag	52
Description	Time of message transmission.
Туре	TmSt
Length	17
Possible values	YYYYMMDD-hh:mm:ss
Condition	In inbound messages: Mandatory. In outbound messages: Always provided.
Used In	Message Header

### SessionRejectReason

Session reject reason code	
FIX Tag	373
Description	Code to identify reason for a session-level Reject message
Туре	Int
Length	2
Possible values	<ul> <li>Invalid tag number</li> <li>Required tag missing</li> <li>Tag not defined for this message type</li> <li>Undefined Tag</li> <li>Tag specified without a value</li> <li>Value is incorrect (out of range) for this tag</li> <li>Incorrect data format for value</li> <li>Decryption problem</li> <li>Signature problem</li> <li>CompID problem</li> <li>SendingTime accuracy problem</li> <li>Invalid MsgType</li> </ul>
Condition	Optional.
Used In	Reject (3)

#### Side

Order Side	
FIX Tag	54
Description	Side of the order
Туре	Char



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Order Side	
Length	1
Possible values	1 Buy 2 Sell 8 Cross (new order only)
Condition	Cross orders are only authorized for new orders, i.e. in inbound message D and in outbound message 8 when related to a new order.  In New Order Single (D) and Order Cancel/Replace Request (G):  Mandatory.  In Order Mass Cancel Request (q):  Optional criterion.  In Order Mass Cancel Report (r):  Provided with the value of the request, if any.  In Execution Report (8):  In Order information reports and Trade cancellation reports:  Always provided with the value of the concerned order.  In New Order (D) request rejection response:  Provided with the value indicated in the request, except in case of rejection due to: "Symbol not valuated".
Used In	New Order Single (D) Order Mass Cancel Request (q) Order Cancel/Replace Request (G) Order Status Request (H) Execution Report (8) Order Mass Cancel Report (r)
See also	Other criteria for message Order Mass Cancel Request (q): CancelByLocationID (Identifier of the Issuing Agency whose orders are to be cancelled) Rule80A (Order Origin) TechnicalOrdType (Order Technical Origin)

### **Spread**

Bond spread	
FIX Tag	218
Description	Calculated bond spread. Usual way to express a bond price by using the difference between the bond yield and a benchmark such as the swap Eonia / Yield to maturity. Calculated by the trading engine.
Туре	Num
Length	10
Possible values	Percentage

Bond spread	
Condition	Mandatory In Execution Report (8) message:  In case of request acknowledgement, the spread is calculated by the trading engine from the entered Price using the corresponding calculated yield.  In case of execution notice, the spread is calculated by the trading engine from the execution price and the corresponding calculated yield.
Used In	Execution Report (8)
See also	Yield (Yield Yo Maturity)

#### Symbol

Instrument identifier		
FIX Tag	55	
Description	Identifier of the instrument involved in the order.	
Туре	String	
Length	12	
Possible values	Alphanumeric. ISIN format.	
Condition	In New Order Single (D) and Order Cancel/Replace Request (G): Mandatory. In Order Mass Cancel Request (q): Mutually exclusive with ClassID. One, and only one, of these 2 fields must be specified. In Order Cancel Reject (9): Provided with the value of the request, if any. In Request Ack Message (Uy): Always provided. In Order Mass Cancel Report (r): Provided with the value of the request, if any. Execution Report (8): In Order information reports and Trade cancellation reports: Always provided with the value associated with the order. In New Order (D) request rejection response: Provided with the value of the request, except in case of rejection for "Symbol not valuated" reason.	
Used In	New Order Single (D) Order Cancel Request (F) Order Mass Cancel Request (q) Order Cancel/Replace Request (G) Order Status Request (H) Price Input (UI) Execution Report (8) Order Cancel Reject (9) Order Mass Cancel Report (r) Request Ack Message (Uy)	



### TargetCompID

Identifier of the message receptor (Firm ID or Service Bureau ID in Outbound messages	
FIX Tag	56
Description	In Inbound messages: Identifier of the gateway (= 'EURONEXT'). In outbound messages: Direct access: Firm identifier Service Bureau access: Service Bureau identifier. This field holds the same information than the one held by the SenderCompID field in Inbound messages.
Туре	String
Length	11
Possible values	Inbound 'EURONEXT' Outbound: Firm ID (agreed upon clearing value)
Condition	In Inbound (Administrative or Application) messages: Mandatory. Must be the identifier of the CCG (= 'EURONEXT'). In Outbound (Administrative or Application) messages: Always provided with: Direct access: reference identifier of the Firm Service Bureau access: reference identifier of the Service Bureau
Used In	Message Header
See also	SenderCompID (Identifier of the message sender (Firm ID or Service Bureau ID in Inbound messages))  DeliverToCompID (Identifier of the Firm to which the order belongs (Application Outbound messages)

### TechnicalOrdType

Order Technical Origin	
FIX Tag	9941
Description	Indicates the nature of the order issuer.
Туре	Char
Length	1
Possible values	I Index trading arbitrage P Portfolio strategy G Unwind order A Other orders C Cross margining

Order Technical Origin	
Condition	In New Order Single (D) and Order Cancel/Replace Request (G): Optional. Absence of this field is interpreted as 'Other orders'. In Order Mass Cancel Request (q): Optional criterion. In Order Mass Cancel Report (r): Provided with the value indicated in the request, if any. Else not provided. In Execution Report (8): In Order information reports: Provided with the TechnicalOrdType value associated with the order, if any. Absence of this field is interpreted as 'Other orders'. In New Order (D) request rejection response: Provided with the TechnicalOrdType value of the request, if any. Absence of this field is interpreted as 'Other orders'. In Trade cancellation reports: Never provided.
Used In	New Order Single (D) Order Mass Cancel Request (q) Order Cancel/Replace Request (G) Execution Report (8) Order Mass Cancel Report (r)
See also	CancelByLocationID (Identifier of the Issuing Agency whose orders are to be cancelled) Rule80A (Order Origin) Side (Order Side)

#### TestReqID

Test request message identifier	
FIX Tag	112
Description	Identifier included in Test Request message to be returned in resulting Heartbeat.
Туре	String
Length	24
Possible values	Numerical
Condition	In inbound Test Request (1): Mandatory. In outbound Test Request (1): Always provided. In inbound Heartbeat (0): Mandatory in message responding to a Test Request (1)issued by the gateway; Must be the same value than the request. Ignored in message not responding to a Test Request (1) In outbound Heartbeat (0): Always provided in message responding to a Test Request (1) issued by the member, with the same value than the request. Never provided in message not responding to a Test Request (1).



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Test request message identifier	
Used In	Heartbeat (0) Test Request (1)

#### Text

Request status or error text	
FIX Tag	58
Description	Provides a status of the originating request or a textual explanation in case of request rejection.
Туре	String
Length	100
Possible values	Alphanumerical
Condition	In Execution Report (8), Order Cancel Reject (9) and Request Ack Message (Uy): Always provided. In Reject (3), Logout (5), and Business Message Reject (j): Provided, when possible, with a message giving the rejection or logout reason.
Used In	Reject (3) Logout (5) Execution Report (8) Order Cancel Reject (9) Business Message Reject (j) Request Ack Message (Uy)

#### **TimeInForce**

Time in Force Validity	
FIX Tag	59
Description	Specifies how long the order remains in effect. Absence of this field is interpreted as 0 'Day'.
Туре	Char
Length	1
Possible values	<ul> <li>0 Day</li> <li>3 IOC (Immediate Or Cancel)</li> <li>4 FOK (Fill Or Kill)</li> <li>6 GTD (Good Till Time)</li> </ul>
Condition	In New Order Single (D) and Order Cancel/Replace Request (G): Optional. Absence of this field is interpreted as 'Day'. In Execution Report (8): In Order information reports and Trade cancellation reports: Always provided with the value associated with the order. In New Order (D) request rejection response: Provided with the value of the request, if any.

Time in Force Validity	
Used In	New Order Single (D) Order Cancel/Replace Request (G) Execution Report (8)
See also	ExpireTime (Expiration Time)

#### **TotalAffectedOrders**

Number of order	Number of orders cancelled	
FIX T	ag <b>533</b>	
Description	Numbers of orders cancelled upon mass cancel request.	
Ту	pe Int	
Leng	th 9	
Possible valu	9S -1 or 0 999999999	
Conditi	Always provided. Provided with -1 when the Order Mass Cancel Report (r) is sent to acknowledge the Order Mass Cancel Request (q). Provided with the number of orders cancelled when the Order Mass Cancel Report (r) is sent to report the end of the mass cancel processing.	
Used	Order Mass Cancel Report (r)	

### TradingSessionID

Trading Session Identifier	
FIX Tag	336
Description	Session or combination of sessions for which the order is valid.  Remark: For European Markets, multiple Trading Sessions in a single calendar day is not supported for the moment.  For this reason, this field is forced to "All sessions" by the UTP trading engine when processing the D and G messages, and is not provided in the Execution report.  However, this feature will be implemented in UTP in the future. Members may already provide this field in the D and G messages even it is not used by UTP at the moment.  Please note that the field is checked by the gateway and messages are rejected when syntax or value is invalid.
Туре	String
Length	3



Trading Session Identifier		
Possible values	<ul> <li>Early session</li> <li>Core session</li> <li>Late session</li> <li>Early and Core sessions</li> <li>Early and Late sessions</li> <li>Core and Late sessions</li> <li>All sessions</li> </ul>	
Condition	In New Order Single (D) and Order Cancel/Replace Request (G):  Part of the optional repeating group introduced by field NoTradingSessions.  Accepted values are '1', '2' and '3' (one character only).  If NoTradingSessions is provided, the first n occurrences of TradingSessionID (where n = NoTradingSessions) are mandatory. If the number of occurrences is less than announced, the CCG rejects the message. On the other hand, extra occurrences are ignored.  If NoTradingSessions is not provided, any occurrence of TradingSessionID is ignored.  Please note that the UTP trading engine (not the CCG) currently forces this field to "All sessions" ('123') (see preliminary remark in Description).  In Execution Report (8):  Never provided for the moment (see remark in Description).  Will be populated in the future with the value (or combination of values) provided in the request.  In Trading Session Status (h):  Always provided.	
Used In	New Order Single (D) Order Cancel/Replace Request (G) Execution Report (8) Trading Session Status (h)	

#### **TradSesStatus**

Trade Session Status	
FIX Tag	340
Description	State of the Trading Session
Туре	Int
Length	1
Possible values	<ul> <li>1 Halted</li> <li>2 Open</li> <li>3 Closed</li> <li>4 PreOpen</li> <li>5 PreClose</li> </ul>
Used In	Trading Session Status (h)

### TransactTime

Transaction Time	
FIX Tag	60
Description	Indicates the time the order request was initiated / released by the trader or trading system, or the time of execution/order creation.
Туре	TmSt
Length	17
Possible values	YYYYMMDD-hh:mm:ss
Condition	In New Order Single (D), Order Cancel Request (F), Order Mass Cancel Request (q), and Order Cancel/Replace Request (G): Ignored, not used in UTP. This field is specified for compliancy with the FIX protocol. In Order Mass Cancel Report (r): Not provided (for future use). In Execution Report (8): Always provided.
Used In	New Order Single (D) Order Cancel Request (F) Order Mass Cancel Request (q) Order Cancel/Replace Request (G) Execution Report (8) Order Mass Cancel Report (r)
See also	<b>NoTradingSessions</b> (Number of entries in the TradingSessionID repeating group)

#### **UTPEXID**

Trade Reference Identifier by day for a given instrument		
FIX Tag	9731	
Description	Field used as a reference identifier for a trade; uniqueness is guaranteed within a single trading day and for a given instrument.  This field is provided in case of fill, partial fill, or trade cancellation.  For example, if x is the reference identifier of a given trade, x is reported in the 2 Execution Report sent for the 2 sides of the trade, and if this trade is cancelled, x is again reported in the 2 Execution Report sent for the 2 sides of the trade.  Reminder:  ExecRefID: trade ID unique for all instruments for a given day.  UTPEXID: trade ID unique for a given instrument for a given day.  ExecID: identifies a physical message 8 Execution Report.	
Туре	Int	
Length	24	
Possible values	1▶999999999	



Trade Reference Identifier by day for a given instrument		
Condition	In Order execution reports and Trade cancellation reports: Provided with the reference identifier of the concerned execution, during the current day and for the concerned instrument. In other cases: Provided with '0'.	
Used In	Execution Report (8)	
See also	ExecRefID (Trade Reference Identifier by day for all instruments)  ExecID (Execution Report Identifier)	

#### Yield

Yield Yo Maturity	
FIX Tag	236
Description	Calculated yield to maturity.
Туре	Num
Length	10
Possible values	Percentage
Condition	Mandatory In 8 message:
Used in	Execution Report (8)
See also	Spread (Bond spread)