

#### Document title

## **EURONEXT MARKETS - OPTIQ® OEG CLIENT SPECIFICATIONS - FIX 5.0 INTERFACE**

## Document type or subject

Optiq OEG Client Specifications – FIX 5.0 Interface

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## **PREFACE**

## **About This Document**

This document sets out the client messages specifications for Optiq OEG using the FIX 5.0 format. More specifically, it describes the contents of administrative and application messages and provides detailed field descriptions.

## **Document Audience**

This document must be read by Euronext's clients developing Front End Trading Access.

## Scope

The single set of messages used for Optiq in FIX protocol is provided in the document.

The scope of this document is listed below (✓ In scope, スロール Out of scope):

Optiq Segment	Segment Value	In/Out of Scope	
Euronext	Cash Market		
Equities EQ	1	✓	
Funds FND	2	✓	
Fixed Income FXI	3	✓	
Structured Products SP	4	✓	
Block BLK	14	✓	
Irish Bonds and Funds IBF	16	*	
Euronext Derivatives Market			
Commodity Derivatives CMO	8	✓	
Index Derivatives IDD	11	✓	
Equity Derivatives EQD	12	✓	
Euronext Indices			
Indices Indices	9	*	
Euronext Approved Publication Arrangement (APA) Facility			
Trade Reporting and Publication TRP	10	*	
Other Markets			
Luxembourg Stock Exchange BDL	5	✓	

#### **Associated Document**

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

- Euronext Markets Optiq OEG Client Specifications SBE Interface
- Euronext Cash Markets Optiq Kinematics Specifications
- Euronext Derivatives Markets Optiq Kinematics Specifications
- Euronext Markets Optiq & TCS Error List file (.csv)
- Euronext Markets Optiq MDG Client Specifications
- Euronext Markets Optiq File Specification
- Euronext Markets Optiq OEG Connectivity Specifications

Clients are additionally advised to also refer to the Euronext Rules and Regulations documents for more details.

For the latest version of documentation please visit the <u>IT Documentation page</u>.

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## What's New?

The following lists only all recent modifications made to this version.

For the Document History table see the <u>Document History in Appendix</u>.

Version	Change Description
4.6.1	The following changes have been made to this version of the document:
	In Field Description:
	—Add value 28 = Message type not allowed for the functional configuration of the Logical Access in the sessionRejectReason.
	(373) list of authorized values; <del>The following changes have been made to this version of the document:</del>
	In Field Description:
	Updated description of field: ExpireDate and ContraBroker

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## 1. SOLUTION OVERVIEW

#### 1.1 INTRODUCTION

The Euronext Optiq Order Entry Gateway (OEG) provides high-speed and real-time connection to the Euronext

The system has the following high-level features:

- Predictability
- Ultra-low latency
- MiFID II compliance
- Cash & Derivatives message harmonization
- High availability
- Reliable network solution
- High level of scalability
- Access to every Euronext Market

This document provides detailed information about the features of the system to support the development of client applications.

The scope of this version of the document is for Cash and Derivatives markets. With migration of Derivatives markets to Optiq harmonization between Cash and Derivatives messages is completed. The single set of messages used for Optiq in FIX protocol are provided in the document.

#### 1.2 MIFID II RELATED FIELDS & VALUES

The following sections describe (i) the fields available in the messages (ii) system functionalities based on the MiFID II requirements and (iii) related services provided by Euronext to its clients.

In this document term "MIFID II" includes MIFID (2014/65/EU), MIFIR EU (600/2014) as well as the texts of level 2 and 3.

# 1.2.1 Maintenance of Relevant Data relating to Orders in Financial Instruments

The delegated act "supplementing Regulation (EU) No 600/2014 of the European Parliament and of the Council with regard to regulatory technical standards for the maintenance of relevant data relating to orders in financial instruments" issued by ESMA within the MiFID II requires trading venues to be able to supply to the regulators a wide range of order related data. In order to fulfil this requirement, members are requested to provide data in the additional fields introduced in the Optiq messages, e.g. **NewOrderSingle (D)** message. The sub-set of fields added to different messages for compliance with the acts are listed in the table below. These fields are also included in the description of each individual message:

Field in the Act	Optiq fields (FIX)	Used In
Client identification code	Populated via combination of components in the Parties, or NestedParties or OrderAttributeGrp or	NewOrderSingle (D) ExecutionReport (8)

Field in the Act	Optiq fields (FIX)	MiFID II Related Fields &
Field in the Act	Optiq fields (FIX)	Used In
	NestedOrderAttributeGrp group. Details of cases	MassQuote (i)
	and values are contained in the message	OrderCancelRequest (F)
	descriptions. The various cases are referred to as:	OrderCancelReplaceRequest (G)
	ClientIdentificationShortCode	OwnershipRequest (U18)
		QuoteRequest (R)
		UserNotification (CB)
		PriceInput (UI)
		LiquidityProviderCommand (UZ)
		OrderMassStatusRequest (AF)
		OrderMassCancelRequest (g)
		NewWholesaleOrder (U64)
		WholesaleOrderAck (U65)
		RequestForImpliedExecution (U66)
		<u>CrossOrder (U67)</u>
	Populated via combination of components in the	NewOrderSingle (D)
Investment desision	NestedParties group. Details of cases and values are	ExecutionReport (8)
Investment decision	contained in the message descriptions. The various	MassQuote (i)
within firm	cases are referred to as:	NewWholesaleOrder (U64)
	InvestmentDecisionWFirmShortCode	WholesaleOrderAck (U65)
		CrossOrder (U67)
		NewOrderSingle (D)
		ExecutionReport (8)
		MassQuote (i)
		OrderCancelRequest (F)
		OrderCancelReplaceRequest (G)
	Demolated via sembination of semananests in the	OwnershipRequest (U18)
	Populated via combination of components in the	QuoteRequest (R)
	Parties group. Details of cases and values are	
Execution within firm	contained in the message descriptions. The various	UserNotification (CB)
	cases are referred to as:	PriceInput (UI)
	ExecutionWithinFirmShortCode	LiquidityProviderCommand (UZ)
		OrderMassStatusRequest (AF)
		OrderMassCancelRequest (q)
		NewWholesaleOrder (U64)
		WholesaleOrderAck (U65)
		RequestForImpliedExecution (U66)
		CrossOrder (U67)
	Populated via combination of components in the	NewOrderSingle (D)
	NestedParties group. Details of cases and values are	ExecutionReport (8)
Non-executing broker	contained in the message descriptions. The various	MassQuote (i)
Hon exceeding broker	cases are referred to as:	NewWholesaleOrder (U64)
		WholesaleOrderAck (U65)
	NonExecutingBrokerShortCode	CrossOrder (U67)
	Populated via combination of components in the	NewOrderSingle (D)  EvacutionPapart (8)
	OrderAttributeGrp group. Details of cases and	ExecutionReport (8)
Commodity derivatives	values are contained in the message descriptions.	MassQuote (i)
indicator	The various cases are referred to as:	NewWholesaleOrder (U64)
		WholesaleOrderAck (U65)
	CommodityDerivativesIndicator	RequestForImpliedExecution (U66)
		CrossOrder (U67)
<del></del>	Populated via combination of components in the	NewOrderSingle (D)
Investment algo	NestedParties group. Details of cases and values are	ExecutionReport (8)
indicator	contained in the message descriptions. The various	MassQuote (i)
	3 .	· · · · · · · · · · · · · · · · · · ·
	cases are referred to as: InvestmentAlgoIndicator	NewWholesaleOrder (U64)

Field in the Act	Optiq fields (FIX)	Used In
		WholesaleOrderAck (U65) RequestForImpliedExecution (U66) CrossOrder (U67)
Execution algo indicator	Populated via combination of components in the Parties group. Details of cases and values are contained in the message descriptions. The various cases are referred to as: ExecutionAlgoIndicator	NewOrderSingle (D) ExecutionReport (8) MassQuote (i) NewWholesaleOrder (U64) WholesaleOrderAck (U65) RequestForImpliedExecution (U66) CrossOrder (U67)

To reduce latency impacts associated to the use of these fields and to avoid sensitive information from being routed over the non-encrypted order interface, the optimized representation of this data is transmitted to Euronext via short codes. Mapping of Short Codes to required data for reporting may be provided by clients by end of business on the trading day when trade has occurred using the process described below:

- Clients have access to the Customer Web portal where they are able to input the MiFID II compliant data for each required field. This data could be associated to the short codes, which may also be provided by the clients via the Customer Web Portal. For Example:
  - To identify a non-DEA client on behalf of which an order was entered in the system, members are requested to enter their MiFID II Client identification code (as described in the associated act): Where the client is a legal entity, the LEI code of the client shall be used. Where the client is not a legal entity, the National ID shall be used.
- When this code is entered, the clients are able to assign a short code to it in the Customer Web Portal. This short code may be used in the NewOrderSingle (D) message in the fields corresponding to the values explained in the messages description under ClientIdentificationShortCode.
- For clients using algorithms in their trading, guidelines for the way they should generate and populate the short codes associated to the executing (combination of values referred to in message descriptions as case ExecutionWithinFirmShortCode) and investment decision making (combination of values referred to in message descriptions as case InvestmentDecisionWFirmShortCode) should be set based on the setting of the Algo Indicator in the order messages:
  - When an order message is flagged to indicate that algorithm is not involved, then in the field PartyID (448) all positive values (from 0 to 2<sup>31</sup>-1) would represent a human trader.
  - If an order is indicated as having involvement of an algorithm, clients are requested to populate PartyID (448) with the ranges of values identified below. No technical checks would be performed to validate correctness of the ranges used by the system:
    - In-house algorithms: with positive range of values between 0 to 2<sup>31</sup>-1
    - ♦ ISV algorithms: negative range of values between -2<sup>31</sup>+1 to -1

Clients should take the following into consideration for populating of short codes in inbound messages:

- ExecutionWithinFirmShortCode is mandatory to be provided in all inbound application messages;
- InvestmentDecisionWFirmShortCode is mandatory to be provided when the Account of the order is set as Liquidity Provider, House or Related Party (Cash only). It does not apply if an order is flagged as DEA. It is optional in other cases.
- ClientIdentificationShortCode is mandatory when an Account of the order is set as Client, RO (Cash only) or is flagged DEA. It is optional is other cases.

In the order messages short codes are used for regulatory reporting. In most other messages these codes, if identified, are to be used for purposes of identifying individual market makers and Kill command.

#### 1.2.2 Reporting to Competent Authorities

MiFID II requires market participants to report additional transaction information to the regulators. The requirements for this reporting are summed up in the delegated act "supplementing Regulation (EU) No 600/2014 of the European Parliament and of the Council with regard to regulatory technical standards for the reporting of transactions to competent authorities" issued by ESMA within the MiFID II Regulatory Technical Standards. Euronext provides an Approved Reporting Mechanism (ARM) service to its clients, which allows them to comply with these requirements in a stream-lined manner.

Clients established within the European Union, are able to subscribe to this optional supplementary service. For clients established outside of the European Union, the reporting is done by the exchange on a compulsory basis, with client participation in the service and provision of data required by this act being mandatory.

#### 1.3 FUTURE USE

In preparation for various functionalities expected to be implemented in the future on Optiq a number of messages, fields and values were added and flagged 'For Future Use'

Details of functionalities flagged in the specifications as for 'Future Use' are provided for information purposes only, and may change significantly until such time as the finalised specifications for the relevant service are communicated to the clients.

The associated messages and effective use of fields & values will not be technically supported until the announced date for implementation of these functionalities. Submission of inbound messages that are flagged as 'Future Use' will be rejected by the system. Such fields or values, if provided in supported inbound messages, will be ignored by the system.

This behaviour applies to:

- Messages flagged as 'For Future Use';
- Fields flagged as 'For Future Use', 'Pending Regulatory Approval'

If an inbound message contains a mandatory field having one of these flags, then the field must be sent with a default value.

#### 1.4 GLOSSARY

This section provides some high-level definitions of commonly used terms of this document. Please note that some of these terms are described in more details in the dedicated sections within this document.

- Optiq: is Euronext's multi-market full trading chain technology platform.
- Order Entry Gateway (OEG): is the software that manages the access for exchanges' clients, and acts as the private
  interface between the clients and the Optiq matching engine.

- Market Data Gateway (MDG): is the software that provides high-speed, real-time market data (public messages)
   for the Furonext markets.
- Matching Engine: is the software that manages the trading services for the Euronext markets.
- Optiq Segment: defines a universe of instruments habitually sharing common trading properties. An OPTIQ Segment can contain one or several asset classes. An OPTIQ Segment access is setup through a Logical Access.
- Partition: is a technical subdivision of an Optiq Segment. An Optiq Segment may be comprised of at least one or several partitions, physically independent from one another, but connected to each other within the context of the OPTIQ Segment. Instruments may move from one partition to another within an Optiq segment.
- Logical Access: is an OEG (Order Entry Gateway) entry point, setup for clients to connect to a single OPTIQ
  Segment, containing the technical configuration for the client's connectivity. Multiple logical accesses can share
  the same SFTI line.
- <u>OE Session:</u> the individual physical connection, to a single Partition. A single Logical access may have as many OE sessions as there are partitions in the Optiq segment.
- Financial Information eXchange (FIX): is an electronic communications and messaging protocol used as one of the solution for order entry messaging in Optiq. The FIX messaging standard is owned, maintained and developed through the collaborative efforts of FIX Trading Community™ member firms.
- <u>Symbol Index</u>: is a unique system-wide identifier (in private and public messages) assigned to a trading instrument and Contracts in Optiq. Note that an instrument here represents either a single tradeable instrument, an index or a strategy. Except for strategies, it represents the combination of the following instrument characteristics: ISIN, MIC, Currency and when required the MIC of the Market of Reference. SymbolIndex will not change over the lifetime of the instrument, but can take a different value for the same instrument, depending on the environment (Prod or Test).
- Message: is a discrete unit of communication, provided in pre-defined format, which depends on the chosen
  protocol and the target functionality it relates to, containing information exchanged between Euronext and its
  clients, to enable trading on its systems.
  - Administration message is an electronic instruction from client or response from the OEG used to exchange technical, non-trade related information, most notably used to setup and maintain connectivity between a client and an OEG.
  - Application message is an electronic instruction from a client or a response from the OEG, used to exchange
    order and trade related information, including requests and events that impact orders and trades, but do
    not directly represent them.
  - Order: An order is an electronic instruction from a firm to buy or sell an instrument via Optiq. Firms can send many types of buy, sell and cross orders that are matched upon arrival or placed in the order book to await a match. Trade: A trade is an electronic agreement between the client(s) that submitted the order(s) to exchange for a certain quantity of one or more instruments, for one of the various forms of reimbursements (payment, exchange of goods, services, etc.). Standing Data: provides referential data characteristics of all trading instruments available on Euronext markets. The data is provided via files and messages.
  - Standing data files contain referential data characteristics of the Contracts, trading instruments, including
    Outrights, and strategies that may be required, or provided as value-added information. These files are
    provided on a daily basis and can be obtained from a separate HTTPS service.
  - Standing data messages contain the basic information of each instrument and strategy, and are
    disseminated via MDG at the start of each trading session and intra-day on creation of Derivative
    instruments.
  - Clients should refer to the MDG documentation for the full details about these services.
- <u>Self-Trade Prevention (STP):</u> Service provided by Euronext on its trading platform, to allow trading clients to avoid unintentional trading with themselves, that results from the matching of two opposite orders of the same client.

This service is made available to clients performing specific types of activities (e.g. Liquidity Providers) setup depending on the rules defined per Optiq Segment.

- Firm: A firm is an investment firm or financial institution that deals, advises, and/or acts on behalf of its clients and possibly itself on the Euronext markets.
- **A Firm Access:** An entity allowing the Firm to access the Trading Platform. The two 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 its own and exclusive order entry access means directly with Euronext, the Firm Trading Solution type is Regular Access (or sometimes Direct Access).
  - Service Bureau Access: when a third-party customer, which may, among others, refer to a Service Bureau, contracts order entry access means with Euronext to act as an order carrier on behalf of several firms, the Firm Trading Solution type is Service Bureau Access.
- Declaration: A declaration is one side of a potential trade (in other words, an order) that is entered by the declaring
  member in TCS. It awaits matching with the declaration of the counterparty on the opposite side, or, if it fails to
  match within the given period of time, it is eliminated from TCS.

#### 1.5 ERROR CODES

When the Matching Engine receives an incoming message, it performs several checks on this message, and may reject it. When this occurs, the error is identified in the outgoing message sent back by the responding system as an error code. In Optiq the response messages contain only the error codes.

The list of errors that can be issued by the Optiq Matching Engine (ME) & Order Entry Gateway (OEG) upon reception of incoming private messages is provided in a dedicated file: <a href="Error Code List">Error Code List</a>, which may be downloaded from the Euronext website. This list includes errors that may occur due to issue encountered within messages sent by customers to or exchange business continuity conditions, as well as the errors that are issued by the Trade Confirmation System (TCS).

The Error Codes are classified by Rejection Type. The rejection types are defined in the following table and the first digit in the Error code is set to represent the type of rejection:

Rejection Type	Technical / Functional	Description
0 - TCS	TCS	Errors specific to messages sent to the Trade Confirmation System (TCS)
1 - Inconsistent	Functional	The specified value is functionally invalid (e.g., Expire time < actual time); OR
		Fields/characteristics are provided in the message but are irrelevant (e.g., a Stop Price filled for a Limit Order)
2 - Forbidden	Functional	Request is forbidden due to Exchange's Functional rules described in the associated Rules & Regulations documents (e.g. Trading Manual identifies that during the current phase, or due the member's authorizations a specific type of activity is forbidden)
3 - Invalid	Technical	The specified value is technically invalid (e.g., MsgSeqNum n < MsgSeqNum n-1); OR
		The format is not the expected format for free fields (String instead of Integer); OR

		The specified value is not one of the enumerated values listed for the field
4 - Missing	Technical	Necessary field is missing
5 - Failure	Technical	Failure in the exchange system

## Important notes:

- Fields, presence of which is "Mandatory" or "Conditional", can lead to an order rejection (Rejection type 4 -Missing) if not provided
- Fields, format of which is "Enumerated", can lead to an order rejection (Rejection Type 3 Invalid) if the value provided is not among the authorized values
- All Fields can lead to an order rejection (Rejection Type 3 Invalid) if the format is different from the format required
- Fields with null value are considered as not provided
- Information related to functionalities that are still work in progress, may be present in this document are subject to change when finalized version of the specifications for these initiatives are released

#### 2. ORDER ENTRY MAIN PRINCIPLES

## 2.1 NEW INSTRUMENT SEGREGATION - OPTIQ SEGMENT

High reliability, significantly increased throughput and latency performance with minimal standard deviation, improved flexibility in delivery of new functionalities and products, shorter time to market as well as the improved resiliency will be ensured within Optiq in part by introduction of the new instrument segmentation through Optiq Segments.

#### 2.1.1 Optiq Segments

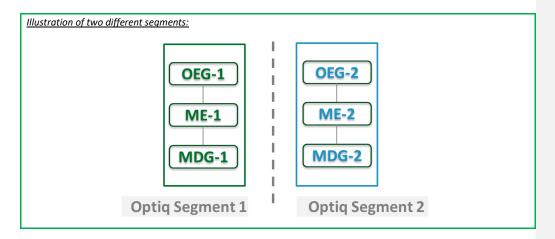
An Optiq Segment defines a universe of instruments sharing common trading and financial properties, it allows Euronext to segregate instruments among hermetic universes to facilitate clients' organisation toward Euronext financial markets.

For the implementation of Optiq Segments the instrument universe is rationalized and reorganized to fit the new structure.

A segment can contain one or several asset classes. Information of the Optiq Segment to which an instrument belongs to / hosted on is communicated to clients within the Standing Data files and messages. $^1$ 

Clients must be aware of the different existing Optiq segments and the instruments they host in order to identify which segment(s) they would connect to.

- Segmentation provides:
  - Improvement in resiliency failure of a single Optiq segment should have limited direct technical impact on other Optiq segments;
  - Increased flexibility possibility of independent software and operational lifecycle.



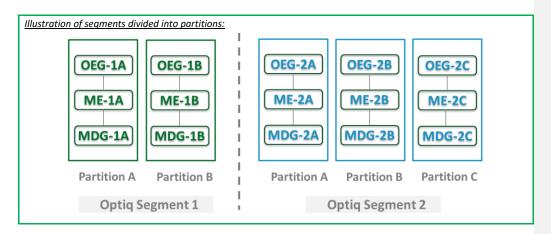
<sup>&</sup>lt;sup>1</sup> Standing data files and messages refer to the data provided for Cash and Derivatives, instruments, contracts, outrights and strategies

#### 2.1.2 Partitions

An Optiq Segment may be comprised of one or more physical partitions.

A partition is composed of an Order Entry Gateway (OEG), a Matching Engine (ME) and a Market Data Gateway (MDG). Instruments have the flexibility to be moved from one partition to another within an Optiq segment.

- Partitioning provides the following benefits:
  - Improved resiliency failures on one partition impact only a fraction of the market / clients;
  - Improved scalability: simple and seamless scalability model based on horizontal scalability principles;
  - Ensured stable latency and high performance.



## 2.1.3 Logical Access and OE Sessions

Access to an Optiq Segment requires a dedicated Logical Access:

- A Logical Access is a point of entry configuration for connectivity to a specific Optiq Segment and allows the client
  to technically reach all the instruments belonging to the particular segment for which an access is setup.
  - A Logical Access is dedicated to an Optiq Segment, i.e. a single Logical Access cannot connect to two different Optiq Segments;
  - Clients may have several Logical Accesses per Optiq Segment;
  - It allows the client to connect to all partitions belonging to the segment either directly or indirectly;
  - The physical connection is managed at the OE Session level and there is at least one per Logical Access.
- An OE session corresponds to the actual physical connection of the client to a partition:
  - OE Sessions are automatically created by the Exchange upon creation of a Logical Access;
  - OE Session is the login identifier for each physical connection represented by the combination of the LogicalAccessID and the OEPartitionID. These two fields represent an ID which is unique across the whole system and across the various Optiq Segments;
  - One OE Session always belongs to one Logical Access, but a Logical Access can have multiple OE Sessions. There
    can be as many OE Sessions as there are partitions in the Segment;
  - An OE session inherits the majority of characteristics setup for the Logical Access;
  - By default OE Sessions hold the ownership of the orders entered through it.

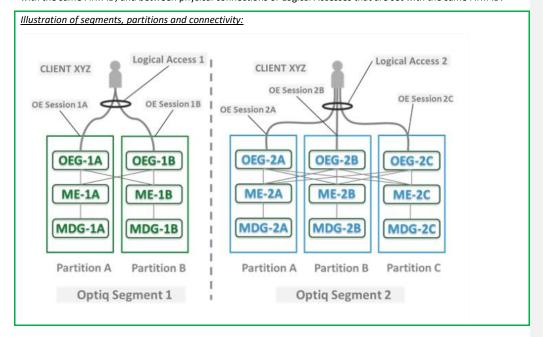
#### 2.1.4 Full mesh OEG-ME Connection

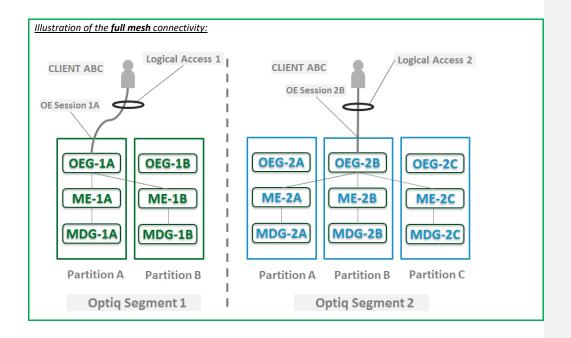
If a segment has multiple partitions, for the best possible response times, clients should initiate an OE session for each available partition and send messages through it only for the instruments hosted on this partition. However, a client may use a single OE Session to access all the instruments of an Optiq Segment, no matter how many partitions compose the segment. This is made possible by the full mesh OEG-ME connectivity provided by Optiq as represented in the diagram below. Such cross-partition access incurs additional response times (i.e. increased latency).

Quotes and other Market Making messages cannot be sent across partitions, and must be sent only to the partition where the Instrument or Contract is hosted.

By default, the responses to the private response messages sent through a different partition are returned to the OE session holding the ownership of the order (from which it was sent). However the corresponding MDG messages is issued by the partition on which the instrument is hosted.

As it relates to the OEG and private messaging, Order ownership is the technical belonging of the order to the physical connection that submitted the order, or to the physical connection that took ownership of the order. Outbound messages are sent to the OE Session that owns the corresponding order. Functionally the orders belong to the Firm (designated by its Firm ID), and for the scope of change of ownership; modification can only be done by the requestor with the same Firm ID, and between physical connections or Logical Accesses that are set with the same Firm ID.





#### 2.1.5 Determine the "shorter path"

In order to benefit from the best response times the clients should send messages directly to the partition on which the instrument is located. To identify on which partition each instrument is located, clients must use, and update on a daily basis, their referential data by downloading the Standing Data files or using the Standing Data market data messages, where details of the *Partition ID* assigned to each instrument are provided.<sup>2</sup>

## 2.1.6 Setting Up Connectivity

Euronext provides connectivity information within a dedicated document, the Connectivity Detail specifications, covering all required technical details. Ranges of IPs / Ports and Multi-cast channels are identified for each Optiq segment for Order Entry and Market Data gateways.

To take full advantage of the scalability of Optiq, and ensure continuity of service, clients are strongly encouraged to setup connectivity to the full range specified per segment for OEG and MDG. Individual partitions are assigned a subset of values identified within the specified ranges.

In addition the relevant details for OEG and MDG connectivity per instrument is communicated in the referential standing data files provided on a daily basis. For the details of the format in which this data is provided please refer to the Euronext Markets – Optiq MDG Client Specifications document.

<sup>&</sup>lt;sup>2</sup> For the Cash markets. Standing data file is: CashStandingDataFile (9007); Real time MDG Standing data messages: Standing Data (1007) | For the Derivatives markets. Standing data file is: DerivativesStandingDataFile (9013); Real time MDG Standing data messages: Contract Standing Data (1013)

#### 2.1.7 Overnight instrument migration between partitions

In order to improve latencies and predictability, an overnight load balancing mechanism is introduced by the new Optiq system. This new technical mechanism implies that every day all products belonging to an Optiq Segment may potentially be relocated across the partitions belonging to this Optiq Segment. Products are financial instruments on cash segments, contracts on derivative segments.

Please note that this migration between partitions will not cause products to migrate from one Optiq Segment to another Optiq Segment.

Every product can migrate overnight from one partition to another. It means that connectivity information associated to a product can change every day, which is why it is crucial for clients to daily update their referential data by downloading the standing data files provided on the Euronext server.

Please refer to the *Euronext Markets – Optiq MDG Client Specifications* document for further details on standing data files

Note: While migration of products between Optiq Segments is not expected to be a regularly occurring event, it may arise, and will be done with prior notification to clients.

## 2.1.8 Added / Removed Partition

The partitioning of the Optiq Segments, and full-mesh connectivity, allows Euronext to add or remove a partition without impacting the clients' connectivity. Adding or removing a partition will not impact connectivity to other existing partitions or OE Sessions.

In case of introduction of new partitions and until Clients are able to connect to the new partition they will still be able to use individual order messages to access all products (instruments for cash segments, contracts for derivative segments) belonging to an Optiq Segment by connecting to the already existing partition (s).

In case of removal of a partition, Clients will still be able to connect to existing partitions, and access instruments that were hosted on these partitions before the change, as well as any instruments that had to be moved to the existing partitions from the one being removed.

Partition on which the contract or instrument is hosted is identified in the Standing data that is provided on a daily

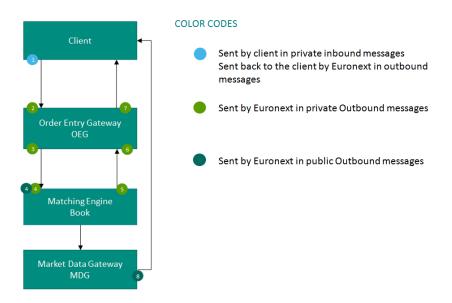
In all cases clients will always be provided prior notice - before such changes are performed.

#### 2.2 TECHNICAL FEATURES

## 2.2.1 Latency Monitoring and Timestamps

Outbound messages provide several internal timestamps to allow the clients to monitor the processing time of the system at different levels.

■ The following diagram represents the different timestamps provided in the outbound messages:



#	Field name	Description of data provided	
1	TransactTime	is assigned by the Client in his inbound message.	
2	OEGINFromMember	is assigned by the OEG after decoding the inbound message.	
3	OEGOUTToME	is assigned by the OEG when sending the inbound message to the matching engine.	
4	BookINTime	is assigned by the ME when receiving the inbound message from the OEG.	
5	BookOUTTime	is assigned by the ME when sending the outbound message to the OEG.	
6	OEGINFromME	is assigned by the OEG when receiving the outbound message from the ME.	
7	SendingTime	is assigned by the OEG when sending the outbound message to the client.  Corresponds to the OEG Out To Member timestamp in SBE.	
8	PacketTime	is assigned by the MDG when sending the message to the market.	

#### 2.2.2 Drop Copy

Drop Copy is a service, providing near real-time copies of trade reports & order messages, usually used for risk management and for compliance needs.

Clients require a dedicated connection to receive Drop Copy messages, which can be setup with configuration that fits their needs.

The service is available in FIX protocol only; further details are provided in a dedicated document.

#### 2.3 CLIENT ORDER ID MANAGEMENT

#### 2.3.1 Client Order ID Overview

Clients must provide a Client Order ID in every inbound application message, otherwise the message will be immediately rejected by the OEG.

In FIX protocol the Client Order ID is provided in the field *ClOrdID* (11). Clients may provide any value that respects the *ClOrdID* format and the ranges as defined below. The field format is a string of 20 characters accepting only numerical values ('0'...'9').

The Exchange recommends setting an unique ID per order, Firm (SenderCompID (49)) and Symbol Index (SecurityID (48)).

For order entry, the *ClOrdID* value is not checked by the Exchange<sup>3</sup>, it is simply returned in the corresponding outbound message to allow clients to reconcile the response message with their original inbound request.

For modification and cancellation using the *OrigClOrdID* as unique identifier<sup>4</sup>, the value is checked by the Exchange for possible duplicates, i.e. different live orders originally submitted with the same *ClOrdID*. In case of duplicates, the inbound request is rejected with the associated error code. In outbound application messages the field *ClOrdID* (11) is not provided for unsolicited messages.

## 2.3.2 Client Order ID for Order Management

Clients can submit modification and cancellation requests by using the *OrigClOrdID* as unique identifier, i.e. the value of the *ClOrdID* as submitted previously with the original order.

This allows clients to use the CIOrdID as unique identifier to modify or cancel their orders per Symbol Index (SecurityID) and Firm (SenderCompID), in addition to the OrderID. It does not restrict clients to use the OrderID to manage their orders.

Please note that *ClOrdID* provided for the modification requests will not be updated in the live order itself; order will keep its original *ClOrdID*.

To properly perform the inbound request, the system checks that the value exists on the corresponding Symbol Index (SecurityID) among live orders belonging to the requesting Firm (SenderCompID). If no order is found the request is rejected, or if more than one order is found the request is also rejected. In this case clients must use the OrderID to reach their orders.

 $<sup>^{\</sup>rm 3}$  With the exception of the Service Bureau accesses for which a check is always performed.

<sup>&</sup>lt;sup>4</sup> If both *OrigCIOrdID* and *CIOrdID* are provided in a modification or cancellation request, the *OrigCIOrdID* is totally ignored and the request is performed on *OrderID* only.

As the uniqueness of the *ClOrdID* is not checked by the Exchange for order entry but only in case of modification and cancellation requests, clients who want to use the *OrigClOrdID* as unique identifier for these requests must ensure on their own the unicity of the *ClOrdID* per Symbol Index (*SecurityID*) and Firm (*SenderCompID*) for orders they submit.

However, after an order, with a specific *ClOrdID* participates in a trade, it can no more be re-used to submit orders. This is not allowed in order to make sure that in case of trade investigation, only one single instance of order linked to the trade is available. The same behaviour is appied for "Cancellation of RFC submission" using the *ClOrdID*.

As requests using the *OrigClOrdID* require additional checks to be performed by the system, clients may observe a slight increase of the response time for these requests. Hence to ensure the best possible response times clients are encouraged to use *OrderID* as the reference for their orders.

#### 2.3.3 Client Order ID Ranges

Depending on the nature of the client access, the CIOrdID must respect some constraints as described below.

Moreover it is recommended that clients implement their own configurable prefix in order to allow firms to integrate several application instances easily and ensure *ClOrdID* uniqueness across all the firm orders.

#### 2.3.3.1 For Regular "In House" Accesses

For Regular In-House accesses (i.e. not via ISV nor using Service Bureau):

- clients must use the positive number range only;
- numerically it means that clients are restricted to values from 0 to 2^63-1.

There is no other constraint than positive values for the non-Service Bureau accesses.

## 2.3.3.2 For Regular Accesses via ISV

For Regular access via ISV, without use of Service Bureau:

- clients must use the negative number range only;
- clients must insert at the beginning of the field the unique ISV ID, which will be provided by the Exchange.
  - the ISV ID is composed of three digits

The correct use of the ISV ID and range is checked by the exchange during the conformance test, however afterwards the OEG will not perform any checks of the correct assignment of the ID or range in the inbound application message.

#### 2.3.3.3 For Service Bureau Accesses

For Service Bureau accesses:

- clients must use the negative number range only;
- clients must insert at the beginning of the field the unique Service Bureau ID, as provided by the Exchange.
  - the Service Bureau ID is composed of three digits
- numerically it means that clients are restricted to a range from –XXX000000000000000 to
  - -XXX999999999999999, where XXX is their Service Bureau ID.

The Service Bureau ID is provided by the Exchange and is checked during the conformance test and is also checked and enforced at the OEG level for each inbound application message.

#### 2.4 ORDER ID

The OrderID (37) used in the messages for trading purposes is a numerical order identifier assigned by the matching engine, unique per instrument over the entire lifetime of the order, which means that this value remains unchanged, even upon submission of the modifications of the order using OrderCancelReplaceRequest (G) message.

FIX received encoded data, and to obtain the Order ID provided to the CCP it needs to be converted, using the steps identified below.

Please note: The value received in this field is a string of up to 20 characters long, but may be shorter.

- The value obtained from the field Order ID should be divided by 2<sup>16</sup> (or 65536)
- The resulting value should be truncated to obtain just the whole part of the result, without any rounding.

The resulting value represents the Order ID that is communicated by the Exchange to the CCP.

#### Example:

- Obtain the value in field OrderID (tag 37): 33637557
- Divide this value by  $2^{16}$ :  $33637557 / 2^{16} = 513.2683868$
- Truncate the result to the whole value without rounding: 513

513 is the expected Order ID provided to the CCP.

In case a FIX message is rejected for Technical reasons, it is not processed by the matching engine. In this case Order ID is neither allocated by the matching engine, nor provided in the rejection message.

Technical rejection cases can be identified by the type of the Error code, as provided in the field "Technical / Functional" within the Error codes file (.csv).

#### 3. ORDER ENTRY GATEWAY SPECIFICS

#### 3.1 SESSION MANAGEMENT

#### 3.1.1 Logon Overview

Clients initiate a TCP/IP session to the Order Entry Gateway, and then initiate a logon by sending the **Logon** (A) message. Session Logon is always initiated by the client. The **Logon** (A) message must be the first message sent by the client otherwise the OEG will drop the connection, and needs to be sent individually to each partition to which physical connection will be established. Please refer to the description of use for the individual messages and Kinematics document to see the various cases and the associated expected exchange of messages.

After the logon is successful application messages may be exchanged between the client and server. A client has n seconds after they connect to send a logon request, otherwise the server drops the connection.

The value of the time delay *n* is provided for each Optiq Segment in the *Euronext Markets – Optiq OEG Connectivity Specifications* document.

#### 3.1.2 Heartbeats and TestRequests

The OEG uses the **Heartbeat** (0) and **TestRequest** (1) messages to ensure the connection between the client and the Exchange is up and functioning properly. During periods of inactivity the mechanism used by the OEG functions as described below.

## OEG sends a:

- Heartbeat (0) message after the given delay of inactivity on its side, i.e. the OEG sends a Heartbeat message after it has not sent out any messages within n second(s). In case no other messages, the clients will receive at least one Heartbeat (0) message every n second(s) when they are logged on. This ensures the client that OEG is up and functions properly.
- <u>TestRequest (1) message</u> after the given delay of inactivity on the client side, i.e. when the client has not sent any
  message within the last n second(s).
  - The client has another, equivalent time delay to answer the TestRequest (1) message by sending back to the OEG a Heartbeat (0) message.
  - Otherwise if the client does not issue the responding Heartbeat (0) message within the given delay, the OEG closes the connection. (Note that this disconnection triggers the Cancel on Disconnect mechanism if the latter is enabled).

The **TestRequest** (1) message can also be sent by the client to the OEG at any moment and the OEG will answer with a **Heartbeat** (0) message.

The parameter *n* has a specific value for each Optiq Segment that is specified in the *Euronext Markets – Optiq OEG Connectivity Specifications* document.

## 3.1.3 Logout

Normal termination of the message exchange session will be completed via the exchange of **Logout** (5) messages.

#### 3.1.4 Message Sequence Usage

Optiq FIX messages are identified by a unique sequence number. Sequence numbers are initialized at the start of each FIX session starting at 1 (one) and increment throughout the session. Monitoring sequence numbers will enable parties to identify and react to missed messages and to gracefully synchronize applications when reconnecting during a FIX receipt

Each session will establish an independent incoming and outgoing sequence series; participants will maintain a sequence series to assign to outgoing messages and a separate series to monitor for sequence gaps on incoming messages.

#### 3.2 CANCEL ON DISCONNECT MECHANISM

Cancel on Disconnect is a mechanism which triggers an automatic cancellation of all non-persisted orders upon disconnection of the client whether voluntary or due to an issue.

In typical day-to-day operations the Cancel On Disconnect applies at the OE Session level, which means that it is triggered per OE Session (physical connection) and it does not affect other OE Sessions that belong to the same Logical Access.

By default the Cancel On Disconnect is enabled for all clients and for all their Logical Accesses / OE Sessions. It means that every single order is checked for Cancel On Disconnect.

The Cancel On Disconnect mechanism is triggered when the connection between a client and the OEG is dropped. If the client application is disconnected from the OEG, then all live quotes and non-persisted orders submitted during current day's trading sessions, and belonging to the corresponding OE Session are cancelled for their remaining quantity, regardless of order type and validity type.

When the mechanism kicks in, a **ExecutionReport** (8) messages are sent to the OE Session for which the mechanism has been triggered, for each instrument in scope and each killed order. If the client has not yet reconnected the messages will be queued until he returns.

Clients can indicate on each order if they want it to be persistent, i.e. not included in the scope of the Cancel On Disconnect mechanism. If the *CancelOnDisconnectionIndicator* (21018) field is set to 1 (one) which stands for "Order not in the scope of Cancel On Disconnect" for an order, this order will not be cancelled even if the Cancel On Disconnect kicks in for the OE Session it belongs to.

Please refer to the "Cancel on Disconnection" section of the Euronext Markets – Optiq OEG Connectivity Specifications document for further details.

## 4. FORMATTING

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

This section describes:

- The Conventions used for field format definition.
- The standard header and trailer of the private (or directed) messages used to communicate with the Order Entry Gateway (OEG) application, which provides access to members to Optiq.

#### 4.1 FIELD FORMAT

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 FIX 5.0, all tags must have a value specified.

Table below provides the mapping for the types specified in the "Type" column of message tables and the FIX types described in the official FIX 5.0 specifications document.

Format	Length	FIX 5.0 Type
Char	1	Char
String	N > 1	String
Currency	3	Currency
Boolean	1	Boolean
Int	N	Int
Price	N	Price
Qty	N	Qty
Amt	N	Amt
Percentage	N	Percentage
Length	N	Length
Float	N	Float
LocalMktDate	8	LocalMktDate
SeqNum	N	SeqNum
MultipleCharValue	N	MultipleCharValue
NumInGroup	N	NumInGroup
MonthYear	N	MonthYear
UTCTimestamp	27	UTCTimestamp (Format: YYYYMMDD-HH:MM:SS.ssssssss)

Alphanumerical fields: authorized characters are the following ones:

**Numerical fields**: 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 OEG. Numerical fields are expressed in ASCII characters '0'..'9' and decimal separator '.'.

**String fields**: authorized formats are alphanumeric free format strings, which can include any character or punctuation, except the delimiter. All String fields are case sensitive (e.g. Euronext!= euronext).

 Note: certain fields are provided in string format (FIX 5.0 compliance) but the authorized characters are restricted to numerical values ('0'..'9') (e.g., fields using FIRM ID)

**Length**: the value provided in the "Len" column of the table above indicates the field length:

- When a value is provided (e.g. '1' for Char type, or '27' for UTCTimestamp type), it indicates that the field value must have the exact length indicated.
- When N is used (e.g. String or Price types), it indicates that the related FIX type has no defined length according to FIX specifications. However, a value is usually provided in the message structures, indicating the maximum length of the field value according to OEG (the value may actually be shorter).

Please refer to the official FIX 5.0 specifications document (chapter "FIX PROTOCOL SYNTAX", section "Data Types") for further details.

- In all the message structures provided of this document (the tables representing the messages only):
  - Where a list of specific allowed values is provided, if the client provides data that is outside of the specified range, the message will be rejected
  - In the fields description the following pictograms represent:
  - [C] the value is for Cash only;
  - [D] the value is for Derivatives only;
  - [i] special conditions apply to the displayed value. These conditions are detailed in the description of the corresponding field in the "Conditions" row.

**Price**: float field representing a price without decimal places. The real Price value must be calculated as described in the section <a href="Price">Price</a>, <a href="Quantity">Quantity</a>, <a href="Ratio">Ratio</a> and <a href="Amounts Formats">Amounts Formats</a>

**Qty**: float field representing a quantity without decimal places. The real quantity value must be calculated as described in the section <a href="Price">Price</a>, <a href="Quantity">Quantity</a>, <a href="Ratio">Ratio</a> and <a href="Amounts Formats">Amounts Formats</a>

**Amt**: float field representing an amount (typically Price times Qty) without decimal places. The real amount value must be calculated as described in the section <u>Price</u>, <u>Quantity</u>, <u>Ratio and Amounts Formats</u>

**Float**: float field representing a number (i.e. Ratio) without decimal places. Field description provides details on how to calculate the actual value used in such fields.

MultipleCharValue: string field allowing sending multiple values at the same time. This field contains one or more space delimited single character values (e.g. |18=0 1 0|) with each possibly indicating different values and/or flags. Each filled in value is normally set to zero (0) or one (1) and should be used as indication of whether the position in the field should be processed or not. Each value provided should be read based the meaning provided for possible values in the description of each field.

<u>For example</u>, the field *TradeQualifier (21080)* of type MultipleCharValue has 8 possible values which can be simultaneously sent on a 13 characters length string, as follows:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
0		1		0		1		0		0		0		0

In this example, the values filled correspond to the positions in the field, and indicate possible values that should be interpreted as follows:

Value position	Position represents	Value Meaning in Example		
1	0 = Uncrossing Trade	0 (No) - the trade didn't occur during Uncrossing Phase		
3	1 = First Trade Price	1 (Yes) – Opening trade		
5	2 = Passive Order	0 (No) – Not a passive order		
7	3 = Aggressive Order	1 (Yes) – An Aggressive order		
9	4 = Trade Creation by Market Operations	0 (No) – Trade NOT created by Market operations		
11	5 = NAV Trade expressed in bps	0 (No) – Not a NAV trade expressed in basis points		
13	6 = NAV Trade expressed in price currency	0 (No) – Not a NAV trade expressed in currency		
15	7 = Deferred Publication	0 - Immediate Publication		

#### 4.2 STRUCTURE REPRESENTATION

Some messages may contain a subset of consecutive fields (a repeating group) that can be repeated a variable number of times.

Generally the number of times a repeating group is repeated is specified by the numerical field (the counter) preceding that group.

In this document, repeating groups (including their counter) are highlighted with heavy, dark green edges and light green background, like in the example below:

Counter			Repeating Group Counter					
			Repeating Group	Min and max values affect the minimum and maximum message length				

#### Nested repeating components

In some cases it is necessary to have components (groups of fields) repeated within another repeating group, within a single FIX message. Such "sub"-groups are called nested repeating components. Nested repeating components are especially important in representation of the Parties component, identifying the multiple different cases of the entities participating in the order (e.g. various MIFID II related fields).

In this document, to easily differentiate from the repeating group within which they are used, nested repeating components are designated within the message definition via:

- Highlighting of the fields within the components with light green background, and
- Wider green outline the lines is wider depending on the number of nested repeating components inside a give component

If a nested repeating component is used, they are always specified inside another repeating group (identifiable with a green outline and light grey background), and the outer repeating group is always specified.

Counter			Repeating Group Counter					
			Repeating Group	Min and max values affect the minimum and maximum message length				
Nested Counter			Nested Repeating Group Counter					
			Nested Repeating Group	Min and max values affect the minimum and maximum message length				
Nested Counter			Nested Repeating Group Counter					
			Nested Repeating Group	Min and max values affect the minimum and maximum message length				

## 4.3 FIX OPTIONAL FIELDS

Optional and conditional fields can be set to null value as defined by the FIX standard. Optional and conditional fields are handled as defined by the FIX standard.

If a field is identified to be set to "null value" (e.g. in the associated messages for SBE Interface) - the field is not provided in FIX.

For more details please refer to section "Conditional Values in Outbound Messages" within this document.

#### 4.4 DATE AND TIME CONVENTIONS

Date and Time provided in this document refer to the following names, and are provided in the following format:

#### For Cash and Derivatives Markets:

Date and Timestamps are expressed in UTC (Universal Time, Coordinated) and are synchronised using Precision Time Protocol (PTP). Their format is defined in number of nanoseconds since 01/01/1970 UTC, and is populated using a string of 27 characters, as follows:

#### YYYYMMDD-HH:MM:SS.ssssssss

#### where:

- "YYYY" is the year.
- "MM" is the month.
- "DD" is the day.
- "HH" are the hour.
- "MM" is the minute.
- "SS" is the second.
- "ssssssss" is the fraction of a second (nanoseconds).

Note: Expiry Date and Time provided for Good Till Time (GTT)<sup>5</sup> and Good Till Date (GTD) orders follow their own rules, please refer to the field description for further details.

#### For TCS Reporting:

- Timestamps are expressed in UTC (Universal Time, Coordinated) and are synchronised using Precision Time Protocol (PTP). Their format is defined in number of nanoseconds since 01/01/1970 UTC, and is populated as 8byte unsigned integers.
- Dates and Times formatted for ESMA reporting (MiFID II) are defined with a 27-byte character string following ISO 8601:

# YYYY-MM-DDThh:mm:ss.ddddddZ.

# where:

- "YYYY" is the year.
- "MM" is the month.
- "DD" is the day.
- "T" is a constant letter used as a separator between "YYYY-MM-DD" and "hh:mm:ss.ddddddZ".
- "hh" is the hour.
- "mm" is the minute.
- "ss.dddddd" is the second and its fraction of a second.
- "Z" is a constant letter used for UTC time.

<sup>&</sup>lt;sup>5</sup> For Future use

#### 4.5 PRICE, QUANTITY, RATIO AND AMOUNT FORMATS

If a price is needed in the messages, it is expressed in currency, basis points or in percentages (generally for bonds).

The volume of the order is a number of Securities or an amount expressed in currency.

All prices are processed using two values:

- the price value (Signed/Unsigned Integer);
- the scale code (Price/Index Level Decimals).

Clients have to link each instrument to the associated "Price/Index Level Decimals" from the Standing Data message or file.

The prices must be calculated according to the following formula:

$$Price = \frac{Integer}{10^{"Price/Index Level Decimals"}}$$

For example, a price of 27.56 is sent in messages in the Price field as an Integer of 275600, if the "Price / Index Level Decimals" from the Standing Data is equal to 4.

Whether the price is expressed in currency or in basis points, the format of providing the price is the same.

- The same mechanism is used for:
  - All quantities with "Quantity Decimals"
  - All ratios and percentages with "Ratio / Multiplier Decimals"
  - All amounts with "Amount Decimals"

## 4.6 INSTRUMENT IDENTIFICATION AND EMM

#### 4.6.1 Symbol Index

An instrument is identified by its Symbol Index. In FIX protocol this value is provided in field **SecurityID** (48). Note that, on the Derivative segments, contracts are also identified by a Symbol Index.

The standard security identifier (for example ISIN), mnemonic, tick size, instrument name and other instrument characteristics are carried only in the following Market Data messages: **Standing Data** (1007), **Outright Standing Data** (1014), **Strategy Standing Data** (1012), **Contract Standing Data** (1013) messages and in the Standing Data files available on the Web and SFTI HTTPS server. As such, the client applications must link the Symbol Index (*SecurityID* (48)) which is used in all messages, with other instrument characteristics present in the Standing Data messages or files.

The Symbol Index (SecurityID (48)) is assigned by Euronext and will not change for the lifetime of the instrument.

In some extraordinary cases an instrument can move from one Optiq segment to another keeping its Symbol Index. Clients will always be notified in advance before such changes.

Any Corporate Action leading to a change of ISIN will lead to change of Symbol Index. These Corporate Actions are generally part of the mandatory reorganisation events; the most frequent ones being stock split, reverse stock split, change of name / denomination. However the ISIN change is not systematic and will be in any case communicated upfront through the Euronext Corporate Action notices.

For further details on the Standing Data messages and files please refer to the Euronext Markets – Optiq MDG Client Specifications document.

#### 4.6.2 Order Priority

The OrderPriority (21004) is provided in private ExecutionReport (8) messages for every individual order.

Value in the field *OrderPriority (21004)* is based on the time of the entry of the order into the book, or the cases of its modification that impact priority.

According to the rules of the market modification of price and volume of an order in most cases have a negative impact on the priority, with exception of modification that is reducing the volume, in which case order maintains its priority. In case of loss of priority, the Order Priority is reset to the time of the modification.

For **MassQuote** (i) messages priority is not assigned, as an individual Market Maker may be present only once at single price level.

#### For Cash Markets Only

For the Cash Markets the *OrderPriority* (21004) ) may be used to allow clients to reconcile with the Market Data feed as the *OrderPriority* is also provided in the **Order Update** (1002) message.

For further details please refer to the description of the **ExecutionReport** (8) message and to the Cash Markets Kinematics document in Section 1.2.5.1 Private and Public feed reconciliation.

For Stop orders *OrderPriority (21004)* will be provided in the private **ExecutionReport** (8) acknowledgement message. This order priority indicates the rank of the stop order on its arrival. If multiple stop orders exist with the same price conditions, they would be triggered in the order of the priority assigned to the stop order upon entry.

When Stop orders are triggered, a new **ExecutionReport** (8) acknowledgement message is issued, with the field *OrdStatus* (39) set to "S = Stop Triggered Ack", they will be assigned a new order priority that indicates their priority vs. the rest of the book.

## 4.6.3 EMM

The Exchange Market Mechanism represents the platform to which the order sent by the client must be routed. It must be specified by clients each time a Symbol Index [provided in SecurityID (48)] is specified as it is used to route the order to the right platform. In FIX protocol this value is provided in the custom field EMM (20020).

#### 4.7 MESSAGE HEADER & TRAILER

## 4.7.1 Message Header

Client **◀▶**OEG

#### Message Usage:

The header identifies the type, length, destination, sequence number, time and point of origin of each OEG FIX 5.0 message.

Origin and destination information of each message is held by the fields <u>SenderCompID (49)</u> and <u>TargetCompID (56)</u>.

In case a firm's Logical access is configured with Additional allowed member code(s) [ACL] on top of the mandatory Member Code [Owner] that owns / requests the connection:

In case a firm's Logical access is configured with Additional allowed member code(s) [ACL] (a.k.a. Executing Firm), on top of the mandatory Member Code [Owner] (a.k.a. Executing Firm) that owns / requests that connection AND if these member codes (between Owner and ACL) are not the same:

- the field OnBehalfOfCompID (115) is mandatory in Inbound messages, otherwise the field is not required
- if value is provided in field <u>OnBehalfOfCompID (115)</u> of the inbound message, the field <u>DeliverToCompID (128)</u> is sent back with the same value, in the following Outbound application messages: ExecutionReport (8), OrderCancelReject (9), MassQuoteAck (b), QuoteRequestReject (AG), OrderMassCancelReport (r), RequestAckMessage (Uy), OwnershipRequestAck (U29). In all other cases the field is not provided in Outbound.

There are two fields that help with the resending of messages:

- PossDupFlag (43) is set to Y when a message is being resent because it was prompted by the system or as result
  of a ResendRequest.
- PossResend (97) is set to Y when a message, already sent, is being reissued with a new sequence number (e.g. resending an order).

The receiving application should process these messages as follows:

- PossDupFlag (43) If a message with this sequence number has been previously received, ignore message, if not, process normally.
- PossResend (97) Forward the message to the application and determine if was previously received (i.e. verify order ID and parameters).

Note: This field can only be set by the OEG (if set by the client application, a **Reject** (3) message is sent back by the Optiq ME).

Tag	Field	Short Description	Format	Len	Values	Presence
8	BeginString	Beginning of message identifier. Identifies the beginning of message and the protocol version. Must be the first field in message. Always unencrypted.	String	9	FIXT.1.1 (Always unencrypted, must be first field in message)	Mandatory
9	BodyLength	Message length including header, body and trailer. Message length, in bytes, forward to checksum field. Must be second field in message. Always unencrypted.	Length	6	Integer	Mandatory
35	MsgType	Specifies the Message type.	String	3	(See field description)	Mandatory
34			SeqNum	10	From 1 to 2^32-2	Mandatory
49	SenderCompID	Identifier of the member firm that sends the message.	String	8	Inbound: Firm ID / Outbound: Exchange ID	Mandatory
56	TargetCompID	Message receptor ID.	String	8	Inbound: Exchange ID / Outbound: Firm ID	Mandatory
115	OnBehalfOfCompID	ID of the issuing firm when the message is sent through a third party.	String	8	Inbound: Firm ID / Outbound: Not used	Conditional

values in taas

Tag	Field	Short Description	Format	Len	Values	Presence
128 DeliverToCompID		ID of the receiving firm when the message is sent through a third party. This field holds the same information as the one held by OnBehalfOfCompID in inbound messages.	String	8	Inbound: Not used / Outbound: Firm ID	Conditional
43	PossDupFlag	Identifies if a message is being retransmitted or not.	Boolean	1	(See field description)	Optional
97	PossResend	Indicates if the message contains information that was already sent under a different sequence number.	Boolean	1	(See field description)	Optional
52	SendingTime  Time (in ns) of messag transmission (Format: YYYYMMDD-HH:MM:SS.ssssssss).		UTCTimestamp	27	YYYY = 0000-9999, MM = 01-12, DD = 01-31, HH = 00-23, MM = 00-59, SS = 00-59, SSSSSSSS = 000000000- 999999999 (nanoseconds)	Mandatory
transm YYYYMI		Time (in ns) of message transmission (Format: YYYYMMDD-HH:MM:SS.sssssss).	UTCTimestamp	27	YYYY = 0000-9999, MM = 01-12, DD = 01-31, HH = 00-23, MM = 00-59, SS = 00-59, SSSSSSS = 000000000- 999999999 (nanoseconds)	Conditional
369	LastMsgSeqNumProcessed Indicates to the Client which was the Message Sequence Number of the last message processed by the Exchange.		SeqNum	10	From 1 to 2^32-2	Conditional

# 4.7.2 Message Trailer

Client **◀▶**OEG

# Message Usage:

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

Tag	Field	Short Description	Format	Len	Values	Presence
10	CheckSum	Simple checksum.	String	3	Numerical	Mandatory
		Always 3 bytes, always unencrypted, always last field in message.				

# 4.8 REJECTION AND DISCONNECTION WHEN HANDLING MISSING MANDATORY TAGS OR INCORRECT VALUES IN TAGS

Upon the reception of an inbound message, the Exchange (through OEG) rejects the message if it is poorly formatted, e.g. missing a mandatory field, if the provided fields data is outside of the range of the possible values. In addition to this general rule the table below identifies specific cases when fields or values provided result in either rejection of connection, or disconnection of the client from the OEG. The various cases are grouped by the field / tag.

ags		
Field (tag)	Value	Behaviour
MsgType (35)	Missing	If this field is missing in the first message following the physical connection of the client, no matter the type of message sent, OEG closes the connection.
BeginString (8)	Missing	If the inbound message is missing the field <i>BeginString</i> (8) or if this field has an unauthorized value, then the OEG will close the connection and
beginstring (o)	Incorrect Value	will not issue any message back to the client
BodyLength (9)	Missing	If this field is missing in the first message following the physical connection of the client, no matter the type of message sent, OEG closes the connection.
	Incorrect Value	If the inbound message has a wrong <code>BodyLength</code> (9) the message will be ignored by the OEG
CheckSum (10)		If the inbound message has a wrong <i>CheckSum</i> (10) the message will be ignored by the OEG
Mars (24)	Minda	If this field is missing in the first <b>Logon</b> (A) message, OEG sends back a Logout (5) with <i>SessionStatus</i> (1409) = <b>104</b> (Invalid logon Value)
MsgSeqNum (34)	Missing	If the message is <u>not</u> a Logon (A) and this field is missing, OEG closes the connection
	Missing	If the field is missing in any message, OEG closes the connection and if relevant disconnects the client
SenderCompID (49)	Incorrect Value	If the first message is a Logon (A), OEG sends back a <b>Reject</b> (3) with fields set as <i>TargetComplD</i> (56) = <b>INCORRECT VALUE</b> and <i>SessionRejectReason</i> (373) = <b>9</b> (ComplD problem), and the connection is not established.
		If the first message is <u>not</u> a Logon (A), OEG disconnects the client
	Missing	If the field is missing in any message, OEG disconnects the client
TargetCompID (56)	Incorrect Value	If the <b>Logon</b> (A) message sent by the client has the <i>TargetCompID</i> (56) that exceeds the length of the field, OEG disconnects the client
		If the Logon (A) message has a value in <i>TargetCompID</i> (56) that does not correspond to the one set for the Logical Access, OEG sends back a <b>Rejec</b> (3) with <i>SessionRejectReason</i> (373) = <b>9</b> (CompID problem)
		If there is no session established and client send a message to the Exchange with <i>PossResend</i> (97)=Y, the tag is ignored and the message is processed
PossResend (97)	=Y	If the connection is already established and a messages is sent with PossResend (97)=Y or if the PossResend (97)=Y is set in the <b>Logon</b> (A) message OEG sends a <b>Reject</b> (3) message with <i>SessionRejectReason</i> (373 = 5 (Value is incorrect (out of range) for this tag)
	Missing	If the field is missing in the first message that is a <b>Logon</b> (A), OEG sends back a <b>Reject</b> (3) with <i>SessionRejectReason</i> (373) = 1 (Required Tag Missing)
		If the field is missing in the first message that is <u>not</u> a Logon (A), OEG closes the connection
SendingTime (52)	Out of Range	If the field is provided with a value that is out of range in the first message that is a <b>Logon</b> (A), OEG sends back a <b>Reject</b> (3) with SessionRejectReason (373) = 5 (Value is incorrect (out of range) for this tag)
		If the field is provided with a value that is out of range in the first message is <u>not</u> a Logon (A), OEG closes the connection
	Incorrect Value	If the field is provided with an incorrect value in the first message that is Logon (A), OEG sends back a Reject (3) with SessionRejectReason (373) = 6 (Incorrect data format for value)

		Sequence Number Gap Management &
Field (tag)	Value	Behaviour
		If the field is provided with an incorrect value in the first message that is $\underline{not}$ a Logon (A), OEG closes the connection
HeartBtInt (108)	Incorrect Value	If the client sends a <b>Logon</b> (A) message with <i>HeartBtInt</i> (108) having an incorrect value, OEG sends back a <b>Reject</b> (3) with <i>SessionRejectReason</i> (373) = <b>5</b> (Value is Incorrect (out of range) for this tag)
EncryptMethod (98)	≠0	If the client sends a Logon (A) message with EncryptMethod (98) with a value different from 0 (zero), OEG sends back:  • a Reject (3) message with SessionRejectReason (373) = 7 (Decryption problem), followed by
		a Logout (5) message with SessionStatus (1409) = 104 (Invalid logon Value)
OEPartitionID (21019) LogicalAccess (21021)	Unknown combination	If the client sends a <b>Logon</b> (A) message with an unknown combination of values in fields <i>OEPartitionID</i> (21019) and <i>LogicalAccess</i> (21021), OEG sends back a <b>Logout</b> (5) message with <i>SessionStatus</i> (1409) = <b>5</b> (Invalid Username or Password)
NextExpectedMsgSeqN	>1	If the client sends the first <b>Logon</b> (A) message of the day with NextExpectedMsgSeqNum (789) higher than 1, OEG sends back a <b>Logout</b> (5) message with SessionStatus (1409) = <b>10</b> (Received NextExpectedMsgSeqNum(789) is too high)
um (789)	<1	If the client sends the first <b>Logon</b> (A) message of the day with NextExpectedMsgSeqNum (789) equal to <b>0</b> (zero), OEG sends back a <b>Reject</b> (3) with SessionRejectReason (373) = <b>5</b> (Value is incorrect (out of range) for this tag)
DefaultAppIVerID ≠ 9		If the client sends a <b>Logon</b> (A) message with <i>DefaultAppIVerID</i> (1137) with a value different than <b>9</b> (nine), OEG sends back a <b>Reject</b> (3) message with <i>SessionRejectReason</i> (373) = <b>18</b> (Invalid/Unsupported Application Version)

## Note:

In case messages contain unknown tags if all mandatory and needed tags identified for the message are present, the additional unknown tags will be handled as follows:

- Before a successful Logon:
  - Messages other than Logon (A) will be ignored
  - Logon message will be reviewed for known tags only. Unknown tags will be ignored
- After a successful Logon:
  - The expected message will be handled with just the known tags processed as usual, (i.e. checked for correctness of values, presence of mandatory, and otherwise needed tags) and unknown tags will be ignored.

## 4.9 SEQUENCE NUMBER GAP MANAGEMENT & REJECTION

Among other methods, OEG uses sequence numbers of messages to keep track of orderly exchange of messages between the Exchange and the client.

A gap between the message numbers may indicate the possibility of missed messages and usually implies the need for re-synchronization of messages or message sequence numbers between the Exchange and the client. As such occurrence of gaps must be detected and managed by use of Gap fill. The gap detection can be performed either by the Exchange, through OEG, or by the client.

Re-synchronization is done to ensure orderly state of information in each party's systems and the same mechanisms are used by the Exchange in day-to-day run, as well as in cases of recovery after disruptive incidents.

In FIX protocol in cases where a gap is identified the re-synchronization of missed messages between the Exchange and the client may be managed by use of the **Logon** (A) and **ResendRequest** (2) and **SequenceReset** (4) messages.

This section describes various cases and associated behaviour when gap of sequence numbers is detected by the Exchange, as well as the cases when the messages and attempts at re-synchronization are rejected.

The Gap Fill behaviour is managed according to FIX Protocol and takes into account that a gap can be detected in the following cases:

- Upon a Logon Request
- During the trading session while the Client and the Exchange are sending and receiving messages from each other
- Upon a Logout Request

#### 4.9.1 Gap Detection & Management

## 4.9.1.1 Upon a Logon Request

In order to establish a connection with the Exchange the client sends a **Logon** (A) message to the trading or drop copy gateway. The **Logon** (A) message has a field *NextExpectedMsgSeqNum* (789) that must be used to indicate to the Exchange the sequence number of the last message that was received by the client incremented by one (+1) when reconnecting during the session, and must be set to 1 in the first Logon of the Day. Additionally, as in all message, the **Logon** (A) message also contains the field *MsgSeqNum* (34) to indicate the message sequence number. In case a gap is detected through the values provided in the **Logon** (A) message, the gap is filled without sending of the **ResendRequest** (2) messages.

The table below presents the cases where a gap will be detected on Logon, without causing Exchange to ignore or reject the message, as well as the expected behaviour:

MsgSeqNum (34)	NextExpectedSeqNum (789)	Behaviour
Value received is <b>higher</b> than the expected one	Value received is the <u>expected</u> one	OEG will acknowledge the Logon (A) message and wait for the client to:  resend all the messages that are identified as missed by the gap OR  send a SequenceReset (4) message indicating the next correct sequence number to be processed by the Exchange
Value received is the <u>expected</u> one	Value received is <b>lower</b> than the expected one	OEG will acknowledge the <b>Logon</b> (A) message and resend all the outbound messages that the client missed, which are assumed to be starting from the message with sequence number provided in the field <i>NextExpectedMsgSeqNum</i> (789) and up to the last known message
Value received is <b>higher</b> than the expected one	Value received is <b>lower</b> than the expected one	In this case both the Exchange and client will detect a gap / missed messages. To manage the gap of both sides OEG will acknowledge the Logon (A) and:  expect that the client will resend the missing inbound messages, while  resending to the client the message that outbound messages identified as missed

#### 4.9.1.2 During the Trading Session

During a trading session, it is possible that either the client or the Exchange miss incoming and/or outgoing messages. In order to detect such missed messages, the field MsgSeqNum (34) must be checked and, if the value provided in this field is higher than the expected then a gap is detected.

The following subsections present how to fill a gap that is detected in the following particular cases:

- from an Administration message that is not a Logon (A), Logout (5), ResendRequest (2) or a SequenceReset (4)
- from an Application message

# 4.9.1.2.1 Gap in Administration Messages

- In case where the gap is identified from an Administration message that is not a Logon (A), Logout (5), ResendRequest (2) or a SequenceReset (4) the message that resulted in occurrence of the gap is ignored by the Exchange. To manage the gap generated by this case client must take one of the following actions:
  - resend all the messages requested by the Exchange via the ResendRequest (2) message (replacing the HeartBeat (0) by a SequenceReset (4) with GapFillFlag (123) set to Y) and issue a new HeartBeat (0) once the
  - send a new SequenceReset (4) message with GapFillFlag (123) set to Y and NewSeqNo (36) set to the sequence number of the next message that will be sent to the Exchange.

#### Note:

When the Gap is detected through a Logon (A) or a Logout (5) message, OEG will not ignore the message originating the gap. OEG will process the Logon (A) or the Logout (5) but will not increment its own "NextExpectedSeqNum".

# 4.9.1.2.2 Gap in Application Messages

- In case where the gap is identified from an Application message, the message that resulted in occurrence of the gap is ignored by the Exchange. To manage the gap generated by this case client must take one of the following actions:
  - resend all the messages requested by the Exchange via the ResendRequest (2) message OR send a SequenceReset (4) message with fields GapFillFlag (123) set to Y and NewSeqNo (36) set to the sequence number of the next message that will be sent to the Exchange.

# 4.9.1.3 Upon a Logout Request

A Logout (5) message can be sent either by the Exchange or by the client. If the Exchange detects a gap in the Logout (5) message sent by the client, the message is processed as follows:

- OEG processes the Logout (5) message sent by the client
- OEG issues a ResendRequest (2) requesting the range of messages that were missed and then waits for them to be either
  - resent by the client, or
  - to be replaced by a SequenceReset (4) with GapFillFlag (123) set to Y and NewSeqNo (36) set to the sequence number of the next message that will be sent to the Exchange
- Client's connection is not disconnected until either the gap in messages is addressed by the actions identified above, or the time of inactivity has passed and client has not responded to a TestRequest (1) message.

#### Note:

■ When the Gap is detected through a **Logon** (A) or a **Logout** (5) message, OEG will not ignore the message originating the gap. OEG will process the **Logon** (A) or the **Logout** (5) but will not increment his own "NextExpectedSeqNum".

## 4.9.1.4 Gap Fill Processing – Rejection Cases

During the gap fill processing, all the functional and technical checks will be performed normally on all the messages in order to ensure their integrity. The table below identifies all the rejection cases linked to the processing of the gap fill-

Description of Case Causing Rejection	Associated OEG Behaviour
ResendRequest (2) sent by the client has the BeginSeqNo (7) set to zero '0'	OEG issues a <b>Reject</b> (3) with <i>SessionRejectReason</i> (373) = <b>5</b> (Value is incorrect (out of range) for this tag)
ResendRequest (2) sent by the client has the BeginSeqNo (7) higher than the MsgSeqNum (34) of the last message sent by OEG	OEG issues a <b>Reject</b> (3) with <i>SessionRejectReason</i> (373) = <b>20</b> (Requested MsgSeqNum is higher than last known MsgSeqNum)
ResendRequest (2) sent by the client has the EndSeqNo (16) lower than the BeginSeqNo (7)	OEG issues a <b>Reject</b> (3) with <i>SessionRejectReason</i> (373) = <b>21</b> (EndSeqNo is lower than BeginSeqNo)
ResendRequest (2) sent by the client has the EndSeqNo (16) higher than the MsgSeqNum (34) of the last message sent by OEG	OEG issues a <b>Reject</b> (3) with <i>SessionRejectReason</i> (373) = <b>20</b> (Requested MsgSeqNum is higher than last known MsgSeqNum)
The message resent by the client does not have the PossDupFlag (43)	OEG issues a <b>Reject</b> (3) with SessionRejectReason (373) = <b>1</b> (Required tag Missing)
The message resent by the client does not have the OrigSendingTime (122)  Required for applicative messages resent as a result of a ResendRequest or automatic resynchronization at Logon. Field is not populated in outbound SequenceReset-GapFill	OEG issues a <b>Reject</b> (3) with SessionRejectReason (373) = <b>1</b> (Required tag Missing).  For more details please review carefully sections in this document on "Gap Sequence Number Gap Management &
message and is not expected in inbound SequenceReset- GapFill message.	Rejection"
The message resent by the client has the <i>OrigSendingTime</i> (122) <b>higher</b> than the <i>SendingTime</i> (52)	OEG issues a <b>Reject</b> (3) with <i>SessionRejectReason</i> (373) = <b>5</b> (Value is incorrect (out of range) for this tag)
The message resent by the client has a MsgSeqNum (34) lower than the expected one	OEG issues a <b>Logout</b> (5) with <i>SessionStatus</i> (1409) = <b>9</b> (Received MsgSeqNum(34) is too low)
The message resent by the client has a MsgSeqNum (34) higher than the expected one	OEG issues a <b>Reject</b> (3) with SessionRejectReason (373) = <b>22</b> (MsgSeqNum too high)
The client issues a SequenceReset (4) with GapFillFlag (123) set to <b>N</b>	OEG issues a <b>Logout</b> (5) with <i>SessionStatus</i> (1409) = <b>105</b> (SequenceReset - Reset Mode not allowed)
The client issues a SequenceReset (4) with NewSeqNo (36) lower than the MsgSeqNum (34)	OEG issues a <b>Reject</b> (3) with SessionRejectReason (373) = <b>19</b> (NewSeqNo too low)
The client issues an HeartBeat (0), TestRequest (1), ResendRequest (2), Logout (5) or Logon (A) with PossDupFlag (43) set to Y while OEG is waiting for a gap to be filled	OEG issues a <b>Reject</b> (3) with SessionRejectReason (373) = <b>23</b> (Invalid MsgType while waiting for Gap fill)
The client sends a message with <i>PossDupFlag</i> (43) set to <b>Y</b> when OEG is not in Gap Fill Mode	OEG issues a <b>Reject</b> (3) with <i>SessionRejectReason</i> (373) = <b>24</b> (PossDupFlag set to <b>Y</b> when OEG is not in Gap Fill Mode)

# 4.10 DIRECT RESPONSES TO APPLICATION MESSAGES

This section lists outbound messages that are sent as direct response to the individual received inbound messages received from the clients, in various cases.

This section provides only the responding message and does not represent complete behaviour for various functionalities in which they may be used. For details on the exchange of messages expected for individual functionalities clients should review the kinematics documents.

The table below provides responses for the following cases:

- Acknowledgement: which represents successful receipt and processing into the system of the technical and functional structure and content of an inbound message. In specific functional cases (e.g. breach of trading collars) an acknowledgment may be followed by a rejection that must be correctly handled by the client's system.
- Functional or Technical Rejection:
  - Functional Rejection: which represents an error that is raised when the inbound message may have correct technical structure and content, but does not meet the functional rules defined for the system / market / functionality. All such rejections are replied with an error code, [field ErrorCode (9955)] that is identified as 'Functional' in the error list document.
  - Technical rejection: which represents an error that is raised when the inbound message may not have correct technical structure or content. All such rejections are replied with an error code, [field ErrorCode (9955)] that is identified as 'Technical' in the error list document.
- Session Level Rejection: messages that are poorly formatted, cannot be correctly interpreted or do not meet rules identified for management of FIX connection, sequence and gap fill mechanisms mentioned in a dedicated section of this document.

Reason for such rejection is identified through the combination of tags: SessionRejectReason (373), RefTagID (371), RefMsgType (372) and RefSeqNum (45).

Inhamal Application	Responding Outbound Message						
Inbound Application Message	Acknowledgement	Functional or Technical Rejection	Session Level Rejection				
NewOrderSingle (D)	ExecutionReport (8)	ExecutionReport (8)	Reject (3)				
MassQuote (i)	MassQuoteAck (b)	Errors in Quote Repeating group: MassQuoteAck (b) In All Other Cases: OrderCancelReject (9)	Reject (3)				
OrderCancelRequest (F)	ExecutionReport (8)	OrderCancelReject (9)	Reject (3)				
OrderCancelReplaceRequest (G)	ExecutionReport (8)	Collar Breach: ExecutionReport (8) In All other cases: OrderCancelReject (9)	Reject (3)				
OwnershipRequest (U18)	OwnershipRequestAck (U29)	RequestAckMessage (Uy)	Reject (3)				
PriceInput (UI)	RequestAckMessage (Uy)	RequestAckMessage (Uy)	Reject (3)				
LiquidityProviderCommand (UZ)	RequestAckMessage (Uy)	RequestAckMessage (Uy)	Reject (3)				
OrderMassStatusRequest (AF)	ExecutionReport (8)	RequestAckMessage (Uy)	Reject (3)				
OrderMassCancelRequest (q)	OrderMassCancelReport (r)	OrderCancelReject (9)	Reject (3)				
TradeCaptureReport (AE)	TradeCaptureReportAck (AR)	TradeCaptureReportAck (AR)	Reject (3)				
FundPriceInput (U44)	FundPriceInputAck (U45)	TradeCaptureReportAck (AR)	Reject (3)				
SecurityDefinitionRequest (c)	SecurityDefinition (d)	<ul> <li>Errors in strategy leg definition:</li> <li>SecurityDefinition (d)</li> </ul>	Reject (3)				
NewWholesaleOrder (U64)	WholesaleOrderAck (U65)	<ul><li>Errors in strategy leg definition:</li><li>WholesaleOrderAck (U65)</li></ul>	Reject (3)				
CrossOrder (U67)	ExecutionReport (8)	ExecutionReport (8)	Reject (3)				

		Direct nesponses	to Application Mess			
Inhamed Ameliantian	Responding Outbound Message					
Inbound Application Message	Acknowledgement Functional or Technical Rejection		Session Level Rejection			
ERGCommand (U68)	ERGCommandAck (U69)	ERGCommandAck (U69)	Reject (3)			
GetRiskControls (U70)	RiskControlDetails (U71)	RiskControlDetails (U71)	Reject (3)			
RequestForImpliedExecution (U66)	RequestAckMessage (Uy)	RequestAckMessage (Uy)	Reject (3)			
QuoteRequest (R)	ExecutionReport (8)	QuoteRequestReject (AG)	Reject (3)			
IOI (6)	IOINotification (U73)	IOINotification (U73)	Reject (3)			

# 5. MESSAGES

## 5.1 IMPORTANT NOTES

# 5.1.1 Scope of Messages and Functionalities

While attempts are made to provide as comprehensive an overview of functionalities as possible please note that:

- Some of the functionalities and messages in the document are applicable only when enabled for the specific scope
  of instruments;
- The functionalities follow the rules set out in the Euronext Trading manual and Rule books.

The following table describe each Optiq Segment tag. Each tag will be then used for each message to specify on which Optiq Segment this message applies on.

Optiq Segment	Tag
Equities	EQ
Funds	FND
Fixed Income	FXI
Structured Products	SP
Equity Derivatives	EQD
Index Derivatives	IDD
Commodities	CMO
Drop Copy	DC
Block	BLK

# 5.1.2 Conditional Values in Outbound Messages

Please note that for the outbound messages (Client OEG) the "presence" of the fields in the block of the message is often set to "Conditional", which means that those fields might not be sent when not required. As a single outbound message may cover several trading cases, it contains fields needed in all of these cases, which may be populated or not.

## 5.2 ADMINISTRATION MESSAGES

All administrative messages are available on the following Optiq Segments:



# 5.2.1 Logon (A)

Client **◀▶**OEG

# 5.2.1.1 Message Description

The **Logon** (A) message is used by the members to establish a connection with the Exchange and identify the last response message they have processed. It must be the first message sent by the client otherwise the OEG will drop the connection.

When Logon (A) message is used as inbound message, it must contain the following fields:

- Logical Access ID (21021): it must be populated by the client according to the Logical Access used.
- OEPartitionID (21019): it must be populated according to the partition the client connects to.
- NextExpectedMsgSeqNum (789): it is the sequence number plus one (+1) of the last message received by the client from the Exchange on a specific OE Session.
- SoftwareProvider (21050): it is an optional field that should be populated for client using software provider services.
- QueueingIndicator (21020): defines whether the orders are rejected or queued in case of throttling.
- HeartBtInt (108): always set to the value defined by the exchange.
- DefaultAppIVerID (1137): always set to 9 (FIX50SP2).
- EncryptMethod (98): always set to 0 (No encryption).

If the logon is successful the OEG sends back a **Logon** (A) message providing the sequence number of the last message received from the client. Otherwise the OEG sends back a **Logout** (5) message providing the reason of the rejection (SessionStatus (1409)) and closes the connection.

Additionally, OEG will send a **Reject** (3) message if the **Logon** (A) is poorly formatted.

## Usage of the NextExpectedMsgSeqNum

At the first logon of the trading day the member must set the field NextExpectedMsgSeqNum (789) to 1, as no message can be received before a successful Logon.

In case of an unintentional disconnection the client must use the field <code>NextExpectedMsgSeqNum</code> to indicate to the Exchange the sequence number of the last message he has received. If some messages have been lost during the disconnection the OEG will resend them to the client. In this case, the gap will be filled automatically, prior to receiving any messages with sequences above the gap and without the generation of a <code>ResendRequest</code> (2) message to the client.

# 5.2.1.2 Message Structure

Tag	Field	Short Description	Format	Le	Values	Presence
				n		
	Header					
108	HeartBtInt	Heartbeat interval (in seconds).	Int	3	Numerical	Mandatory
98	EncryptMethod	Method of encryption for the new FIX session.	Int	1	Always set to 0 (No encryption)	Mandatory
21019	OEPartitionID	Identifies uniquely an OE Optiq partition by which the engine is reached.	Int	5	From 0 to 2^16-2	Mandatory
21021	LogicalAccessID	Identifier of the Logical Access.	Int	10	From 0 to 2^32-2	Mandatory
789	NextExpectedMsgSeqNum	Indicates the sequence number plus one (+1) of the last message received by the Client from the Exchange on the OE Session.	SeqNum	10	Integer.	Mandatory
21020	QueueingIndicator	Indicates whether the client requests its orders to be queued or rejected in case of throttling. (0: False - Reject; 1: True - Queue).	Int	1	(See field description)	Mandatory
1137	DefaultApplVerID	Specifies the service pack release being applied, by default, to the message at the session level.	String	1	(See field description)	Mandatory
21050	SoftwareProvider	Free text field entered by the client in the Logon (A) message, identifying the provider of the software used for exchange of messages for trading purposes.	String	8	Free text field	Optional
	Trailer					

# 5.2.2 ResendRequest (2)

Client **◀▶**OEG

# 5.2.2.1 Message Description

The ResendRequest (2) message can be issued either by the Client or the OEG and is used in the following situations:

- When a gap is detected on the sequence number;
- If the receiving application loses a message;
- As function of the initialization process;

If the Client application receives a **ResendRequest** (2), with a sequence gap, it is critical that the Client application resends the appropriate messages before issuing its own ResendRequest (2).

The resending request can be done in three different ways:

- Request a single message: BeginSeqNo = EndSeqNo;
- Request a range of messages: BeginSeqNo = First message of the range and EndSeqNo = last message of the range;
- Request all messages sent after a particular message: BeginSeqNo = First message of the range and EndSeqNo = '0'
  (Zero meaning 'infinity');

In all the messages that are sent as the result of a ResendRequest (2):

- the PossDupFlag (43) field, in the Header, must be set to 'Y';
- the OrigSendingTime (122) must be filled with the correct value or, if not possible, must be set to the same value as the SendingTime (52).

All the messages sent by the Client after the gap is detected will be ignored by OEG, including the one that originates from the gap detection – except if it is the **Logon** (A). The message that origins the gap detection will be part of the Resend Request range. While a **ResendRequest** (2) is pending, OEG will process only messages with *PossDupFlag* (43) set to 'Y'. Sending new messages will only be allowed after the gap is filled.

## 5.2.2.2 Message Structure

Tag	Field	Short Description	Format	Len	Values	Presence
	Header					
7	BeginSeqNo	Message sequence number for first message.	SeqNum	10	From 1 to 2^32-2	Mandatory
16	EndSeqNo	Message sequence number for last message.	SeqNum	10	From 1 to 2^32-2	Mandatory
	Trailer					

# 5.2.3 Reject (3)

Client **◀**OEG

# 5.2.3.1 Message Description

The OEG will use this message to reject:

- poorly formatted inbound messages. In this case, the message provides the reason of the rejection (SessionRejectReason [373]);
- unknown MsgType (35). In this case, the message provides the error code: SessionRejectReason (373) = 11 (Invalid message type)

Members should keep a record of which messages the OEG rejects and never resend them.

For rejection of messages over the throttling limit, OEG will send a **Reject** (3) message, with field *SessionRejectReason* (373) used to indicate the type of throttling limit breached.

# 5.2.3.2 Message Structure

Tag	Field	Short Description	Format	Len	Values	Presence
	Header					
45	RefSeqNum	Identifies the message sequence number (MsgSeqNum (34)) of the message being rejected.	SeqNum	10	From 1 to 2^32-2	Mandatory
371	RefTagID	Identifies the tag number of the FIX field being referenced as the reason triggering the rejection.	Int	6	Integer	Conditional
372	RefMsgType	The MsgType (35) of the FIX message being referenced.	String	3	Value received in the rejected inbound message, if any	Conditional
373	SessionRejectReason	Provides the logon rejection reason.	Int	2	(See field description)	Mandatory
	Trailer					

#### 5.2.4 SequenceReset (4)

Client **◀▶**OEG

## 5.2.4.1 Message Description

The SequenceReset (4) message may be sent by the Client or the OEG as an answer to a ResendRequest (2) message.

The **SequenceReset** (4) - **Gap Fill Mode** can be used if the sending application chooses not to send an internal message to the Exchange, the **SequenceReset** (4) marks the place of that message. Note that, if the message that needs to be resent is an administrative one they will always be replaced by **SequenceReset** (4). In this case, the **SequenceReset** (4) will have to be sent with the *GapFillFlag* (123) set to 'Y'.

The value in the NewSeqNo (36) will always represent the MsgSeqNum of the next message that will be sent by the Client or the OEG. OEG will consider that the gap is filled if NewSeqNo (36) is set to a value greater than or equal to the ResendRequest's EndSeqNo (16).

While a ResendRequest (2) is pending, if the Client:

- sends a SequenceReset Gap Fill Mode message with MsgSeqNum higher than the expected sequence number,
   the matching engine issues a Reject (3) with field SessionRejectReason(373) set to 22 = MsgSeqNum(34) too high;
- sends to the Exchange a message with NewSeqNo lower or equal to the MsgSeqNum and MsgSeqNum equals to
  the expected sequence number, the matching engine rejects the message with a Reject (3) and
  SessionRejectReason (373) set to '19' (NewSeqNo(36) too low);

<u>Example</u>: If the Exchange issues a **ResendRequest** (2) with BeginSeqNo = 10 and EndSeqNo = 15 and the messages from 11-14 are administrative messages (others than the **Reject** (3)). The client should proceed as below:

- Resend 10 with PossDupFlag set to 'Y';
- SequenceReset (4) with GapFillFlag (123) set to 'Y' to replace 11, 12, 13, 14 and with the NewSeqNo (36) set to 15;
- Resend 15 with PossDupFlag set to 'Y';

The Matching Engine will never allow the use of the **SequenceReset** (4) - **Reset Mode**. If the Client sends to the Exchange this message he will receive a **Logout** (5) from OEG, with field SessionStatus (1409) set to 105 = SequenceReset - Reset Mode not allowed.

## 5.2.4.2 Message Structure

Tag	Field	Short Description	Format	Len	Values	Presence
	Header					
36	NewSeqNo	Identifies the MsgSeNum (34) of the next message to be received from the counterpart application.	SeqNum	10	From 1 to 2^32-2	Mandatory
123	GapFillFlag	Purpose of sequence reset.	Boolean	1	(See field description)	Optional
	Trailer					

#### 5.2.5 Logout (5)

Client **◀▶**OEG

## 5.2.5.1 Message Description

The **Logout** (5) message with *SessionStatus* = **100** (*Regular Logout By Client*) is sent by the client in order to close the connection with the Exchange. The exchange responds with a **Logout** (5) message with *SessionStatus* = **4** (*Session logout complete*)

In regular cases, at the end of day the Exchange sends a **Logout** (5) message with *SessionStatus* = **101** (*End Of Day*) to the clients before dropping the connection.

The party initiating the logout must be the party that breaks the TCP connection.

Please note that in both cases (message initiated by the client or by the Exchange) it will trigger the Cancel On Disconnect mechanism if it is enabled.

# 5.2.5.2 Message Structure

Tag	Field	Short Description	Format	Len	Values	Presence
	Header					
1409	SessionStatus	Provides the code associated to the reason for the logout.	Int	3	(See field description)	Mandatory
	Trailer					

# 5.2.6 Heartbeat (0)

Client **◀▶**OEG

# 5.2.6.1 Message Description

The **Heartbeat** (0) message is used during periods of inactivity, either by the Exchange or the client, to notify each other that the inactivity is not due to a technical issue.

The message is sent:

- after *n* second(s) of inactivity to notify the opposite side that the connection functions properly.
- in response to a TestRequest (1) sent by either party. In this case it must contain the TestReqID (112) transmitted in the TestRequest (1) message.

The parameter n has a specific value defined for each Optiq Segment. Please refer to the *Euronext Markets – Optiq OEG Connectivity Specifications* document for the values of the parameter n.

After a **TestRequest** (1) is sent, the opposite side has n seconds to answer with an **HeartBeat** (0) having the same *TestReqID* as the one in the initial **TestRequest** (1). During the n seconds delay period:

- all application messages will be processed normally;
- any **Heartbeat** (0) message having a *TestReqID* different than the one in the **TestRequest** (1) initial message will be rejected;
- any **Heartbeat** (0) message without the *TestReqID* field will be accepted but ignored;
- any Heartbeat (0) message wrongly formatted will be rejected;

## 5.2.6.2 Message Structure

Tag	Field	Short Description	Format	Len	Values	Presence
	Header					
112	TestReqID	Test Request ID to be returned in Heartbeat (0).	String	24	Numerical	Conditional
	Trailer					

## 5.2.7 TestRequest (1)

Client **◀▶**OEG

# 5.2.7.1 Message Description

The **TestRequest** (1) message can be sent either by the client or the Exchange. It is used during periods of inactivity (when no messages have been exchanged) to check whether the other party is still connected.

The message is sent after *n* second(s) of inactivity on the opposite side. Then:

- The opposite application has n second(s) delay to respond to the TestRequest (1) message by sending a Heartbeat (0) message containing the TestReqID (112).
- Otherwise if the opposite application does not issue an Heartbeat (0) within the given delay, the message sender should close the connection. (Note that, on the Exchange side, this triggers the Cancel on Disconnect mechanism, if the latter is enabled).

The **TestRequest** (1) message can also be sent by the client to the OEG at any moment and the OEG will answer with a **Heartbeat** (0) message.

The parameter 'n' has a specific value defined for each Optiq Segment. Please refer to the *Euronext Markets -Optiq OEG Connectivity Specifications* document for the values of the parameter 'n'.

# 5.2.7.2 Message Structure

Tag	Field	Short Description	Format	Len	Values	Presence
	Header					
112	TestReqID	Test Request ID to be returned in Heartbeat (0).	String	24	Numerical	Mandatory
	Trailer					

#### 5.3 APPLICATION MESSAGES

#### 5.3.1 NewOrderSingle (D)

Client ▶OFG

Available for: EQ FND FXI SP EQD IDD CMO BLK

## 5.3.1.1 Message Description

The **NewOrderSingle** (D) message is used by the clients to create a new order.

For ETF MTF, the **NewOrderSingle** (D) message can be used by the Liquidity Providers to answer a specific **QuoteRequest** (R) message and by the RFQ issuer to confirm the RFQ.

Please note that:

- for orders other than Limit Orders, Iceberg Orders and Stop Limit Orders (Market, Stop, Peg, and MTL) the Price (44) must not be provided.
- for orders sent on the Euronext Block MTF and as a reply to an indication of interest, the IOIID (23) must be set to the value of the ExchangeIOIID (21114) provided by the Exchange in the IOINotification (U73) sent to acknowledge the IOI (6). In case the value provided doesn't match an existing indication of interest the order is rejected;

The following fields are used for clearing purposes: ClearingInstruction (577), AccountCode (6399), PartyID (448), and PartyRole (452). Please note that PartyID (448) and PartyRole (452) are also used for other purposes.

#### **Components Usage within the Message**

This message contains three components and one nested component:

- The first component Parties is composed of the fields: NoPartyIDs (453), PartyID (448), PartyIDSource (447), PartyRole (452) and PartyRoleQualifier (2376);
- The second component OrderAttributeGrp is composed of the fields: NoOrderAttributes (2593), OrderAttributeType (2594), OrderAttributeValue (2595).
  - For Cross orders this section is repeated twice for each field that was provided by the client (e.g. fields required for for identification of AGGR, PNAL, Commodity Derivative and Underlying Risk Reduction, etc.). As elsewhere the first instance of the field represents information provided for the **buy** side and the second represents information provided for the **sell** side.
- The third component SideCrossOrdModGrp is composed of the fields: NoSides (552), Side (54), ClearingInstruction (577), Text (58), Account (1), AccountCode (6399), LPRole (20021), TechnicalOrdType (9941), PostingAction (7443) and of nested repeating group.
  - For Cross orders this section is repeated twice for each field that was provided by the client. As elsewhere
    the first instance of the field represents information provided for the **buy** side and the second represents
    information provided for the **sell** side.
- The nested repeating group NestedParties is composed of NoNestedPartyIDs (539), NestedPartyID (524), NestedPartyIDSource (525), NestedPartyRole (538) and NestedPartyRoleQualifier (2384).
  - For Cross orders this section is repeated twice for each field that was provided by the client (e.g. fields required to provide the ClientIdentificationShortCode and InvestmentDecisionWFirmShortCode information, etc.). As elsewhere the first instance of the field represents information provided for the buy side and the second represents information provided for the sell side.

Use of the groups and values within them:

- ExecutionwithinFirmShortCode should be provided via the Parties repeating group
- With noted exceptions ClientidentificationShortCodes should be provided via the *NestedParties* repeating group

- The NonExecutingBrokerShortCodes should be provided via the NestedParties repeating groups
- The repeating group *NestedParties* is also used to specify the Clearing Firm for the order
- The additional MIFID II short code related identifiers are specified using the OrderAttributeGrp group
- The third repeating group *SideCrossOrdModGrp* is used to identify the order side

#### MIFID II short code related data fields

Examples of individual cases and some exceptions for the use of these groups are provided below. For the full list of possible values for each field clients should review the individual field descriptions.

#### **ExecutionwithinFirmShortCode**

Presence Condition: Mandatory

- Case 1: Specifying ExecutionwithinFirmShortCode where a natural person is responsible for the execution of the transaction
  - PartyID (448) = field in which the short code is provided
  - PartyIDSource (447) = P (Short code identifier)
  - PartyRole (452) = 12 (Executing Trader)
  - PartyRoleQualifier (2376) = 24 (Natural person)
- Case 2: Specifying ExecutionwithinFirmShortCode where an algorithm is responsible for the execution of the transaction
  - PartyID (448) = field in which the short code is provided
  - PartyIDSource (447) = P (Short code identifier)
  - PartyRole (452) = 12 (Executing trader)
  - PartyRoleQualifier (2376) = 22 (Algorithm)
- Case 3: Specifying ExecutionwithinFirmShortCode for a Client
  - PartyID (448) = field in which the short code is provided
  - PartyIDSource (447) = P (Short code identifier)
  - PartyRole (452) = 3 (Client ID)
  - PartyRoleQualifier (2376) = 23 (Firm or legal entity) OR 24 (Natural person)

# ClientIdentificationShortCode

<u>Presence Condition</u>: Conditional Group. This field is required for DEA User in every inbound message, or when AccountCode (6399) = Client or RO.

For cases 4 and 5, explained below, values 1 and 2 available for *NestedPartyID* (524) are reserved for internal use by the Exchange, and must not be provided in the inbound message. If submitted the associated inbound message will be rejected.

- Case 4: Specifying ClientIdentificationShortCode where the client is a legal entity
  - NestedPartyID (524) = field in which the short code is provided
  - NestedPartyIDSource (525) = P (Short code identifier)
  - NestedPartyRole (538) = 3 (Client ID)
  - NestedPartyRoleQualifier (2384) = 23 (Firm or legal entity)
- Case 5: Specifying ClientIdentificationShortCode where the client is not a legal entity
  - NestedPartyID (524) = field in which the short code is provided
  - NestedPartyIDSource (525) = P (Short code identifier)

- NestedPartyRole (538) = 3 (Client ID)
- NestedPartyRoleQualifier (2384) = 24 (Natural person)
- Case 6: Specifying ClientIdentificationShortCode for an Aggregated order ("AGGR" value)

In this case the NestedParties group is not used. In its place client should provide data using the *OrderAttributeGrp* nested group as following:

- OrderAttributeType (2594) = 0 (Aggregated order)
- OrderAttributeValue (2595) = "Y"
- Case 7: Specifying ClientIdentificationShortCode for an order for which short code is still pending allocation ("PNAL" value)

In this case the Parties group is not used. In its place client should provide data using the *OrderAttributeGrp* nested group as following:

- OrderAttributeType (2594) = 1 (Pending allocation)
- OrderAttributeValue (2595) = "Y"
- Case 8: In case the message originates from a DEA (Direct Electronic Access) client, information should be provided
  as following:
  - OrderOrigination (1724) = 5 (Order received from a direct access or sponsored access customer)

#### AND

 ClientIdentificationShortCode should be provided using one of the combinations provided in cases 4 through 7 above, as required

# $\underline{InvestmentDecisionwithinFirmShortCode}$

<u>Presence Condition</u>: Conditional Group. Mandatory if (1) AccountCode is Liquidity Provider, Related Party or House, OR in case investment decision maker is an Algorithm (2) AND the message did not originate from DEA client.

- Case 9: Specifying InvestmentDecisionwithinShortCode where a natural person is responsible for the investment decision
  - NestedPartyID (524) = field in which the short code is provided
  - NestedPartyIDSource (525) = P (Short code identifier)
  - NestedPartyRole (538) = 122 (Investment decision maker)
  - NestedPartyRoleQualifier (2384) = 24 (Natural person)

# AND

- OrderOrigination (1724) is NOT set
- Case 10: Specifying InvestmentDecisionwithinShortCode where an algorithm was responsible for the investment decision
  - NestedPartyID (524) = field in which the **short code** is provided
  - NestedPartyIDSource (525) = P (Short code identifier)
  - NestedPartyRole (538) = 122 (Investment decision maker)
  - NestedPartyRoleQualifier (2384) = 22 (Algorithm)

## AND

OrderOrigination (1724) is NOT set

# **NonExecutionBrokerShortCode**

Presence Condition: Optional

- Case 11: Specifying NonExecutionBrokerShortCode
  - ◆ NestedPartyID (524) = field in which the **short code** is provided

- ◆ NestedPartyIDSource (525) = P (Short code identifier)
- NestedPartyRole (538) = 26 (Correspondent broker)
- NestedPartyRoleQualifier (2384) = 23 (Firm or legal entity)

#### Other Identifier

- For identification of an order submitted for a commodity derivative or a warrant with a commodity underlying, if the potential trade would reduce the risk clients should also use *OrderAttributeGrp* repeating group, and identify the values as following:
  - ◆ OrderAttributeType (2594) = 3 (Risk Reduction Code)
  - OrderAttributeValue (2595) = "Y"

#### **Trading & Clearing related data fields**

 The component SideCrossOrdModGrp is a mandatory repeating group that must be repeated once for Buy and Sell orders and twice for Cross orders<sup>6</sup>.

## **Clearing Firm ID**

- If provided, the following combination of fields identifies how clients should populate the Clearing Firm ID
  - NestedPartyID (524) = field in which the ID is provided
  - NestedPartyIDSource (525) = D (Proprietary / Custom Code)
  - NestedPartyRole (538) = 4 (Clearing Firm)
  - NestedPartyRoleQualifier (2384) = 3 (General clearing member) OR 4 (Individual clearing member)

When used in the inbound messages to specify the Clearing Firm ID the maximum length for the *NestedPartyID (524)* field is 8 characters long, and value may be alphanumeric.

# Client ID / Long Client ID

If provided, the following describes how clients should populate the Client ID data for each market:

<u>For the Cash Markets</u> – Client ID data should be provided as combination of fields identified below. As this data is provided via the NestedParties repeating group – the repeating group may have from 1 to 5 occurrences.

- NestedPartyID (524) = field in which the ID is provided
- NestedPartyIDSource (525) = D (Proprietary / Custom Code)
- NestedPartyRole (538) = 3 (Client ID)
- NestedPartyRoleQualifier (2384) = 23 (Firm or legal entity) OR 24 (Natural person)

When used in the inbound messages to specify the Client ID, the maximum length for the NestedPartyID (524) field is 8 characters long, and value may be alphanumeric.

If the field LongClientID (21804) is also provided for the Cash markets, it will be ignored.

<u>For the Derivatives Markets</u> – Client ID data should be provided using the field *LongClientID* (21804), which can be used to its maximum length of 16 characters.

Due to this, for the Derivatives markets NestedParties repeating group may have from 1 to 4 occurrences. If the NestedParties combination for Client ID is provided for the Derivatives markets – the message will be rejected.

<sup>&</sup>lt;sup>6</sup> Cross orders on COB using NewOrderSingle (D) message can be submitted only for the Cash markets.

# 5.3.1.2 Message Structure

Tag	Field	Short Description	Format	Len	Values	Presence
	Header					
60	TransactTime	Indicates the time of message transmission (Format: YYYYMMDD-HH:MM:SS.ssssssss).	UTCTimestamp	27	Valid values: YYYY = 0000- 9999, MM = 01-12, DD = 01-31, HH = 00-23, MM = 00-59, SS = 00-59, ssssssss = 000000000- 999999999 (nanoseconds)	Mandatory
11	ClOrdID	An identifier of a message assigned by the Client when submitting an order to the Exchange.	String	20	From -2^63+1 to 2^63-1	Mandatory
48	SecurityID	Exchange identification code of the instrument/contract.	String	10	From 0 to 2^32-2	Mandatory
22	SecurityIDSource	Gives the type of SecurityID.	String	1	(See field description)	Mandatory
20020	EMM	Defines the Exchange Market Mechanism applied on each platform.	Int	2	(See field description)	Mandatory
44	Price	Instrument price per quantity unit (To be calculated with Price/Index Level Decimals).	Price	20	From -2^63+1 to 2^63-1	Conditional
38	OrderQty	Total order quantity, per quantity unit.(To be calculated with Quantity Decimals).	Qty	20	From 0 to 2^64-2	Mandatory
40	OrdType	Type of Order.	Char	1	(See field description)	Mandatory
59	TimeInForce	Specifies the maximum validity of an order.	Char	1	(See field description)	Mandatory
336	TradingSessionID	Trading Session Validity. Values specified, in the list of possible values, indicate the bit positions that should be used to set zero (0) or one (1) values. A single field contains multiple values provided in different positions.	String	3	(See field description)	Conditional
29	LastCapacity	Indicates whether the order submission results from trading as matched principal, on own account or as any other capacity.	Char	1	(See field description)	Mandatory
21081	NonExecClID	This field will be used as unique client Key. Field indicating the client ID of the participant in a commercial package, e.g. Ceres, Omega, etc.	Int	5	From 0 to 2^16-1	Optional
453	NoPartyIDs	Number of PartyID entries.	NumInGroup	1	Always set to 1	Mandatory
448	PartyID	Party identifier/code. See PartyIDSource (447) and PartyRole (452).	String	11	Alphanumeric	Mandatory
447	PartyIDSource	Source of PartyID value.	Char	1	(See field description)	Mandatory
452	PartyRole	Identifies the type or role of the PartyID (448) specified.	Int	3	(See field description)	Mandatory
2376	PartyRoleQualifier	Used to further qualify the value of PartyRole(452).	Int	2	(See field description)	Mandatory

Tag	Field	Short Description	Format	Len	Values	Presence
21015	STPAggressorIndica tor	Field used as instruction for order handling STP resting order: indicates whether the STP rule is "cancel resting order" or not. (0: STP	Int	1	(See field description)	Optional
		Resting Order deactivated; 1: Cancel Resting Order) - STP incoming order: indicates whether the STP rule is "cancel incoming order" or not. (0: STP Incoming Order deactivated; 1: Cancel Incoming Order) - STP is not applicable for Dark				
21016	DisclosedQtyRandIn dicator	Orders Indicates whether the client requests or not a randomization for the DisplayQty (1138) of his iceberg order.	Int	1	(See field description)	Conditional
21018	CancelOnDisconnec tionIndicator	Indicates whether the order is not in scope of the Cancel On Disconnect mechanism (order is persisted) or if order should be handled as defined by default. (0: Default Configuration; 1: Order not in the scope of Cancel On Disconnect - Order is to be persisted)	Int	1	(See field description)	Mandatory
1094	PegPriceType	Defines the type of the peg order.	Int	1	(See field description)	Conditional
211	PegOffsetValue	Tick offset for a pegged order.	Int	3	From -127 to 127	Conditional
20052	DarkExecutionInstr uction	Field used as instruction for dark order handling. This field can contain up to 8 values, space delimited, provided in different positions.	MultipleCharVal ue	9	(See field description)	Conditional
1724	OrderOrigination	Identifies the origin of the order.	Int	1	(See field description)	Conditional
2593	NoOrderAttributes	Number of order attribute entries.	NumInGroup	1	If provided, From 1 to 2	Optional
2594	OrderAttributeType	The type of order attribute.	Int	1	(See field description)	Optional
2595	OrderAttributeValu e	The value associated with the order attribute type specified in OrderAttributeType (2594).	String	1	(See field description)	Optional
2362	SelfMatchPreventio nID	For Future Use.	String	5	From 0 to 2^16-2	Optional
99	StopPx	Stop Trigger Price is mandatory for stop orders.	Price	20	From -2^63+1 to 2^63-1	Conditional
20004	UndisclosedPrice	[N/A] (For Future Use, Pending Regulatory Approval) Optional price for the hidden part of an Iceberg order.	Price	20	From -2^63+1 to 2^63-1	Optional
1138	DisplayQty	Maximum number of quantity units to be shown to market participants (Iceberg Order). (To be calculated with Quantity Decimals)	Qty	20	From 0 to 2^64-2	Conditional

Tag	Field	Short Description	Format	Len	Values	Presence
110	MinQty	Minimum quantity to be executed upon order entry (else the order is rejected), (To be calculated with Quantity Decimals).	Qty	20	Value '0' by default and depending to a minimum value for the given instrument and/or market type	Optional
126	ExpireTime	[N/A] Field used as time of order expiration for GTT orders.	UTCTimestamp	27	Valid values: YYYY = 0000- 9999, MM = 01-12, DD = 01-31, HH = 00-23, MM = 00-59, SS = 00-59, SSSSSSSS = 000000000- 999999999 (nanoseconds)	Conditional
432	ExpireDate	Field used as date of order expiration for GTD orders.	LocalMktDate	8	Valid values: YYYY = 0000- 9999, MM = 01-12, DD = 01-31	Conditional
20005	UndisclosedIceberg Type	[N/A](For Future Use, Pending Regulatory Approval) Order handling related to the undisclosed part of an Iceberg order eligible to a matching in the Dark pool of liquidity.	Int	1	(See field description)	Conditional
20175	TriggeredStopTimel nForce	Specifies the maximum validity of an triggered stop order.	Char	1	(See field description)	Conditional
131	QuoteReqID	Numerical RFQ identifier assigned by the matching engine, unique per instrument and EMM.	String	20	From 0 to 2^64-2	Conditional
21037	RFQAnswerIndicato r	Indicates whether the message is, or not, a quote sent as an answer to a QuoteRequest (R) message.	Int	1	(See field description)	Conditional
21038	RFQConfirmationIn dicator	Indicates whether the message is, or not, an order sent as a confirmation of a QuoteRequest (R) message.	Int	1	(See field description)	Conditional
21800	ConditionalOrderFla g	Field used to specify if the order is a conditional or a firm order.	Char	1	(See field description)	Conditional
21801	FRMARAMPLP	Indicates whether the order is subject to French Market Abuse Regulation Accepted Market Practice Liquidity provision or not (0: Not subject to FR MAR AMP LP); 1: Subject to DE MAR AMP LP).	Char	1	0 = Not subject to FR MAR AMP LP (default) 1 = Subject to FR MAR AMP LP	Optional
23	IOIID	Unique identifier of IOI message.	String	20	From -2^63+1 to 2^63-1	Optional
552	NoSides	Number of sides.	NumInGroup	1	From 1 to 2	Mandatory
54	Side	Indicates the side of the order.	Char	1	(See field description)	Mandatory
577	ClearingInstruction	Clearing Instruction.	Int	4	(See field description)	Optional
58	Text	Free Text is manually entered by the trader issuing the order. This field is part of the clearing aggregate.	String	18	Alphanumeric	Optional
1	Account	Account Number. Client's position account ID, identifying the investor's account. This field is part of the clearing aggregate.	String	12	Alphanumeric	Optional
6399	AccountCode	Indicates the account type for which the order is entered. For example, an order can be entered for a client account, a house account or a liquidity provider account.	Int	1	(See field description)	Mandatory

Tag	Field	Short Description	Format	Len	Values	ation Messages  Presence
20021	LPRole	Liquidity Provider Role identifies the type of the Liquidity Provider when Account Type is equal to "Liquidity Provider".	Int	2	(See field description)	Conditional
9941	TechnicalOrdType	Indicates the origin of the order; for example, manual entry, or an order coming from a Program Trading system. This field is part of the clearing aggregate.	Char	1	(See field description)	Optional
7443	PostingAction	Open Close Indicator, Posting action. This field is part of the clearing aggregate.	MultipleCharVal ue	19	(See field description)	Optional
21804	LongClientID	Field used to identify the Client (investor), or trader's reference / posting order number for a preposting, entered as a free text used for clearing purposes. This field is part of the clearing aggregate for Derivatives.	String	16	(See field description)	Optional
539	NoNestedPartyIDs	Number of NestedPartyID entries.	NumInGroup	1	If provided, From 1 to 5	Conditional
524	NestedPartyID	Party identifier/code within a repeating group. See NestedPartyIDSource (525) and NestedPartyRole (538).	String	11	Alphanumeric	Conditional
525	NestedPartyIDSourc e	Source of NestedPartyID (524) value.	Char	1	(See field description)	Conditional
538	NestedPartyRole	Identifies the type or role of the NestedPartyID (524) specified.	Int	3	(See field description)	Conditional
2384	NestedPartyRoleQu alifier	Used to further qualify the value of NestedPartyRole(538).	Int	2	(See field description)	Conditional
	Trailer					

# 5.3.2 ExecutionReport (8)

Client **◀**OEG

Available for: EQ FND FXI SP EQD IDD CMO DC BLK

# 5.3.2.1 Message Description

The **ExecutionReport (8)** message is sent by the matching engine amongst the following situations:

- Response to NewOrderSingle (D) request when the request is accepted and the order created as well as when it
  is rejected;
- Response to QuoteRequest (R) message when the request is accepted:
  - For the Funds segment It confirms the creation of the new RFQ; In this case this message specifies the Quote Request ID of the original submitted Quote in the *OrderID* (37) field;
  - For the Derivatives segments It confirms acceptance of the message for publication of the request for liquidity to the Market; In this case this message specifies the Quote Request ID of the original submitted Quote Request (for RFQ) in both the *OrderID* (37) and *QuoteReqID* (131) fields, with the same value;
- Response to OrderCancelReplaceRequest (G) message in case of acceptation (an OrderCancelReject (9) is
  returned instead in case of rejection); it indicates that the order modification/confirmation is done and holds
  information associated with the order;

- Response to OrderCancelRequest (F) message in case of acceptation (an OrderCancelReject (9) is returned instead in case of rejection); it indicates that the order cancellation is done:
  - For an individual order cancellation message <u>sent by the same Logical access and OE session</u> that sent the order, a <u>ExecutionReport</u> (8) message, as a notification of the cancellation, is sent to that Logical Access and OE session.
    - <u>Example</u>: LA1 / OE1 sends the order, then LA1 / OE1 sends a cancellation. <u>ExecutionReport</u> (8) message, as a notification of the cancellation, is sent to the LA1 / OE1;
  - For an individual order cancellation message <u>sent by a different Logical access or OE session</u> than the one
    that sent the original order, a <u>ExecutionReport</u> (8) message, as a notification of the cancellation, is sent to
    the Logical Access or OE session that submitted the cancellation
    - Example: LA1 / OE1 sends the order, then LA2 / OE2 sends a cancellation. Kill message is sent to the LA2 / OE2
- Response to OrderMassCancelRequest (q) message in case of acceptation (an OrderCancelReject (9) is returned instead in case of rejection for each rejected cancellation); In this case, one ExecutionReport (8) message is sent for each cancelled order. In case of a mass cancellation following a OEG disconnection, the field ClOrdID (11) is not filled in each Execution Report: the reference of the cancelled order is hold by the field OrigClOrdID (41):
  - For a mass cancel command (with granularity of a firm) while the OrderMassCancelReport (r) message is sent to the Logical Access and/or OE session that submitted it, the ExecutionReport (8) messages, sent as a cancellation notification, for the individual impacted orders are sent to the Logical Accesses and OE sessions that originally submitted the orders.
    - <u>Example</u>: LA1 / OE1 sends the order1, LA3 / OE3 sends order2. Then LA2 / OE2 sends a
       OrderMassCancelRequest (q). OrderMassCancelReport (r) is sent to LA2 / OE2. Individual Kill messages
       are sent to the Logical Accesses that own the order.
- Response to OrderMassStatusRequest (AF) message.
- Response to CrossOrder (U67) request when the request is accepted and the order created as well as when it is rejected;

## **Executions Wholesales and Strategies (for the Derivatives markets)**

The executions for wholesale transactions done on strategies send individual **ExecutionReport** (8) messages for each leg of the strategy. This mean that for Delta-Neutral with a Cash underlying, submitted as a wholesale transaction clients receive a private message for the Cash instrument that is part of the Delta-neutral strategy.

# **ExecutionReport (8) Message Signature Tags**

The following table identifies the reason for which the **ExecutionReport** (8) message was sent, with a description of the various cases and provides the values of tags *ExecType* (150) and *OrdStatus* (39) used in each case:

Cases when ExecutionReport (8) is sent	Details of the Case		OrdStatus (Tag 39)
New Order Submission & Creation	1		
New Order	Message 8 sent: in response to a <b>NewOrderSingle</b> (D) that is successfully received and accepted	0	0
Rejection of New Order	Message 8 sent: in response to a NewOrderSingle (D) or a QuoteRequest (R) message, that is received and rejected	8	8
Iceberg Order Conversion	Message 8 sent: in response to a <b>NewOrderSingle</b> (D) message when the Iceberg order is transformed into a Limit order when it is below the minimum allowed size	h	0
New RFQ	Message 8 sent: in response to a <b>QuoteRequest</b> (R) that is successfully received and accepted	j	0
New CrossOrder (Derivatives)	Message 8 sent: in response to a <b>CrossOrder</b> (U67) that is successfully received and accepted	2	0

Cases when ExecutionReport (8) is sent	Details of the Case	ExecType (Tag 150)	OrdStatus (Tag 39)
<b>FUTURE USE</b> Order Creation	FUTURE USE  Message 8 sent: to report an order creation by the Market Operations	i	0
Order Modification			
Modification of an Order	Message 8 sent: in response to an OrderCancelReplaceRequest (G), for an order that has not participated in trading the message indicates that request is successfully received and accepted, and the Order is modified	5	5
Order Enters after Collar Breach Confirmation	Message 8 sent: when an Order enters the book following collar breach confirmation	d	5
Individual Order Cancellation			
Individual Order Cancelled by User	Message 8 sent: to report cancellation of an Order in response to an <b>OrderCancelRequest</b> (F), when the cancel request is received from a client, that was successfully received and accepted	4	4
Individual Order cancelled due to Kill Switch by Market Operations	Message 8 sent: to report cancellation of an Order when the cancel request is a consequence of a Kill switch command sent from the Market Operations	V	4
Individual Order cancelled by Market Operations	Message 8 sent: to report cancellation of an Order due to manual intervention from Market Operations	U	4
Individual Order cancelled by Risk Manager	Message 8 sent: to report cancellation of an Order when the cancel request is a request sent from a risk manager	Р	4
Individual Order cancelled by Clearing Risk Manager	Message 8 sent: to report cancellation of an Order when the cancel request is a request sent from a risk manager	v	4
Individual reactor Order Cancellation (Derivatives)	Message 8 sent: to report cancellation of a Reactor Order when it doesn't match with the conditions submitted by the Initiator	1	4
Mass Cancellation of Orders			
Mass Cancellation of Orders by User	Message 8 sent: in response to an OrderMassCancelRequest (q) received and accepted, to report the cancellation of an order requested by the client	4	4
Mass Cancellation of Orders by Market Operations	Message 8 sent: when the mass cancel request is initiated by the Market Operations	U	4
Order Elimination & Automatic Ca	ncellation		
Elimination on Reaching Time or Trading Phase of Expiration	Message 8 sent: when Order expired upon reaching its time or phase of elimination (VFU/VFC order eliminated at the end of the uncrossing, GTT/GTD order eliminated at its expiration time/date, etc.)	3	3
Elimination of IOC order's remaining quantity	Message 8 sent: when IOC order is partially filled, and then the remaining unfilled quantity is cancelled on entry	Х	4
Elimination due to Corporate Event	Message 8 sent: when Order is eliminated by a Corporate Event	0	4
Expiration at the end of the Trading Session	Message 8 sent: when Order is eliminated at the end of the trading session due to expiration of its time of validity	С	С
Cancellation due to PAKO	Message 8 sent: when Order is eliminated at the start of the PAKO phase	Υ	4
Cancellation by STP	Message 8 sent: when a resting Order eliminated by the Self-Trade Prevention (STP)	а	4
Cancellation due to Knock-Out	Message 8 sent: when Order is cancelled due to Knock-Out of an instrument	g	4
Cancellation due to COD mechanism	Message 8 sent: when Order is cancelled due to triggering of the Cancel On Disconnect (COD) mechanism	b	4
Cancellation due to RFQ expiration	Message 8 sent: when Order is cancelled due to cancelled due to RFQ expiration, on the funds segment	r	4

		710	prication wiessa
Cases when ExecutionReport (8) is sent	Details of the Case	ExecType (Tag 150)	OrdStatus (Tag 39)
Cancellation due to RFQ cancellation	Message 8 sent: when Order is cancelled due to RFQ cancellation, on the funds segment	f	4
Cancellation due to RFQ remaining quantity killed	Message 8 sent: when Order is cancelled due to RFQ remaining quantity killed, on the funds segment	q	4
Cancellation due to RFQ confirmation	Message 8 sent: when Order is cancelled due to RFQ confirmation, on the funds segment	S	4
Cancelled due to Potential Matching	Message 8 sent: when a Conditional Order is cancelled due to Potential Matching	С	4
Cancelled due to a potential trade outside FSP limits	Message 8 sent: when an order is Cancelled due to a potential trade outside FSP limits.	n	4
Cancelled triggered by Trade Price Validation	Message 8 sent: when an order is Cancelled when in scope of triggered Trade Price Validation (TPV).	w	4
Order Fill / Trade Execution			
Partial Fill	Message 8 sent: to report partial execution of an Order, which results in a trade	F	1
Fill	Message 8 sent: to report full execution of an Order, which results in a trade	F	2
Trade Cancellation			
Trade Cancellation	Message 8 sent: when the trade is cancelled. All cases of Trade Cancellation are identified in the same way. In all such cases the trade leading to the execution of the order is cancelled and the order, or the Derivatives Wholesales or RFC submissions, remain in the state they were after the trade.	н	н
System Triggered Events			
Stop order	Message 8 sent: As a notification of triggering of a Stop-Market / Stop-Limit order	L	S
Re-filled Iceberg order	Message 8 sent: As a notification of a refill of an Iceberg order	e	0
MTL order transformation	Message 8 sent: As a notification of a resting Market to Limit (MTL) order being transformed into a Limit order during uncrossing	L	Т
VFU / VFC order	Message 8 sent: As a notification of a Valid for Uncrossing or Valid For Closing order reaching the Uncrossing phase where it is triggered	L	ď
Order Status & Ownership Reques	st		
Order Status	Message 8 sent: in response to an OrderMassStatusRequest (AF) message	m	R
Ownership Request	Message 8 sent: in response to an <b>OwnershipRequest</b> (U18) message	k	I

# Private & Public feed reconciliation (Cash Segments Only)

The **ExecutionReport** (8) message allows clients to reconcile their orders with the Market Data feed by using the field *OrderPriority* (21004).

This mechanism is explained in more details in the Kinematics for the Cash markets in Section 1.2.5.1 Private and Public feed reconciliation. Public and Private feed reconciliation of order messages does not apply to the Derivatives markets.

This allows clients to identify their orders in public feed as the *OrderPriority* is also provided in the public **Order Update** (1002) message. The *OrderPriority* is thus used as an order identifier.

Please note that the field *OrderPriority (21004)* is provided for newly received Stop orders, and all orders shown to the market. List below identifies the cases in which it is provided:

- In the ExecutionReport (8) message as a response to a NewOrderSingle (D) or to an OrderCancelReplaceRequest (G) with ConfirmFlag (9930) set to '1 = Confirmed';
- In the ExecutionReport (8) message as a response to a new order entry:
- In the ExecutionReport (8) message as a notification of a triggered Stop-market/Stop-limit order; Currently used on the Cash markets only
- In the ExecutionReport (8) message as a notification of a triggered Valid For Uncrossing (VFU) or Valid For Closing (VFC) order; Currently used on the Cash markets only
- In the ExecutionReport (8) message for a refilled Iceberg Order. Currently used on the Cash markets only

For orders that are still hidden for the market (ex. an un-triggered Stop order) the OrderPriority will not be provided.

## **Unsolicited Reports**

The **ExecutionReport** (8) message may be used to relay order execution reports:

- Order Partial Fill execution report: the ExecutionReport (8) message is used to relay the notification of an order's partial fill.
- Order Fill execution report: the ExecutionReport (8) message is used to relay the notification of an order's full fill.
- In outbound application messages the field CIOrdID (11) is not provided for unsolicited messages.

The **ExecutionReport** (8) message may be used to relay Market Operations reports:

- Market Operations order creation report: For Future Use only, Currently not supported
- Market Operations trade cancellation reports: two ExecutionReport (8) messages are used to relay the notification of a trade cancellation by Market Operations (one message per order involved).
- Order Expiration report: the ExecutionReport (8) message is used to relay the notification of an order's expiration.
- Order Collar rejection report: the ExecutionReport (8) message is used to relay the notification of an order's rejection for collars.
- Order PAKO Cancellation report: the ExecutionReport (8) message is used to relay the notification of an order's
  cancellation when an instrument is moving into Payment After Knock-Out (PAKO) period. Currently used on the
  Cash markets only

## Note

The situation where an order on the Cash markets is rejected for collar implies that it must at least have been created or modified, possibly partially filled; the rejection for collars always follows immediately these "before-rejection" events. Hence, when the expression "order collar rejection report" is used, it includes the Execution Reports of the latter events.

Please note that conditional fields are provided only if they are present in the corresponding inbound message.

# **Trading Venue Transaction Identification Code (TVTIC)**

The Trading Venue Transaction Identification Code (TVTIC) is the unique identifier of a trade in the MiFID II framework. Each individual trade has a corresponding TVTIC.

## For Cash Markets

The TVTIC is the concatenation of:

- The Symbol Index (10 characters, left-padded with zeroes);
- The EMM (3 characters, left-padded with zeroes);
- The Execution ID (10 characters, left-padded with zeroes).

#### The different ways to get a trade TVTIC are:

- Using the public Market Data feed, getting the Full Trade Information (1004) message that contains the MiFID Execution ID field which contains the TVTIC;
- Using the private Order Entry feed, getting the SBE Fill (04) / FIX Execution Report (8) message, to rebuild the TVTIC as described above (SymbolIndex or SecurityID + EMM + ExecutionID);
- Using the EOD Day Trade file (FTRRM), field TVTIC (as of implementation of new TVTIC format for Cash Markets in Production).

## For Derivatives Markets

For trades on individual instruments (Derivatives outright instruments):

The TVTIC is the concatenation of:

- The Execution ID
- The instrument ISIN

The different ways to get a trade TVTIC are:

- Using the Market Data flow, getting the Full Trade Information (1004) message that contains the MiFID Execution ID field which contains the TVTIC.
- Using the private Order Entry flow, getting the SBE Fill (04) / FIX Execution Report (8) message, to rebuild the TVTIC as described above (ExecutionID + ISIN).
- For transactions on complex instruments (Derivatives Strategies Trades on Central Order Book (COB) or Large in Scale (LiS) Packages Trades on Derivatives Wholesales):

The TVTIC is built as follows:

- For COB Strategy Trades: TVTIC = Execution ID + Strategy Symbol Index
- For LiS Package Trades: TVTIC = LiS Transaction ID + Contract Symbol Index

For COB Strategy Trades: each strategy trade is always published alongside the corresponding trades at leg level. MiFID II reporting being at leg level, clients should build the TVTIC of each trade at the leg level.

For LiS Package Trades: the transaction consists of a single consistent pre-negotiated package, and the individual components of the trade are not published individually in Market data. To build each individual trade component, clients must use the LiS Transaction ID of the Package (provided on both Market Data and Order entry feeds) to group all private Fill (04) / Execution Report messages received for the LiS Package Transaction.

The different ways to get a trade TVTIC are:

- Using the Market Data feed, getting the Full Trade Information (1004) message that contains the MiFID Execution ID field which contains the TVTIC.
- Using the private Order Entry feed, getting the SBE Fill (04) / FIX Execution Report (8) message, to rebuild the TVTIC as described above (ExecutionID + strategy symbol index or contract symbol index).

# **Components Use within the Message**

This message contains three components and one nested component:

- The first component Parties is composed of the fields: NoPartyIDs (453), PartyID (448), PartyIDSource (447), PartyRole (452) and PartyRoleQualifier (2376);
- The second component OrderAttributeGrp is composed of the fields: NoOrderAttributes (2593), OrderAttributeType (2594), OrderAttributeValue (2595);
- The third component SideCrossOrdModGrp is composed of the fields: NoSides (552), Side (54), ClearingInstruction (577), Text (58), Account (1), AccountCode (6399), LPRole (20021), TechnicalOrdType (9941), PostingAction (7443) and of nested repeating group
- The nested repeating group **NestedParties** is composed of *NoNestedPartyIDs* (539), *NestedPartyID* (524), *NestedPartyIDSource* (525), *NestedPartyRole* (538) and *NestedPartyRoleQualifier* (2384).

Provision of the groups and values within them reflect information provided to the exchange by the clients, and is represented as following:

- ExecutionwithinFirmShortCode is provided via the Parties repeating group
- With noted exceptions ClientidentificationShortCodes is provided via the NestedParties repeating group
- With exception to Algorithmic trading, InvestmentDecisionwithinFirmShortCode is provided via the NestedParties repeating groups.
- The NonExecutingBrokerShortCodes is provided via the *NestedParties* repeating groups.
- The additional MIFID II short code related identifiers are specified using OrderAttributeGrp group.
- The third repeating group *SideCrossOrdModGrp* is used to identify the order side
- Repeating group NestedParties is also used to specify the Clearing Firm for the order

# For the Cancellation of Strategy trades on the Derivatives Markets

For Strategy trades the **ExecutionReport** (8) message is sent for each individual leg of the strategy. In such cases, the field *ParentExecID* (21094) identifies the *ExecID* (17) provided in the original trade message. This allows to map all cancellations of individual legs to the original message sent for the strategy trade. The individual *ExecID* (17) in such trade cancellation messages is the 'leg' Execution IDs of each individual leg provided in the repeating group of the original trade message.

For cancellation of a LIS wholesale trade the trade cancellation messages include the *LISTransactionID* (21085) to help map the individual cancellation to the overall wholesale transaction.

#### Cancellation of Orders at the Close of Business

The dissemination of messages indicating automatic cancellation of orders by the system that have reached end of their validity at the end of the trading session only cover the orders with Day validity. For orders with validities of (1) Good Till Cancelled (GTC) and cancelled on the current date and (2) Good Till Date (GTD) with expiration date set to the current date, as well as cancellation of orders triggered by corporate actions (for Cash markets), elimination messages is disseminated at the start of the session on the next business day.

The messages for expired Day orders is disseminated at the beginning of the last Closed (Closing) phase at the end of the trading session without any expected additional delay. These messages are not re-disseminated at the start of the next trading session.

## Temporary and Final prices

For TRF and MOC contracts, the field *EvaluatedPrice* (21802) can contain either the "Temporary" or the "Final" Price. To identify which type of trade message is sent, customers may rely on the value in the field *TradeType* (21010).

If field *TradeType* (21010) is equal to one of the provisional price values (100, 101 or 102) then the message is providing a Temporary Price.

If field *TradeType* (21010) is equal to one of the conventional trade values (1, 2 or 4) then the message is providing the Final Price.

# MIFID II short code related data fields

Examples of individual cases and some exceptions for the use of these groups are provided below. For the full list of possible values for each field clients should review the individual field descriptions.

# **ExecutionwithinFirmShortCode**

<u>Presence Condition</u>: Conditional Group. For Cash markets: Provided on Drop Copy only. For Derivatives markets: also provided in via the trading OEG

- Case 1: ExecutionwithinFirmShortCode where a natural person is responsible for the execution of the transaction
  - PartyID (448) = field in which the short code is provided
  - PartyIDSource (447) = P (Short code identifier)
  - PartyRole (452) = 12 (Executing Trader)
  - PartyRoleQualifier (2376) = 24 (Natural person)
- Case 2: ExecutionwithinFirmShortCode where an algorithm is responsible for the execution of the transaction
  - PartyID (448) = field in which the **short code** is provided
  - PartyIDSource (447) = P (Short code identifier)
  - PartyRole (452) = 12 (Executing trader)
  - PartyRoleQualifier (2376) = 22 (Algorithm)
  - Case 3: ExecutionwithinFirmShortCode for a client
    - PartyID (448) = field in which the short code is provided
    - ◆ PartyIDSource (447) = P (Short code identifier)
    - PartyRole (452) = 3 (Client ID)
    - PartyRoleQualifier (2376) = 23 (Firm or legal entity) OR 24 (Natural person)

## ClientIdentificationShortCode

<u>Presence Condition</u>: Conditional Group. For Cash markets: Provided on Drop Copy only. For Derivatives markets: also provided in via the trading OEG. This field is required for DEA User in every inbound message, or when AccountCode (6399) = Client or RO.

- Case 4: ClientIdentificationShortCode where the client is a legal entity
  - NestedPartyID (524) = field in which the **short code** is provided
  - NestedPartyIDSource (525) = P (Short code identifier)
  - NestedPartyRole (538) = 3 (Client ID)
  - NestedPartyRoleQualifier (2384) = 23 (Firm or legal entity)
  - Case 5: ClientIdentificationShortCode where the client is not a legal entity
    - NestedPartyID (524) = field in which the **short code** is provided
    - NestedPartyIDSource (525) = P (Short code identifier)
    - NestedPartyRole (538) = 3 (Client ID)
    - NestedPartyRoleQualifier (2384) = 24 (Natural person)
- Case 6: ClientIdentificationShortCode for an Aggregated order ("AGGR" value)

In this case the Parties group is not used, and in its place data is provide using the *OrderAttributeGrp* nested group as following:

- OrderAttributeType (2594) = **0** (Aggregated order)
- OrderAttributeValue (2595) = "Y"
- Case 7: ClientIdentificationShortCode for an order for which short code is still pending allocation ("PNAL" value)
  In this case the Parties group is not used. In its place data is provided using the *OrderAttributeGrp* nested group as following:
  - OrderAttributeType (2594) = 1 (Pending allocation)
  - OrderAttributeValue (2595) = "Y"
- Case 8: In case the message originates from a DEA (Direct Electronic Access) client, information should be provided as following:
  - OrderOrigination (1724) = 5 (Order received from a direct access or sponsored access customer)

#### AND

 ClientIdentificationShortCode should be provided using one of the combinations provided in cases 4 through 7 above, as required

Note: The ClientIdentificationShortCode field is not provided for rejection of Cross orders.

## $\underline{InvestmentDecisionwithinFirmShortCode}$

<u>Presence Condition</u>: Conditional Group. Mandatory if (1) AccountCode is Liquidity Provider, Related Party or House, OR in case investment decision maker is an Algorithm (2) AND the message did not originate from DEA client.

- Case 9: InvestmentDecisionwithinShortCode where a natural person is responsible for the investment decision
  - NestedPartyID (524) = field in which the **short code** is provided
  - NestedPartyIDSource (525) = P (Short code identifier)
  - NestedPartyRole (538) = 122 (Investment decision maker)
  - NestedPartyRoleQualifier (2384) = 24 (Natural person)

#### AND

- OrderOrigination (1724) is NOT set
- Case 10: InvestmentDecisionwithinShortCode where an algorithm was responsible for the investment decision
  - NestedPartyID (524) = field in which the **short code** is provided
  - NestedPartyIDSource (525) = P (Short code identifier)
  - NestedPartyRole (538) = 122 (Investment decision maker)
  - NestedPartyRoleQualifier (2384) = 22 (Algorithm)

## AND

OrderOrigination (1724) is NOT set

## **NonExecutionBrokerShortCode**

Presence Condition: Optional

- Case 11: NonExecutionBrokerShortCode
  - NestedPartyID (524) = field in which the **short code** is provided
  - NestedPartyIDSource (525) = P (Short code identifier)
  - NestedPartyRole (538) = 26 (Correspondent broker)
  - NestedPartyRoleQualifier (2384) = 23 (Firm or legal entity)

# Other Identifiers

- For identification of an order submitted for a commodity derivative or a warrant with a commodity underlying, if the potential trade would reduce the risk, data is provided using *OrderAttributeGrp* repeating group, and identifies the values as following:
  - OrderAttributeType (2594) = 3 (Risk Reduction Code)
  - OrderAttributeValue (2595) = "Y"

# **Trading & Clearing related data fields**

# Clearing Firm ID

- If provided in the inbound message, the following combination of fields that provide the Clearing Firm ID.
  - NestedPartyID (524) = field in which the ID is provided

- NestedPartyIDSource (525) = **D** (Proprietary / Custom Code)
- NestedPartyRole (538) = 4 (Clearing Firm)
- NestedPartyRoleQualifier (2384) = 3 (General clearing member) OR 4 (Individual clearing member)

# Client ID / Long Client ID

If provided in the inbound messages the following describes the fields that provide the Client ID.

<u>For the Cash Markets</u> – Client ID data should be provided as combination of fields identified below.

- NestedPartyID (524) = field in which the ID is provided
- NestedPartyIDSource (525) = **D** (Proprietary / Custom Code)
- NestedPartyRole (538) = 3 (Client ID)
- NestedPartyRoleQualifier (2384) = 23 (Firm or legal entity) OR 24 (Natural person)

<u>For the Derivatives Markets</u> – Client ID data should be provided using the field *LongClientID* (21804).

# 5.3.2.2 Message Structure

Tag	Field	Short Description	Format	Len	Values	Presence
	Header					
60	TransactTime	Indicates the time of message transmission (Format: YYYYMMDD-HH:MM:SS.ssssssss).	UTCTimestam p	27	Valid values: YYYY = 0000- 9999, MM = 01-12, DD = 01-31, HH = 00-23, MM = 00-59, SS = 00-59, ssssssss = 000000000- 999999999 (nanoseconds)	Conditional
21005	ClientMessageSendingTi me	Indicates the time of message transmission, the consistency of the time provided is not checked by the Exchange. (Time in number of nanoseconds since 01/01/1970 UTC)	UTCTimestam p	27	Valid values: YYYY = 0000- 9999, MM = 01-12, DD = 01-31, HH = 00-23, MM = 00-59, SS = 00-59, ssssssss = 000000000- 99999999 (nanoseconds)	Conditional
5979	OEGINFromMember	Order Entry Gateway IN time from member (in ns), measured when inbound message enters the gateway (Time in number of nanoseconds since 01/01/1970 UTC).	UTCTimestam p	27	Valid values: YYYY = 0000- 9999, MM = 01-12, DD = 01-31, HH = 00-23, MM = 00-59, SS = 00-59, ssssssss = 000000000- 99999999 (nanoseconds)	Conditional
7764	OEGOUTToME	Gateway OUT time to ME (in ns), measured when inbound message leaves the gateway (Time in number of nanoseconds since 01/01/1970 UTC).	UTCTimestam p	27	Valid values: YYYY = 0000- 9999, MM = 01-12, DD = 01-31, HH = 00-23, MM = 00-59, SS = 00-59, ssssssss = 000000000- 99999999 (nanoseconds)	Conditional
21002	BookINTime	Matching Engine IN time (in ns), time at which the corresponding inbound message entered the Matching Engine. (Time in number of nanoseconds since 01/01/1970 UTC)	UTCTimestam p	27	Valid values: YYYY = 0000- 9999, MM = 01-12, DD = 01-31, HH = 00-23, MM = 00-59, SS = 00-59, SSSSSSSS = 000000000- 999999999 (nanoseconds)	Conditional

Tag	Field	Short Description	Format	Len	Values	ication Messages  Presence
21003	BookOUTTime	Matching Engine OUT time (in ns), when message leaves the Matching Engine (Time in number of nanoseconds since 01/01/1970 UTC).	UTCTimestam p	27	Valid values: YYYY = 0000- 9999, MM = 01-12, DD = 01-31, HH = 00-23, MM = 00-59, SS = 00-59, SSSSSSSS = 000000000- 999999999 (nanoseconds)	Conditional
7765	OEGINFromME	Gateway IN time from ME (in ns), measured when outbound message enters the gateway (Time in number of nanoseconds since 01/01/1970 UTC).	UTCTimestam p	27	Valid values: YYYY = 0000- 9999, MM = 01-12, DD = 01-31, HH = 00-23, MM = 00-59, SS = 00-59, ssssssss = 000000000- 99999999 (nanoseconds)	Conditional
11	ClOrdID	An identifier of a message assigned by the Client when submitting an order to the Exchange.	String	20	From -2^63+1 to 2^63-1	Conditional
41	OrigClOrdID	Identifies the Client Order ID of the original order, used to identify the previous order on cancel and replacement requests.	String	20	From -2^63+1 to 2^63-1	Conditional
48	SecurityID	Exchange identification code of the instrument/contract.	String	10	From 0 to 2^32-2	Mandatory
22	SecurityIDSource	Gives the type of SecurityID.	String	1	(See field description)	Mandatory
20020	EMM	Defines the Exchange Market Mechanism applied on each platform.	Int	2	(See field description)	Conditional
37	OrderID	Numerical order identifier assigned by the matching engine, unique per instrument and EMM.	String	20	From 0 to 2^64-2	Mandatory
39	OrdStatus	Identifies the current status of the order.	Char	1	(See field description)	Mandatory
21004	OrderPriority	Rank giving the priority of the order. The order with the lowest value of Order Priority has the highest priority.	Int	20	From 0 to 2^64-2	Conditional
20052	DarkExecutionInstruction	Field used as instruction for dark order handling. This field can contain up to 8 values, space delimited, provided in different positions.	MultipleCharV alue	9	(See field description)	Conditional
44	Price	Instrument price per quantity unit (To be calculated with Price/Index Level Decimals).	Price	20	From -2^63+1 to 2^63-1	Conditional
38	OrderQty	Total order quantity, per quantity unit.(To be calculated with Quantity Decimals).	Qty	20	From 0 to 2^64-2	Conditional
31	LastPx	The Last Traded Price indicates the price of last fill on an instrument (to be calculated with the Price/Index Decimals).	Price	20	From -2^63+1 to 2^63-1	Conditional
32	LastQty	The Last Traded Quantity indicates the quantity of last fill on an instrument (to be calculated with the Quantity Decimals).	Qty	20	From 0 to 2^64-2	Conditional

Tag	Field	Short Description	Format	Len	Values	Presence
151	LeavesQty	Indicates the remaining quantity of an order, i.e. the quantity open for further execution.	Qty	20	From -1 to 2^64-2	Mandatory
17	ExecID	The Execution ID is unique per instrument and per day. It is the unique identifier of a trade per instrument. This field is provided in case of fill, partial fill or trade cancellation.	String	10	From 0 to 2^32-2	Mandatory
21094	ParentExecID	Unique identifier of a parent trade executed on the strategy.	String	10	From 0 to 2^32-2	Optional
21093	ParentSecurityID	Exchange identification code used to point to the strategy in the leg specific messages	String	10	From 0 to 2^32-2	Optional
150	ЕхесТуре	Describes the specific ExecutionReport (8) while OrdStatus (39) will always identify the current order status (e.g. Partially Filled).	Char	1	(See field description)	Mandatory
99	StopPx	Stop Trigger Price is mandatory for stop orders.	Price	20	From -2^63+1 to 2^63-1	Conditional
20004	UndisclosedPrice	[N/A] (For Future Use, Pending Regulatory Approval) Optional price for the hidden part of an Iceberg order.	Price	20	From -2^63+1 to 2^63-1	Conditional
1138	DisplayQty	Maximum number of quantity units to be shown to market participants (Iceberg Order). (To be calculated with Quantity Decimals)	Qty	20	From 0 to 2^64-2	Conditional
20005	UndisclosedIcebergType	[N/A](For Future Use, Pending Regulatory Approval) Order handling related to the undisclosed part of an Iceberg order eligible to a matching in the Dark pool of liquidity.	Int	1	(See field description)	Conditional
20175	TriggeredStopTimeInFor ce	Specifies the maximum validity of an triggered stop order.	Char	1	(See field description)	Conditional
131	QuoteReqID	Numerical RFQ identifier assigned by the matching engine, unique per instrument and EMM.	String	20	From 0 to 2^64-2	Conditional
584	MassStatusReqID	Unique Identifier assigned by the client to the OrderMassStatusRequest (AF).	String	20	From -2^63+1 to 2^63-1	Conditional
378	ExecRestatementReaso n	The reason for restatement when ExecutionReport (8) message is sent with ExecType (150) = 'D' (Restated) or used when communicating an unsolicited cancel.	Int	1	(See field description)	Optional
21037	RFQAnswerIndicator	Indicates whether the message is, or not, a quote sent as an answer to a QuoteRequest (R) message.	Int	1	(See field description)	Conditional
21038	RFQConfirmationIndicat or	Indicates whether the message is, or not, an order sent as a confirmation of a QuoteRequest (R) message.	Int	1	(See field description)	Conditional

Tag	Field	Short Description	Format	Len	Values	ication Message.  Presence
21800	ConditionalOrderFlag	Field used to specify if the	Char	1	(See field description)	Conditional
		order is a conditional or a firm order.			,	
21801	FRMARAMPLP	Indicates whether the order is subject to French Market Abuse Regulation Accepted Market Practice Liquidity provision or not (0: Not subject to FR MAR AMP LP; 1: Subject to DE MAR AMP LP).	Char	1	0 = Not subject to FR MAR AMP LP (default) 1 = Subject to FR MAR AMP LP	Optional
453	NoPartyIDs	Number of PartyID entries.	NumInGroup	1	If provided, From 1 to 2	Conditional
448	PartyID	Party identifier/code. See PartyIDSource (447) and PartyRole (452).	String	11	Alphanumeric	Conditional
447	PartyIDSource	Source of PartyID value.	Char	1	(See field description)	Conditional
452	PartyRole	Identifies the type or role of the PartyID (448) specified.	Int	3	(See field description)	Conditional
2376	PartyRoleQualifier	Used to further qualify the value of PartyRole(452).	Int	2	(See field description)	Conditional
1724	OrderOrigination	Identifies the origin of the order.	Int	1	(See field description)	Conditional
2593	NoOrderAttributes	Number of order attribute entries.	NumInGroup	1	If provided, From 1 to 2	Conditional
2594	OrderAttributeType	The type of order attribute.	Int	1	(See field description)	Conditional
2595	OrderAttributeValue	The value associated with the order attribute type specified in OrderAttributeType (2594).	String	1	(See field description)	Conditional
29	LastCapacity	Indicates whether the order submission results from trading as matched principal, on own account or as any other capacity.	Char	1	(See field description)	Conditional
110	MinQty	Minimum quantity to be executed upon order entry (else the order is rejected), (To be calculated with Quantity Decimals).	Qty	20	Value '0' by default and depending to a minimum value for the given instrument and/or market type	Conditional
21013	AckPhase	Indicates the trading phase during which the Matching Engine has processed the event that has triggered this ExecutionReport (8) message.	Char	1	(See field description)	Conditional
21014	AckQualifiers	Field used to provide additional information on the corresponding order. A single field can contain up to 8 values, space delimited, provided in different positions.	MultipleCharV alue	15	(See field description)	Conditional
21010	TradeType	Type of trade.	Int	3	(See field description)	Conditional
21023	ExecPhase	Indicates the trading phase during which the trade has occurred.	Char	1	(See field description)	Conditional
21080	TradeQualifier	Trade Qualifier. This field can contain up to 7 values, space delimited, provided in different positions.	MultipleCharV alue	13	(See field description)	Conditional

Tag	Field	Short Description	Format	Len	Values	lication Messages  Presence
375	ContraBroker	ID of the clearing house or ID of the Counterpart Firm.	String	20	From 0 to 2^64-2	Conditional
21019	OEPartitionID	Identifies uniquely an OE Optiq partition by which the engine is reached.	Int	5	From 0 to 2^16-2	Conditional
21021	LogicalAccessID	Identifier of the Logical Access.	Int	10	From 0 to 2^32-2	Conditional
21096	ESCBMembership	Indicates if the trade is submitted by a member of the European System of Central Bank (ESCB) in performance of monetary, foreign exchange and financial stability policy.	Int	1	0 = False 1 = True	Optional
21802	EvaluatedPrice	This field is used for Total Return Future and Market On Close Future trading. The Price is calculated by ME in index point notation. It can contain the provisional price calculated in intra-day or the final price calculated at the end of the day. The Trade Type value will enable user to know if the field contains provisional price or final price.	Price	20	From -2^63+1 to 2^63-1	Conditional
21803	MessagePriceNotation	This field provides the type of price notation used per message. For TRF and MOC products the value "Price" is used for TAM Trading mode, the values "Spread in basis points" and "Spread" are used for TAIC trading mode.	Int	2	1 = Price 2 = Spread in basis points 3 = Spread	Conditional
21805	FinalSecurityID	This field is used for the Market On Close (MOC) contracts to provide the symbol index of the final future instrument	String	10	From 0 to 2^32-2	Conditional
21806	FinalExecID	This field is used for the Market On Close (MOC) contracts to provide the exec ID of the original trade on the final future instrument	String	10	From 0 to 2^32-2	Conditional
555	NoLegs	Number of legs entries for the requested strategy.	NumInGroup	2	From 1 to 7	Conditional
600	LegSymbol	Identifies the contract of this instrument by its Symbol Index.	String	10	From 0 to 2^32-2	Mandatory
602	LegSecurityID	Numerical leg instrument identifier (SymbolIndex) valid for the life of the instrument.	String	10	From 0 to 2^32-2	Conditional
603	LegSecurityIDSource	Gives the type of LegSecurityID (602).	String	1	(See field description)	Conditional
637	LegLastPx	Leg Last Traded Price	Price	20	From -2^63+1 to 2^63-1	Conditional
1418	LegLastQty	Leg Last Traded Quantity	Qty	20	From 0 to 2^64-2	Conditional
624	LegSide	Indicates the side of the trade leg.	Char	1	(See field description)	Conditional

Tag	Field	Short Description	Format	Len	Values	ication Messages  Presence
1893	LegExecID	The Leg Execution ID is unique per instrument and per day. It is the unique identifier of a trade for each leg of the strategy trade. This field is provided in case of fill, partial fill or trade cancellation for a strategy.	String	10	From 0 to 2^32-2	Conditional
19	ExecRefID	The ExecRefID (19) is an unique identifier of a trade per instrument. This field is provided in case of trade cancellation.	String	10	Sequential number. From 0 to 2^32-2	Conditional
432	ExpireDate	Field used as date of order expiration for GTD orders.	LocalMktDate	8	Valid values: YYYY = 0000- 9999, MM = 01-12, DD = 01-31	Conditional
14	CumQty	Cumulated quantity (to be calculated with Quantity Decimals).	Qty	20	From -1 to 2^64-2	Mandatory
336	TradingSessionID	Trading Session Validity. Values specified, in the list of possible values, indicate the bit positions that should be used to set zero (0) or one (1) values. A single field contains multiple values provided in different positions.	String	3	(See field description)	Conditional
40	OrdType	Type of Order.	Char	1	(See field description)	Conditional
59	TimeInForce	Specifies the maximum validity of an order.	Char	1	(See field description)	Conditional
552	NoSides	Number of sides.	NumInGroup	1	From 1 to 2	Conditional
54	Side	Indicates the side of the order.	Char	1	(See field description)	Conditional
577	ClearingInstruction	Clearing Instruction.	Int	4	(See field description)	Conditional
58	Text	Free Text is manually entered by the trader issuing the order. This field is part of the clearing aggregate.	String	18	Alphanumeric	Conditional
1	Account	Account Number. Client's position account ID, identifying the investor's account. This field is part of the clearing aggregate.	String	12	Alphanumeric	Conditional
6399	AccountCode	Indicates the account type for which the order is entered. For example, an order can be entered for a client account, a house account or a liquidity provider account.	Int	1	(See field description)	Conditional
20021	LPRole	Liquidity Provider Role identifies the type of the Liquidity Provider when Account Type is equal to "Liquidity Provider".	Int	2	(See field description)	Conditional
9941	TechnicalOrdType	Indicates the origin of the order; for example, manual entry, or an order coming from a Program Trading system. This field is part of the clearing aggregate.	Char	1	(See field description)	Conditional

Tag	Field	Short Description	Format	Len	Values	Presence
7443	PostingAction	Open Close Indicator, Posting action. This field is part of the clearing aggregate.	MultipleCharV alue	19	(See field description)	Optional
21804	LongClientID	Field used to identify the Client (investor), or trader's reference / posting order number for a pre-posting, entered as a free text used for clearing purposes. This field is part of the clearing aggregate for Derivatives.	String	16	(See field description)	Optional
539	NoNestedPartyIDs	Number of NestedPartyID entries.	NumInGroup	1	From 1 to 5	Conditional
524	NestedPartyID	Party identifier/code within a repeating group. See NestedPartyIDSource (525) and NestedPartyRole (538).	String	11	Alphanumeric	Conditional
525	NestedPartyIDSource	Source of NestedPartyID (524) value.	Char	1	(See field description)	Conditional
538	NestedPartyRole	Identifies the type or role of the NestedPartyID (524) specified.	Int	3	(See field description)	Conditional
2384	NestedPartyRoleQualifi er	Used to further qualify the value of NestedPartyRole(538).	Int	2	(See field description)	Conditional
126	ExpireTime	[N/A] Field used as time of order expiration for GTT orders.	UTCTimestam p	27	Valid values: YYYY = 0000- 9999, MM = 01-12, DD = 01-31, HH = 00-23, MM = 00-59, SS = 00-59, SSSSSSSS = 0000000000- 999999999 (nanoseconds)	Conditional
21015	STPAggressorIndicator	Field used as instruction for order handling.  - STP resting order: indicates whether the STP rule is "cancel resting order" or not. (0: STP Resting Order deactivated; 1: Cancel Resting Order)  - STP incoming order: indicates whether the STP rule is "cancel incoming order" or not. (0: STP Incoming Order deactivated; 1: Cancel Incoming Order)  - STP is not applicable for Dark Orders	Int	1	(See field description)	Conditional
2362	SelfMatchPreventionID	For Future Use.	String	5	From 0 to 2^16-2	Conditional
21016	DisclosedQtyRandIndica tor	Indicates whether the client requests or not a randomization for the DisplayQty (1138) of his iceberg order.	Int	1	(See field description)	Conditional
21018	CancelOnDisconnectionIndicator	Indicates whether the order is not in scope of the Cancel On Disconnect mechanism (order is persisted) or if order should be handled as defined by default. (0: Default Configuration; 1: Order not in the scope of Cancel On Disconnect - Order is to be persisted)	Int	1	(See field description)	Conditional

Tag	Field	Short Description	Format	Len	Values	Presence
1094	PegPriceType	Defines the type of the peg order.	Int	1	(See field description)	Conditional
211	PegOffsetValue	Tick offset for a pegged order.	Int	3	From -127 to 127	Conditional
9955	ErrorCode	Error code in case of rejection.	Int	5	From 0 to 2^16-2	Conditional
9962	CollarRejType	Hit collar type (high or low) in case of order rejection due to collar breach.	Char	1	(See field description)	Conditional
21001	BreachedCollarPrice	Breached collar price in case of collar rejection.	Price	20	From -2^63+1 to 2^63-1	Conditional
21085	LISTransactionID	ID that can be used to associated Executions belonging to the same LIS Transaction.	String	10	From 0 to 2^32-2	Conditional
21807	KillReason	Future Use	Char	5	(See field description)	Conditional
	Trailer					

## 5.3.3 MassQuote (i)

Client ►OEG
Available for: SP

# 5.3.3.1 Message Description

This message is used by Liquidity Providers (LP) to send several quotes (bid and ask orders) on different instruments in one unique message. A given LP using Quotes is permitted to have only one bid quote and one ask quote on a given instrument at a given time to be present in the market. Consequently, any quotes received after the first one from the same LP for a single instrument cancel and replace the previous ones.

During all trading phases, quotes are considered as normal orders, managed as Limit orders with a side (Buy or Sell), a price, a quantity and a Day validity.

On the Warrants & Certificates segment a **MassQuote** (i) message can include from 1 to 150 quotes double-sided quotes. As a consequence, the **MassQuote** (i) message has a variable size. Each quote occurrence includes the *SecurityID* and the *EMM*, a *BidPrice* and *BidQuantity* or an *OfferPrice* and *OfferQuantity* or both.

In a single MassQuote (i) message, clients must only use instruments belonging to the same Partition as the one to which they sent the message. Quotes that are sent for instruments that do not belong to the current Partition will be individually rejected by the matching engine with the applicable error code.

Quantities must be a multiple of the instrument's lot size, prices must be populated and have to be a multiple of the instrument's tick size. For a given instrument the bid price must be strictly less than the ask price.

This message is also used to manage the modification and cancellation of quotes, where the following rules apply:

- A valid quote submitted in an instrument that already has a quote from the same liquidity provider in the order book is considered as a modification. Quote modifications lead to the same loss of priority rules as order modifications.
- A valid quote with a quantity set to zero (0) is considered as a cancellation. Hence when a quantity equal to zero
   (0) is sent, the price field is not checked.
- To modify/create only one side of a Quote, the Price and Quantity of the side to be ignored should not be populated. This will not be considered as a cancellation.

When errors are detected in one or several repeated fields the Exchange responds with the **MassQuoteAck** (b) message and rejects only the invalid quotes (see message usage in **MassQuoteAck** (b)).

When an error is detected in any field except a repeated field, the matching engine responds with the **OrderCancelReject** (9) message (reason of the rejection provided in the *ErrorCode* field) and rejects the entire content of the **MassQuote**.

When the message is valid, the matching engine responds to the request with the MassQuoteAck (b) message.

When a given SecurityID code is duplicated in the MassQuote (i) message, only the last occurrence of the quote containing the instrument is taken into account (the others are ignored).

In the block of the message the *RFEAnswer* specifies whether the **MassQuote** (i) message is a direct response to a **RequestForExecution** (UM) message or not. This way if a Liquidity Provider submits a **MassQuote** (i) message with the *RFEAnswer* set to "Yes" after a **RequestForExecution** (UM), it will immediately trigger executions on the associated instrument. The immediate execution applies only to the quotes that are possible matches to the client's orders. In case where the quotes are not a possible match the RFE confirmation is ignored and the quote is processed normally. If *RFEAnswer* set to "No" the **MassQuote** (i) message will not immediately trigger the executions.

## **Clearing Data and Short Codes management:**

The Clearing Data and MiFID Short Codes associated to the quotes are managed on instrument basis as follow:

- When the first quote(s) of the day is submitted for an instrument, the clearing data and short codes set in the message containing these quotes will be stored and be associated to this instrument.
- If clearing data and/or short codes are not provided or provided set with a blank value, the clearing data and/or short codes associated to this instrument will be set to blank.
- After the submission of the first quote(s) for an instrument, all following quote(s) modifications and updates for this instrument will not lead to any modifications of clearing data and short codes previously associated to the instrument (even if they were set to blank). Clearing data and short codes contained in the messages used for updates and modifications will be ignored for instruments as it is already set based on the original quote messages.
- Even after quotes are fully matched, submission of quotes will not lead to an update of the clearing data and short codes associated to the instrument to be updated.
- In order to reset the clearing data and short codes associated to an instrument, the liquidity provider must fully cancel the previously sent quote by submitting a MassQuote (i) message with both BidSize and OfferSize set to zero (0). As identified above, this behaviour equally applies when the quote has been totally matched.

After the quote is fully cancelled submitting a new quote for this instrument will result in the newly provided clearing data and short codes being set for the instrument; as it is done for the first quote(s) of the day.

# Components Usage within the Message:

This message contains three components:

The first component *OrderAttributeGrp* is composed of the fields: <u>NoOrderAttributes</u>, <u>OrderAttributeType</u>, <u>OrderAttributeValue</u>

The second component Parties is composed of the fields:  $\underline{NoPartyIDs}$ ,  $\underline{PartyIDSource}$ ,  $\underline{PartyRole}$  and  $\underline{PartyRoleQualifier}$ 

The nested repeating group **NestedParties** is composed of *NoNestedPartyIDs*, *NestedPartyID*, *NestedPartyIDSource*, *NestedPartyRole* and *NestedPartyRoleQualifier*.

Use of the groups and values within them:

ExecutionwithinFirmShortCode should be provided via the *Parties* repeating group

With noted exceptions ClientidentificationShortCodes should be provided via the NestedParties repeating group

With exception to Algorithmic trading, InvestmentDecisionwithinFirmShortCode should be provided via the **NestedParties** repeating groups

The NonExecutingBrokerShortCodes should be provided via the NestedParties repeating groups

The repeating group NestedParties is also used to specify the Clearing Firm for the order

The additional MIFID II short code related identifiers are specified using the OrderAttributeGrp group

#### MIFID II short code related data fields:

Examples of individual cases and some exceptions for the use of these groups are provided below. For the full list of possible values for each field clients should review the individual field descriptions.

#### **ExecutionwithinFirmShortCode**

Presence Condition: Mandatory

- Case 1: Specifying ExecutionwithinFirmShortCode where a natural person is responsible for the execution of the transaction
  - PartyID (448) = field in which the short code is provided
  - PartyIDSource (447) = P (Short code identifier)
  - PartyRole (452) = 12 (Executing Trader)
  - PartyRoleQualifier (2376) = 24 (Natural person)
- Case 2: Specifying ExecutionwithinFirmShortCode where an algorithm is responsible for the execution of the transaction
  - PartyID (448) = field in which the short code is provided
  - PartyIDSource (447) = P (Short code identifier)
  - PartyRole (452) = 12 (Executing trader)
  - PartyRoleQualifier (2376) = 22 (Algorithm)
- Case 3: Specifying ExecutionwithinFirmShortCode for a Client
  - PartyID (448) = field in which the short code is provided
  - ◆ PartyIDSource (447) = **P** (Short code identifier)
  - PartyRole (452) = 3 (Client ID)
  - PartyRoleQualifier (2376) = 23 (Firm or legal entity) OR 24 (Natural person)

### ClientIdentificationShortCode

<u>Presence Condition</u>: Conditional Group. This field is required for DEA User in every inbound message, or when AccountCode (6399) = Client or RO.

For cases 4 and 5, explained below, values 1 and 2 available for NestedPartyID (524) are reserved for internally by the Exchange, and must not be provided in the inbound message. If submitted the associated inbound message will be rejected.

- Case 4: Specifying ClientIdentificationShortCode where the client is a legal entity
  - NestedPartyID (524) = field in which the **short code** is provided
  - NestedPartyIDSource (525) = P (Short code identifier)
  - NestedPartyRole (538) = 3 (Client ID)
  - NestedPartyRoleQualifier (2384) = 23 (Firm or legal entity)

- Case 5: Specifying ClientIdentificationShortCode where the client is not a legal entity
  - NestedPartyID (524) = field in which the short code is provided
  - NestedPartyIDSource (525) = P (Short code identifier)
  - NestedPartyRole (538) = 3 (Client ID)
  - NestedPartyRoleQualifier (2384) = 24 (Natural person)
- Case 6: Specifying ClientIdentificationShortCode for an Aggregated order ("AGGR" value)

In this case the Parties group is not used. In its place client should provide data using the *OrderAttributeGrp* nested group as following:

- OrderAttributeType (2594) = **0** (Aggregated order)
- OrderAttributeValue (2595) = "Y"
- Case 7: Specifying ClientIdentificationShortCode for an order for which short code is still pending allocation ("PNAL" value)

In this case the Parties group is not used. In its place client should provide data using the *OrderAttributeGrp* nested group as following:

- OrderAttributeType (2594) = 1 (Pending allocation)
- ◆ OrderAttributeValue (2595) = "Y"
- Case 8: In case the message originates from a DEA (Direct Electronic Access) client, information should be provided as following:
  - NestedPartyID (524) = field in which the short code is provided
  - NestedPartyIDSource (525) = P (Short code identifier)
  - NestedPartyRole (538) = 3 (Client ID)
  - NestedPartyRoleQualifier (2384) = 23 (Firm or legal entity) OR 24 (Natural person)

#### AND

• OrderOrigination (1724) = 5 (Order received from a direct access or sponsored access customer)

## InvestmentDecisionwithinFirmShortCode

<u>Presence Condition</u>: Conditional Group. Mandatory if (1) AccountCode is Liquidity Provider, Related Party or House, OR in case investment decision maker is an Algorithm (2) AND the message did not originate from DEA client.

- Case 9: Specifying InvestmentDecisionwithinShortCode where a natural person is responsible for the investment decision:
  - NestedPartyID (524) = field in which the short code is provided
  - NestedPartyIDSource (525) = P (Short code identifier)
  - NestedPartyRole (538) = 122 (Investment decision maker)
  - NestedPartyRoleQualifier (2384) = 24 (Natural person)

#### AND

- OrderOrigination (1724) is NOT set
- Case 10: Specifying InvestmentDecisionwithinShortCode where an algorithm was responsible for the investment decision:
  - NestedPartyID (524) = field in which the short code is provided
  - NestedPartyIDSource (525) = P (Short code identifier)
  - NestedPartyRole (538) = 122 (Investment decision maker)
  - NestedPartyRoleQualifier (2384) = 22 (Algorithm)

#### AND

• OrderOrigination (1724) is NOT set

#### **NonExecutionBrokerShortCode**

### Presence Condition: Optional

- Case 11: Specifying NonExecutionBrokerShortCode:
  - NestedPartyID (524) = field in which the short code is provided
  - NestedPartyIDSource (525) = P (Short code identifier)
  - NestedPartyRole (538) = 26 (Correspondent broker)
  - NestedPartyRoleQualifier (2384) = 23 (Firm or legal entity)

#### **Other Identifiers**

- For identification of an order submitted for a commodity derivative or a warrant with a commodity underlying, if the potential trade would reduce the risk clients should also use *OrderAttributeGrp* repeating group, and identify the values as following:
  - OrderAttributeType (2594) = 3 (Risk Reduction Code)
  - ◆ OrderAttributeValue (2595) = "Y"

### **Clearing related data fields:**

- The clearing Firm related fields should be specified as following:
  - Clearing Firm ID:
  - NestedPartyID (524) = field in which the ID is provided
  - NestedPartyIDSource (525) = D (Proprietary / Custom Code)
  - NestedPartyRole (538) = 4 (Clearing Firm)
  - NestedPartyRoleQualifier (2384) = 3 (General clearing member) OR 4 (Individual clearing member)
  - Client ID:
  - NestedPartyID (524) = field in which the ID is provided
  - NestedPartyIDSource (525) = **D** (Proprietary / Custom Code)
  - NestedPartyRole (538) = 3 (Client ID)
  - ◆ NestedPartyRoleQualifier (2384) = 23 (Firm or legal entity) OR 24 (Natural person)
- When used in the inbound messages for specifying the Clearing Firm ID and the Client ID, the maximum length for the NestedPartyID (524) field is 8 characters long, and value may be alphanumeric.

#### 5.3.3.2 Message Structure

Tag	Field	Short Description	Format	Len	Values	Presence
	Header					
117	QuoteID	Quote identifier.	String	20	From -2^63+1 to 2^63-1	Mandatory
29	LastCapacity	Indicates whether the order submission results from trading as matched principal, on own account or as any other capacity.	Char	1	(See field description)	Mandatory

Tag	Field	Short Description	Format	Len	Values	n Messages Presence
6399	AccountCode	Indicates the account type for which the order is entered. For example, an order can be entered for a client account, a house account or a liquidity provider account.	Int	2	(See field description)	Mandatory
20021	LPRole	Liquidity Provider Role identifies the type of the Liquidity Provider when Account Type is equal to "Liquidity Provider".	Int	2	(See field description)	Mandatory
1724	OrderOrigination	Identifies the origin of the order.	Int	1	(See field description)	Conditional
2593	NoOrderAttributes	Number of order attribute entries.	NumInGroup	1	If provided, From 1 to 2	Optional
2594	OrderAttributeType	The type of order attribute.	Int	1	(See field description)	Optional
2595	OrderAttributeValue	The value associated with the order attribute type specified in OrderAttributeType (2594).	String	1	(See field description)	Optional
20022	RFEAnswer	Indicate whether the Quotes message is an answer to a RequestForExecution (34) message or not. (0: No [False]; 1: Yes [True])	Int	1	(See field description)	Mandatory
577	ClearingInstruction	Clearing Instruction.	Int	4	(See field description)	Optional
58	Text	Free Text is manually entered by the trader issuing the order. This field is part of the clearing aggregate.	String	18	Alphanumeric	Optional
453	NoPartyIDs	Number of PartyID entries.	NumInGroup	1	Always set to 1	Mandatory
448	PartyID	Party identifier/code. See PartyIDSource (447) and PartyRole (452).	String	11	Alphanumeric	Mandatory
447	PartyIDSource	Source of PartyID value.	Char	1	(See field description)	Mandatory
452	PartyRole	Identifies the type or role of the PartyID (448) specified.	Int	3	(See field description)	Mandatory
2376	PartyRoleQualifier	Used to further qualify the value of PartyRole(452).	Int	2	(See field description)	Mandatory
539	NoNestedPartyIDs	Number of NestedPartyID entries.	NumInGroup	1	If provided, From 1 to 5	Conditional
524	NestedPartyID	Party identifier/code within a repeating group. See NestedPartyIDSource (525) and NestedPartyRole (538).	String	11	Alphanumeric	Conditional
525	NestedPartyIDSource	Source of NestedPartyID (524) value.	Char	1	(See field description)	Conditional
538	NestedPartyRole	Identifies the type or role of the NestedPartyID (524) specified.	Int	3	(See field description)	Conditional
2384	NestedPartyRoleQualifi er	Used to further qualify the value of NestedPartyRole(538).	Int	2	(See field description)	Conditional
1	Account	Account Number. Client's position account ID, identifying the investor's account. This field is part of the clearing aggregate.	String	12	Alphanumeric	Optional
9941	TechnicalOrdType	Indicates the origin of the order; for example, manual entry, or an order coming from a Program Trading system. This field is part of the clearing aggregate.	Char	1	(See field description)	Optional
7443	PostingAction	Open Close Indicator, Posting action. This field is part of the clearing aggregate.	MultipleCharV alue	19	(See field description)	Optional
296	NoQuoteSets	The number of sets of quotes in the message	NumInGroup	3	From 1 to 150	Mandatory

Tag	Field	Short Description	Format	Len	Values	Presence
302	QuoteSetID	Unique ID for the Quote set.	String	10	From 1 to 2^32-2	Mandatory
304	TotNoQuotEntries	Total number of quotes for the quote set across all messages. Should be the sum of all NoQuoteEntries (295) in each message that has repeating quotes that are part of the same quote set.	Int	1	Always equal to NoQuoteEntries (295)	Mandatory
295	NoQuoteEntries	Number of entries in Quotes repeating group.	NumInGroup	1	Always set to 1	Mandatory
299	QuoteEntryID	Uniquely identifies the quote across the complete set of all quotes for a given quote provider.	String	10	From 0 to 2^32-2	Mandatory
48	SecurityID	Exchange identification code of the instrument/contract.	String	10	From 0 to 2^32-2	Mandatory
22	SecurityIDSource	Gives the type of SecurityID.	String	1	(See field description)	Mandatory
20020	EMM	Defines the Exchange Market Mechanism applied on each platform.	Int	2	(See field description)	Mandatory
134	BidSize	Quote bid quantity, (To be calculated with Quantity Decimals).	Qty	20	From 0 to 2^64-1	Optional
132	BidPx	Quote bid price, (To be calculated with Price/Index Level Decimals).	Price	20	From -2^63+1 to 2^63-1	Optional
135	OfferSize	Quote offer quantity, (To be calculated with Quantity Decimals).	Qty	20	From 0 to 2^64-1	Optional
133	OfferPx	Quote offer price, (To be calculated with Price/Index Level Decimals).	Price	20	From -2^63+1 to 2^63-1	Optional
	Trailer					

## 5.3.4 MassQuoteAck (b)

Client **◀**OEG Available for: [SP]

#### 5.3.4.1 Message Description

This message is used by the Matching Engine to respond to the **MassQuote** (i) message sent by Liquidity Providers when no error is detected in any non-repeated field of the MassQuote request.

In case of error in any non-repeated field in the **MassQuote** (i) request, the matching engine rejects the **MassQuote** (i) request with an **OrderCancelReject** (9) message and the reason of the rejection provided in the *ErrorCode* (9955) field.

On the Warrants & Certificates segment, for each occurrence of the **MassQuote** (i) aggregate provided in the request (from 1 to 150 occurrences), a related occurrence of the **MassQuoteAck** (b) aggregate per *SecurityID* (48) and *EMM* (20020) may be found in the **MassQuoteAck** (b) message. As a result, the **MassQuoteAck** (b) message has a variable size.

The MassQuoteAck (b) aggregate includes the SecurityID (48) and the EMM (20020), a BidErrorCode (9934) and an OfferErrorCode (9935) along with a Buy and Sell Order IDs and Revision Indicators. The matching engine populates the error codes as follows:

- If an error has been detected in the SecurityID (48) of the input Quotes aggregate, both the BidErrorCode (9934) and OfferErrorCode (9935) are provided in the associated MassQuoteAck (b) aggregate.
- If an error is detected in the BidSize (134) or BidPx (132) field, the error code is provided in the BidErrorCode (9934) field.

 If an error is detected in OfferSize (135) or OfferPx (133) field, the error code is provided in the OfferErrorCode (9935) field.

When no error is detected in these fields, BidErrorCode (9934) and OfferErrorCode (9935) are not provided.

## 5.3.4.2 Message Structure

Tag	Field	Short Description	Format	Len	Values	Presence
	Header					
21005	ClientMessageSendingTime	Indicates the time of message transmission, the consistency of the time provided is not checked by the Exchange. (Time in number of nanoseconds since 01/01/1970 UTC)	UTCTimesta mp	27	Valid values: YYYY = 0000-9999, MM = 01-12, DD = 01-31, HH = 00-23, MM = 00-59, SS = 00-59, ssssssss = 000000000- 999999999 (nanoseconds)	Conditional
5979	OEGINFromMember	Order Entry Gateway IN time from member (in ns), measured when inbound message enters the gateway (Time in number of nanoseconds since 01/01/1970 UTC).	UTCTimesta mp	27	Valid values: YYYY = 0000-9999, MM = 01-12, DD = 01-31, HH = 00-23, MM = 00-59, SS = 00-59, ssssssss = 000000000- 999999999 (nanoseconds)	Conditional
21002	BookINTime	Matching Engine IN time (in ns), time at which the corresponding inbound message entered the Matching Engine. (Time in number of nanoseconds since 01/01/1970 UTC)	UTCTimesta mp	27	Valid values: YYYY = 0000-9999, MM = 01-12, DD = 01-31, HH = 00-23, MM = 00-59, SS = 00-59, ssssssss = 000000000- 999999999 (nanoseconds)	Conditional
21003	BookOUTTime	Matching Engine OUT time (in ns), when message leaves the Matching Engine (Time in number of nanoseconds since 01/01/1970 UTC).	UTCTimesta mp	27	Valid values: YYYY = 0000-9999, MM = 01-12, DD = 01-31, HH = 00-23, MM = 00-59, SS = 00-59, ssssssss = 000000000- 999999999 (nanoseconds)	Conditional
7765	OEGINFromME	Gateway IN time from ME (in ns), measured when outbound message enters the gateway (Time in number of nanoseconds since 01/01/1970 UTC).	UTCTimesta mp	27	Valid values: YYYY = 0000-9999, MM = 01-12, DD = 01-31, HH = 00-23, MM = 00-59, SS = 00-59, ssssssss = 000000000- 999999999 (nanoseconds)	Conditional
7764	OEGOUTTOME	Gateway OUT time to ME (in ns), measured when inbound message leaves the gateway (Time in number of nanoseconds since 01/01/1970 UTC).	UTCTimesta mp	27	Valid values: YYYY = 0000-9999, MM = 01-12, DD = 01-31, HH = 00-23, MM = 00-59, SS = 00-59, ssssssss = 000000000- 999999999 (nanoseconds)	Conditional
117	QuoteID	Quote identifier.	String	20	From -2^63+1 to 2^63-1	Mandatory
297	QuoteStatus	Status of the mass quote acknowledgement.	Int	2	(See field description)	Mandatory
6399	AccountCode	Indicates the account type for which the order is entered. For example, an order can be entered for a client account, a house account or a liquidity provider account.	Int	2	(See field description)	Mandatory

Tag	Field	Short Description	Format	Len	Values	Presence
20021	LPRole	Liquidity Provider Role identifies the type of the Liquidity Provider when Account Type is equal to "Liquidity Provider".	Int	2	(See field description)	Mandatory
577	ClearingInstruction	Clearing Instruction.	Int	4	(See field description)	Optional
1	Account	Account Number. Client's position account ID, identifying the investor's account. This field is part of the clearing aggregate.	String	12	Alphanumeric	Optional
9941	TechnicalOrdType	Indicates the origin of the order; for example, manual entry, or an order coming from a Program Trading system. This field is part of the clearing aggregate.	Char	1	(See field description)	Optional
7443	PostingAction	Open Close Indicator, Posting action. This field is part of the clearing aggregate.	MultipleChar Value	19	(See field description)	Optional
21014	AckQualifiers	Field used to provide additional information on the corresponding order. A single field can contain up to 8 values, space delimited, provided in different positions.	MultipleChar Value	15	(See field description)	Conditional
296	NoQuoteSets	The number of sets of quotes in the message	NumInGroup	3	From 1 to 150	Optional
302	QuoteSetID	Unique ID for the Quote set.	String	10	From 1 to 2^32-2	Optional
304	TotNoQuotEntries	Total number of quotes for the quote set across all messages. Should be the sum of all NoQuoteEntries (295) in each message that has repeating quotes that are part of the same quote set.	Int	1	Always equal to NoQuoteEntries (295)	Optional
295	NoQuoteEntries	Number of entries in Quotes repeating group.	NumInGroup	1	Always set to 1	Optional
299	QuoteEntryID	Uniquely identifies the quote across the complete set of all quotes for a given quote provider.	String	10	From 0 to 2^32-2	Conditional
1747	BidQuoteID	Numerical order identifier assigned by the matching engine, unique per instrument and EMM.	String	20	From 0 to 2^64-2	Conditional
1748	OfferQuoteID	Numerical order identifier assigned by the matching engine, unique per instrument and EMM.	String	20	From 0 to 2^64-2	Conditional

Tag	Field	Short Description	Format	Len	Values	Presence
48	SecurityID	Exchange identification code of the instrument/contract.	String	10	From 0 to 2^32-2	Mandatory
22	SecurityIDSource	Gives the type of SecurityID.	String	1	(See field description)	Mandatory
20020	EMM	Defines the Exchange Market Mechanism applied on each platform.	Int	2	(See field description)	Mandatory
9934	BidErrorCode	Error code returned when quote contains an invalid bid.	Int	6	From 0 to 2^16-2	Conditional
9935	OfferErrorCode	Error code returned when a quote contains an invalid offer.	Int	6	From 0 to 2^16-2	Conditional
21008	BuyRevisionIndicator	Indicates whether the bid quote is a new quote, a replacement of a previous quote or a cancellation.	Int	1	(See field description)	Conditional
21009	SellRevisionIndicator	Indicates whether the offer quote is a new quote, a replacement of a previous quote or a cancellation.	Int	1	(See field description)	Conditional
	Trailer					

### 5.3.5 OrderCancelRequest (F)

Client ►OEG

Available for: EQ FND FXI SP EQD IDD CMO BLK

#### 5.3.5.1 Message Description

The **OrderCancelRequest** (F) message is used to request the cancellation of the entire remaining quantity of **an active order in the order book**, note that only the originating Firm is authorized to cancel its own orders.

An order cancellation only applies to the remaining quantity of an order in the book. If the order to be cancelled was partially filled, the cancellation has no effect on the previous trades (or any previously executed quantity).

On ETF MTF platform, the **OrderCancelRequest** (F) message can be used to request the cancellation of an active RFQ previously created with the **QuoteRequest** (R) message. In this situation, the *OrderID* (37) should contain the *QuoteReqID* (131) and *OrderCategory* (21041) must be set to *Quote Request*. It can also be used to request the cancellation of an LP Answer, in this situation the *OrderID* (37) along with *OrderCategory* (21041) set to RFQ LP Answer must be specified in the request. It can be submitted either by Euronext members or by Non Euronext buy-side RFQ (Request for Quote) trading issuers.

<u>Important Note:</u> An active order can be cancelled by specifying the *ClOrdID (11)* of the original order:

■ If the OrderCancelRequest (F) message contains both OrderID (37) and OrigClOrdID (41), the matching engine uses the OrderID (37) to cancel the order. If the OrderID (37) specified in the message is not found in the active orders list, the order modification is rejected. If the OrderID (37) specified in the message is found the matching engine does not check that the OrigClOrdID (41) of the order found ("cancelled" order) matches with the OrigClOrdID (41) contained in the OrderCancelRequest (F) message.

In the case where the values of the *Side* and/or *OrdType* provided in the **OrderCancelRequest** (F) message do not match with the *Side* and *OrdType* (40) of the targeted order it will lead to the rejection of the request with the error code 2101 "Unknown Order ID". (For triggered Stop orders, the value in field *OrdType* (40) must be equal to Limit, for Stop-limit, or Market for Stop-market order, corresponding to the type of stop order originally submitted.)

#### Important Notes

By default, live orders submitted intraday are automatically cancelled on a network disconnection (OE Session or OEG disconnection).

Clients can indicate on each order if they want it to be persistent, i.e. not included in the scope of the Cancel On Disconnect mechanism. If the tag *CancelOnDisconnectionIndicator* (21018) is set to "1" for an order, this order will not be cancelled even if the Cancel On Disconnect kicks in for the OE Session it belongs to.

When the Cancel On Disconnect mechanism is triggered, the cancellation involves only orders entered on the current day. All still active orders, entered the previous days, remain in the order book.

#### **Components Usage within the Message**

This message contains one component Parties is composed of the fields: NoPartyIDs (453), PartyID (448), PartyIDSource (447), PartyRole (452) and PartyRoleQualifier (2376);

This component is used to provide data for the ExecutionwithinFirmShortCode and ClientIdentificationShortCode MIFID II field for risk management purposes such as kill switch.

Examples of individual cases and some exceptions for the use of these groups are provided below. For the full list of possible values for each field clients should review the individual field descriptions.

#### **ExecutionwithinFirmShortCode**

<u>Presence Condition</u>: Mandatory, first use of Parties group is assumed to be for indication of ExecutionwithinFirmShortCode

- Case 1: ExecutionwithinFirmShortCode where a natural person is responsible for the execution of the transaction
  - PartyID (448) = field in which the short code is provided
  - PartyIDSource (447) = P (Short code identifier)
  - PartyRole (452) = 12 (Executing Trader)
  - PartyRoleQualifier (2376) = 24 (Natural person)
- **Case 2**: ExecutionwithinFirmShortCode where an algorithm is responsible for the execution of the transaction
  - PartyID (448) = field in which the short code is provided
  - PartyIDSource (447) = P (Short code identifier)
  - PartyRole (452) = 12 (Executing trader)
  - PartyRoleQualifier (2376) = 22 (Algorithm)
- Case 3: ExecutionwithinFirmShortCode for a Client
  - PartyID (448) = field in which the short code is provided
  - PartyIDSource (447) = P (Short code identifier)
  - *PartyRole (452)* = **3** (Client ID)
  - PartyRoleQualifier (2376) = 23 (Firm or legal entity) OR 24 (Natural person)

#### ClientIdentificationShortCode

<u>Presence Condition</u>: Conditional Group. Second use of Parties group in this message is assumed to be for indication of ClientIdentificationShortCode. This field is required for DEA User in every inbound message, or when AccountCode (6399) = Client or RO. In case ExecutionwithinFirmShortCode is provided for Case 3 the same information is submitted a second time for either Case 4 or 5. In this case, if the information in the repeating group is not identical, the message is rejected.

For cases 4 and 5, explained below, values 1 and 2 available for PartyID (448) are reserved for internally by the Exchange, and must not be provided in the inbound message. If submitted the associated inbound message will be rejected.

- Case 4: Specifying ClientIdentificationShortCode where the client is a legal entity
  - PartyID (448) = field in which the short code is provided
  - ◆ PartyIDSource (447) = **P** (Short code identifier)
  - PartyRole (452) = 3 (Client ID)
  - ◆ PartyRoleQualifier (2376) = 23 (Firm or legal entity)
- Case 5: Specifying ClientIdentificationShortCode where the client is not a legal entity
  - PartyID (448) = field in which the short code is provided
  - ◆ PartyIDSource (447) = P (Short code identifier)
  - PartyRole (452) = 3 (Client ID)
  - PartyRoleQualifier (2376) = 24 (Natural person)
- Case 6: Specifying ClientIdentificationShortCode for an Aggregated order ("AGGR" value)

In this case the Parties group is not used. In its place client should provide data using the *OrderAttributeGrp* nested group as following:

- OrderAttributeType (2594) = 0 (Aggregated order)
- OrderAttributeValue (2595) = "Y"
- Case 7: Specifying ClientIdentificationShortCode for an order for which short code is still pending allocation ("PNAL" value)

In this case the Parties group is not used. In its place client should provide data using the *OrderAttributeGrp* nested group as following:

- OrderAttributeType (2594) = 1 (Pending allocation)
- ◆ OrderAttributeValue (2595) = "Y"

### 5.3.5.2 Message Structure

Tag	Field	Short Description	Format	Len	Values	Presence
	Header					
11	ClOrdID	An identifier of a message assigned by the Client when submitting an order to the Exchange.	String	20	From -2^63+1 to 2^63- 1	Mandatory
48	SecurityID	Exchange identification code of the instrument/contract.	String	10	From 0 to 2^32-2	Mandatory
22	SecurityIDSource	Gives the type of SecurityID.	String	1	(See field description)	Mandatory
20020	EMM	Defines the Exchange Market Mechanism applied on each platform.	Int	2	(See field description)	Mandatory

					Applicatio	n Messages
Tag	Field	Short Description	Format	Len	Values	Presence
37	OrderID	Numerical order identifier assigned by the matching engine, unique per instrument and EMM.	String	20	From 0 to 2^64-2	Conditional
41	OrigClOrdID	Identifies the Client Order ID of the original order, used to identify the previous order on cancel and replacement requests.	String	20	From -2^63+1 to 2^63- 1	Conditional
54	Side	Indicates the side of the order.	Char	1	(See field description)	Mandatory
453	NoPartyIDs	Number of PartyID entries.	NumInGroup	1	From 1 to 2	Mandatory
448	PartyID	Party identifier/code. See PartyIDSource (447) and PartyRole (452).	String	11	Alphanumeric	Mandatory
447	PartyIDSource	Source of PartyID value.	Char	1	(See field description)	Mandatory
452	PartyRole	Identifies the type or role of the PartyID (448) specified.	Int	3	(See field description)	Mandatory
2376	PartyRoleQualifier	Used to further qualify the value of PartyRole(452).	Int	2	(See field description)	Mandatory
2593	NoOrderAttributes	Number of order attribute entries.	NumInGroup	1	If provided, From 1 to 2	Optional
2594	OrderAttributeType	The type of order attribute.	Int	1	(See field description)	Optional
2595	OrderAttributeValue	The value associated with the order attribute type specified in OrderAttributeType (2594).	String	1	(See field description)	Optional
60	TransactTime	Indicates the time of message transmission (Format: YYYYMMDD-HH:MM:SS.ssssssss).	UTCTimestam p	27	Valid values: YYYY = 0000-9999, MM = 01-12, DD = 01-31, HH = 00-23, MM = 00-59, SS = 00-59, ssssssss = 000000000-999999999 (nanoseconds)	Mandatory
40	OrdType	Type of Order.	Char	1	(See field description)	Mandatory
1094	PegPriceType	Defines the type of the peg order.	Int	1	(See field description)	Conditional
21041	OrderCategory	Field used as instruction for order handling. When not provided or provided at the Null Value, it is assumed to be set at value 1 "Lit Order".	Char	1	(See field description)	Conditional
	Trailer					

# 5.3.6 OrderCancelReplaceRequest (G)

Client ►OEG

Available for: EQ FND FXI SP EQD IDD CMO BLK

### 5.3.6.1 Message Description

The **OrderCancelReplaceRequest** (G) message is used in two situations:

- Modify active orders in the order book, note that only the originating Firm (regardless of the Logical Access) is authorized to modify its orders.
- 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). In this case the ConfirmFlag (9930) has to be set to 1. Used for the
  Cash markets only

An active order can be modified by specifying the OrderID (37) of the original order or the OrigClOrdID (41):

If the OrderCancelReplaceRequest (G) message contains both OrderID (37) and OrigClOrdID (41), the matching engine uses the OrderID (34) to cancel the order. If the OrderID (37) specified in the message is not found in the active orders list, the order modification is rejected. If the OrderID (37) specified in the message is found the matching engine does not check that the ClOrdID (11) of the order found ("modified" order) matches with the OrigClOrdID (41) contained in the OrderCancelReplaceRequest (G) message.

Please note that the field CIOrdID (11) is an identifier of the OrderCancelReplaceRequest (G) request.

The MiFID short codes included in this message concern the **OrderCancelReplaceRequest** (G) itself - it will not lead to any modification of the MiFID short codes previously submitted and associated to the live order to be modified.

### Handling of fields not available for modification

- AccountCode (6399) and LPRole (20021) fields present in this message will always be ignored by the system,
  which means that clients are not able to modify AccountCode (6399) / LPRole (20021) of their live orders. If
  modification is required clients must cancel their existing order and submit a new one with a NewOrderSingle (D)
  message.
- While fields Side (54) and OrdType (40) are part of the message structure, modification of these values is not allowed, and the values provided must match the values originally set on submission of the order. In the case where the values in the OrderCancelReplaceRequest (G) message do not match with the Side (54) and OrdType (40) of the targeted order it will lead to the rejection of the request with the error code 2101 'Unknown Order'. (For triggered Stop orders, the value in field OrdType (40) must be equal to Limit, for Stop-limit, or Market for Stop-market order, corresponding to the type of stop order originally submitted).
- Modification of TimeInForce (59)

<u>For the Cash Markets</u> - Modification of *TimeInForce* (59) results in rejection of the request in case orders are modified from a validity that is against market rules or cannot be executed. Such cases include modification of 'At Close' (7) or Good for Auction (GFA) (B) to any other validity.

<u>For the Derivatives Markets</u> - Modification of *TimeInForce* (59) is not permitted. If a **OrderCancelReplaceRequest** (G) message is submitted with a different value for *TimeInForce* (59) than the original order, the modification request will be rejected.

### **Components Usage within the Message**

This message contains three components:

- The first component OrderAttributeGrp is composed of the fields: NoOrderAttributes (2593), OrderAttributeType (2594), OrderAttributeValue (2595)
- The second component Parties is composed of the fields: NoPartyIDs (453), PartyID (448), PartyIDSource (447), PartyRole (452) and PartyRoleQualifier (2376)
- The nested repeating group **NestedParties** is composed of *NoNestedPartyIDs* (539), *NestedPartyID* (524), *NestedPartyIDSource* (525), *NestedPartyRole* (538) and *NestedPartyRoleQualifier* (2384).

Use of the groups and values within them:

- ExecutionwithinFirmShortCode should be provided via the *Parties* repeating group
- With noted exceptions ClientidentificationShortCodes should be provided via the *NestedParties* repeating group
- The NonExecutingBrokerShortCodes should be provided via the NestedParties repeating groups
- The repeating group NestedParties is also used to specify the Clearing Firm for the order
- The additional MIFID II short code related identifiers are specified using the *OrderAttributeGrp* group

#### MIFID II short code related data fields

Examples of individual cases and some exceptions for the use of these groups are provided below. For the full list of possible values for each field clients should review the individual field descriptions.

#### **ExecutionwithinFirmShortCode**

Presence Condition: Mandatory

- Case 1: Specifying ExecutionwithinFirmShortCode where a natural person is responsible for the execution of the transaction
  - PartyID (448) = field in which the short code is provided
  - PartyIDSource (447) = P (Short code identifier)
  - PartyRole (452) = 12 (Executing Trader)
  - PartyRoleQualifier (2376) = 24 (Natural person)
- Case 2: Specifying ExecutionwithinFirmShortCode where an algorithm is responsible for the execution of the transaction
  - PartyID (448) = field in which the short code is provided
  - PartyIDSource (447) = P (Short code identifier)
  - PartyRole (452) = 12 (Executing trader)
  - PartyRoleQualifier (2376) = 22 (Algorithm)
- Case 3: Specifying ExecutionwithinFirmShortCode for a Client:
  - PartyID (448) = field in which the **short code** is provided
  - PartyIDSource (447) = P (Short code identifier)
  - PartyRole (452) = 3 (Client ID)
  - PartyRoleQualifier (2376) = 23 (Firm or legal entity) OR 24 (Natural person)

### ClientIdentificationShortCode

<u>Presence Condition</u>: Conditional Group. This field is required for DEA User in every inbound message, or when AccountCode (6399) = Client or RO.

For cases 4 and 5, explained below, values 1 and 2 available for NestedPartyID (524) are reserved for internally by the Exchange, and must not be provided in the inbound message. If submitted the associated inbound message will be rejected.

- Case 4: Specifying ClientIdentificationShortCode where the client is a legal entity
  - NestedPartyID (524) = field in which the short code is provided
  - NestedPartyIDSource (525) = P (Short code identifier)
  - NestedPartyRole (538) = 3 (Client ID)
  - NestedPartyRoleQualifier (2384) = 23 (Firm or legal entity)
- Case 5: Specifying ClientIdentificationShortCode where the client is not a legal entity
  - ♦ NestedPartyID (524) = field in which the **short code** is provided
  - NestedPartyIDSource (525) = P (Short code identifier)
  - NestedPartyRole (538) = 3 (Client ID)
  - NestedPartyRoleQualifier (2384) = 24 (Natural person)
- Case 6: Specifying ClientIdentificationShortCode for an Aggregated order ("AGGR" value)

In this case the Parties group is not used. In its place client should provide data using the *OrderAttributeGrp* nested group as following:

• OrderAttributeType (2594) = 0 (Aggregated order)

- OrderAttributeValue (2595) = "Y"
- Case 7: Specifying ClientIdentificationShortCode for an order for which short code is still pending allocation ("PNAL" value)

In this case the Parties group is not used. In its place client should provide data using the *OrderAttributeGrp* nested group as following:

- OrderAttributeType (2594) = 1 (Pending allocation)
- OrderAttributeValue (2595) = "Y"
- Case 8: In case the message originates from a DEA (Direct Electronic Access) client, information should be provided as following:
  - OrderOrigination (1724) = 5 (Order received from a direct access or sponsored access customer)

#### AND

 ClientIdentificationShortCode should be provided using one of the combinations provided in cases 4 through 7 above, as required

#### **Other Identifiers**

- For identification of an order submitted for a commodity derivative or a warrant with a commodity underlying, if the potential trade would reduce the risk clients should also use *OrderAttributeGrp* repeating group, and identify the values as following:
  - OrderAttributeType (2594) = 3 (Risk Reduction Code)
  - OrderAttributeValue (2595) = "Y"

#### Clearing related data fields

■ The clearing Firm related fields should be specified as following:

#### **Clearing Firm ID**

- If provided, the following combination of fields identifies how clients should populate the Clearing Firm ID
  - NestedPartyID (524) = field in which the ID is provided
  - NestedPartyIDSource (525) = D (Proprietary / Custom Code)
  - NestedPartyRole (538) = 4 (Clearing Firm)
  - ♦ NestedPartyRoleQualifier (2384) = 3 (General clearing member) OR 4 (Individual clearing member)

When used in the inbound messages to specify the Clearing Firm ID the maximum length for the *NestedPartyID* (524) field is 8 characters long, and value may be alphanumeric.

## Client ID / Long Client ID

If provided, the following describes how clients should populate the Client ID data for each market:

<u>For the Cash Markets</u> – Client ID data should be provided as combination of fields identified below. As this data is provided via the NestedParties repeating group – the repeating group may have from 1 to 5 occurrences.

- NestedPartyID (524) = field in which the ID is provided
- NestedPartyIDSource (525) = **D** (Proprietary / Custom Code)
- NestedPartyRole (538) = 3 (Client ID)
- NestedPartyRoleQualifier (2384) = 23 (Firm or legal entity) OR 24 (Natural person)

When used in the inbound messages to specify the Client ID, the maximum length for the NestedPartyID (524) field is 8 characters long, and value may be alphanumeric.

If the field LongClientID (21804) is also provided for the Cash markets, it will be ignored.

<u>For the Derivatives Markets</u> – Client ID data must be provided using the field *LongClientID* (21804), which can be used to its maximum length of 16 characters.

Due to this, for the Derivatives markets NestedParties repeating group may have from 1 to 4 occurrences. If the NestedParties combination for Client ID is provided for the Derivatives markets – the message will be rejected.

### 5.3.6.2 Message Structure

Tag	Field	Short Description	Format	Len	Values	Presence
	Header					
60	TransactTime	Indicates the time of message transmission (Format: YYYYMMDD-HH:MM:SS.sssssss).	UTCTimestamp	27	Valid values: YYYY = 0000- 9999, MM = 01-12, DD = 01-31, HH = 00-23, MM = 00-59, SS = 00-59, ssssssss = 000000000- 999999999 (nanoseconds)	Mandatory
11	ClOrdID	An identifier of a message assigned by the Client when submitting an order to the Exchange.	String	20	From -2^63+1 to 2^63-1	Mandatory
48	SecurityID	Exchange identification code of the instrument/contract.	String	10	From 0 to 2^32-2	Mandatory
22	SecurityIDSource	Gives the type of SecurityID.	String	1	(See field description)	Mandatory
20020	EMM	Defines the Exchange Market Mechanism applied on each platform.	Int	2	(See field description)	Mandatory
37	OrderID	Numerical order identifier assigned by the matching engine, unique per instrument and EMM.	String	20	From 0 to 2^64-2	Conditional
41	OrigClOrdID	Identifies the Client Order ID of the original order, used to identify the previous order on cancel and replacement requests.	String	20	From -2^63+1 to 2^63-1	Conditional
453	NoPartyIDs	Number of PartyID entries.	NumInGroup	1	Always set to 1	Mandatory
448	PartyID	Party identifier/code. See PartyIDSource (447) and PartyRole (452).	String	11	Alphanumeric	Mandatory
447	PartyIDSource	Source of PartyID value.	Char	1	(See field description)	Mandatory
452	PartyRole	Identifies the type or role of the PartyID (448) specified.	Int	3	(See field description)	Mandatory
2376	PartyRoleQualifier	Used to further qualify the value of PartyRole(452).	Int	2	(See field description)	Mandatory
539	NoNestedPartyIDs	Number of NestedPartyID entries.	NumInGroup	1	From 1 to 5	Conditional
524	NestedPartyID	Party identifier/code within a repeating group. See NestedPartyIDSource (525) and NestedPartyRole (538).	String	11	Alphanumeric	Conditional
525	NestedPartyIDSourc e	Source of NestedPartyID (524) value.	Char	1	(See field description)	Conditional
538	NestedPartyRole	Identifies the type or role of the NestedPartyID (524) specified.	Int	3	(See field description)	Conditional

Tag	Field	Short Description	Format	Len	Values	Presence
2384	NestedPartyRoleQu alifier	Used to further qualify the value of NestedPartyRole(538).	Int	2	(See field description)	Conditional
44	Price	Instrument price per quantity unit (To be calculated with Price/Index Level Decimals).	Price	20	From -2^63+1 to 2^63-1	Conditional
38	OrderQty	Total order quantity, per quantity unit.(To be calculated with Quantity Decimals).	Qty	20	From 0 to 2^64-2	Mandatory
40	OrdType	Type of Order.	Char	1	(See field description)	Mandatory
54	Side	Indicates the side of the order.	Char	1	(See field description)	Mandatory
59	TimeInForce	Specifies the maximum validity of an order.	Char	1	(See field description)	Mandatory
20021	LPRole	[NA] Liquidity Provider Role identifies the type of the Liquidity Provider when Account Type is equal to "Liquidity Provider".	Int	5	(See field description)	Optional
6399	AccountCode	[NA] Indicates the account type for which the order is entered. For example, an order can be entered for a client account, a house account or a liquidity provider account.	Int	2	(See field description)	Optional
21015	STPAggressorIndica tor	Field used as instruction for order handling.  - STP resting order: indicates whether the STP rule is "cancel resting order" or not. (0: STP Resting Order deactivated; 1: Cancel Resting Order)  - STP incoming order: indicates whether the STP rule is "cancel incoming order" or not. (0: STP Incoming Order deactivated; 1: Cancel Incoming Order deactivated; 1: Cancel Incoming Order)  - STP is not applicable for Dark Orders	Int	1	(See field description)	Optional
21016	DisclosedQtyRandIn dicator	Indicates whether the client requests or not a randomization for the DisplayQty (1138) of his iceberg order.	Int	1	(See field description)	Optional
21018	CancelOnDisconnec tionIndicator	Indicates whether the order is not in scope of the Cancel On Disconnect mechanism (order is persisted) or if order should be handled as defined by default. (0: Default Configuration; 1: Order not in the scope of Cancel On Disconnect - Order is to be persisted)	Int	1	(See field description)	Mandatory
1094	PegPriceType	Defines the type of the peg order.	Int	1	(See field description)	Conditional
211	PegOffsetValue	Tick offset for a pegged order.	Int	3	From -127 to 127	Conditional
20052	DarkExecutionInstr uction	Field used as instruction for dark order handling. This field can contain up to 8 values, space delimited, provided in different positions.	MultipleCharValu e	9	(See field description)	Conditional

Tag	Field	Short Description	Format	Len	Values	Presence
1724	OrderOrigination	Identifies the origin of the order.	Int	1	(See field description)	Conditional
2593	NoOrderAttributes	Number of order attribute entries.	NumInGroup	1	If provided, From 1 to 2	Optional
2594	OrderAttributeType	The type of order attribute.	Int	1	(See field description)	Optional
2595	OrderAttributeValu e	The value associated with the order attribute type specified in OrderAttributeType (2594).	String	1	(See field description)	Optional
2362	SelfMatchPreventio nID	For Future Use.	String	5	From 0 to 2^16-2	Optional
58	Text	Free Text is manually entered by the trader issuing the order. This field is part of the clearing aggregate.	String	18	Alphanumeric	Optional
99	StopPx	Stop Trigger Price is mandatory for stop orders.	Price	20	From -2^63+1 to 2^63-1	Conditional
20004	UndisclosedPrice	[N/A] (For Future Use, Pending Regulatory Approval) Optional price for the hidden part of an Iceberg order.	Price	20	From -2^63+1 to 2^63-1	Optional
1138	DisplayQty	Maximum number of quantity units to be shown to market participants (Iceberg Order). (To be calculated with Quantity Decimals)	Qty	20	From 0 to 2^64-2	Conditional
126	ExpireTime	[N/A] Field used as time of order expiration for GTT orders.	UTCTimestamp	27	Valid values: YYYY = 0000- 9999, MM = 01-12, DD = 01-31, HH = 00-23, MM = 00-59, SS = 000000000- 999999999 (nanoseconds)	Conditional
432	ExpireDate	Field used as date of order expiration for GTD orders.	LocalMktDate	8	Valid values: YYYY = 0000- 9999, MM = 01-12, DD = 01-31	Conditional
336	TradingSessionID	Trading Session Validity. Values specified, in the list of possible values, indicate the bit positions that should be used to set zero (0) or one (1) values. A single field contains multiple values provided in different positions.	String	3	(See field description)	Conditional
20175	TriggeredStopTimeI nForce	Specifies the maximum validity of an triggered stop order.	Char	1	(See field description)	Conditional
20005	UndisclosedIceberg Type	[N/A](For Future Use, Pending Regulatory Approval) Order handling related to the undisclosed part of an Iceberg order eligible to a matching in the Dark pool of liquidity.	Int	1	(See field description)	Optional
1	Account	Account Number. Client's position account ID, identifying the investor's account. This field is part of the clearing aggregate.	String	12	Alphanumeric	Optional

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Tag	Field	Short Description	Format	Len	Values	Presence
21804	LongClientID	Field used to identify the Client (investor), or trader's reference / posting order number for a pre-posting, entered as a free text used for clearing purposes. This field is part of the clearing aggregate for Derivatives.	String	16	(See field description)	Optional
9941	TechnicalOrdType	Indicates the origin of the order; for example, manual entry, or an order coming from a Program Trading system. This field is part of the clearing aggregate.	Char	1	(See field description)	Optional
7443	PostingAction	Open Close Indicator, Posting action. This field is part of the clearing aggregate.	MultipleCharValu e	19	(See field description)	Optional
577	ClearingInstruction	Clearing Instruction.	Int	4	(See field description)	Optional
9930	ConfirmFlag	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 this additional checks. Field also used in cancel/replace request to confirm a collar pass-through in case of rejection due to collar breach.	Char	1	(See field description)	Optional
21800	ConditionalOrderFla g	Field used to specify if the order is a conditional or a firm order.	Char	1	(See field description)	Conditional
21801	FRMARAMPLP	Indicates whether the order is subject to French Market Abuse Regulation Accepted Market Practice Liquidity provision or not (0: Not subject to FR MAR AMP LP; 1: Subject to DE MAR AMP LP).	Char	1	0 = Not subject to FR MAR AMP LP (default) 1 = Subject to FR MAR AMP LP	Optional
	Trailer					

## 5.3.7 OrderCancelReject (9)

Client **◀**OEG

Available for: EQ FND FXI SP EQD IDD CMO BLK

### 5.3.7.1 Message Description

The **OrderCancelReject** (9) message is used to notify the request issuer that the following messages were not processed by the matching engine:

- OrderCancelRequest (F)
- OrderCancelReplaceRequest (G)

- OrderMassCancelRequest (q)
- MassQuote (i)

Please refer to the Error Code List document for an exhaustive list of those cases.

The ClOrdID (11) provided in the Reject message identifies the request which is rejected; it does not refer to an order of the order book. Only the OrigClOrdID (41) field will refer to the targeted order. Hence in case of a rejection of an OrderCancelRequest (F) message, the ClOrdID (11) field will refer to the ClOrdID (11) provided in the rejected OrderCancelRequest (F) request, not to the targeted order.

If a client sends an Invalid value in a field, then in place of this value the **OrderCancelReject** (9) messages will not provide any value.

If a client sends an unknown ID (such as SecurityID (48), OrderId (37), OrigCIOrdID (41)...) which, however, can be decoded by the system, this value is provided back to the client in the OrderCancelRequest (F), exactly as entered.

The reason of the rejection is provided by the *ErrorCode (9955)*, and a text for explanations of the error is provided in the *Error Code List*.

#### **Rejection Behaviour**

In Optiq orders are identified by multiple characteristics as follows: OrderID (37) / OrigClOrdID (41), Side (54), OrdType (40) and SenderCompID (49). If any of the characteristics are not met, the order is considered "Unknown".

In case an attempt is made to modify or cancel an order that results in a rejection, whether this order is considered to be "Known" or "Unknown", in such rejection message the same order id is echoed back, as the one provided by the client in the inbound message, in all cases.

In cases where the inbound message receives a rejection with functional or technical error code, client should review the error code to identify what needs to be fixed in the submitted message.

In some cases an "Unknown" order will not receive an error code identifying the issue, but rather code 2101 (Unknown order). In this case, client should review the fields identified as mandatory order characteristics before resubmitting the request

## 5.3.7.2 Message Structure

Tag	Field	Short Description	Format	Len	Values	Presence
	Header					
21005	ClientMessageSendi ngTime	Indicates the time of message transmission, the consistency of the time provided is not checked by the Exchange. (Time in number of nanoseconds since 01/01/1970 UTC)	UTCTimestamp	27	Valid values: YYYY = 0000- 9999, MM = 01-12, DD = 01- 31, HH = 00-23, MM = 00- 59, SS = 00-59, ssssssss = 000000000-99999999 (nanoseconds)	Conditional
5979	OEGINFromMembe r	Order Entry Gateway IN time from member (in ns), measured when inbound message enters the gateway (Time in number of nanoseconds since 01/01/1970 UTC).	UTCTimestamp	27	Valid values: YYYY = 0000- 9999, MM = 01-12, DD = 01- 31, HH = 00-23, MM = 00- 59, SS = 00-59, ssssssss = 000000000-99999999 (nanoseconds)	Conditional

Tag	Field	Short Description	Format	Len	Values	ation Messages  Presence
7764	OEGOUTToME	Gateway OUT time to ME (in ns), measured when inbound message leaves the gateway (Time in number of nanoseconds since 01/01/1970 UTC).	UTCTimestamp	27	Valid values: YYYY = 0000- 9999, MM = 01-12, DD = 01- 31, HH = 00-23, MM = 00- 59, SS = 00-59, ssssssss = 000000000-99999999 (nanoseconds)	Conditional
21002	BookINTime	Matching Engine IN time (in ns), time at which the corresponding inbound message entered the Matching Engine. (Time in number of nanoseconds since 01/01/1970 UTC)	UTCTimestamp	27	Valid values: YYYY = 0000- 9999, MM = 01-12, DD = 01- 31, HH = 00-23, MM = 00- 59, SS = 00-59, sssssssss = 000000000-99999999 (nanoseconds)	Conditional
21003	BookOUTTime	Matching Engine OUT time (in ns), when message leaves the Matching Engine (Time in number of nanoseconds since 01/01/1970 UTC).	UTCTimestamp	27	Valid values: YYYY = 0000- 9999, MM = 01-12, DD = 01- 31, HH = 00-23, MM = 00- 59, SS = 00-59, ssssssss = 000000000-99999999 (nanoseconds)	Conditional
7765	OEGINFromME	Gateway IN time from ME (in ns), measured when outbound message enters the gateway (Time in number of nanoseconds since 01/01/1970 UTC).	UTCTimestamp	27	Valid values: YYYY = 0000- 9999, MM = 01-12, DD = 01- 31, HH = 00-23, MM = 00- 59, SS = 00-59, sssssssss = 000000000-99999999 (nanoseconds)	Conditional
11	ClOrdID	An identifier of a message assigned by the Client when submitting an order to the Exchange.	String	20	From -2^63+1 to 2^63-1	Conditional
48	SecurityID	Exchange identification code of the instrument/contract.	String	10	From 0 to 2^32-2	Conditional
22	SecurityIDSource	Gives the type of SecurityID.	String	1	(See field description)	Conditional
20020	EMM	Defines the Exchange Market Mechanism applied on each platform.	Int	2	(See field description)	Conditional
37	OrderID	Numerical order identifier assigned by the matching engine, unique per instrument and EMM.	String	20	From 0 to 2^64-2	Conditional
9955	ErrorCode	Error code in case of rejection.	Int	5	From 0 to 2^16-2	Conditional
434	CxlRejResponseTo	Identifies the type of request that the OrderCancelReject (9) is in response to.	Char	1	(See field description)	Mandatory
9962	CollarRejType	Hit collar type (high or low) in case of order rejection due to collar breach.	Char	1	(See field description)	Conditional
21001	BreachedCollarPrice	Breached collar price in case of collar rejection.	Price	20	From -2^63+1 to 2^63-1	Conditional
39	OrdStatus	Identifies the current status of the order.	Char	1	(See field description)	Mandatory
21014	AckQualifiers	Field used to provide additional information on the corresponding order. A single field can contain up to 8 values, space delimited, provided in different positions.	MultipleCharVal ue	15	(See field description)	Conditional
21021	LogicalAccessID	Identifier of the Logical Access	Int	10	From 0 to 2^32-2	Conditional

Tag	Field	Short Description	Format	Len	Values	Presence
21019	OEPartitionID	Idenifies uniquely an OE Optiq partition by which the engine is reached	Int	5	From 0 to 2^16-2	Conditional
	Trailer					

### 5.3.8 RequestAckMessage (Uy)

Client **◀**OEG

Available for: EQ FND FXI SP EQD IDD CMO DC

## 5.3.8.1 Message Description

This message is used by the Matching Engine to acknowledge a **PriceInput** (UI) message request and a **LiquidityProviderCommand** (UZ) sent by Liquidity Providers, for cash markets, and **RequestForImpliedExecution** (U66) for the derivatives markets, when the message is accepted.

The fields RequestID (21060) and RefMsgType (372) identify the request message and its type.

The **RequestAckMessage** (Uy) message is also used to notify the request issuer that the following messages were not processed by the matching engine:

- PriceInput (UI)
- LiquidityProviderCommand (UZ)
- OwnershipRequest (U18)
- OrderMassStatusRequest (AF)
- RequestForImpliedExecution (U66)

The field *ErrorCode* (9955) will provide the reason in case of request rejection. If the request is accepted, this field will not be filled.

Please refer to the  $\underline{\text{Error Code List}}$  file (.csv) for an exhaustive list of those cases.

#### 5.3.8.2 Message Structure

Tag	Field	Short Description	Format	Len	Values	Presence
	Header					
21005	ClientMessageSendi ngTime	Indicates the time of message transmission, the consistency of the time provided is not checked by the Exchange. (Time in number of nanoseconds since 01/01/1970 UTC)	UTCTimestamp	27	Valid values: YYYY = 0000- 9999, MM = 01-12, DD = 01- 31, HH = 00-23, MM = 00- 59, SS = 00-59, ssssssss = 000000000-99999999 (nanoseconds)	Conditional
5979	OEGINFromMembe r	Order Entry Gateway IN time from member (in ns), measured when inbound message enters the gateway (Time in number of nanoseconds since 01/01/1970 UTC).	UTCTimestamp	27	Valid values: YYYY = 0000- 9999, MM = 01-12, DD = 01- 31, HH = 00-23, MM = 00- 59, SS = 00-59, sssssssss = 000000000-99999999 (nanoseconds)	Conditional
7764	OEGOUTToME	Gateway OUT time to ME (in ns), measured when inbound message leaves the gateway (Time in number of nanoseconds since 01/01/1970 UTC).	UTCTimestamp	27	Valid values: YYYY = 0000- 9999, MM = 01-12, DD = 01- 31, HH = 00-23, MM = 00- 59, SS = 00-59, ssssssss = 000000000-99999999 (nanoseconds)	Conditional

Tag	Field	Short Description	Format	Len	Values	Presence
21002	BookINTime	Matching Engine IN time (in ns), time at which the corresponding inbound message entered the Matching Engine. (Time in number of nanoseconds since 01/01/1970 UTC)	UTCTimestamp	27	Valid values: YYYY = 0000- 9999, MM = 01-12, DD = 01- 31, HH = 00-23, MM = 00- 59, SS = 00-59, ssssssss = 000000000-99999999 (nanoseconds)	Conditiona
21003	BookOUTTime	Matching Engine OUT time (in ns), when message leaves the Matching Engine (Time in number of nanoseconds since 01/01/1970 UTC).	UTCTimestamp	27	Valid values: YYYY = 0000- 9999, MM = 01-12, DD = 01- 31, HH = 00-23, MM = 00- 59, SS = 00-59, ssssssss = 000000000-99999999 (nanoseconds)	Conditiona
7765	OEGINFromME	Gateway IN time from ME (in ns), measured when outbound message enters the gateway (Time in number of nanoseconds since 01/01/1970 UTC).	UTCTimestamp	27	Valid values: YYYY = 0000- 9999, MM = 01-12, DD = 01- 31, HH = 00-23, MM = 00- 59, SS = 00-59, ssssssss = 000000000-99999999 (nanoseconds)	Conditional
21060	RequestID	Unique message identifier as assigned by the Client when submitting the message request.	String	20	From -2^63+1 to 2^63-1	Conditional
48	SecurityID	Exchange identification code of the instrument/contract.	String	10	From 0 to 2^32-2	Conditional
22	SecurityIDSource	Gives the type of SecurityID.	String	1	(See field description)	Conditiona
20020	EMM	Defines the Exchange Market Mechanism applied on each platform.	Int	2	(See field description)	Mandatory
372	RefMsgType	The MsgType (35) of the FIX message being referenced.	String	3	Value received in the rejected inbound message, if any	Conditiona
9955	ErrorCode	Error code in case of rejection.	Int	5	From 0 to 2^16-2	Conditiona
10076	LPActionCode	Action the LP wants to apply on the specified instrument of warrant type.	Char	1	(See field description)	Conditiona
	Trailer					

### 5.3.9 OwnershipRequest (U18)

Client ►OEG

Available for: EQ FND FXI SP EQD IDD CMO BLK

### 5.3.9.1 Message Description

The **OwnershipRequest** (U18) message is used by the clients to change the ownership of an active order from an OE Session to another OE Session belonging to the same Firm. Ownership migration is used to define the OE Session that will receive all outbound messages associated to the targeted order.

Please note that modifying an order (OrderCancelReplaceRequest (G)) also leads to an ownership migration.

The scope of the ownership can be a single order by specifying the *OrderID (37)* and *SecurityID* (48) of the targeted order. It could also be all orders of the specified *SecurityID (48)* belonging to the targeted Logical Access (*LogicalAccessID (21021)*).

The **OwnershipRequest** (U18) is acknowledged by the **OwnershipRequestAck** (U29), and by **ExecutionReport** (8) message(s) which provides the details of the affected order(s).

When an error is detected in any field of the message, the matching engine responds with the **RequestAckMessage** (Uy) message and the associated error code.

#### **Components Usage within the Message**

This message contains 2 components:

- The first component Parties is composed of the fields: NoPartyIDs (453), PartyID (448), PartyIDSource (447), PartyRole (452) and PartyRoleQualifier (2376) this component is used to provide data for the ExecutionwithinFirmShortCode and ClientIdentificationShortCode MIFID II field for risk management purposes such as kill switch:
- The second component OrderAttributeGrp is composed of the fields: NoOrderAttributes (2593), OrderAttributeType (2594), OrderAttributeValue (2595).

Use of the groups and values within them:

- ExecutionwithinFirmShortCode and ClientidentificationShortCodes should be provided via the *Parties* repeating group;
- The additional MIFID II short code related identifiers are specified using the OrderAttributeGrp group;

Examples of individual cases and some exceptions for the use of these groups are provided below. For the full list of possible values for each field clients should review the individual field descriptions.

### ExecutionwithinFirmShortCode

<u>Presence Condition</u>: Mandatory, first use of Parties group is assumed to be for indication of ExecutionwithinFirmShortCode

- Case 1: ExecutionwithinFirmShortCode where a natural person is responsible for the execution of the transaction
  - PartyID (448) = field in which the **short code** is provided
  - ◆ PartyIDSource (447) = P (Short code identifier)
  - PartyRole (452) = 12 (Executing Trader)
  - PartyRoleQualifier (2376) = 24 (Natural person)
- Case 2: ExecutionwithinFirmShortCode where an algorithm is responsible for the execution of the transaction
  - PartyID (448) = field in which the short code is provided
  - PartyIDSource (447) = P (Short code identifier)
  - PartyRole (452) = 12 (Executing trader)
  - PartyRoleQualifier (2376) = 22 (Algorithm)
  - Case 3: ExecutionwithinFirmShortCode for a Client
    - PartyID (448) = field in which the short code is provided
    - PartyIDSource (447) = P (Short code identifier)
    - PartyRole (452) = 3 (Client ID)
    - PartyRoleQualifier (2376) = 23 (Firm or legal entity) OR 24 (Natural person)

#### ClientIdentificationShortCode

<u>Presence Condition</u>: Conditional Group. Second use of Parties group in this message is assumed to be for indication of ClientIdentificationShortCode. This field is required for DEA User in every inbound message, or when AccountCode (6399) = Client or RO. In case ExecutionwithinFirmShortCode is provided for Case 3 the same information is submitted a second time for either Case 4 or 5. In this case, if the information in the repeating group is not identical, the message is rejected.

For cases 4 and 5, explained below, values 1 and 2 available for PartyID (448) are reserved for internally by the Exchange, and must not be provided in the inbound message. If submitted the associated inbound message will be rejected.

- Case 4: ClientIdentificationShortCode where the client is a legal entity
  - PartyID (448) = field in which the short code is provided
  - ◆ PartyIDSource (447) = **P** (Short code identifier)
  - PartyRole (452) = 3 (Client ID)
  - PartyRoleQualifier (2376) = 23 (Firm or legal entity)
- Case 5: ClientIdentificationShortCode where the client is not a legal entity
  - PartyID (448) = field in which the **short code** is provided
  - ◆ PartyIDSource (447) = P (Short code identifier)
  - PartyRole (452) = 3 (Client ID)
  - PartyRoleQualifier (2376) = 24 (Natural person)
- Case 6: Specifying ClientIdentificationShortCode for an Aggregated order ("AGGR" value)

In this case the Parties group is not used. In its place client should provide data using the *OrderAttributeGrp* nested group as following:

- OrderAttributeType (2594) = 0 (Aggregated order)
- OrderAttributeValue (2595) = "Y"
- Case 7: Specifying ClientIdentificationShortCode for an order for which short code is still pending allocation ("PNAL" value)

In this case the Parties group is not used. In its place client should provide data using the *OrderAttributeGrp* nested group as following:

- OrderAttributeType (2594) = 1 (Pending allocation)
- OrderAttributeValue (2595) = "Y"

### 5.3.9.2 Message Structure

Tag	Field	Short Description	Format	Len	Values	Presence
	Header					
11	ClOrdID	An identifier of a message assigned by the Client when submitting an order to the Exchange.	String	20	From -2^63+1 to 2^63-1	Mandatory
37	OrderID	Numerical order identifier assigned by the matching engine, unique per instrument and EMM.	String	20	From 0 to 2^64-2	Conditional

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Tag	Field	Short Description	Format	Len	Values	Presence
41	OrigClOrdID	Identifies the Client Order ID of the original order, used to identify the previous order on cancel and replacement requests.	String	20	From -2^63+1 to 2^63-1	Conditional
48	SecurityID	Exchange identification code of the instrument/contract.	String	10	From 0 to 2^32-2	Mandatory
22	SecurityIDSource	Gives the type of SecurityID.	String	1	(See field description)	Mandatory
453	NoPartyIDs	Number of PartyID entries.	NumInGroup	1	From 1 to 2	Mandatory
448	PartyID	Party identifier/code. See PartyIDSource (447) and PartyRole (452).	String	11	Alphanumeric	Mandatory
447	PartyIDSource	Source of PartyID value.	Char	1	(See field description)	Mandatory
452	PartyRole	Identifies the type or role of the PartyID (448) specified.	Int	3	(See field description)	Mandatory
2376	PartyRoleQualifier	Used to further qualify the value of PartyRole(452).	Int	2	(See field description)	Mandatory
2593	NoOrderAttributes	Number of order attribute entries.	NumInGroup	1	If provided, always set to 1	Optional
2594	OrderAttributeType	The type of order attribute.	Int	1	(See field description)	Optional
2595	OrderAttributeValu e	The value associated with the order attribute type specified in OrderAttributeType (2594).	String	1	(See field description)	Optional
20020	EMM	Defines the Exchange Market Mechanism applied on each platform.	Int	2	(See field description)	Mandatory
21019	OEPartitionID	Identifies uniquely an OE Optiq partition by which the engine is reached.	Int	5	From 0 to 2^16-2	Optional
21021	LogicalAccessID	Identifier of the Logical Access.	Int	10	From 0 to 2^32-2	Conditional
21041	OrderCategory	Field used as instruction for order handling. When not provided or provided at the Null Value, it is assumed to be set at value 1 "Lit Order".	Char	1	(See field description)	Conditional
	Trailer					

### 5.3.10 OwnershipRequestAck (U29)

Client **◀**OEG

Available for: EQ FND FXI SP EQD IDD CMO BLK

## 5.3.10.1 Message Description

The **OwnershipRequestAck** (U29) message is sent twice by the matching engine to confirm that the **OwnershipRequest** (U18) has been taken into account. The first **OwnershipRequestAck** (U29) message has *TotalAffectedOrders* (533) set to -1, and repeats all the fields as they were submitted in the **OwnershipRequest** (U18). Subsequently the member will receive an **ExecutionReport** (8) message per order affected by the command.

When the ownership request is totally processed the member will receive a last OwnershipRequestAck (U29) message to notify the member of the TotalAffectedOrders (533).

#### 5.3.10.2 Message Structure

Tag	Field	Short Description	Format	Len	Values	Presence
	Header					
11	ClOrdID	An identifier of a message assigned by the Client when submitting an order to the Exchange.	String	20	From -2^63+1 to 2^63-1	Mandatory
48	SecurityID	Exchange identification code of the instrument/contract.	String	10	From 0 to 2^32-2	Mandatory
22	SecurityIDSource	Gives the type of SecurityID.	String	1	(See field description)	Mandatory
37	OrderID	Numerical order identifier assigned by the matching engine, unique per instrument and EMM.	String	20	From 0 to 2^64-2	Conditional
21019	OEPartitionID	Identifies uniquely an OE Optiq partition by which the engine is reached.	Int	5	From 0 to 2^16-2	Conditional
21021	LogicalAccessID	Identifier of the Logical Access.	Int	10	From 0 to 2^32-2	Conditional
533	TotalAffectedOrder s	Number of orders affected following a global request. It is set to -1 to indicate that the request is processed.	Int	10	From -2^31+1 to 2^31-1	Mandatory
21041	OrderCategory	Field used as instruction for order handling. When not provided or provided at the Null Value, it is assumed to be set at value 1 "Lit Order".	Char	1	(See field description)	Conditional
	Trailer					

### 5.3.11 QuoteRequest (R)

Client ▶OEG

Available for: FND EQD IDD CMO

### 5.3.11.1 Message Description

The **QuoteRequest** (R) message is used by the clients to indicate that they have an interest on the specified instrument.

<u>For the Cash Markets</u>, this message is sent to the Liquidity Providers registered for the specified instrument and will not lead to a market data publication.

<u>For the Derivatives Markets</u> this message is used to request quotes / liquidity for a specific instrument. Submission of this message for the Derivatives segments results only in publication of a public message via MDG from a trading perspective. Upon reception of this Market Data message, registered (if any on the contract) Responsive Market Makers are required to provide liquidity.

For ETF Access platform ,this message submission can be performed either by Euronext members or by Non Euronext buy-side RFQ (Request for Quote) trading issuers.

For more details in behaviour and handling on the Cash and Derivatives markets clients should review the Kinematics documents associated to the individual markets.

Field *Side* (54) is optional as the client may or may not specify those parameters depending of the nature of the request.

<u>For the Derivatives Markets</u>: if the client does not wish to indicate quantity, the field *OrderQty* (38) should be filled with zero (0) and will be ignored.

<u>For ETF Access platform:</u> this message submission can be performed either by Euronext members or by Non Euronext buy-side RFQ (Request for Quote) trading issuers.

#### **Components Usage within the Message**

This message contains one component *Parties* which is composed of the fields: *NoPartyIDs (453), PartyID (448), PartyIDSource (447), PartyRole (452) and PartyRoleQualifier (2376)* this component is used to provide data for the ExecutionwithinFirmShortCode and ClientIdentificationShortCode MIFID II field for risk management purposes such as kill switch.

Examples of individual cases and some exceptions for the use of these groups are provided below. For the full list of possible values for each field clients should review the individual field descriptions.

#### **ExecutionwithinFirmShortCode**

<u>Presence Condition</u>: Mandatory, first use of Parties group is assumed to be for indication of ExecutionwithinFirmShortCode

- Case 1: ExecutionwithinFirmShortCode where a natural person is responsible for the execution of the transaction
  - PartyID (448) = field in which the **short code** is provided
  - PartyIDSource (447) = P (Short code identifier)
  - PartyRole (452) = 12 (Executing Trader)
  - PartyRoleQualifier (2376) = 24 (Natural person)
- **Case 2**: ExecutionwithinFirmShortCode where an algorithm is responsible for the execution of the transaction
  - PartyID (448) = field in which the short code is provided
  - PartyIDSource (447) = P (Short code identifier)
  - PartyRole (452) = 12 (Executing trader)
  - PartyRoleQualifier (2376) = 22 (Algorithm)
  - Case 3: ExecutionwithinFirmShortCode for a Client
    - PartyID (448) = field in which the **short code** is provided
    - PartyIDSource (447) = P (Short code identifier)
    - PartyRole (452) = 3 (Client ID)
    - PartyRoleQualifier (2376) = 23 (Firm or legal entity) OR 24 (Natural person)

## ClientIdentificationShortCode

<u>Presence Condition</u>: Conditional Group. Second use of Parties group in this message is assumed to be for indication of ClientIdentificationShortCode. This field is required for DEA User in every inbound message, or when AccountCode (6399) = Client or RO. In case ExecutionwithinFirmShortCode is provided for Case 3 the same information is submitted a second time for either Case 4 or 5.

For cases 4 and 5, explained below, values 1 and 2 available for PartyID (448) are reserved for internally by the Exchange, and must not be provided in the inbound message. If submitted the associated inbound message will be rejected.

- Case 4: ClientIdentificationShortCode where the client is a legal entity
  - PartyID (448) = field in which the **short code** is provided
  - PartyIDSource (447) = P (Short code identifier)
  - PartyRole (452) = 3 (Client ID)
  - PartyRoleQualifier (2376) = 23 (Firm or legal entity)
- Case 5: ClientIdentificationShortCode where the client is not a legal entity
  - PartyID (448) = field in which the **short code** is provided
  - PartyIDSource (447) = P (Short code identifier)
  - PartyRole (452) = 3 (Client ID)
  - PartyRoleQualifier (2376) = 24 (Natural person)

### 5.3.11.2 Message Structure

Tag	Field	Short Description	Format	Len	Values	Presence
	Header					
60	TransactTime	Indicates the time of message transmission (Format: YYYYMMDD-HH:MM:SS.ssssssss).	UTCTimestamp	27	Valid values: YYYY = 0000- 9999, MM = 01-12, DD = 01- 31, HH = 00-23, MM = 00- 59, SS = 00-59, ssssssss = 000000000-99999999 (nanoseconds)	Mandatory
11	ClOrdID	An identifier of a message assigned by the Client when submitting an order to the Exchange.	String	20	From -2^63+1 to 2^63-1	Mandatory
48	SecurityID	Exchange identification code of the instrument/contract.	String	10	From 0 to 2^32-2	Mandatory
22	SecurityIDSource	Gives the type of SecurityID.	String	1	(See field description)	Mandatory
20020	EMM	Defines the Exchange Market Mechanism applied on each platform.	Int	2	(See field description)	Mandatory
54	Side	Indicates the side of the order.	Char	1	(See field description)	Optional
38	OrderQty	Total order quantity, per quantity unit.(To be calculated with Quantity Decimals).	Qty	20	From 0 to 2^64-2	Mandatory
20052	DarkExecutionInstr uction	Field used as instruction for dark order handling. This field can contain up to 8 values, space delimited, provided in different positions.	MultipleCharVal ue	9	(See field description)	Optional
110	MinQty	Minimum quantity to be executed upon order entry (else the order is rejected), (To be calculated with Quantity Decimals).	Qty	20	Value '0' by default and depending to a minimum value for the given instrument and/or market type	Optional
453	NoPartyIDs	Number of PartyID entries.	NumInGroup	1	From 1 to 2	Mandatory
448	PartyID	Party identifier/code. See PartyIDSource (447) and PartyRole (452).	String	11	Alphanumeric	Mandatory
447	PartyIDSource	Source of PartyID value.	Char	1	(See field description)	Mandatory
452	PartyRole	Identifies the type or role of the PartyID (448) specified.	Int	3	(See field description)	Mandatory

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Tag	Field	Short Description	Format	Len	Values	Presence
2376	PartyRoleQualifier	Used to further qualify the value of PartyRole(452).	Int	2	(See field description)	Mandatory
6399	AccountCode	Indicates the account type for which the order is entered. For example, an order can be entered for a client account, a house account or a liquidity provider account.	Int	2	(See field description)	Conditional
	Trailer					

## 5.3.12 QuoteRequestReject (AG)

Client **◀**OEG

Available for: FND EQD IDD CMO

## 5.3.12.1 Message Description

The Quote Request Reject message is used to respond to the Client's **QuoteRequest** (R) that has not succeeded.

## 5.3.12.2 Message Structure

Tag	Field	Short Description	Format	Len	Values	Presence
	Header					
5979	OEGINFromMembe r	Order Entry Gateway IN time from member (in ns), measured when inbound message enters the gateway (Time in number of nanoseconds since 01/01/1970 UTC).	UTCTimestamp	27	Valid values: YYYY = 0000-9999, MM = 01-12, DD = 01-31, HH = 00-23, MM = 00-59, SS = 00- 59, ssssssss = 000000000- 99999999999 (nanoseconds)	Mandatory
7764	OEGOUTToME	Gateway OUT time to ME (in ns), measured when inbound message leaves the gateway (Time in number of nanoseconds since 01/01/1970 UTC).	UTCTimestamp	27	Valid values: YYYY = 0000-9999, MM = 01-12, DD = 01-31, HH = 00-23, MM = 00-59, SS = 00- 59, ssssssss = 000000000- 99999999999 (nanoseconds)	Mandatory
21002	BookINTime	Matching Engine IN time (in ns), time at which the corresponding inbound message entered the Matching Engine. (Time in number of nanoseconds since 01/01/1970 UTC)	UTCTimestamp	27	Valid values: YYYY = 0000-9999, MM = 01-12, DD = 01-31, HH = 00-23, MM = 00-59, SS = 00- 59, sssssssss = 000000000- 999999999 (nanoseconds)	Mandatory
21003	BookOUTTime	Matching Engine OUT time (in ns), when message leaves the Matching Engine (Time in number of nanoseconds since 01/01/1970 UTC).	UTCTimestamp	27	Valid values: YYYY = 0000-9999, MM = 01-12, DD = 01-31, HH = 00-23, MM = 00-59, SS = 00- 59, ssssssss = 00000000- 999999999 (nanoseconds)	Mandatory
7765	OEGINFromME	Gateway IN time from ME (in ns), measured when outbound message enters the gateway (Time in number of nanoseconds since 01/01/1970 UTC).	UTCTimestamp	27	Valid values: YYYY = 0000-9999, MM = 01-12, DD = 01-31, HH = 00-23, MM = 00-59, SS = 00- 59, ssssssss = 000000000- 999999999 (nanoseconds)	Mandatory
131	QuoteReqID	Numerical RFQ identifier assigned by the matching engine, unique per instrument and EMM.	String	20	From 0 to 2^64-2	Mandatory
658	QuoteRequestRejec tReason	Reason the QuoteRequest (R) was rejected.	Int	2	(See field description)	Mandatory
11	ClOrdID	An identifier of a message assigned by the Client when submitting an order to the Exchange.	String	20	From -2^63+1 to 2^63-1	Mandatory
58	Text	Free Text is manually entered by the trader issuing the order. This field is part of the clearing aggregate.	String	18	Alphanumeric	Optional
146	NoRelatedSym	Number of related symbols (instruments) in a message	NumInGroup	3	Always set to 1	Mandatory

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Tag	Field	Short Description	Format	Len	Values	Presence
48	SecurityID	Exchange identification code of the instrument/contract.	String	10	From 0 to 2^32-2	Mandatory
22	SecurityIDSource	Gives the type of SecurityID.	String	1	(See field description)	Mandatory
	Trailer					

### 5.3.13 AskForQuote (UL)

Client **◀**OEG Available for: <u>sp</u>

#### 5.3.13.1 Message Description

This message is used only for the Warrants on the New Market Model and sent by the matching engine to the Liquidity Provider when a quote of the latter is required. *AFQReason* (9939) identifies the case that triggers this request.

#### 5.3.13.2 Message Structure

Tag	Field	Short Description	Format	Len	Values	Presence
	Header					
48	SecurityID	Exchange identification code of the instrument/contract.	String	10	From 0 to 2^32-2	Mandatory
22	SecurityIDSource	Gives the type of SecurityID.	String	1	(See field description)	Mandatory
20020	EMM	Defines the Exchange Market Mechanism applied on each platform.	Int	2	(See field description)	Mandatory
9939	AFQReason	Indicates the reason why the AskForQuote (UL) message has been sent to the Liquidity Provider.	Char	1	(See field description)	Mandatory
	Trailer					

# 5.3.14 UserNotification (CB)

Client **◀**OEG

Available for: EQ FND FXI SP EQD IDD CMO

### 5.3.14.1 Message Description

UserNotification (CB) is used to notify clients of actions taken on their connections by exchange's Kill Switch action, or by their risk manager using Euronext RiskGuard (ERG) service.

For Kill Switch and RiskGuard the User Notifications sent to the clients might be triggered due to compliance with supplementing Directive 2014/65/EU of the European Parliament and of the Council with regard to regulatory technical standards specifying organisational requirements of trading venues, as well as for the services provided for such purposes for the investment firms engaged in algorithmic trading, Euronext Market operations, or authorized representatives of the investment firms, may suspend a member's or trader's access to the trading system or trigger the use of kill functionality in order to prevent disorderly trading conditions.

The message is sent if client's access has been Suspended / Killed, or if their suspension / kill status has been lifted, and the scope on which this action has been applied.

After notification of suspension is sent, and until this suspension is cleared, any following messages are rejected using **ExecutionReport (8)** message with error code 2512 "Suspended by EMS".

- For RiskGuard the UserNotification (CB) is sent:
  - if client's access has been Blocked or Unblocked on a given contract, and the scope for which this action has been applied;
  - if Order Size Limit has been activated or deactivated on a given contract, and the scope on which this action has been applied.

After notification of Suspension or Block or Order Size Limit Activation an until the restriction is lifted, any of the following inbound messages (except for strategies creation) are rejected with an appropriated error code.

The field *UserStatus* (926) in this message indicates the nature of action and the case of Kill functionality the scope taken on the access and/or orders. In case of suspension the scope is provided either in the field *InstrumentScopeSecurityID* (1538) or *RiskFamily* (20165).

The text in the field *UserStatus* (926) associated to each value provides for the following possible actions and granularities.

#### **Actions:**

Service	Action	Description
Kill Switch and Risk Guard	Suspended	access to the trading system has been suspended
Kill Switch and Risk Guard	Suspension Cleared	access to the trading system has been restored after a Suspension
Kill Switch	Killed	access to the trading system has been suspended and all unexecuted orders submitted have been cancelled
Kill Switch	Kill Cleared	access to the trading system has been restored after a Kill functionality was initiated. Orders cancelled upon initiation of Kill functionality will NOT be restored
Risk Guard	Blocked	access to the trading system, on a given contract, has been blocked. All unexecuted orders previously submitted might have been cancelled
Risk Guard	Unblocked	access to the trading system, on a given contract, has been unblocked. Orders cancelled upon initiation of Block functionality will NOT be restored
Risk Guard	Order Size Limit	orders submitted on a given contract cannot have a quantity higher than the Order Size Limit defined per contract. The limit is applied per individual order and not globally.

### Scope:

**For Kill Switch**: TargetCompID (56) is always provided (in the header) but it represents the scope of the kill only in case the action has been taken when specified by *UserStatus* (926) as Firm;

**For Risk Guard:** TargetCompID (56) is always provided (in the header) but it represents the scope of the action only in case the *UserStatus* (926) references Firm, Trader – Algo, DEA or Order Size Limit;

Seems	Description	Application
Scope	Description	Identifier Field
Trader-Algo	For Kill Switch: a trader or an algorithm will be in scope, applied based on the value specified in the field PartyID (448), when used to provide the ExecutionWithinFirmShortCode information. In this case the field PartyID (448), in the message will be populated with the stipulated value and PartyIDSource (447), PartyRole (452), PartyRoleQualifier (2376) are used to allow the identification of the provided ID.	PartyID (448)
	For Risk Guard: a Firm + Trader Algo will be in scope, applied based on the TargetPartyID (21095), used to provide the ExecutionWithinFirmShortCode information. In this case, the field PartyID (448) in the message will be populated with the stipulated value and PartyIDSource (447), PartyRole (452), PartyRoleQualifier (2376) are used to allow the identification of the provided ID.	
Firm	For Kill Switch: member, including all of the physical connections and orders associated to the Firm ID will be in scope;	TargetCompID (56)
	For Risk Guard: member, including all of the physical connections and orders associated to the Firm ID will be in scope BUT in a per Optiq Segment basis;	
DEA/ClientIdentificationShortCode	For Kill Switch: the sub-set of orders / messages flagged as being submitted via a Direct Electronic access (DEA) provided by members to their own clients either for Sponsored Access or Direct Market Access (DMA) In case of Kill command being done for Sponsored Access, the Status will identify "DEA" and the field ClientIdentificationShortCode will not be populated In case the Kill command is done for the DMA, the command is applied based on the value specified in the field ClientIdentificationShortCode. In this case the field ClientIdentificationShortCode in the message will be populated with the stipulated value	PartyID (448)
	For Risk Guard: the sub-set of orders/messages submitted under the TargetClientIDShortCode (21108) are killed or the access of the TargetClientIDShortCode (21108) is suspended, blocked or checked against the order size limit, depending on the command submitted by Risk Manager to the Exchange;	
LogicalAccess	For Risk Guard: Scope is the sub-set of orders/messages submitted under the TargetLogicalAccessID (21099) are killed or the access of the TargetLogicalAccessID (21099) is suspended or blocked, depending on the command submitted by the Risk Manager to the Exchange. In case the action is applied at Logical Access level, only the Firm that owns the connection receives the UserNotification (CB).	LogicalAccessID (21021

# Components Usage within the Message

#### This message contains two components:

- The first component Parties which is composed of the fields: NoPartyIDs (453), PartyID (448), PartyIDSource (447), PartyRole (452) and PartyRoleQualifier (2376) this component is used to provide data for the ExecutionwithinFirmShortCode and ClientIdentificationShortCode MIFID II field for risk management purposes such as kill switch;
- The second component InstrumentScopeGrp which is composed of the fields: NoInstrumentScopes (1656), InstrumentScopeSecurityID (1538), InstrumentScopeSecurityIDSource (1539), OrderSizeLimit (21102);

Examples of individual cases and some exceptions for the use of these groups are provided below. For the full list of possible values for each field clients should review the individual field descriptions.

### $\underline{\textbf{ExecutionwithinFirmShortCode}}$

Presence Condition: Conditional

- Case 1: ExecutionwithinFirmShortCode where a natural person is responsible for the execution of the transaction
  - PartyID (448) = field in which the short code is provided
  - PartyIDSource (447) = P (Short code identifier)
  - PartyRole (452) = 12 (Executing Trader)
  - PartyRoleQualifier (2376) = 24 (Natural person)
- Case 2: Execution within Firm Short Code where an algorithm is responsible for the execution of the transaction
  - PartyID (448) = field in which the short code is provided
  - PartyIDSource (447) = P (Short code identifier)
  - PartyRole (452) = 12 (Executing trader)
  - PartyRoleQualifier (2376) = 22 (Algorithm)
  - Case 3: ExecutionwithinFirmShortCode for a Client
    - PartyID (448) = field in which the short code is provided
    - PartyIDSource (447) = P (Short code identifier)
    - PartyRole (452) = 3 (Client ID)
    - PartyRoleQualifier (2376) = 23 (Firm or legal entity) OR 24 (Natural person)
- Case 4: ExecutionwithinFirmShortCode for a Firm or DEA
  - PartyID (448) = field in which the **short code** is provided
  - PartyIDSource (447) = D (Short code identifier)
  - PartyRole (452) = 1 (Executing Firm)
  - PartyRoleQualifier (2376) = 23 (Firm or legal entity)

For <u>Risk Guard</u>, only the following combination, concerning ExecutionWithinFirmShortCode, is provided:

- PartyID (448) = field in which the short code is provided
- PartyIDSource (447) = P (Short code identifier)
- PartyRole (452) = 12 (Executing Trader)

#### ClientIdentificationShortCode

Presence Condition: Conditional

- Case 5: ClientIdentificationShortCode where the client is a legal entity
  - PartyID (448) = field in which the short code is provided

- ◆ PartyIDSource (447) = **P** (Short code identifier)
- ◆ *PartyRole (452)* = **3** (Client ID)
- PartyRoleQualifier (2376) = 23 (Firm or legal entity)
- Case 6: ClientIdentificationShortCode where the client is not a legal entity
  - PartyID (448) = field in which the **short code** is provided
  - PartyIDSource (447) = P (Short code identifier)
  - PartyRole (452) = 3 (Client ID)
  - PartyRoleQualifier (2376) = 24 (Natural person)
- Case 7: ClientIdentificationShortCode in case of a DMA suspension
  - PartyID (448) = field in which the **short code** is provided
  - PartyIDSource (447) = P (Proprietary / Custom Code)
  - PartyRole (452) = 3 (Client ID)
  - PartyRoleQualifier (2376) = 23 (Firm or legal entity) OR 24 (Natural person)

 $For {\it \underline{Risk \, Guard}}, only the following \, combination, \, concerning \, ClientIdentification ShortCode, \, is \, provided: \, in the following \, combination \, concerning \, ClientIdentification ShortCode, \, is \, provided: \, in the following \, combination \, concerning \, ClientIdentification ShortCode, \, is \, provided: \, in the following \, combination \, concerning \, ClientIdentification ShortCode, \, is \, provided: \, in the following \, combination \, concerning \, ClientIdentification ShortCode, \, is \, provided: \, in the following \, combination \, concerning \, ClientIdentification ShortCode, \, in the following \, combination \, concerning \, ClientIdentification ShortCode, \, in the following \, combination \, concerning \, ClientIdentification ShortCode, \, in the following \, combination \, concerning \, ClientIdentification ShortCode, \, in the following \, combination \, concerning \, concerni$ 

- PartyID (448) = field in which the **short code** is provided
- PartyIDSource (447) = P (Short code identifier)
- PartyRole (452) = 3 (Client ID)

# 5.3.14.2 Message Structure

Tag	Field	Short Description	Format	Len	Values	Presence
	Header					
926	UserStatus	Status of the user.	Int	3	(See field description)	Mandatory
453	NoPartyIDs	Number of PartyID entries.	NumInGroup	1	If provided, always set to 1	Conditional
448	PartyID	Party identifier/code. See PartyIDSource (447) and PartyRole (452).	String	11	Alphanumeric	Conditional
447	PartyIDSource	Source of PartyID value.	Char	1	(See field description)	Conditional
452	PartyRole	Identifies the type or role of the PartyID (448) specified.	Int	3	(See field description)	Conditional
2376	PartyRoleQualifier	Used to further qualify the value of PartyRole(452).	Int	2	(See field description)	Conditional
21021	LogicalAccessID	Identifier of the Logical Access.	Int	10	From 0 to 2^32-2	Conditional
58	Text	Free Text is manually entered by the trader issuing the order. This field is part of the clearing aggregate.	String	18	Alphanumeric	Optional
20165	RiskFamily	Identifier of the family.	String	8	Alphanumeric	Conditional
1656	NoInstrumentScopes	Number of Instrument scopes entries.	NumInGroup	1	If provided, always set to 1	Conditional
1538	InstrumentScopeSecurit yID	Security ID.	String	10	From 0 to 2^32-2	Conditional
1539	InstrumentScopeSecurit yIDSource	Used to limit instrument scope.	String	1	(See field description)	Conditional

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Tag	Field	Short Description	Format	Len	Values	Presence
21102	OrderSizeLimit	Indicates the Maximum Order Size above which all orders will be rejected by the Matching Engine.	Qty	20	From 0 to 2^64-2	Conditional
	Trailer					

#### 5.3.15 PriceInput (UI)

Client ▶OEG

Available for: EQ FND FXI SP

#### 5.3.15.1 Message Description

The matching engine acknowledges the request by sending back a RequestAckMessage (Uy) message.

The type of price is specified in the InputPxType (9950) field:

- 1 Valuation Price: for this type the Price must not be provided. If the message is accepted by the matching engine a public PriceUpdate (1003) message will be disseminated to the market for one lot size at the reference price with Market Data Price Type equals to '23' Valuation Price.
- 2 Alternative Indicative Price: for this type the Price must be provided. If the message is accepted by the matching engine a PriceUpdate (1003) message will be disseminated to the market participants at the price provided by the client and it will accordingly update the instrument's reference price. The Dynamic Collars are updated around the price specified in the PriceInput (28) message and a public MarketUpdate (1001) message is sent to the market to disseminate the new collars.

For specific use and authorizations per Trading Group (Class) please refer to the Trading Manual.

#### **Components Usage within the Message**

This message contains 2 components:

- The first component Parties is composed of the fields: NoPartyIDs (453), PartyID (448), PartyIDSource (447), PartyRole (452) and PartyRoleQualifier (2376) this component is used to provide data for the ExecutionwithinFirmShortCode and ClientIdentificationShortCode MIFID II field for risk management purposes such as kill switch:
- The second component OrderAttributeGrp is composed of the fields: NoOrderAttributes (2593), OrderAttributeType (2594), OrderAttributeValue (2595).

Use of the groups and values within them:

- ExecutionwithinFirmShortCode and ClientidentificationShortCodes should be provided via the *Parties* repeating group:
- The additional MIFID II short code related identifiers are specified using the *OrderAttributeGrp* group;

Examples of individual cases and some exceptions for the use of these groups are provided below. For the full list of possible values for each field clients should review the individual field descriptions.

### **ExecutionwithinFirmShortCode**

<u>Presence Condition</u>: Mandatory, first use of Parties group is assumed to be for indication of ExecutionwithinFirmShortCode

- Case 1: ExecutionwithinFirmShortCode where a natural person is responsible for the execution of the transaction
  - ◆ PartyID (448) = field in which the **short code** is provided
  - PartyIDSource (447) = P (Short code identifier)
  - PartyRole (452) = 12 (Executing Trader)
  - PartyRoleQualifier (2376) = 24 (Natural person)
- Case 2: ExecutionwithFirmShortCode where an algorithm is responsible for the execution of the transaction
  - PartyID (448) = field in which the **short code** is provided
  - PartyIDSource (447) = P (Short code identifier)
  - PartyRole (452) = 12 (Executing trader)
  - PartyRoleQualifier (2376) = 22 (Algorithm)
- Case 3: ExecutionwithinFirmShortCode for a Client
  - PartyID (448) = field in which the **short code** is provided
  - PartyIDSource (447) = P (Short code identifier)
  - ◆ PartyRole (452) = 3 (Client ID)
  - PartyRoleQualifier (2376) = 23 (Firm or legal entity) OR 24 (Natural person)

#### ClientIdentificationShortCode

<u>Presence Condition</u>: Conditional Group. Second use of Parties group in this message is assumed to be for indication of ClientIdentificationShortCode. This field is required for DEA User in every inbound message, or when AccountCode (6399) = Client or RO. In case ExecutionwithinFirmShortCode is provided for Case 3 the same information is submitted a second time for either Case 4 or 5. In this case, if the information in the repeating group is not identical, the message is rejected.

For cases 4 and 5, explained below, values 1 and 2 available for PartyID (448) are reserved for internally by the Exchange, and must not be provided in the inbound message. If submitted the associated inbound message will be rejected.

- Case 4: ClientIdentificationShortCode where the client is a legal entity
  - ◆ PartyID (448) = field in which the **short code** is provided
  - ◆ PartyIDSource (447) = P (Short code identifier)
  - PartyRole (452) = 3 (Client ID)
  - PartyRoleQualifier (2376) = 23 (Firm or legal entity)
- Case 5: ClientIdentificationShortCode where the client is not a legal entity
  - PartyID (448) = field in which the **short code** is provided
  - ◆ PartyIDSource (447) = P (Short code identifier)
  - PartyRole (452) = 3 (Client ID)
  - PartyRoleQualifier (2376) = 24 (Natural person)
- Case 6: Specifying ClientIdentificationShortCode for an Aggregated order ("AGGR" value)

In this case the Parties group is not used. In its place client should provide data using the *OrderAttributeGrp* nested group as following:

- OrderAttributeType (2594) = 0 (Aggregated order)
- OrderAttributeValue (2595) = "Y"
- Case 7: Specifying ClientIdentificationShortCode for an order for which short code is still pending allocation ("PNAL" value)

In this case the Parties group is not used. In its place client should provide data using the *OrderAttributeGrp* nested group as following:

- OrderAttributeType (2594) = 1 (Pending allocation)
- OrderAttributeValue (2595) = "Y"

### 5.3.15.2 Message Structure

Tag	Field	Short Description	Format	Len	Values	Presence
	Header					
11	ClOrdID	An identifier of a message assigned by the Client when submitting an order to the Exchange.	String	20	From -2^63+1 to 2^63-1	Mandatory
48	SecurityID	Exchange identification code of the instrument/contract.	String	10	From 0 to 2^32-2	Mandatory
22	SecurityIDSource	Gives the type of SecurityID.	String	1	(See field description)	Mandatory
453	NoPartyIDs	Number of PartyID entries.	NumInGrou p	1	From 1 to 2	Mandatory
448	PartyID	Party identifier/code. See PartyIDSource (447) and PartyRole (452).	String	11	Alphanumeric	Mandatory

Tag	Field	Short Description	Format	Len	Values	Presence
447	PartyIDSource	Source of PartyID value.	Char	1	(See field description)	Mandatory
452	PartyRole	Identifies the type or role of the PartyID (448) specified.	Int	3	(See field description)	Mandatory
2376	PartyRoleQualifier	Used to further qualify the value of PartyRole(452).	Int	2	(See field description)	Mandatory
2593	NoOrderAttributes	Number of order attribute entries.	NumInGrou p	1	If provided, From 1 to 2	Optional
2594	OrderAttributeType	The type of order attribute.	Int	1	(See field description)	Optional
2595	OrderAttributeValue	The value associated with the order attribute type specified in OrderAttributeType (2594).	String	1	(See field description)	Optional
20020	EMM	Defines the Exchange Market Mechanism applied on each platform.	Int	2	(See field description)	Mandatory
44	Price	Instrument price per quantity unit (To be calculated with Price/Index Level Decimals).	Price	20	From -2^63+1 to 2^63-1	Conditional
9950	InputPxType	Type of input price.	Char	1	(See field description)	Mandatory
	Trailer					

#### 5.3.16 LiquidityProviderCommand (UZ)

Client ▶OEG Available for: SP

#### 5.3.16.1 Message Description

This message is used by a Liquidity Provider to:

- Activate a Warrant instrument upon its creation. It removes the need for further validation by Issuers of Knock-Ins
  (KI) in the trading system, and streamlines the overall KI process. (Knock In By Issuer functionality "KIBI").
- Trigger a Knock-Out (KO) of an instrument independently from, and in place of, the KO system managed by Euronext. Reason for suspension (KO or not) is published in the market data and if the reason is KO, origin (KOBI or not) is provided. (Knock Out By Issuer KOBI-functionality).
- Trigger a Payment After Knock Out (PAKO) phase after a Knock-Out has been triggered, this phase enables clients to redeem leveraged Knock-Outs. (Payment After Knock Out PAKO-functionality). After PAKO is triggered the instrument is forced into a Bid Only state, even if no additional message is sent to indicate this, and remains in this state for the duration of this phase.
- Trigger a Bid Only or Offer Only period. These action codes are not accepted during PAKO phase.

The Matching Engine acknowledges the request by sending back a **RequestAckMessage** (Uy) message.

# **Components Usage within the Message**

This message contains 2 components:

- The first component Parties is composed of the fields: NoPartyIDs (453), PartyID (448), PartyIDSource (447), PartyRole (452) and PartyRoleQualifier (2376) this component is used to provide data for the ExecutionwithinFirmShortCode and ClientIdentificationShortCode MIFID II field for risk management purposes such as kill switch;
- The second component OrderAttributeGrp is composed of the fields: NoOrderAttributes (2593), OrderAttributeType (2594), OrderAttributeValue (2595).

Use of the groups and values within them:

- ExecutionwithinFirmShortCode and ClientidentificationShortCodes should be provided via the *Parties* repeating group:
- The additional MIFID II short code related identifiers are specified using the *OrderAttributeGrp* group;

Examples of individual cases and some exceptions for the use of these groups are provided below. For the full list of possible values for each field clients should review the individual field descriptions.

#### **ExecutionwithinFirmShortCode**

<u>Presence Condition</u>: Mandatory, first use of Parties group is assumed to be for indication of ExecutionwithinFirmShortCode

- Case 1: ExecutionwithinFirmShortCode where a natural person is responsible for the execution of the transaction
  - PartyID (448) = field in which the short code is provided
  - PartyIDSource (447) = P (Short code identifier)
  - PartyRole (452) = 12 (Executing Trader)
  - PartyRoleQualifier (2376) = 22 (Algorithm) OR 23 (Firm or legal entity) OR 24 (Natural person)
- Case 2: ExecutionwithFirmShortCode where an algorithm is responsible for the execution of the transaction
  - PartyID (448) = field in which the **short code** is provided
  - PartyIDSource (447) = P (Short code identifier)
  - PartyRole (452) = 12 (Executing trader)
  - PartyRoleQualifier (2376) = 22 (Algorithm)
- Case 3: ExecutionwithinFirmShortCode for a Client
  - PartyID (448) = field in which the short code is provided
  - PartyIDSource (447) = P (Short code identifier)
  - PartyRole (452) = 3 (Client ID)
  - PartyRoleQualifier (2376) = 23 (Firm or legal entity) OR 24 (Natural person)

### ClientIdentificationShortCode

<u>Presence Condition</u>: Conditional Group. Second use of Parties group in this message is assumed to be for indication of ClientIdentificationShortCode. This field is required for DEA User in every inbound message, or when AccountCode (6399) = Client or RO. In case ExecutionwithinFirmShortCode is provided for Case 3 the same information is submitted a second time for either Case 4 or 5. In this case, if the information in the repeating group is not identical, the message is rejected.

For cases 4 and 5, explained below, values 1 and 2 available for PartyID (448) are reserved for internally by the Exchange, and must not be provided in the inbound message. If submitted the associated inbound message will be rejected.

- Case 4: ClientIdentificationShortCode where the client is a legal entity
  - PartyID (448) = field in which the short code is provided
  - PartyIDSource (447) = P (Short code identifier)
  - PartyRole (452) = 3 (Client ID)
  - PartyRoleQualifier (2376) = 23 (Firm or legal entity)
- Case 5: ClientIdentificationShortCode where the client is not a legal entity
  - ◆ PartyID (448) = field in which the short code is provided

- PartyIDSource (447) = P (Short code identifier)
- ◆ *PartyRole (452)* = **3** (Client ID)
- PartyRoleQualifier (2376) = 24 (Natural person)
- Case 6: Specifying ClientIdentificationShortCode for an Aggregated order ("AGGR" value)

In this case the Parties group is not used. In its place client should provide data using the *OrderAttributeGrp* nested group as following:

- OrderAttributeType (2594) = **0** (Aggregated order)
- OrderAttributeValue (2595) = "Y"
- Case 7: Specifying ClientIdentificationShortCode for an order for which short code is still pending allocation ("PNAL" value)

In this case the Parties group is not used. In its place client should provide data using the *OrderAttributeGrp* nested group as following:

- OrderAttributeType (2594) = 1 (Pending allocation)
- OrderAttributeValue (2595) = "Y"

#### 5.3.16.2 Message Structure

Tag	Field	Short Description	Format	Len	Values	Presence
	Header					
11	ClOrdID	An identifier of a message assigned by the Client when submitting an order to the Exchange.	String	20	From -2^63+1 to 2^63-1	Mandatory
48	SecurityID	Exchange identification code of the instrument/contract.	String	10	From 0 to 2^32-2	Mandatory
22	SecurityIDSource	Gives the type of SecurityID.	String	1	(See field description)	Mandatory
453	NoPartyIDs	Number of PartyID entries.	NumInGroup	1	From 1 to 2	Mandatory
448	PartyID	Party identifier/code. See PartyIDSource (447) and PartyRole (452).	String	11	Alphanumeric	Mandatory
447	PartyIDSource	Source of PartyID value.	Char	1	(See field description)	Mandatory
452	PartyRole	Identifies the type or role of the PartyID (448) specified.	Int	3	(See field description)	Mandatory
2376	PartyRoleQualifier	Used to further qualify the value of PartyRole(452).	Int	2	(See field description)	Mandatory
2593	NoOrderAttributes	Number of order attribute entries.	NumInGroup	1	If provided, From 1 to 2	Optional
2594	OrderAttributeType	The type of order attribute.	Int	1	(See field description)	Optional
2595	OrderAttributeValue	The value associated with the order attribute type specified in OrderAttributeType (2594).	String	1	(See field description)	Optional
20020	EMM	Defines the Exchange Market Mechanism applied on each platform.	Int	2	(See field description)	Mandatory
10076	LPActionCode	Action the LP wants to apply on the specified instrument of warrant type.	Char	1	(See field description)	Mandatory
	Trailer					

#### 5.3.17 OrderMassStatusRequest (AF)

#### Client ▶OEG

Available for: EQ FND FXI SP EQD IDD CMO BLK

#### 5.3.17.1 Message Description

The **OrderMassStatusRequest** (AF) message is used by clients to request the status of a single target order (*OrderID* (37) or *OriqClOrdID* (41)):

- If there is a corresponding live order in the Order Book, the system will acknowledge the request with an ExecutionReport (8) message (ExecType = 'm');
- If there is no corresponding order in the Order Book, the system will reject the request with a RequestAckMessage (Uy) message (ErrorCode = '2101' - 'Unknown Order').

Please note that the field MassStatusReqID (584) is an identifier of the OrderMassStatusRequest (AF) message.

When an error is detected in any field of the message, the matching engine responds with the **RequestAckMessage** (Uy) message and the associated error code.

#### **Components Usage within the Message**

This message contains 2 components:

- The first component Parties is composed of the fields: NoPartyIDs (453), PartyID (448), PartyIDSource (447), PartyRole (452) and PartyRoleQualifier (2376) this component is used to provide data for the ExecutionwithinFirmShortCode and ClientIdentificationShortCode MIFID II field for risk management purposes such as kill switch;
- The second component OrderAttributeGrp is composed of the fields: NoOrderAttributes (2593), OrderAttributeType (2594), OrderAttributeValue (2595).

Use of the groups and values within them:

- ExecutionwithinFirmShortCode and ClientidentificationShortCodes should be provided via the *Parties* repeating group;
- The additional MIFID II short code related identifiers are specified using the OrderAttributeGrp group;

Examples of individual cases and some exceptions for the use of these groups are provided below. For the full list of possible values for each field clients should review the individual field descriptions.

#### **ExecutionwithinFirmShortCode**

<u>Presence Condition</u>: Mandatory, first use of Parties group is assumed to be for indication of ExecutionwithinFirmShortCode

- Case 1: ExecutionwithinFirmShortCode where a natural person is responsible for the execution of the transaction
  - PartyID (448) = field in which the short code is provided
  - ◆ PartyIDSource (447) = P (Short code identifier)
  - PartyRole (452) = 12 (Executing Trader)
  - PartyRoleQualifier (2376) = 24 (Natural person)
- **Case 2**: ExecutionwithFirmShortCode where an algorithm is responsible for the execution of the transaction
  - PartyID (448) = field in which the short code is provided

- PartyIDSource (447) = P (Short code identifier)
- PartyRole (452) = 12 (Executing trader)
- PartyRoleQualifier (2376) = 22 (Algorithm)
- Case 3: ExecutionwithinFirmShortCode for a Client
  - PartyID (448) = field in which the short code is provided
  - PartyIDSource (447) = P (Short code identifier)
  - PartyRole (452) = 3 (Client ID)
  - PartyRoleQualifier (2376) = 23 (Firm or legal entity) OR 24 (Natural person)

### ClientIdentificationShortCode

<u>Presence Condition</u>: Conditional Group. Second use of Parties group in this message is assumed to be for indication of ClientIdentificationShortCode. This field is required for DEA User in every inbound message, or when AccountCode (6399) = Client or RO. In case ExecutionwithinFirmShortCode is provided for Case 3 the same information is submitted a second time for either Case 4 or 5. In this case, if the information in the repeating group is not identical, the message is rejected.

For cases 4 and 5, explained below, values 1 and 2 available for PartyID (448) are reserved for internally by the Exchange, and must not be provided in the inbound message. If submitted the associated inbound message will be rejected.

- Case 4: ClientIdentificationShortCode where the client is a legal entity
  - PartyID (448) = field in which the short code is provided
  - PartyIDSource (447) = P (Short code identifier)
  - PartyRole (452) = 3 (Client ID)
  - PartyRoleQualifier (2376) = 23 (Firm or legal entity)
- Case 5: ClientIdentificationShortCode where the client is not a legal entity
  - PartyID (448) = field in which the **short code** is provided
  - PartyIDSource (447) = P (Short code identifier)
  - PartyRole (452) = 3 (Client ID)
  - PartyRoleQualifier (2376) = 24 (Natural person)
- Case 6: Specifying ClientIdentificationShortCode for an Aggregated order ("AGGR" value)

In this case the Parties group is not used. In its place client should provide data using the *OrderAttributeGrp* nested group as following:

- OrderAttributeType (2594) = **0** (Aggregated order)
- ◆ OrderAttributeValue (2595) = "**Y**"
- Case 7: Specifying ClientIdentificationShortCode for an order for which short code is still pending allocation ("PNAL" value)

In this case the Parties group is not used. In its place client should provide data using the *OrderAttributeGrp* nested group as following:

- OrderAttributeType (2594) = 1 (Pending allocation)
- ◆ OrderAttributeValue (2595) = "Y"

#### 5.3.17.2 Message Structure

Tag	Field	Short Description	Format	Len	Values	Presence
	Header					

						ication Messages
Tag	Field	Short Description	Format	Len	Values	Presence
48	SecurityID	Exchange identification code of the instrument/contract.	String	10	From 0 to 2^32-2	Mandatory
22	SecurityIDSource	Gives the type of SecurityID.	String	1	(See field description)	Mandatory
37	OrderID	Numerical order identifier assigned by the matching engine, unique per instrument and EMM.	String	20	From 0 to 2^64-2	Conditional
41	OrigClOrdID	Identifies the Client Order ID of the original order, used to identify the previous order on cancel and replacement requests.	String	20	From -2^63+1 to 2^63-1	Conditional
453	NoPartyIDs	Number of PartyID entries.	NumInGroup	1	From 1 to 2	Mandatory
448	PartyID	Party identifier/code. See PartyIDSource (447) and PartyRole (452).	String	11	Alphanumeric	Mandatory
447	PartyIDSource	Source of PartyID value.	Char	1	(See field description)	Mandatory
452	PartyRole	Identifies the type or role of the PartyID (448) specified.	Int	3	(See field description)	Mandatory
2376	PartyRoleQualifier	Used to further qualify the value of PartyRole(452).	Int	2	(See field description)	Mandatory
2593	NoOrderAttributes	Number of order attribute entries.	NumInGroup	1	If provided, From 1 to 2	Optional
2594	OrderAttributeType	The type of order attribute.	Int	1	(See field description)	Optional
2595	OrderAttributeValu e	The value associated with the order attribute type specified in OrderAttributeType (2594).	String	1	(See field description)	Optional
584	MassStatusReqID	Unique Identifier assigned by the client to the OrderMassStatusRequest (AF).	String	20	From -2^63+1 to 2^63-1	Mandatory
585	MassStatusReqType	Specifies the scope of the OrderMassStatusRequest (AF).	Int	3	(See field description)	Mandatory
20020	EMM	Defines the Exchange Market Mechanism applied on each platform.	Int	2	(See field description)	Mandatory
21041	OrderCategory	Field used as instruction for order handling. When not provided or provided at the Null Value, it is assumed to be set at value 1 "Lit Order".	Char	1	(See field description)	Conditional
	Trailer					

# 5.3.18 OrderMassCancelRequest (q)

Client ►OEG

Available for: EQ FXI SP EQD IDD CMO FND BLK

# 5.3.18.1 Message Description

The **OrderMassCancelRequest** (q) message is used to request the cancellation of the entire remaining quantity of **all active orders** matching the specified criteria(s), note that only the originating Firm is authorized to cancel its own orders.

An order cancellation only applies to the remaining quantity of an order in the book. If the order to be cancelled was partially filled, the cancellation has no effect on the previous trades (or any previously executed quantity).

The MassCancelRequestType (530) field defines the scope of the mass cancellation request:

- To cancel orders assigned to an instrument, MassCancelRequestType (530) must be set to '1' (cancel orders for a security) and the SecurityID (48) field must be populated with the symbol index of the instrument concerned.
- <u>Derivatives only:</u> To cancel orders assigned to instruments of a derivative contract, MassCancelRequestType (530) must be set to '3' (cancel orders for a product) and the SecurityID (48) field must be populated with the symbol index of the contract concerned.
- <u>Cash only</u>: To cancel orders assigned to instruments attached to a given trading group, *MassCancelRequestType* (530) must be set to 'A' (cancel orders for a security group) and the *ClassID* (9945) field must be populated with the code of the trading group concerned.

Optional additional criteria can be specified: *EMM* (20020)<sup>7</sup>, *Side* (54), *AccountCode* (6399), *LogicalAccessID* (21021), *TargetPartyID* (21095) and *OEPartitionID* (21019). Those filters are used to restrict the scope of the Mass Cancel request. (Please note that *OEPartitionID* (21019) is not taken into account if *LogicalAccessID* (21021) is not populated).

In the field *TargetPartyID* (21095) clients may specify the value of Execution Within Firm Short Code with which orders were originally submitted, and if provided would cover the scope of the orders and quotes submitted by the Firm and specified Short code. Value provided in this field may differ from the value specified as the Execution Within Firm Short Code within the **OrderMassCancelRequest** (q) message. When an error is detected in any field of the message, the matching engine responds with the **OrderCancelReject** (9) message and the associated error code.

For ETF Access platform ,this message submission can be performed either by Euronext members or by Non Euronext buy-side RFQ (Request for Quote) trading issuers.

### **Components Usage within the Message**

This message contains 2 components:

- The first component Parties is composed of the fields: NoPartyIDs (453), PartyID (448), PartyIDSource (447), PartyRole (452) and PartyRoleQualifier (2376) this component is used to provide data for the ExecutionwithinFirmShortCode and ClientIdentificationShortCode MIFID II field for risk management purposes such as kill switch:
- The second component OrderAttributeGrp is composed of the fields: NoOrderAttributes (2593), OrderAttributeType (2594), OrderAttributeValue (2595).

Use of the groups and values within them:

- ExecutionwithinFirmShortCode and ClientidentificationShortCodes should be provided via the *Parties* repeating group;
- The additional MIFID II short code related identifiers are specified using the *OrderAttributeGrp* group;

Examples of individual cases and some exceptions for the use of these groups are provided below. For the full list of possible values for each field clients should review the individual field descriptions.

# ExecutionwithinFirmShortCode

<u>Presence Condition</u>: Mandatory, first use of Parties group is assumed to be for indication of ExecutionwithinFirmShortCode

• Case 1: ExecutionwithinFirmShortCode where a natural person is responsible for the execution of the transaction

<sup>&</sup>lt;sup>7</sup> COB EMMs only.

- PartyID (448) = field in which the short code is provided
- ◆ PartyIDSource (447) = **P** (Short code identifier)
- PartyRole (452) = 12 (Executing Trader)
- PartyRoleQualifier (2376) = 24 (Natural person)
- Case 2: ExecutionwithinFirmShortCode where an algorithm is responsible for the execution of the transaction
  - PartyID (448) = field in which the short code is provided
  - PartyIDSource (447) = P (Short code identifier)
  - PartyRole (452) = 12 (Executing trader)
  - PartyRoleQualifier (2376) = 22 (Algorithm)
  - Case 3: ExecutionwithinFirmShortCode for a Client
    - PartyID (448) = field in which the short code is provided
    - PartyIDSource (447) = P (Short code identifier)
    - PartyRole (452) = 3 (Client ID)
    - PartyRoleQualifier (2376) = 23 (Firm or legal entity) OR 24 (Natural person)

#### ClientIdentificationShortCode

<u>Presence Condition</u>: Conditional Group. Second use of Parties group in this message is assumed to be for indication of ClientIdentificationShortCode. This field is required for DEA User in every inbound message, or when AccountCode (6399) = Client or RO. In case ExecutionwithinFirmShortCode is provided for Case 3 the same information is submitted a second time for either Case 4 or 5. In this case, if the information in the repeating group is not identical, the message is rejected.

For cases 4 and 5, explained below, values 1 and 2 available for PartyID (448) are reserved for internally by the Exchange, and must not be provided in the inbound message. If submitted the associated inbound message will be rejected.

- Case 4: ClientIdentificationShortCode where the client is a legal entity
  - PartyID (448) = field in which the short code is provided
  - PartyIDSource (447) = P (Short code identifier)
  - PartyRole (452) = 3 (Client ID)
  - PartyRoleQualifier (2376) = 23 (Firm or legal entity)
- Case 5: ClientIdentificationShortCode where the client is not a legal entity
  - PartyID (448) = field in which the **short code** is provided
  - PartyIDSource (447) = P (Short code identifier)
  - PartyRole (452) = 3 (Client ID)
  - PartyRoleQualifier (2376) = 24 (Natural person)
- Case 6: Specifying ClientIdentificationShortCode for an Aggregated order ("AGGR" value)

In this case the Parties group is not used. In its place client should provide data using the *OrderAttributeGrp* nested group as following:

- OrderAttributeType (2594) = 0 (Aggregated order)
- OrderAttributeValue (2595) = "Y"
- Case 7: Specifying ClientIdentificationShortCode for an order for which short code is still pending allocation ("PNAL" value)

In this case the Parties group is not used. In its place client should provide data using the *OrderAttributeGrp* nested group as following:

- OrderAttributeType (2594) = 1 (Pending allocation)
- OrderAttributeValue (2595) = "Y"

#### **Mass Cancellation Processing**

From the Matching Engine perspective, the OrderMassCancelRequest (q) request is processed differently:

- On Cash segments, the inbound message queues are handled at the instrument book level; if the request concerns
  a trading group or an instrument, it is pushed asynchronously to the inbound queue of each book of the specified
  instrument or instruments belonging to the specified group.
  - As a consequence, a counterpart order can be sent to one of these books *after* the mass cancel request at group level but *before* the cancellation request is queued for the book; in this situation, it is possible for an order to be cancelled to match against the entering counterpart order *before* being actually cancelled.
- On Derivative segments, the inbound message queues are handled at the contract level; whether the request concerns a contract or an instrument, the request is queued directly into the contract's inbound queue.
  - As a consequence, it is not possible for a counterpart order sent on an instrument belonging to the contract *after* the mass cancellation request to match an order to be cancelled, as the counterpart order is queued and processed *after* the mass cancellation request completion.

From the Client perspective, the OEG introduces a mechanism that makes mass cancellation requests to be processed synchronously on both the Cash and Derivatives markets. This means that any request sent by an OE session having started a **OrderMassCancelRequest (q)** request processing will be processed *after* the completion of the mass cancellation processing, whatever the segment considered.

If needed, an OEG session dedicated to mass cancellations may be used to avoid blocking any other operations during the processing of such mass cancellations.

### 5.3.18.2 Message Structure

Tag	Field	Short Description	Format	Len	Values	Presence
	Header					
60	TransactTime	Indicates the time of message transmission (Format: YYYYMMDD-HH:MM:SS.ssssssss).	UTCTimestamp	27	Valid values: YYYY = 0000-9999, MM = 01-12, DD = 01-31, HH = 00-23, MM = 00-59, SS = 00- 59, ssssssss = 00000000- 999999999 (nanoseconds)	Mandatory
11	ClOrdID	An identifier of a message assigned by the Client when submitting an order to the Exchange.	String	20	From -2^63+1 to 2^63-1	Mandatory
530	MassCancelRequest Type	Specifies the scope of the OrderMassCancelRequest (q). The specified action is only applicable to the orders already present in the book.	Char	1	(See field description)	Mandatory
9945	ClassID	Instrument Group / Class Identifier.	String	2	Alphanumeric	Conditional
48	SecurityID	Exchange identification code of the instrument/contract.	String	10	From 0 to 2^32-2	Conditional
22	SecurityIDSource	Gives the type of SecurityID.	String	1	(See field description)	Conditional
453	NoPartyIDs	Number of PartyID entries.	NumInGroup	1	From 1 to 2	Mandatory
448	PartyID	Party identifier/code. See PartyIDSource (447) and PartyRole (452).	String	11	Alphanumeric	Mandatory

Tag	Field	Short Description	Format	Len	Values	Presence
447	PartyIDSource	Source of PartyID value.	Char	1	(See field description)	Mandatory
452	PartyRole	Identifies the type or role of the PartyID (448) specified.	Int	3	(See field description)	Mandatory
2376	PartyRoleQualifier	Used to further qualify the value of PartyRole(452).	Int	2	(See field description)	Mandatory
21095	TargetPartyID	Identifier of the ShortCode used as a filter to reduce the scope of the OrderMassCancelRequest (r).	String	11	Alphanumeric	Optional
2593	NoOrderAttributes	Number of order attribute entries.	NumInGroup	1	If provided, From 1 to 2	Optional
2594	OrderAttributeType	The type of order attribute.	Int	1	(See field description)	Optional
2595	OrderAttributeValu e	The value associated with the order attribute type specified in OrderAttributeType (2594).	String	1	(See field description)	Optional
20020	EMM	Defines the Exchange Market Mechanism applied on each platform.	Int	2	(See field description)	Optional
54	Side	Indicates the side of the order.	Char	1	(See field description)	Optional
21019	OEPartitionID	Identifies uniquely an OE Optiq partition by which the engine is reached.	Int	5	From 0 to 2^16-2	Optional
21021	LogicalAccessID	Identifier of the Logical Access.	Int	10	From 0 to 2^32-2	Optional
6399	AccountCode	Indicates the account type for which the order is entered. For example, an order can be entered for a client account, a house account or a liquidity provider account.	Int	2	(See field description)	Optional
21041	OrderCategory	Field used as instruction for order handling. When not provided or provided at the Null Value, it is assumed to be set at value 1 "Lit Order".	Char	1	(See field description)	Conditional
	Trailer					

# 5.3.19 OrderMassCancelReport (r)

Client **◀**OEG

Available for: EQ FND FXI SP EQD IDD CMO BLK

# 5.3.19.1 Message Description

The OrderMassCancelReport (r) message is sent twice by the matching engine to confirm that the OrderMassCancelReport (q) has been taken into account. The first OrderMassCancelReport (r) message has TotalAffectedOrders (533) set to -1, and repeats all the fields as they were submitted in the OrderMassCancelReport (r) request.

The client will receive a single **ExecutionReport** (8) message per successfully cancelled order (if any). Please note that **ExecutionReport** (8) messages are sent to the OE Session that owns the cancelled order.

When the mass cancel request is completely processed the client will receive a last **OrderMassCancelReport** (r) message to notify them of the *TotalAffectedOrders* (533). The number provided by *TotalAffectedOrders* (533) field could be different than the number of killed order notifications received by the issuer of the Mass Cancel request if some killed orders belonged to other OE Sessions. (Please refer to the Kinematics for further details).

#### **Components Usage within the Message**

This message contains 1component:

The component Parties is composed of the fields: NoPartyIDs (453), PartyID (448), PartyIDSource (447), PartyRole (452) and PartyRoleQualifier (2376) - this component is used to provide data for the ExecutionwithinFirmShortCode and ClientIdentificationShortCode MIFID II field for risk management purposes such as kill switch;

Use of the groups and values within them:

ExecutionwithinFirmShortCode and ClientidentificationShortCodes should be provided via the *Parties* repeating group;

Examples of individual cases and some exceptions for the use of these groups are provided below. For the full list of possible values for each field clients should review the individual field descriptions.

#### **ExecutionwithinFirmShortCode**

Presence Condition: Mandatory

- Case 1: ExecutionwithinFirmShortCode where a natural person is responsible for the execution of the transaction
  - PartyID (448) = field in which the **short code** is provided
  - PartyIDSource (447) = P (Short code identifier)
  - PartyRole (452) = 12 (Executing Trader)
  - PartyRoleQualifier (2376) = 24 (Natural person)
- Case 2: ExecutionwithinFirmShortCode where an algorithm is responsible for the execution of the transaction
  - PartyID (448) = field in which the short code is provided
  - PartyIDSource (447) = P (Short code identifier)
  - PartyRole (452) = 12 (Executing trader)
  - PartyRoleQualifier (2376) = 22 (Algorithm)
- Case 3: ExecutionwithinFirmShortCode for a Client
  - PartyID (448) = field in which the short code is provided
  - PartyIDSource (447) = P (Short code identifier)
  - PartyRole (452) = 3 (Client ID)
  - PartyRoleQualifier (2376) = 23 (Firm or legal entity) OR 24 (Natural person)

# 5.3.19.2 Message Structure

Tag	Field	Short Description	Format	Len	Values	Presence
	Header					

Tag	Field	Short Description	Format	Len	Values	ation Messages  Presence
21005	ClientMessageSendi	Indicates the time of message	UTCTimestamp	27	Valid values: YYYY = 0000-	Conditional
21003	ngTime	transmission, the consistency of the time provided is not checked by the Exchange. (Time in number of nanoseconds since 01/01/1970 UTC)	OTCTIMESTATIP	27	9999, MM = 01-12, DD = 01- 31, HH = 00-23, MM = 00- 59, SS = 00-59, sssssssss = 000000000-99999999 (nanoseconds)	Conditional
5979	OEGINFromMembe r	Order Entry Gateway IN time from member (in ns), measured when inbound message enters the gateway (Time in number of nanoseconds since 01/01/1970 UTC).	UTCTimestamp	27	Valid values: YYYY = 0000- 9999, MM = 01-12, DD = 01- 31, HH = 00-23, MM = 00- 59, SS = 00-59, ssssssss = 000000000-99999999 (nanoseconds)	Conditional
7764	OEGOUTToME	Gateway OUT time to ME (in ns), measured when inbound message leaves the gateway (Time in number of nanoseconds since 01/01/1970 UTC).	UTCTimestamp	27	Valid values: YYYY = 0000- 9999, MM = 01-12, DD = 01- 31, HH = 00-23, MM = 00- 59, SS = 00-59, ssssssss = 000000000-99999999 (nanoseconds)	Conditional
21002	BookINTime	Matching Engine IN time (in ns), time at which the corresponding inbound message entered the Matching Engine. (Time in number of nanoseconds since 01/01/1970 UTC)	UTCTimestamp	27	Valid values: YYYY = 0000- 9999, MM = 01-12, DD = 01- 31, HH = 00-23, MM = 00- 59, SS = 00-59, sssssssss = 000000000-999999999 (nanoseconds)	Mandatory
21003	BookOUTTime	Matching Engine OUT time (in ns), when message leaves the Matching Engine (Time in number of nanoseconds since 01/01/1970 UTC).	UTCTimestamp	27	Valid values: YYYY = 0000- 9999, MM = 01-12, DD = 01- 31, HH = 00-23, MM = 00- 59, SS = 00-59, sssssssss = 000000000-99999999 (nanoseconds)	Mandatory
7765	OEGINFromME	Gateway IN time from ME (in ns), measured when outbound message enters the gateway (Time in number of nanoseconds since 01/01/1970 UTC).	UTCTimestamp	27	Valid values: YYYY = 0000- 9999, MM = 01-12, DD = 01- 31, HH = 00-23, MM = 00- 59, SS = 00-59, ssssssss = 000000000-99999999 (nanoseconds)	Mandatory
11	ClOrdID	An identifier of a message assigned by the Client when submitting an order to the Exchange.	String	20	From -2^63+1 to 2^63-1	Mandatory
533	TotalAffectedOrder s	Number of orders affected following a global request. It is set to -1 to indicate that the request is processed.	Int	10	From -2^31+1 to 2^31-1	Mandatory
9945	ClassID	Instrument Group / Class Identifier.	String	2	Alphanumeric	Conditional
48	SecurityID	Exchange identification code of the instrument/contract.	String	10	From 0 to 2^32-2	Conditional
22	SecurityIDSource	Gives the type of SecurityID.	String	1	(See field description)	Conditional
20020	EMM	Defines the Exchange Market Mechanism applied on each platform.	Int	2	(See field description)	Conditional
54	Side	Indicates the side of the order.	Char	1	(See field description)	Conditional
21019	OEPartitionID	Identifies uniquely an OE Optiq partition by which the engine is reached.	Int	5	From 0 to 2^16-2	Conditional
21021	LogicalAccessID	Identifier of the Logical Access.	Int	10	From 0 to 2^32-2	Conditional

Tag	Field	Short Description	Format	Len	Values	Presence
Tag 6399	AccountCode	Short Description Indicates the account type for	Int	Len 2	(See field description)	Conditional
6399	Accountcode	which the order is entered. For example, an order can be entered for a client account, a house account or a liquidity provider account.	IIIL	2	(see new description)	Conditional
1369	MassActionReportI D	Exchange allocated order mass cancel report ID.	String	20	Value provided by the Trading Engine	Mandatory
530	MassCancelRequest Type	Specifies the scope of the OrderMassCancelRequest (q). The specified action is only applicable to the orders already present in the book.	Char	1	(See field description)	Mandatory
531	MassCancelRespons e	Specifies the action taken by counterparty order handling system as a result of the OrderMassCancelRequest (AF).	Char	1	(See field description)	Mandatory
21041	OrderCategory	Field used as instruction for order handling. When not provided or provided at the Null Value, it is assumed to be set at value 1 "Lit Order".	Char	1	(See field description)	Conditional
21014	AckQualifiers	Field used to provide additional information on the corresponding order. A single field can contain up to 8 values, space delimited, provided in different positions.	MultipleCharVal ue	15	(See field description)	Conditional
21095	TargetPartyID	Identifier of the ShortCode used as a filter to reduce the scope of the OrderMassCancelRequest (q).	String	11	Alphanumeric	Optional
453	NoPartyIDs	Number of PartyID entries.	NumInGroup	1	From 1 to 2	Mandatory
448	PartyID	Party identifier/code. See PartyIDSource (447) and PartyRole (452).	String	11	Alphanumeric	Mandatory
447	PartyIDSource	Source of PartyID value.	Char	1	(See field description)	Mandatory
452	PartyRole	Identifies the type or role of the PartyID (448) specified.	Int	3	(See field description)	Mandatory
2376	PartyRoleQualifier	Used to further qualify the value of PartyRole (452).	Int	2	(See field description)	Mandatory
	Trailer					

# 5.3.20 RFQNotification (U35)

Client **◀**OEG Available for: FND

# 5.3.20.1 Message Description

The **RFQNotification** (U35) message is sent by the matching engine to inform Liquidity Providers about the new RFQ characteristics previously received from an RFQ issuer (Client who sent the RFQ) through the **QuoteRequest** (R) message.

This message is sent to Liquidity Providers registered for the dedicated instrument.

# 5.3.20.2 Message Structure

Tag	Field	Short Description	Format	Len	Values	Presence
	Header					
21002	BookINTime	Matching Engine IN time (in ns), time at which the corresponding inbound message entered the Matching Engine. (Time in number of nanoseconds since 01/01/1970 UTC)	UTCTimestamp	27	Valid values: YYYY = 0000- 9999, MM = 01-12, DD = 01- 31, HH = 00-23, MM = 00- 59, SS = 00-59, sssssssss = 000000000-999999999 (nanoseconds)	Mandatory
21003	BookOUTTime	Matching Engine OUT time (in ns), when message leaves the Matching Engine (Time in number of nanoseconds since 01/01/1970 UTC).	UTCTimestamp	27	Valid values: YYYY = 0000- 9999, MM = 01-12, DD = 01- 31, HH = 00-23, MM = 00- 59, SS = 00-59, ssssssss = 000000000-99999999 (nanoseconds)	Conditional
7765	OEGINFromME	Gateway IN time from ME (in ns), measured when outbound message enters the gateway (Time in number of nanoseconds since 01/01/1970 UTC).	UTCTimestamp	27	Valid values: YYYY = 0000- 9999, MM = 01-12, DD = 01- 31, HH = 00-23, MM = 00- 59, SS = 00-59, ssssssss = 000000000-99999999 (nanoseconds)	Conditional
7764	OEGOUTToME	Gateway OUT time to ME (in ns), measured when inbound message leaves the gateway (Time in number of nanoseconds since 01/01/1970 UTC).	UTCTimestamp	27	Valid values: YYYY = 0000- 9999, MM = 01-12, DD = 01- 31, HH = 00-23, MM = 00- 59, SS = 00-59, sssssssss = 000000000-99999999 (nanoseconds)	Conditional
131	QuoteReqID	Numerical RFQ identifier assigned by the matching engine, unique per instrument and EMM.	String	20	From 0 to 2^64-2	Mandatory
48	SecurityID	Exchange identification code of the instrument/contract.	String	10	From 0 to 2^32-2	Mandatory
22	SecurityIDSource	Gives the type of SecurityID.	String	1	(See field description)	Mandatory
20020	EMM	Defines the Exchange Market Mechanism applied on each platform.	Int	2	(See field description)	Mandatory
38	OrderQty	Total order quantity, per quantity unit.(To be calculated with Quantity Decimals).	Qty	20	From 0 to 2^64-2	Mandatory
54	Side	Indicates the side of the order.	Char	1	(See field description)	Optional
20052	DarkExecutionInstr uction	Field used as instruction for dark order handling. This field can contain up to 8 values, space delimited, provided in different positions.	MultipleCharVal ue	9	(See field description)	Mandatory
110	MinQty	Minimum quantity to be executed upon order entry (else the order is rejected), (To be calculated with Quantity Decimals).	Qty	20	Value '0' by default and depending to a minimum value for the given instrument and/or market type	Optional
21041	OrderCategory	Field used as instruction for order handling. When not provided or provided at the Null Value, it is assumed to be set at value 1 "Lit Order".	Char	1	(See field description)	Conditional

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Tag	Field	Short Description	Format	Len	Values	Presence
6399	AccountCode	Indicates the account type for which the order is entered. For example, an order can be entered for a client account, a house account or a liquidity provider account.	Int	2	(See field description)	Optional
	Trailer					

# 5.3.21 RFQMatchingStatus (U36)

Client **◀**OEG Available for: FND

# 5.3.21.1 Message Description

The **RFQMatchingStatus** (U36) message is sent by the matching engine to inform the RFQ issuer about the potential matching situation (*PotentiaMatchingPrice* (21030), *PotentialMatchingQuantity* (21031), and *NumberOfLPs* (21034)) at the time the message is sent.

# 5.3.21.2 Message Structure

Tag	Field	Short Description	Format	Len	Values	Presence
	Header					
21002	BookINTime	Matching Engine IN time (in ns), time at which the corresponding inbound message entered the Matching Engine. (Time in number of nanoseconds since 01/01/1970 UTC)	UTCTimestamp	27	Valid values: YYYY = 0000-9999, MM = 01-12, DD = 01-31, HH = 00-23, MM = 00-59, SS = 00- 59, sssssssss = 000000000- 999999999 (nanoseconds)	Mandatory
21003	BookOUTTime	Matching Engine OUT time (in ns), when message leaves the Matching Engine (Time in number of nanoseconds since 01/01/1970 UTC).	UTCTimestamp	27	Valid values: YYYY = 0000-9999, MM = 01-12, DD = 01-31, HH = 00-23, MM = 00-59, SS = 00- 59, ssssssss = 00000000- 999999999 (nanoseconds)	Conditional
7765	OEGINFromME	Gateway IN time from ME (in ns), measured when outbound message enters the gateway (Time in number of nanoseconds since 01/01/1970 UTC).	UTCTimestamp	27	Valid values: YYYY = 0000-9999, MM = 01-12, DD = 01-31, HH = 00-23, MM = 00-59, SS = 00- 59, ssssssss = 000000000- 999999999 (nanoseconds)	Conditional
7764	OEGOUTToME	Gateway OUT time to ME (in ns), measured when inbound message leaves the gateway (Time in number of nanoseconds since 01/01/1970 UTC).	UTCTimestamp	27	Valid values: YYYY = 0000-9999, MM = 01-12, DD = 01-31, HH = 00-23, MM = 00-59, SS = 00- 59, ssssssss = 000000000- 999999999 (nanoseconds)	Conditional
48	SecurityID	Exchange identification code of the instrument/contract.	String	10	From 0 to 2^32-2	Mandatory
22	SecurityIDSource	Gives the type of SecurityID.	String	1	(See field description)	Mandatory
20020	EMM	Defines the Exchange Market Mechanism applied on each platform.	Int	2	(See field description)	Mandatory

Tag	Field	Short Description	Format	Len	Values	Presence
131	QuoteReqID	Numerical RFQ identifier assigned by the matching engine, unique per instrument and EMM.	String	20	From 0 to 2^64-2	Mandatory
21030	PotentialMatchingP rice	The Potential Matching Price indicates to the RFQ issuer the matching price for the "Potential Matching Quantity".	Price	20	From -2^63+1 to 2^63-1	Conditional
21031	PotentialMatchingQ uantity	The potential matching quantity indicates the maximum volume that would be matched in case of an RFQ validation.	Qty	20	From 0 to 2^64-2	Mandatory
54	Side	Indicates the side of the order.	Char	1	(See field description)	Mandatory
21034	NumberOfLPs	Indicates the number of LPs who sent an answer to a specific RFQ.	Int	2	From 0 to 2^8-2	Conditional
	Trailer					

# 5.3.22 RFQLPMatchingStatus (U37)

Client **◀**OEG Available for: FND

# 5.3.22.1 Message Description

The **RFQLPMatchingStatus** (U37) message is sent by the matching engine to inform the Liquidity Provider about the potential matching quantity at the time the message is sent.

The field *PotentialMatchingQuantity (21031)* will contain the potential aggregated matching quantity for all the concerned LP's answers for the identified RFQ (provided by the *QuoteReqID (131)*).

### 5.3.22.2 Message Structure

Tag	Field	Short Description	Format	Len	Values	Presence
	Header					
21002	BookINTime	Matching Engine IN time (in ns), time at which the corresponding inbound message entered the Matching Engine. (Time in number of nanoseconds since 01/01/1970 UTC)	UTCTimestamp	27	Valid values: YYYY = 0000-9999, MM = 01-12, DD = 01-31, HH = 00-23, MM = 00-59, SS = 00-59, sssssssss = 000000000- 999999999 (nanoseconds)	Mandatory
21003	BookOUTTime	Matching Engine OUT time (in ns), when message leaves the Matching Engine (Time in number of nanoseconds since 01/01/1970 UTC).	UTCTimestamp	27	Valid values: YYYY = 0000-9999, MM = 01-12, DD = 01-31, HH = 00-23, MM = 00-59, SS = 00-59, ssssssss = 000000000- 999999999 (nanoseconds)	Conditional
7765	OEGINFromME	Gateway IN time from ME (in ns), measured when outbound message enters the gateway (Time in number of nanoseconds since 01/01/1970 UTC).	UTCTimestamp	27	Valid values: YYYY = 0000-9999, MM = 01-12, DD = 01-31, HH = 00-23, MM = 00-59, SS = 00-59, ssssssss = 000000000- 999999999 (nanoseconds)	Conditional

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Tag	Field	Short Description	Format	Len	Values	Presence
7764	OEGOUTToME	Gateway OUT time to ME (in ns), measured when inbound message leaves the gateway (Time in number of nanoseconds since 01/01/1970 UTC).	UTCTimestamp	27	Valid values: YYYY = 0000-9999, MM = 01-12, DD = 01-31, HH = 00-23, MM = 00-59, SS = 00-59, ssssssss = 000000000- 999999999 (nanoseconds)	Conditional
48	SecurityID	Exchange identification code of the instrument/contract.	String	10	From 0 to 2^32-2	Mandatory
22	SecurityIDSource	Gives the type of SecurityID.	String	1	(See field description)	Mandatory
20020	EMM	Defines the Exchange Market Mechanism applied on each platform.	Int	2	(See field description)	Mandatory
131	QuoteReqID	Numerical RFQ identifier assigned by the matching engine, unique per instrument and EMM.	String	20	From 0 to 2^64-2	Mandatory
21031	PotentialMatchingQ uantity	The potential matching quantity indicates the maximum volume that would be matched in case of an RFQ validation.	Qty	20	From 0 to 2^64-2	Mandatory
54	Side	Indicates the side of the order.	Char	1	(See field description)	Mandatory
	Trailer					

# 5.3.23 RequestForExecution (UM)

Client **◀**OEG Available for: ŞP

# 5.3.23.1 Message Description

This message is used by the matching engine to offer the Liquidity Provider the opportunity to confirm or modify the quote of an instrument before completing any trade.

Upon reception of this message the Liquidity Provider can either send a new Quote to update the price or ignore the request (and thus trades within the timeframe). Please refer to the **MassQuote** (i) message for further explanations.

# 5.3.23.2 Message Structure

Tag	Field	Short Description	Format	Len	Values	Presence
	Header					
48	SecurityID	Exchange identification code of the instrument/contract.	String	10	From 0 to 2^32-2	Mandatory
22	SecurityIDSource	Gives the type of SecurityID.	String	1	(See field description)	Mandatory
20020	EMM	Defines the Exchange Market Mechanism applied on each platform.	Int	2	(See field description)	Mandatory
	Trailer					

#### 5.3.24 SecurityDefinitionRequest (c)

Client ► OEG

Available for: EQD IDD CMO

#### 5.3.24.1 Message Description

This message is used to create a user-defined strategy during the trading session. Any logical access of type Trading or Market Making can initiate strategy creation.

The strategy creation request is acknowledged or rejected by the system using a **SecurityDefinition** (d) message. In case of positive acknowledgement, message provides the *SecurityID* (48) - symbol index – of the created (or existing) strategy.

The strategy to be created must respect the strategy definition corresponding to its code specified with the *SecuritySubType (762)* field. It must also be defined from the buy side perspective. For example, the strategy definition of a Future Calendar Spread must follow the following constraints:

- Two future legs within the same contract;
- Ratio 1 for the first leg L<sub>1</sub>, as a buy;
- Ratio 1 for the second leg L<sub>2</sub>, as a sell;
- Front leg expiry precedes second leg expiry.

This corresponds to the definition of the spread strategy L<sub>1</sub>-L<sub>2</sub>.

If the strategy to be created does not fully respect its strategy definition, then the strategy creation request is rejected by the system through a **SecurityDefinition** (d).

For the list of the recognised strategies and high level description of their structures client should refer to the *Annexe* 2 to Notice n° 5-01 Trading Procedures: Recognised Strategies document.

For COB, a strategy must be created before any orders or quotes for that strategy can be submitted.

#### **Delta-Neutral Strategies:**

For Delta-Neutral (DN) strategies, creation of the strategy using **SecurityDefinitionRequest** (c) messages, is required prior to submission of the order. For creation of Stock contingent DN trades at least one leg of the created strategy, the field *LegSecurityType* (609) must be set to Cash, *LegSecurityID* (602) is filled with the *SecurityID* (48) - Symbol Index - of the Cash instrument, the Leg Price is populated with the Cash underlying price and the *LegRatioQty* (623) specifies the Delta.

For Wholesale Facility prior creation of strategies is not required, except when submitting a Delta-neutral strategy, for which this creation is mandatory.

### 5.3.24.2 Message Structure

Tag	Field	Short Description	Format	Len	Values	Presence
	Header					
320	SecurityReqID	ID of a strategy security definition request	String	30	From -2^63+1 to 2^63-1	Mandatory
321	SecurityRequestType	Gives the type of Security Definition Request.	Int	2	(See field description)	Mandatory
48	SecurityID	Exchange identification code of the Contract.	String	10	From 0 to 2^32-2	Optional
22	SecurityIDSource	Gives the type of SecurityID.	String	1	(See field description)	Optional
167	SecurityType	Indicates type of security.	String	4	(See field description)	Mandatory
762	SecuritySubType	Exchange-recognized strategy code	String	1	From 0 to 2^32-2	Mandatory

	F1-14	Chart Bassistics	F			ion Messages
Tag	Field	Short Description	Format	Len	Values	Presence
555	NoLegs	Number of legs entries for the requested strategy.	NumInGrou p	2	From 1 to 32	Mandatory
600	LegSymbol	Identifies the contract of this instrument by its Symbol Index.	String	10	From 0 to 2^32-2	Mandatory
602	LegSecurityID	MDG proprietary identification code of the instrument leg for the strategy.	String	10	From 0 to 2^32-2	Mandatory
603	LegSecurityIDSource	Gives the type of LegSecurityID (602).	String	1	(See field description)	Mandatory
609	LegSecurityType	Defines the type of instrument of the Leg	String	11	(See field description)	Mandatory
21092	LegLastTradingDate	Last Trading Date of the leg of the strategy (text formatted as YYYYMMDD).	LocalMktDa te	8	Valid values: YYYY = 0000-9999, MM = 01-12, DD = 01-31	Optional
612	LegStrikePrice	The strike price of an option/warrant is the specified price at which the underlying can be bought (in the case of a call/right to buy) or sold (in case of a put/right to sell) by the holder (buyer) of the option/warrant contract, at the moment he exercises his right against a writer (seller) of the option/warrant.	Price	20	From -2^63+1 to 2^63-1	Optional
21091	LegRatio	Ratio of lots for the leg. For contingent trades, the delta.  For Contracts (Future or Option), it is the leg ratio, with the maximum value being 99999. If the value submitted by a customer is higher, it will be changed by the system to the maximum value (99999).  For Underlyings (Cash or Future), the delta is used with special rules: For the Underlying leg of volatility strategies, this should be the delta represented directly as an integer value of the percentage, without division or decimals (e.g.: a delta of 65% should be represented by 65), with the maximum value being 9999 (9999%). If the value submitted by a customer is higher, it will be changed by the system to the maximum value (9999). For Conversion Reversal Strategies (Type = 'R'), the delta is always set to 100.	Int	7	From 0 to 2^32-2	Mandatory
624	LegSide	Indicates the side of the trade leg.	Char	1	(See field description)	Mandatory
1358	LegPutOrCall	Type of the option as leg.	Int	1	(See field description)	Optional
566	LegPrice	Price of corresponding strategy leg (to be calculated with the Price/Index Level Decimals).	Price	20	From -2^63+1 to 2^63-1	Optional
	Trailer					

### 5.3.25 SecurityDefinition (d)

Client **◀** OEG

Available for: EQD IDD CMO

### 5.3.25.1 Message Description

This message is used to respond to the client's inbound **SecurityDefinitionRequest** (c) message. It can be either a rejection of the request with an error code providing the reason of the rejection, or an acknowledgement of strategy creation (in the latter case, the error code is equal to 0).

If a client submits a creation for an already existing strategy, then the system acknowledges the request and returns the symbol index of the existing one.

In case of acknowledgement of a strategy creation, the strategy is created with the status 'Suspended New Listing' and the MDG **Strategy Standing Data** (1012) and **Market Status Change** (1005) messages are published to all market participants. Another **Market Status Change** (1005) message is published when the strategy changes its state to be available to trading after a predefined period of time (e.g. 30 seconds).

#### 5.3.25.2 Message Structure

Tag	Field	Short Description	Format	Len	Values	Presence
	Header					
21005	ClientMessageSending Time	Indicates the time of message transmission, the consistency of the time provided is not checked by the Exchange. (Time in number of nanoseconds since 01/01/1970 UTC)	UTCTimestamp	27	Valid values: YYYY = 0000-9999, MM = 01-12, DD = 01-31, HH = 00-23, MM = 00-59, SS = 00- 59, sssssssss = 000000000- 999999999 (nanoseconds)	Conditional
5979	OEGINFromMember	Order Entry Gateway IN time from member (in ns), measured when inbound message enters the gateway (Time in number of nanoseconds since 01/01/1970 UTC).	UTCTimestamp	27	Valid values: YYYY = 0000-9999, MM = 01-12, DD = 01-31, HH = 00-23, MM = 00-59, SS = 00- 59, sssssssss = 000000000- 999999999 (nanoseconds)	Conditional
7764	OEGOUTToME	Gateway OUT time to ME (in ns), measured when inbound message leaves the gateway (Time in number of nanoseconds since 01/01/1970 UTC).	UTCTimestamp	27	Valid values: YYYY = 0000-9999, MM = 01-12, DD = 01-31, HH = 00-23, MM = 00-59, SS = 00- 59, ssssssss = 000000000- 999999999 (nanoseconds)	Conditional
21002	BookINTime	Matching Engine IN time (in ns), time at which the corresponding inbound message entered the Matching Engine. (Time in number of nanoseconds since 01/01/1970 UTC)	UTCTimestamp	27	Valid values: YYYY = 0000-9999, MM = 01-12, DD = 01-31, HH = 00-23, MM = 00-59, SS = 00- 59, sssssssss = 000000000- 999999999 (nanoseconds)	Conditional
21003	BookOUTTime	Matching Engine OUT time (in ns), when message leaves the Matching Engine (Time in number of nanoseconds since 01/01/1970 UTC).	UTCTimestamp	27	Valid values: YYYY = 0000-9999, MM = 01-12, DD = 01-31, HH = 00-23, MM = 00-59, SS = 00- 59, ssssssss = 00000000- 999999999 (nanoseconds)	Conditional

Tag	Field	Short Description	Format	Len	Values	Presence
7765	OEGINFromME	Gateway IN time from ME (in ns), measured when outbound message enters the gateway (Time in number of nanoseconds since 01/01/1970 UTC).	UTCTimestamp	27	Valid values: YYYY = 0000-9999, MM = 01-12, DD = 01-31, HH = 00-23, MM = 00-59, SS = 00- 59, ssssssss = 000000000- 999999999 (nanoseconds)	Conditional
320	SecurityReqID	ID of a strategy security definition request	String	30	From -2^63+1 to 2^63-1	Optional
48	SecurityID	Exchange identification code of the instrument/contract.	String	10	From 0 to 2^32-2	Optional
22	SecurityIDSource	Gives the type of SecurityID.	String	1	(See field description)	Mandatory
9955	ErrorCode	Error code in case of rejection.	Int	5	From 0 to 2^16-2	Conditional
	Trailer					

#### 5.3.26 NewWholesaleOrder (U64)

Client ► OEG

Available for: EQD IDD CMO

# 5.3.26.1 Message Description

This message enables initiators to enter a new wholesale order, and in case of LIS transaction, reactors to respond to the initiated wholesale order. A wholesale order is made up of one pre-matched half trade, also called "intention" to trade. The matching of a buy intention and a sell intention satisfying the matching criteria leads to the generation of a wholesale trade.

The initiator must provide the wholesale type by populating the *WholesaleTradeType* (21083) field. Optiq supports the following wholesale trade types:

- Large In Scale (LIS)
- Against Actuals (AA) always entered as Cross
- Exchange For Swaps (EFS) always entered as Cross.

The available wholesale trade types are defined on the standing data and configurable on a per contract basis.

The wholesale trade facility is accessible via the Exchange Market Mechanism (EMM) '4'. This EMM provides the timetable and tick table used for wholesales on a per contract basis.

The initiator of a wholesale trade does not provide a *LISTransactionID* (21085) information. Optiq provides a *LISTransactionID* (21085) upon validation of this first intention through the **WholesaleOrderAck** (U65) message. The initiator then transmits the LIS Transaction ID to the (potentially multiple) counterpart(s). When counterparts (i.e. reactors) submit their intention, they must populate the *LISTransactionID* (21085) with the LIS Transaction ID provided by the initiator. Counterparts can submit their intentions either on one single leg or on the whole strategy.

Upon complete matching of wholesales, trades are communicated via Execution Report (8) messages.

Submissions are acknowledged via the WholesaleOrderAck (U65) message with AckStatus (5711) set to '0' (Accept).

If a submission is to be rejected, an error code is provided, either through a **Reject** (3) message or through a **WholesaleOrderAck** (U65) message with *AckStatus* (5711) set to '1' (Reject), depending on whether the error is technical (poorly formatted) or functional respectively.

A wholesale transaction relies on a predefined scheme provided by the client through the *SecuritySubType* (762) field - not provided for a single instrument, or exchange-recognized strategy code.

- For a wholesale transaction on a single instrument, the initiator provides either the buy or sell side, or both. In this case, no *SecuritySubType* (762) nor overall Price (44) or *OrderQty* (38) are provided. The initiator populates a single order with either the buy side, sell side or both (self-reaction order).
- For a wholesale transaction on an exchange-recognized strategy (formerly strategy package or block), the initiator must provide the *SecuritySubType* (762) the overall *Price* (44) and *OrderQty* (38). The overall quantity must be the sum of the legs' quantities and the overall price must be consistent with the legs' price based on the strategy scheme.

The same policy as per strategy creation is applied: strategy codes structure apply from the buy side perspective and the number and sequence of legs' SymbolIndexes as in the strategy must be respected.

The strategy structure must respect the strategy definition corresponding to its code specified with the *SecuritySubType* (762) field. It must also be defined from the buy side perspective.

Wholesale Side (21082)	Leg Side (624)	Effective Order Side
Buy	Buy	Bid
Buy	Sell	Offer
Sell	Buy	Offer
Sell	Sell	Bid

Effective Order Side reflects which field BidSize (134) or OfferSize (135) is used.

For LIS transations each individual strategy leg may be submitted within the message as Buy, Sell or Cross.

### Side of the Wholesale and Large In Scale (LIS) threshold:

The field *WholesaleSide* (21082) in the message identifies the side the initiator is choosing to submit the Wholesale Order for, and carries the following conditions:

- If submitted as Cross, the initiator must provide information for all sides of the order, that would match against each other, in this case no reactor can submit messages to complete such wholesale order. If any information or quantity does not correspond between the submitted sides – the message will be fully rejected.
- If submitted as Buy or Sell with the field WholesaleTradeType (21083) set to 0 = Large In Scale Trade, then the submitted order for the identified side, either for individual Outright or the side of the Strategy, must meet the minimum LIS threshold, according to the conditions for the contract type and the type of liquidity of the strategy.
  - For Illiquid instruments, no checks of LIS threshold are done
  - For liquid Futures each leg must meet the LIS threshold minimum volume
  - For liquid Options:
    - for liquid strategies, each leg must meet the LIS threshold minimum volume
    - for illiquid strategies, at least one leg must meet the LIS threshold minimum volume

#### **Executions Wholesales and Strategies (for the Derivatives markets)**

The executions for wholesale transactions done on strategies send individual **ExecutionReport** (8) messages for each leg of the strategy. This mean that for Delta-Neutral with a Cash underlying, submitted as a wholesale transaction clients receive a private message for the Cash instrument that is part of the Delta-neutral strategy.

#### **Delta-Neutral Strategies:**

When submitting a Wholesale LIS transaction for Delta-Neutral (DN) strategies, this strategy must must be created before submittion of the NewWholesOrder, using the **SecurityDefinitionRequest** (c) message. In case of a Delta Neutral Strategy, Symbol Index of the Delta Neutral Strategy is to be provided in field *SecurityID* (48).

For creation of DN trades with a Future leg, using the SecurityDefinitionRequest (c) message, the field SecurityID (48) is populated with the symbol index of the Option contract. For creation of Stock contingent DN trades at least one leg of the created strategy the field LegSecurityType (609) must be set to 'Cash', LegSecurityID (602) is filled with the Symbol Index of the Cash instrument, LegPrice (566) is populated with the Cash underlying price and the LegRatio (21091) specifies the Delta.

For more details on creation of delta-neutral strategies please see the **SecurityDefinitionRequest (c)** message description.

Following additional rules apply for the DN strategy submission in wholesales:

- The Ratio and Price of the DN hedging leg (provided via field Leg Price (566) and LegRatio (21091) must be identical to what is submitted in the definition of the strategy. The same applies to the Initiator and Reactor messages.
- Customer cannot submit volume for the hedging leg (Cash or Future). If submitted, the volume submitted for the hedging leg will be ignored for the reactor.
- Aggregation of reactor messages is allowed, however <u>only with reactions being done on all the legs</u> of the DN strategy. Partial response per individual legs of the DN strategy will be rejected.

For Wholesale Facility prior creation of strategies is not required, except when submitting a Delta-neutral strategy, for which this creation is mandatory.

# Use of the groups and values within them:

- ExecutionwithinFirmShortCode should be provided via the Parties repeating group and applies to the whole message
- The additional MIFID II short code related identifiers for the reduction of risk for a commodity derivative are specified using the OrderAttributeGrp group and applies for the whole message
- The wholesale order for a strategies, may have different clearing and short code data provided per Side of the transaction for each individual leg of the strategy. To allow this the repeating group used to provide the MIFID II short codes, and clearing data are nested with the *NoLegs* group to allow to tie this information to the individual legs
- With noted exceptions ClientidentificationShortCodes should be provided via the NestedParties repeating group
- The NonExecutingBrokerShortCodes should be provided via the NestedParties repeating groups
- The repeating group *NestedParties* is also used to specify the Clearing Firm
- The repeating group *SideCrossOrdModGrp* is used to identify the leg side
- The repeating group NoNestedOrderAttributeGrp is used to specify ClientIdentificationShortCode for an Aggregated order ("AGGR") or short code still pending allocation ("PNAL") for each individual side of each leg

#### MIFID II short code related data fields

Examples of individual cases and some exceptions for the use of these groups are provided below. For the full list of possible values for each field clients should review the individual field descriptions.

### **ExecutionwithinFirmShortCode**

Presence Condition: Mandatory

- Case 1: Specifying ExecutionwithinFirmShortCode where a natural person is responsible for the execution of the transaction
  - PartyID (448) = field in which the short code is provided
  - PartyIDSource (447) = P (Short code identifier)
  - PartyRole (452) = 12 (Executing Trader)
  - PartyRoleQualifier (2376) = 24 (Natural person)
- Case 2: Specifying ExecutionwithinFirmShortCode where an algorithm is responsible for the execution of the transaction
  - PartyID (448) = field in which the short code is provided
  - PartyIDSource (447) = P (Short code identifier)
  - PartyRole (452) = 12 (Executing trader)
  - PartyRoleQualifier (2376) = 22 (Algorithm)
- Case 3: Specifying ExecutionwithinFirmShortCode for a Client
  - PartyID (448) = field in which the short code is provided
  - PartyIDSource (447) = P (Short code identifier)
  - PartyRole (452) = 3 (Client ID)
  - PartyRoleQualifier (2376) = 23 (Firm or legal entity) OR 24 (Natural person)

#### ClientIdentificationShortCode

<u>Presence Condition</u>: Conditional Group. This field is required for DEA User in every inbound message, or when AccountCode (6399) = Client or RO.

For cases 4 and 5, explained below, values 1 and 2 available for NestedPartyID (524) are reserved for internally by the Exchange, and must not be provided in the inbound message. If submitted the associated inbound message will be rejected.

- Case 4: Specifying ClientIdentificationShortCode where the client is a legal entity
  - NestedPartyID (524) = field in which the short code is provided
  - NestedPartyIDSource (525) = P (Short code identifier)
  - NestedPartyRole (538) = 3 (Client ID)
  - NestedPartyRoleQualifier (2384) = 23 (Firm or legal entity)
- Case 5: Specifying ClientIdentificationShortCode where the client is not a legal entity
  - NestedPartyID (524) = field in which the **short code** is provided
  - NestedPartyIDSource (525) = P (Short code identifier)
  - NestedPartyRole (538) = 3 (Client ID)
  - NestedPartyRoleQualifier (2384) = 24 (Natural person)
- Case 6: Specifying ClientIdentificationShortCode for an Aggregated order ("AGGR" value)

In this case the NestedParties group is not used. In its place client should provide data using the

NoNestedOrderAttributeGrp as following:

- NestedOrderAttributeType (21087) = **0** (Aggregated order)
- NestedOrderAttributeValue (21088) = "Y"
- Case 7: Specifying ClientIdentificationShortCode for an order for which short code is still pending allocation ("PNAL" value)

In this case the Parties group is not used. In its place client should provide data using the **NoNestedOrderAttributeGrp** as following:

- NestedOrderAttributeType (21087) = 1 (Pending allocation)
- NestedOrderAttributeValue (21088) = "Y"
- Case 8: In case the message originates from a DEA (Direct Electronic Access) client, information should be provided as following:
  - OrderOrigination (1724) = 5 (Order received from a direct access or sponsored access customer)

#### AND

 ClientIdentificationShortCode should be provided using one of the combinations provided in cases 4 through 7 above, as required

#### InvestmentDecisionwithinFirmShortCode

<u>Presence Condition</u>: Conditional Group. Mandatory if (1) AccountCode is Liquidity Provider, Related Party or House, OR in case investment decision maker is an Algorithm (2) AND the message did not originate from DEA client.

- Case 9: Specifying InvestmentDecisionwithinShortCode where a natural person is responsible for the investment decision
  - NestedPartyID (524) = field in which the short code is provided
  - NestedPartyIDSource (525) = P (Short code identifier)
  - NestedPartyRole (538) = 122 (Investment decision maker)
  - NestedPartyRoleQualifier (2384) = 24 (Natural person)

#### AND

- OrderOrigination (1724) is NOT set
- Case 10: Specifying InvestmentDecisionwithinShortCode where an algorithm was responsible for the investment decision
  - NestedPartyID (524) = field in which the short code is provided
  - NestedPartyIDSource (525) = P (Short code identifier)
  - NestedPartyRole (538) = 122 (Investment decision maker)
  - NestedPartyRoleQualifier (2384) = 22 (Algorithm)

#### AND

• OrderOrigination (1724) is NOT set

#### **NonExecutionBrokerShortCode**

Presence Condition: Optional

- Case 11: Specifying NonExecutionBrokerShortCode
  - NestedPartyID (524) = field in which the short code is provided
  - NestedPartyIDSource (525) = P (Short code identifier)
  - NestedPartyRole (538) = 26 (Correspondent broker)
  - NestedPartyRoleQualifier (2384) = 23 (Firm or legal entity)

<u>Note:</u> For the Short Codes provided back to the client in the NoNestedPartyIDs repeating group, the side of the short codes provided can be identified as following:

- 1. When short codes are provided for both buy and sell side, then the buy side is provided as the first set of short codes, followed by the sell side.
- 2. If only one side is provided, then the side for which short codes are provided can be identified by the data populated for the field "BidQuoteID" (1747) or "OfferQuoteID" (1748). If only "OfferQuoteID" (1748) is provided, the the short codes are for the sell side, and if "BidQuoteID" (1747) is populated, then the short codes are provided for the buy side.

#### **Other Identifiers**

- For identification of an wholesale submitted for a commodity derivative or a warrant with a commodity underlying, if the potential trade would reduce the risk clients should also use *OrderAttributeGrp* repeating group, and identify the values as following:
  - OrderAttributeType (2594) = 3 (Risk Reduction Code)
  - OrderAttributeValue (2595) = "Y"

# **Trading & Clearing related data fields**

- The component SideCrossOrdModGrp is a mandatory repeating group that must be repeated once for Buy and Sell orders and twice for Cross orders.
- The clearing Firm related fields should be specified as following:
  - Clearing Firm ID:
  - NestedPartyID (524) = field in which the ID is provided
  - NestedPartyIDSource (525) = **D** (Proprietary / Custom Code)
  - NestedPartyRole (538) = 4 (Clearing Firm)
  - NestedPartyRoleQualifier (2384) = 3 (General clearing member) OR 4 (Individual clearing member)
- When used in the inbound messages for specifying the Clearing Firm ID and the Client ID, the maximum length for the NestedPartyID (524) field is 8 characters long, and value may be alphanumeric.

### 5.3.26.2 Message Structure

Tag	Field	Short Description	Format	Len	Values	Presence
	Header					
11	ClOrdID	An identifier of a message assigned by the Client when submitting an order to the Exchange.	String	20	From -2^63+1 to 2^63-1	Mandatory
48	SecurityID	Exchange identification code of the instrument/contract.	String	10	From 0 to 2^32-2	Mandatory
22	SecurityIDSource	Gives the type of SecurityID.	String	1	(See field description)	Mandatory
21083	WholesaleTradeType	Type of the Wholesale trade.	Char	1	(See field description)	Mandatory
21085	LISTransactionID	ID that can be used to associated Executions belonging to the same LIS Transaction.	String	10	From 0 to 2^32-2	Conditional
167	SecurityType	Indicates type of security.	String	4	(See field description)	Conditional
762	SecuritySubType	Exchange-recognized strategy code	String	1	From 0 to 2^32-2	Conditional
44	Price	Price per unit of quantity (to be calculated with the Price/Index Level Decimals).	Price	8	From -2^63-1 to 2^63-1	Mandatory
53	Quantity	Number of traded or ordered units (to be calculated with Quantity Decimals).	Qty	20	From 0 to 2^64-2	Mandatory
453	NoPartyIDs	Number of PartyID entries.	NumInGroup	1	Always set to 1	Mandatory
448	PartyID	Party identifier/code. See PartylDSource (447) and PartyRole (452).	String	11	Alphanumeric	Mandatory
447	PartyIDSource	Source of PartyID value.	Char	1	(See field description)	Mandatory
452	PartyRole	Identifies the type or role of the PartyID (448) specified.	Int	3	(See field description)	Mandatory

Tag	Field	Short Description	Format	Len	Values	Presence
2376	PartyRoleQualifier	Used to further qualify the value of PartyRole(452).	Int	2	(See field description)	Mandatory
1724	OrderOrigination	Identifies the origin of the order.	Int	1	(See field description)	Conditional
2593	NoOrderAttributes	Number of order attribute entries.	NumInGroup	1	If provided, Always set to 1	Optional
2594	OrderAttributeType	The type of order attribute.	Int	1	(See field description)	Optional
2595	OrderAttributeValue	The value associated with the order attribute type specified in OrderAttributeType (2594).	String	1	(See field description)	Optional
21082	WholesaleSide	Indicates the side of the Wholesale order.	Char	1	(See field description)	Mandatory
21096	ESCBMembership	Indicates if the trade is submitted by a member of the European System of Central Bank (ESCB) in performance of monetary, foreign exchange and financial stability policy.	Int	1	0 = False 1 = True	Optional
21803	MessagePriceNotatio n	This field provides the type of price notation used per message. For TRF and MOC products the value "Price" is used for TAM Trading mode, the values "Spread in basis points" and "Spread" are used for TAIC trading mode.	Int	2	1 = Price 2 = Spread in basis points 3 = Spread	Conditional
555	NoLegs	Number of legs entries for the requested strategy.	NumInGroup	2	From 1 to 32	Mandatory
600	LegSymbol	Identifies the contract of this instrument by its Symbol Index.	String	10	From 0 to 2^32-2	Mandatory
602	LegSecurityID	MDG proprietary identification code of the instrument leg for the strategy.	String	10	From 0 to 2^32-2	Mandatory
603	LegSecurityIDSource	Gives the type of LegSecurityID (602).	String	1	(See field description)	Conditional
609	LegSecurityType	Defines the type of instrument of the Leg	String	11	(See field description)	Mandatory
21092	LegLastTradingDate	Last Trading Date of the leg of the strategy (text formatted as YYYYMMDD).	LocalMktDate	8	Valid values: YYYY = 0000-9999, MM = 01-12, DD = 01-31	Conditional
1358	LegPutOrCall	Type of the option as leg.	Int	1	(See field description)	Conditional
566	LegPrice	Price of corresponding strategy leg (to be calculated with the Price/Index Level Decimals).	Price	20	From -2^63+1 to 2^63-1	Mandatory
624	LegSide	Indicates the side of the trade leg.	Char	1	(See field description)	Conditional
134	BidSize	Quote bid quantity, (To be calculated with Quantity Decimals).	Qty	20	From 0 to 2^64-1	Conditional
135	OfferSize	Quote offer quantity, (To be calculated with Quantity Decimals).	Qty	20	From 0 to 2^64-1	Conditional
21089	BidNonExecCIID	This field will be used as unique client Key for the Bid side. Field indicating the client ID of the participant in a commercial package, e.g. Ceres, Omega, etc.	Int	5	From 0 to 2^16-1	Optional

Tag	Field	Short Description	Format	Len	Values	Presence
21090	OfferNonExecCIID	This field will be used as unique client Key for the offer side. Field indicating the client ID of the participant in a commercial package, e.g. Ceres, Omega, etc.	Int	5	From 0 to 2^16-1	Optional
612	LegStrikePrice	The strike price of an option/warrant is the specified price at which the underlying can be bought (in the case of a call/right to buy) or sold (in case of a put/right to sell) by the holder (buyer) of the option/warrant contract, at the moment he exercises his right against a writer (seller) of the option/warrant.	Price	20	From -2^63+1 to 2^63-1	Conditional
21091	LegRatio	Ratio of lots for the leg. For contingent trades, the delta.  For Contracts (Future or Option), it is the leg ratio, with the maximum value being 99999. If the value submitted by a customer is higher, it will be changed by the system to the maximum value (99999).  For Underlyings (Cash or Future), the delta is used with special rules: For the Underlying leg of volatility strategies, this should be the delta represented directly as an integer value of the percentage, without division or	Int	7	From 0 to 2^32-2	Conditional
		decimals (e.g.: a delta of 65% should be represented by 65), with the maximum value being 9999 (9999%). If the value submitted by a customer is higher, it will be changed by the system to the maximum value (9999). For Conversion Reversal Strategies (Type = 'R'), the delta is always set to 100.				
552	NoSides	Number of sides.	NumInGroup	1	From 1 to 2	Conditional
54	Side	Indicates the side of the order.	Char	1	(See field description)	Mandatory
577	ClearingInstruction	Clearing Instruction.	Int	4	(See field description)	Optional
58	Text	Free Text is manually entered by the trader issuing the order. This field is part of the clearing aggregate.	String	18	Alphanumeric	Optional
1	Account	Account Number. Client's position account ID, identifying the investor's account. This field is part of the clearing aggregate.	String	12	Alphanumeric	Optional
6399	AccountCode	Indicates the account type for which the order is entered. For example, an order can be entered for a client account, a house account or a liquidity provider account.	Int	2	(See field description)	Mandatory
9941	TechnicalOrdType	Indicates the origin of the order; for example, manual entry, or an order coming from a Program Trading system. This field is part of the clearing aggregate.	Char	1	(See field description)	Optional

Tag	Field	Short Description	Format	Len	Values	Presence
7443	PostingAction	Open Close Indicator, Posting action. This field is part of the clearing aggregate.	MultipleCharVal ue	19	(See field description)	Optional
29	LastCapacity	Indicates whether the order submission results from trading as matched principal, on own account or as any other capacity.	Char	1	(See field description)	Mandatory
21804	LongClientID	Field used to identify the Client (investor), or trader's reference / posting order number for a pre- posting, entered as a free text used for clearing purposes. This field is part of the clearing aggregate for Derivatives.	String	16	(See field description)	Optional
539	NoNestedPartyIDs	Number of NestedPartyID entries.	NumInGroup	1	From 1 to 4	Conditional
524	NestedPartyID	Party identifier/code within a repeating group. See NestedPartyIDSource (525) and NestedPartyRole (538).	String	11	Alphanumeric	Conditional
525	NestedPartyIDSource	Source of NestedPartyID (524) value.	Char	1	(See field description)	Conditional
538	NestedPartyRole	Identifies the type or role of the NestedPartyID (524) specified.	Int	3	(See field description)	Conditional
2384	NestedPartyRoleQuali fier	Used to further qualify the value of NestedPartyRole(538).	Int	2	(See field description)	Conditional
21086	NoNestedOrderAttrib utes	Number of NoNestedOrderAttributes entries.	NumInGroup	1	If provided, Always set to 1	Optional
21087	NestedOrderAttribute Type	Represents the type of order attribute.	Int	1	(See field description)	Optional
21088	NestedOrderAttribute Value	The value associated with the order attribute type specified in NestedOrderAttributeType (21087).	String	1	(See field description)	Optional
	Trailer					

### 5.3.27 WholesaleOrderAck (U65)

Client ◀ OEG

Available for: EQD IDD CMO

#### 5.3.27.1 Message Description

This message is used to acknowledge or indicate rejection of a client's inbound NewWholesaleOrder (U64) message.

Acknowledgement message is not a validation of the trade execution, but only of the submission of the wholesale instruction. Execution of a wholesale trade is communicated to the clients using **ExecutionReport** (8) message.

If that wholesale order is sent by the initiator of the trade (i.e. without LISTransactionID (21085)), the system provides a LISTransactionID (21085) upon validation of this first intention through this message. It is up to the initiator to provide that LISTransactionID (21085) to the counterparts for them to complete the trade (by providing the LISTransactionID (21085)), either by sending an order against a single leg, or by sending an order against the whole strategy.

The field AckStatus (5711) indicates if the message is sent as an acknowledgement or rejection, and in case of a rejection the ErrorCode (9955) contains the specific reason for the rejection.

Pre-negotiated off-book on-exchange business is not published to the market data, until execution of the trade.

### Use of the groups and values within them:

- ExecutionwithinFirmShortCode should be provided via the **Parties** repeating group
- With noted exceptions ClientidentificationShortCodes should be provided via the *NestedParties* repeating group
- The NonExecutingBrokerShortCodes should be provided via the *NestedParties* repeating groups
- The repeating group *NestedParties* is also used to specify the Clearing Firm
- The additional MIFID II short code related identifiers are specified using the OrderAttributeGrp group used to
  provide the identification of an wholesale submitted for a commodity derivative or a warrant with a commodity
  underlying
- The repeating group *SideCrossOrdModGrp* is used to identify the leg side
- The repeating group **NoNestedOrderAttributeGrp** is used to specify ClientIdentificationShortCode for an Aggregated leg ("AGGR") or for a leg for which the short code is still pending allocation ("PNAL")

#### MIFID II short code related data fields

Examples of individual cases and some exceptions for the use of these groups are provided below. For the full list of possible values for each field clients should review the individual field descriptions.

#### **ExecutionwithinFirmShortCode**

Presence Condition: Mandatory

- Case 1: Specifying ExecutionwithinFirmShortCode where a natural person is responsible for the execution of the transaction
  - PartyID (448) = field in which the short code is provided
  - PartyIDSource (447) = P (Short code identifier)
  - PartyRole (452) = 12 (Executing Trader)
  - PartyRoleQualifier (2376) = 24 (Natural person)

Case 2: Specifying ExecutionwithinFirmShortCode where an algorithm is responsible for the execution of the transaction

- PartyID(448) = field in which the short code is provided
- PartyIDSource (447) = P (Short code identifier)
- PartyRole (452) = 12 (Executing trader)
- PartyRoleQualifier (2376) = 22 (Algorithm)
- Case 3: Specifying ExecutionwithinFirmShortCode for a Client
  - PartyID (448) = field in which the **short code** is provided
  - PartyIDSource (447) = P (Short code identifier)
  - PartyRole (452) = 3 (Client ID)
  - PartyRoleQualifier (2376) = 23 (Firm or legal entity) OR 24 (Natural person)

### ClientIdentificationShortCode

<u>Presence Condition</u>: Conditional Group. This field is required for DEA User in every inbound message, or when AccountCode (6399) = Client or RO.

- Case 4: Specifying ClientIdentificationShortCode where the client is a legal entity
  - NestedPartyID (524) = field in which the short code is provided
  - NestedPartyIDSource (525) = P (Short code identifier)
  - NestedPartyRole (538) = 3 (Client ID)
  - NestedPartyRoleQualifier (2384) = 23 (Firm or legal entity)
- Case 5: Specifying ClientIdentificationShortCode where the client is not a legal entity
  - NestedPartyID (524) = field in which the **short code** is provided
  - NestedPartyIDSource (525) = P (Short code identifier)
  - NestedPartyRole (538) = 3 (Client ID)
  - NestedPartyRoleQualifier (2384) = 24 (Natural person)
- Case 6: Specifying ClientIdentificationShortCode for an Aggregated leg or order ("AGGR" value)
  - In this case the NestedParties group is not used. In its place client should provide data using the **NoNestedOrderAttributeGrp** as following:
    - ◆ NestedOrderAttributeType (21087) = **0** (Aggregated order)
    - OrderAttributeValue (21088) = "Y"
- Case 7: Specifying ClientIdentificationShortCode for an leg or order for which short code is still pending allocation ("PNAL" value)

In this case the Parties group is not used. In its place client should provide data using the **NoNestedOrderAttributeGrp** as following:

- OrderAttributeType (21087) = 1 (Pending allocation)
- OrderAttributeValue (21088) = "Y"
- Case 8: In case the message originates from a DEA (Direct Electronic Access) client, information should be provided as following:
  - OrderOrigination (1724) = 5 (Order received from a direct access or sponsored access customer)

#### AND

 ClientIdentificationShortCode should be provided using one of the combinations provided in cases 4 through 7 above, as required

#### InvestmentDecisionwithinFirmShortCode

<u>Presence Condition</u>: Conditional Group. Mandatory if (1) AccountCode is Liquidity Provider, Related Party or House, OR in case investment decision maker is an Algorithm (2) AND the message did not originate from DEA client.

- Case 9: Specifying InvestmentDecisionwithinShortCode where a natural person is responsible for the investment decision
  - NestedPartyID (524) = field in which the short code is provided
  - NestedPartyIDSource (525) = P (Short code identifier)
  - NestedPartyRole (538) = 122 (Investment decision maker)
  - NestedPartyRoleQualifier (2384) = 24 (Natural person)

#### AND

- OrderOrigination (1724) is NOT set
- Case 10: Specifying InvestmentDecisionwithinShortCode where an algorithm was responsible for the investment decision
  - NestedPartyID (524) = field in which the short code is provided
  - NestedPartyIDSource (525) = P (Short code identifier)
  - NestedPartyRole (538) = 122 (Investment decision maker)
  - NestedPartyRoleQualifier (2384) = 22 (Algorithm)

### AND

• OrderOrigination (1724) is **NOT** set

### **NonExecutionBrokerShortCode**

Presence Condition: Optional

- Case 11: Specifying NonExecutionBrokerShortCode
  - NestedPartyID (524) = field in which the short code is provided
  - NestedPartyIDSource (525) = P (Short code identifier)
  - NestedPartyRole (538) = 26 (Correspondent broker)
  - NestedPartyRoleQualifier (2384) = 23 (Firm or legal entity)

#### **Other Identifiers**

- For identification of an wholesale submitted for a commodity derivative or a warrant with a commodity underlying,
  if the potential trade would reduce the risk clients should also use OrderAttributeGrp repeating group, and identify
  the values as following:
  - OrderAttributeType (2594) = 3 (Risk Reduction Code)
  - OrderAttributeValue (2595) = "Y"

For the short codes provided back to the client in the NoNestedPartyIDs repeating group, the side of the short codes provided can be identified as following:

- When short codes are provided for both buy and sell side, then the buy side is provided as the first set of short codes, followed by the sell side.
- 2) If only one side is provided, then the side for which short codes are provided can be identified by the data populated for the field BidQuoteID (1747) or OfferQuoteID (1748). If only OfferQuoteID (1748) is provided, then the short codes are for the sell side, and if BidQuoteID (1747) is populated, then the short codes are provided for the buy side.

# 5.3.27.2 Message Structure

Tag	Field	Short Description	Format	Len	Values	Presence
	Header					
21005	ClientMessageSendingTime	Indicates the time of message transmission, the consistency of the time provided is not checked by the Exchange. (Time in number of nanoseconds since 01/01/1970 UTC)	UTCTimestamp	27	Valid values: YYYY = 0000-9999, MM = 01-12, DD = 01-31, HH = 00-23, MM = 00-59, SS = 00-59, SSSSSSSS = 000000000-999999999 (nanoseconds)	Conditional
5979	OEGINFromMember	Order Entry Gateway IN time from member (in ns), measured when inbound message enters the gateway (Time in number of nanoseconds since 01/01/1970 UTC).	UTCTimestamp	27	Valid values: YYYY = 0000-9999, MM = 01-12, DD = 01-31, HH = 00-23, MM = 00-59, SS = 00-59, SSSSSSS = 000000000-999999999 (nanoseconds)	Conditional
21002	BookINTime	Matching Engine IN time (in ns), time at which the corresponding inbound message entered the Matching Engine. (Time in number of nanoseconds since 01/01/1970 UTC)	UTCTimestamp	27	Valid values: YYYY = 0000-9999, MM = 01-12, DD = 01-31, HH = 00-23, MM = 00-59, SS = 00-59, SSSSSSS = 00000000-999999999 (nanoseconds)	Conditional
21003	BookOUTTime	Matching Engine OUT time (in ns), when message leaves the Matching Engine (Time in number of nanoseconds since 01/01/1970 UTC).	UTCTimestamp	27	Valid values: YYYY = 0000-9999, MM = 01-12, DD = 01-31, HH = 00-23, MM = 00-59, SS = 00-59, SSSSSSS = 000000000-999999999 (nanoseconds)	Conditional
7765	OEGINFromME	Gateway IN time from ME (in ns), measured when outbound message enters the gateway (Time in number of nanoseconds since 01/01/1970 UTC).	UTCTimestamp	27	Valid values: YYYY = 0000-9999, MM = 01-12, DD = 01-31, HH = 00-23, MM = 00-59, SS = 00-59, SSSSSSS = 000000000-999999999 (nanoseconds)	Conditional

Tag	Field	Short Description	Format	Len	Values	Presence
7764	OEGOUTTOME	Gateway OUT time to ME (in ns), measured when inbound message leaves the gateway (Time in number of nanoseconds since 01/01/1970 UTC).	UTCTimestamp	27	Valid values: YYYY = 0000-9999, MM = 01-12, DD = 01-31, HH = 00-23, MM = 00-59, SS = 00-59, SSSSSSS = 000000000-99999999 (nanoseconds)	Conditional
11	ClOrdID	An identifier of a message assigned by the Client when submitting an order to the Exchange.	String	20	From -2^63+1 to 2^63-1	Conditional
48	SecurityID	Exchange identification code of the instrument/contract.	String	10	From 0 to 2^32-2	Mandatory
22	SecurityIDSource	Gives the type of SecurityID.	String	1	(See field description)	Mandatory
21083	WholesaleTradeType	Type of the Wholesale trade.	Char	1	(See field description)	Mandatory
21085	LISTransactionID	ID that can be used to associated Executions belonging to the same LIS Transaction.	String	10	From 0 to 2^32-2	Conditional
167	SecurityType	Indicates type of security.	String	4	(See field description)	Conditional
762	SecuritySubType	Exchange-recognized strategy code	String	1	From 0 to 2^32-2	Conditional
44	Price	Price per unit of quantity (to be calculated with the Price/Index Level Decimals).	Price	8	From -2^63-1 to 2^63-1	Conditional
53	Quantity	Number of traded or ordered units (to be calculated with Quantity Decimals).	Qty	20	From 0 to 2^64-2	Conditional
453	NoPartyIDs	Number of PartyID entries.	NumInGroup	1	Always set to 1	Mandatory
448	PartyID	Party identifier/code. See PartyIDSource (447) and PartyRole (452).	String	11	Alphanumeric	Mandatory
447	PartyIDSource	Source of PartyID value.	Char	1	(See field description)	Mandatory
452	PartyRole	Identifies the type or role of the PartyID (448) specified.	Int	3	(See field description)	Mandatory
2376	PartyRoleQualifier	Used to further qualify the value of PartyRole(452).	Int	2	(See field description)	Mandatory
1724	OrderOrigination	Identifies the origin of the order.	Int	1	(See field description)	Conditional
2593	NoOrderAttributes	Number of order attribute entries.	NumInGroup	1	If provided, Always set to 1	Optional
2594	OrderAttributeType	The type of order attribute.	Int	1	(See field description)	Optional
2595	OrderAttributeValue	The value associated with the order attribute type specified in OrderAttributeType (2594).	String	1	(See field description)	Optional
21082	WholesaleSide	Indicates the side of the Wholesale order.	Char	1	(See field description)	Mandatory
21096	ESCBMembership	Indicates if the trade is submitted by a member of the European System of Central Bank (ESCB) in performance of monetary, foreign exchange and financial stability policy.	Int	1	0 = False 1 = True	Optional
5711	AckStatus	Indicates if incoming message is accepted or rejected.	Char	1	(See field description)	Mandatory

Tag	Field	Application Format Len Values				
Tag		·				Presence
21014	AckQualifiers	Field used to provide additional information on the corresponding order. A single field can contain up to 8 values, space delimited, provided in different positions.	MultipleCharVal ue	15	(See field description)	Mandatory
9955	ErrorCode	Error code in case of rejection.	Int	5	From 0 to 2^16-2	Conditional
555	NoLegs	Number of legs entries for the requested strategy.			Mandatory	
600	LegSymbol	Identifies the contract of this instrument by its Symbol Index.	String	10	From 0 to 2^32-2	Mandatory
602	LegSecurityID	MDG proprietary identification code of the instrument leg for the strategy.	String	10	From 0 to 2^32-2	Mandatory
603	LegSecurityIDSource	Gives the type of LegSecurityID (602).	String	1	(See field description)	Mandatory
1747	BidQuoteID	Numerical order identifier assigned by the matching engine, unique per instrument and EMM.	String	20	From 0 to 2^64-2	Conditional
1748	OfferQuoteID	Numerical order identifier assigned by the matching engine, unique per instrument and EMM.	String	20	From 0 to 2^64-2	Conditional
21089	BidNonExecCIID	This field will be used as unique client Key for the Bid side. Field indicating the client ID of the participant in a commercial package, e.g. Ceres, Omega, etc.	Int	5	From 0 to 2^16-1	Optional
21090	OfferNonExecCIID	This field will be used as unique client Key for the offer side. Field indicating the client ID of the participant in a commercial package, e.g. Ceres, Omega, etc.	Int	5	From 0 to 2^16-1	Optional
624	LegSide	Indicates the side of the trade leg.	Char	1	(See field description)	Conditional
21084	LegErrorCode	Error code of the Leg in case of rejection.	Int	5	From 0 to 2^16-2	Conditional
539	NoNestedPartyIDs	Number of NestedPartyID entries.	NumInGroup	1	From 1 to 10	Conditional
524	NestedPartyID	Party identifier/code within a repeating group. See NestedPartyIDSource (525) and NestedPartyRole (538).	String	11	Alphanumeric	Conditional
525	NestedPartyIDSource	Source of NestedPartyID (524) value.	Char	1	(See field description)	Conditional
538	NestedPartyRole	Identifies the type or role of the NestedPartyID (524) specified.	Int	3	(See field description)	Conditional
2384	NestedPartyRoleQualifier	Used to further qualify the value of NestedPartyRole(538).	Int	2	(See field description)	Conditional
21086	NoNestedOrderAttributes	Number of NoNested Order Attributes entries.	NumInGroup	1	If provided, From 1 to 2	Optional
21087	NestedOrderAttributeType	Represents the type of order attribute.	Int	1	(See field description)	Optional
21088	NestedOrderAttributeValue	The value associated with the order attribute type specified in NestedOrderAttributeType (21087).		(See field description)	Optional	
		(21087).				

#### 5.3.28 RequestForImpliedExecution (U66)

Client ► OEG

Available for: EQD IDD CMO

#### 5.3.28.1 Message Description

The **RequestForImpliedExecution** (U66) message may be used by clients to trigger the generation of Strategy Implieds in a strategy book to increase matching opportunities of their order, for the contracts setup with the Event Driven Implied Matching (EDIM) model.

In order to be able to submit an RFIE in a strategy, client must have an active order in that Strategy order book at any price level, otherwise the request will be rejected by Optiq.

The OrderID (37) field should be populated with the ID of this already existing order in the strategy order book.

Upon reception of the query, Optiq will trigger generation of Strategy Implieds in the targeted Strategy book, which may result in a match of everything possible within the book, based only on the book's priority rules. This disregards which participant issued the request.

In addition to the condition of having an order in the book, the request will be accepted only if all of the following conditions are met:

- the effective state of the Strategy book is <u>Continuous</u>;
- the Implied model of the Derivative Contract is the EDIM Model (not "No Implieds" or "SIM Spontaneous Implied Matching");
- even if EDIM is active on the contract, the strategy type must have Implieds enabled, which allows generation of Implieds in the Strategy book.

The RFIE message is acknowledged and rejected by a **RequestAckMessage** (Uy) message.

### Use of the groups and values within them:

- ExecutionwithinFirmShortCode should be provided via the Parties repeating group and applies to the whole message
- The additional MIFID II short code related identifiers for the reduction of risk for a commodity derivative are specified using the OrderAttributeGrp group and applies for the whole message
- With noted exceptions ClientidentificationShortCodes should be provided via the NestedParties repeating group
- The repeating group *NestedParties* is also used to specify the Clearing Firm

### MIFID II short code related data fields

Examples of individual cases and some exceptions for the use of these groups are provided below. For the full list of possible values for each field clients should review the individual field descriptions.

## **ExecutionwithinFirmShortCode**

Presence Condition: Mandatory

- Case 1: Specifying ExecutionwithinFirmShortCode where a natural person is responsible for the execution of the transaction
  - PartyID (448) = field in which the short code is provided
  - PartyIDSource (447) = P (Short code identifier)
  - PartyRole (452) = 12 (Executing Trader)
  - PartyRoleQualifier (2376) = 24 (Natural person)

- Case 2: Specifying ExecutionwithinFirmShortCode where an algorithm is responsible for the execution of the transaction
  - PartyID (448) = field in which the short code is provided
  - PartyIDSource (447) = P (Short code identifier)
  - PartyRole (452) = 12 (Executing trader)
  - PartyRoleQualifier (2376) = 22 (Algorithm)
  - Case 3: Specifying ExecutionwithinFirmShortCode for a Client
    - PartyID (448) = field in which the short code is provided
    - PartyIDSource (447) = P (Short code identifier)
    - PartyRole (452) = 3 (Client ID)
    - PartyRoleQualifier (2376) = 23 (Firm or legal entity) OR 24 (Natural person)

#### ClientIdentificationShortCode

<u>Presence Condition</u>: Conditional Group. This field is required for DEA User in every inbound message, or when AccountCode (6399) = Client or RO.

For cases 4 and 5, explained below, values 1 and 2 available for NestedPartyID (524) are reserved for internally by the Exchange, and must not be provided in the inbound message. If submitted the associated inbound message will be rejected.

- Case 4: Specifying ClientIdentificationShortCode where the client is a legal entity
  - NestedPartyID (524) = field in which the short code is provided
  - NestedPartyIDSource (525) = P (Short code identifier)
  - NestedPartyRole (538) = 3 (Client ID)
  - NestedPartyRoleQualifier (2384) = 23 (Firm or legal entity)
- Case 5: Specifying ClientIdentificationShortCode where the client is not a legal entity
  - NestedPartyID (524) = field in which the short code is provided
  - NestedPartyIDSource (525) = P (Short code identifier)
  - NestedPartyRole (538) = 3 (Client ID)
  - NestedPartyRoleQualifier (2384) = 24 (Natural person)
- Case 6: Specifying ClientIdentificationShortCode for an Aggregated order ("AGGR" value)

In this case the NestedParties group is not used. In its place client should provide data using the **NoNestedOrderAttributeGrp** as following:

- NestedOrderAttributeType (21087) = 0 (Aggregated order)
- NestedOrderAttributeValue (21088) = "Y"
- Case 7: Specifying ClientIdentificationShortCode for an order for which short code is still pending allocation ("PNAL" value)

In this case the Parties group is not used. In its place client should provide data using the **NoNestedOrderAttributeGrp** as following:

- NestedOrderAttributeType (21087) = 1 (Pending allocation)
- NestedOrderAttributeValue (21088) = "Y"
- Case 8: In case the message originates from a DEA (Direct Electronic Access) client, information should be provided as following:
  - OrderOrigination (1724) = 5 (Order received from a direct access or sponsored access customer)

AND

 ClientIdentificationShortCode should be provided using one of the combinations provided in cases 4 through 7 above, as required

## **Other Identifiers**

- For identification of an wholesale submitted for a commodity derivative or a warrant with a commodity underlying, if the potential trade would reduce the risk clients should also use *OrderAttributeGrp* repeating group, and identify the values as following:
  - OrderAttributeType (2594) = 3 (Risk Reduction Code)
  - OrderAttributeValue (2595) = "Y"

# 5.3.28.2 Message Structure

Tag	Field	Short Description	Format	Len	Values	Presence
	Header					
11	ClOrdID	An identifier of a message assigned by the Client when submitting an order to the Exchange.	String	30	From -2^63+1 to 2^63-1	Mandatory
48	SecurityID	Exchange identification code of the instrument/contract.			Mandatory	
22	SecurityIDSource	Gives the type of SecurityID.	String	1	(See field description)	Mandatory
20020	EMM	Defines the Exchange Market Mechanism applied on each platform.	Int	2	(See field description)	Mandatory
37	OrderID	Numerical order identifier assigned by the matching engine, unique per instrument and EMM.	String	20	From 0 to 2^64-2	Mandatory
453	NoPartyIDs	Number of PartyID entries.	NumInGroup	1	Always set to 1	Mandatory
448	PartyID	Party identifier/code. See PartyIDSource (447) and PartyRole (452).	String	11	Alphanumeric	Mandatory
447	PartyIDSource	Source of PartyID value.	Char	1	(See field description)	Mandatory
452	PartyRole	Identifies the type or role of the PartyID (448) specified.	Int	3	(See field description)	Mandatory
2376	PartyRoleQualifier	Used to further qualify the value of PartyRole(452).	Int	2	(See field description)	Mandatory
1724	OrderOrigination	Identifies the origin of the order.	Int	1	(See field description)	Conditional
2593	NoOrderAttributes	Number of order attribute entries.	NumInGroup	1	If provided, From 1 to 2	Optional
2594	OrderAttributeType	The type of order attribute.	Int	1	(See field description)	Optional
2595	OrderAttributeValu e	The value associated with the order attribute type specified in OrderAttributeType (2594).	String	1	(See field description)	Optional
539	NoNestedPartyIDs	Number of NestedPartyID entries.	NumInGroup	1	If provided, always 1	Conditional
524	NestedPartyID	Party identifier/code within a repeating group. See NestedPartyIDSource (525) and NestedPartyRole (538).	String	11	Alphanumeric	Conditional
525	NestedPartyIDSourc e	Source of NestedPartyID (524) value.	Char	1	(See field description)	Conditional
538	NestedPartyRole	Identifies the type or role of the NestedPartyID (524) specified.	Int	3	(See field description)	Conditional
2384	NestedPartyRoleQu alifier	Used to further qualify the value of NestedPartyRole(538).	Int	2	(See field description)	Conditional
	Trailer					

#### 5.3.29 CrossOrder (U67)

Client ► OEG

Available for: EQD IDD CMO

#### 5.3.29.1 Message Description

The **CrossOrder** (U67) message is used to submit orders within the "Request for Cross" (RFC) trading facility, and available for designated products.

The RFC Initiator submits a message that represents a committed cross trade against a client, and must contain both Buy and Sell sides of the RFC trade. The initiator submission starts a short auction period during which RFC Reactorsmay submit orders to price-improve the cross, and participate in the cross trade. For more details on the behaviour of the messages for the RFC trading facility clients should review the Derivatives Kinematics document.

The same message is used by the Initiators and Reactors, and account code information is always provided within the **SideCrossOrdModGrp** group in the field **AccountCode** (6399).

The RFC facility is accessible via the Exchange Market Mechanism (EMM) '7', which is the only allowed value to be populated in this message in the field *EMM* (20020). This EMM provides the timetable and tick table used for wholesales on a per contract basis.

Cross Order messages may be submitted only during Continuous.

The CrossOrder (U67) message is acknowledged or rejected by an ExecutionReport (08).

#### Use of the groups and values within them:

- ExecutionwithinFirmShortCode should be provided via the Parties repeating group and applies to the whole
  message
- The additional MIFID II short code related identifiers for the reduction of risk for a commodity derivative are specified using the *OrderAttributeGrp* group and applies for the whole message
- The wholesale order for a strategies, may have different clearing and short code data provided per Side of the transaction for each individual leg of the strategy. To allow this the repeating group used to provide the MIFID II short codes, and clearing data are nested with the *NoLegs* group to allow to tie this information to the individual legs
- With noted exceptions ClientidentificationShortCodes should be provided via the NestedParties repeating group
- The NonExecutingBrokerShortCodes should be provided via the NestedParties repeating groups
- The repeating group *NestedParties* is also used to specify the Clearing Firm
- The repeating group SideCrossOrdModGrp is used to identify the leg side
- The repeating group NoNestedOrderAttributeGrp is used to specify ClientIdentificationShortCode for an Aggreagted order ("AGGR") or short code still pending allocation ("PNAL") for each individual side of each leg

### MIFID II short code related data fields

Examples of individual cases and some exceptions for the use of these groups are provided below. For the full list of possible values for each field clients should review the individual field descriptions.

## ExecutionwithinFirmShortCode

**Presence Condition**: Mandatory

- Case 1: Specifying ExecutionwithinFirmShortCode where a natural person is responsible for the execution of the transaction
  - PartyID (448) = field in which the short code is provided
  - ◆ PartyIDSource (447) = **P** (Short code identifier)

- PartyRole (452) = 12 (Executing Trader)
- PartyRoleQualifier (2376) = 24 (Natural person)
- Case 2: Specifying ExecutionwithinFirmShortCode where an algorithm is responsible for the execution of the transaction
  - PartyID (448) = field in which the short code is provided
  - PartyIDSource (447) = P (Short code identifier)
  - PartyRole (452) = 12 (Executing trader)
  - PartyRoleQualifier (2376) = 22 (Algorithm)
  - Case 3: Specifying ExecutionwithinFirmShortCode for a Client
    - PartyID (448) = field in which the **short code** is provided
    - PartyIDSource (447) = P (Short code identifier)
    - PartyRole (452) = 3 (Client ID)
    - PartyRoleQualifier (2376) = 23 (Firm or legal entity) OR 24 (Natural person)

## ClientIdentificationShortCode

<u>Presence Condition</u>: Conditional Group. This field is required for DEA User in every inbound message, or when AccountCode (6399) = Client or RO.

For cases 4 and 5, explained below, values 1 and 2 available for NestedPartyID (524) are reserved for internally by the Exchange, and must not be provided in the inbound message. If submitted the associated inbound message will be rejected.

- Case 4: Specifying ClientIdentificationShortCode where the client is a legal entity
  - NestedPartyID (524) = field in which the **short code** is provided
  - NestedPartyIDSource (525) = P (Short code identifier)
  - NestedPartyRole (538) = 3 (Client ID)
  - NestedPartyRoleQualifier (2384) = 23 (Firm or legal entity)

Case 5: Specifying ClientIdentificationShortCode where the client is not a legal entity

- NestedPartyID (524) = field in which the short code is provided
- NestedPartyIDSource (525) = P (Short code identifier)
- NestedPartyRole (538) = 3 (Client ID)
- NestedPartyRoleQualifier (2384) = 24 (Natural person)
- Case 6: Specifying ClientIdentificationShortCode for an Aggregated order ("AGGR" value)

In this case the NestedParties group is not used. In its place client should provide data using the **NoNestedOrderAttributeGrp** as following:

- NestedOrderAttributeType (21087) = 0 (Aggregated order)
- NestedOrderAttributeValue (21088) = "Y"
- Case 7: Specifying ClientIdentificationShortCode for an order for which short code is still pending allocation ("PNAL" value)
  - In this case the Parties group is not used. In its place client should provide data using the **NoNestedOrderAttributeGrp** as following:
    - NestedOrderAttributeType (21087) = 1 (Pending allocation)
    - NestedOrderAttributeValue (21088) = "Y"
- Case 8: In case the message originates from a DEA (Direct Electronic Access) client, information should be provided
  as following:

• OrderOrigination (1724) = 5 (Order received from a direct access or sponsored access customer)

#### AND

 ClientIdentificationShortCode should be provided using one of the combinations provided in cases 4 through 7 above, as required

## $\underline{InvestmentDecisionwithinFirmShortCode}$

<u>Presence Condition</u>: Conditional Group. Mandatory if (1) AccountCode is Liquidity Provider, Related Party or House, OR in case investment decision maker is an Algorithm (2) AND the message did not originate from DEA client.

- Case 9: Specifying InvestmentDecisionwithinShortCode where a natural person is responsible for the investment decision
  - NestedPartyID (524) = field in which the short code is provided
  - NestedPartyIDSource (525) = P (Short code identifier)
  - NestedPartyRole (538) = 122 (Investment decision maker)
  - NestedPartyRoleQualifier (2384) = 24 (Natural person)

#### AND

- OrderOrigination (1724) is NOT set
- Case 10: Specifying InvestmentDecisionwithinShortCode where an algorithm was responsible for the investment decision
  - NestedPartyID (524) = field in which the short code is provided
  - NestedPartyIDSource (525) = P (Short code identifier)
  - NestedPartyRole (538) = 122 (Investment decision maker)
  - NestedPartyRoleQualifier (2384) = 22 (Algorithm)

### AND

OrderOrigination (1724) is NOT set

## NonExecutionBrokerShortCode

Presence Condition: Optional

- Case 11: Specifying NonExecutionBrokerShortCode
  - NestedPartyID (524) = field in which the **short code** is provided
  - NestedPartyIDSource (525) = P (Short code identifier)
  - NestedPartyRole (538) = 26 (Correspondent broker)
  - NestedPartyRoleQualifier (2384) = 23 (Firm or legal entity)

### Other Identifiers

- For identification of an wholesale submitted for a commodity derivative or a warrant with a commodity underlying, if the potential trade would reduce the risk clients should also use *OrderAttributeGrp* repeating group, and identify the values as following:
  - ◆ OrderAttributeType (2594) = 3 (Risk Reduction Code)
  - OrderAttributeValue (2595) = "Y"

## **Trading & Clearing related data fields**

- The component SideCrossOrdModGrp is a mandatory repeating group that must be repeated once for Buy and Sell orders and twice for Cross orders.
- The clearing Firm related fields should be specified as following:

# Clearing Firm ID:

- NestedPartyID (524) = field in which the ID is provided
- NestedPartyIDSource (525) = **D** (Proprietary / Custom Code)
- NestedPartyRole (538) = 4 (Clearing Firm)
- NestedPartyRoleQualifier (2384) = 3 (General clearing member) OR 4 (Individual clearing member)
- When used in the inbound messages for specifying the Clearing Firm ID and the Client ID, the maximum length for the NestedPartyID (524) field is 8 characters long, and value may be alphanumeric.

# 5.3.29.2 Message Structure

Tag	Field	Short Description	Format	Len	Values	Presence
	Header					
11	ClOrdID	An identifier of a message assigned by the Client when submitting an order to the Exchange.	String	20	From -2^63+1 to 2^63-1	Mandatory
48	SecurityID	Exchange identification code of the instrument/contract.	String	10	From 0 to 2^32-2	Mandatory
22	SecurityIDSource	Gives the type of SecurityID.	String	1	(See field description)	Mandatory
20020	EMM	Defines the Exchange Market Mechanism applied on each platform.	Int	2	(See field description)	Mandatory
44	Price	Instrument price per quantity unit (To be calculated with Price/Index Level Decimals).	Price	20	From -2^63+1 to 2^63-1	Mandatory
38	OrderQty	Total order quantity, per quantity unit.(To be calculated with Quantity Decimals).	Qty	20	From 0 to 2^64-2	Mandatory
40	OrdType	Type of Order.	Char	1	(See field description)	Mandatory
21081	NonExecCIID	This field will be used as unique client Key. Field indicating the client ID of the participant in a commercial package, e.g. Ceres, Omega, etc.		From 0 to 2^16-1	Optional	
21109	OrderActorType	Member role for RFC.	Int	1	1 = Initiator 2 = Reactor	Optional
453	NoPartyIDs	Number of PartyID entries.	NumInGroup	1	Always set to 1	Mandatory
448	PartyID	Party identifier/code. See PartyIDSource (447) and PartyRole (452).	String	11	Alphanumeric	Mandatory
447	PartyIDSource	Source of PartyID value.	Char	1	(See field description)	Mandatory
452	PartyRole	Identifies the type or role of the PartyID (448) specified.	Int	3	(See field description)	Mandatory
2376	PartyRoleQualifier	Used to further qualify the value of PartyRole(452).	Int	2	(See field description)	Mandatory
1724	OrderOrigination	Identifies the origin of the order.	Int	1	(See field description)	Conditional
2593	NoOrderAttributes	Number of order attribute entries.	NumInGroup 1 If provided, From 1 to 2		Optional	
2594	OrderAttributeType	The type of order attribute.	Int	1	(See field description)	Optional
2595	OrderAttributeValu e	The value associated with the order attribute type specified in OrderAttributeType (2594).	String	1	(See field description)	Optional

Tag	Field	Short Description	Format	Len	Values	Presence
21803	MessagePriceNotati on	This field provides the type of price notation used per message. For TRF and MOC products the value "Price" is used for TAM Trading mode, the values "Spread in basis points" and "Spread" are used for TAIC trading mode.	Int	2	1 = Price 2 = Spread in basis points 3 = Spread	Optional
552	NoSides	Number of sides.	NumInGroup	1	From 1 to 2	Mandatory
54	Side	Indicates the side of the order.	Char	1	(See field description)	Mandatory
577	ClearingInstruction	Clearing Instruction.	Int	4	(See field description)	Optional
58	Text	Free Text is manually entered by the trader issuing the order. This field is part of the clearing aggregate.	String	18	Alphanumeric	Optional
1	Account	Account Number. Client's position account ID, identifying the investor's account. This field is part of the clearing aggregate.	String	12	Alphanumeric	Optional
6399	AccountCode	Indicates the account type for which the order is entered. For example, an order can be entered for a client account, a house account or a liquidity provider account.	Int	1	(See field description)	Mandatory
9941	TechnicalOrdType	Indicates the origin of the order; for example, manual entry, or an order coming from a Program Trading system. This field is part of the clearing aggregate.	Char	1	(See field description)	Optional
7443	PostingAction	Open Close Indicator, Posting action. This field is part of the clearing aggregate.	MultipleCharVal ue	19	(See field description)	Optional
29	LastCapacity	Indicates whether the order submission results from trading as matched principal, on own account or as any other capacity.	Char	1	(See field description)	Mandatory
21804	LongClientID	Field used to identify the Client (investor), or trader's reference / posting order number for a pre- posting, entered as a free text used for clearing purposes. This field is part of the clearing aggregate for Derivatives.	String	16	(See field description)	Optional
555	NoLegs	Number of legs entries for the requested strategy.	NumInGroup	2	From 1 to 32	Conditional
600	LegSymbol	Identifies the contract of this instrument by its Symbol Index.	String	10	From 0 to 2^32-2	Conditional
602	LegSecurityID	MDG proprietary identification code of the instrument leg for the strategy.	String	10	From 0 to 2^32-2	Conditional
603	LegSecurityIDSourc e	Gives the type of LegSecurityID (602).	String	1	(See field description)	Conditional
637	LegLastPx	Execution price assigned to a leg (to be calculated with Price/Index Level Decimals).	Price	20	From -2^63+1 to 2^63-1	Conditional
1418	LegLastQty	Leg Last Traded Quantity	Qty	20	From 0 to 2^64-2	Conditional
539	NoNestedPartyIDs	Number of NestedPartyID entries.	NumInGroup	1	If provided, From 1 to 4	Conditional

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Tag	Field	Short Description	Format	Len	Values	Presence
524	NestedPartyID	Party identifier/code within a repeating group. See NestedPartyIDSource (525) and NestedPartyRole (538).	String	11	Alphanumeric	Conditional
525	NestedPartyIDSourc e	Source of NestedPartyID (524) value.	Char	1	(See field description)	Conditional
538	NestedPartyRole	Identifies the type or role of the NestedPartyID (524) specified.	Int	3	(See field description)	Conditional
2384	NestedPartyRoleQu alifier	Used to further qualify the value of NestedPartyRole(538).	Int	2	(See field description)	Conditional
	<u>Trailer</u>					

## 5.3.30 ERGCommand (U68)

Client ► OEG

Available for: EQD IDD CMO

#### 5.3.30.1 Message Description

The **ERGCommand (U68)** is used by a Risk Manager to submit pre-trade risk management commands associated access to the market (suspend / unsuspend / block / unblock) and controls on order size submissions for market participants they are monitoring. This command can be submitted with different possible granularities of Firm, Logical Access, or Short codes [ExecutionWithinFirmShortCode - provided through *PartylD* (448)) or ClientIdentificationShortCode (provided through *NestedPartylD* (524)].

In order to be able to submit any of the Euronext RiskGuard service commands, Risk Managers must have a Logical Access for each Optiq Segment where they need to perform their monitoring, which is configured with a Functional Access Role of RiskGuard.

RiskGuard messages of any specified granularity have maximum scope of a single Optiq segment. This means that the RiskGuard messages are always submitted and processed on a per Optiq Segment basis. In order to suspend all activity of a firm or a short code on all segments, risk manager must connect and submit the RiskGuard commands on each segment individually.

<u>Note</u>: ID of a logical access is specific to each Optiq segment, (i.e. the same ID may belong to different Firms on different segments). In order to be able to act upon a given Logical Access the Risk Manager must submit the command to the segment to which the *LogicalAccessID* (21021) is connected to, and this logical access must have the appropriate Firm ID associated to it, otherwise the command will be rejected.

The **ERGCommand (U68)** message is responded to as following:

- Acknowledged by the ERGCommandAck (U69) message with AckStatus (5711) set to '0' (Accept); and is
- Rejected by the ERGCommandAck (U69) message with AckStatus (5711) set to '1' (Reject) in case of functional or technical rejections. For session level rejections a Reject (3) message with an error code is provided.

The table below contains all available actions as well as the different levels and granularity's that can be submitted as a command using this message:

Risk Control Type	Granularity	Referential Scope	Description	Identifier Field Provided
Suspend	Firm	N/A		TargetFirmID (21098)

Risk Control Type	Granularity	Referential Scope	Description	Identifier Field Provided
	Logical Access	N/A	Authorizations for trading of a given Firm,	TargetLogicalAccessID (21099)
	ExecutionWithinFirm ShortCode	N/A	Logical Access, Trader or Algorithm (identified via the short codes) has been suspended.	TargetPartyID (21095)
	ClientIdentificationS hortCode	N/A	Cancellation of the remaining open orders may be triggered depending on the setting specified in field <i>Purge</i> (21100).	TargetClientShortCode (21108)
	Firm	N/A		TargetFirmID (21098)
	Logical Access	N/A	The earth of a tree for the discrete five	TargetLogicalAccessID (21099)
Unsuspend	ExecutionWithinFirm ShortCode	N/A	<ul> <li>The authorizations for trading, of a given Firm,</li> <li>Logical Access, Trader or Algorithm (identified via the short codes), have been restored.</li> </ul>	TargetPartyID (21095)
	ClientIdentificationS hortCode	N/A		TargetClientShortCode (21108)
	Firm	Contract	Access of a given Firm, Logical Access, Trader or	TargetFirmID (21098)
	Logical Access	Contract	Algorithm (identified via the short codes) to a	TargetLogicalAccessID (21099)
Block	ExecutionWithinFirm ShortCode	Contract	given Contract has been blocked.  Cancellation of the remaining open orders in the	TargetPartyID (21095)
	ClientIdentificationS hortCode	Contract	identified Contract may be triggered depending on the setting specified in field <i>Purge</i> (21100).	TargetClientShortCode (21108)
	Firm	Contract		TargetFirmID (21098)
	Logical Access	Contract	The authorizations for trading, of a given Firm,	TargetLogicalAccessID (21099)
Unblock	ExecutionWithinFirm ShortCode	Contract	Logical Access. Trader or Algorithm (identified via the short codes), on a given Contract has	TargetPartyID (21095)
	ClientIdentificationS hortCode	Contract	been unblocked (or restored).	TargetClientShortCode (21108)
Order Size Limit	Firm	Contract	Order Size Limit control has been Activated or Deactivated for a given Firm on a given Contract. When activated, this limit is verified for each individual order message and not as cumulative value for all submitted orders. Activation or Deactivation is specified in the OSLFlag (21101).	TargetFirmID (21098)

## Notes:

- In case several Risk Managers send the same command for the same granularity and referential scope, the system takes into account the most restrictive setting. This means that all restrictions (suspension / block) from all Risk Managers need to be lifted in order to restore access.
- In case both Market Operations, through the Kill Switch mechanism, and Risk Managers, through RiskGuard service, act upon the same market participant, the system takes into account the most restrictive setting. This means that both restrictions (suspension / block) from Market Operations and the Risk Manager need to be lifted in order to restore access.
- All actions submitted by the Risk Manager for a broader granularity (e.g. Firm or Logical Access) are automatically applied to the available narrower granularity (e.g. Logical Access or Short code), e.g., Order Size Limit configured at Firm level is applicable to the orders submitted by the firm in any of the Logical Access on which it is authorized to submit orders:
  - Command submitted for a Firm will apply to both all associated logical accesses and short codes will be subject
    to the command. If the Firm ID that owns a logical access is suspended or blocked, any other Firm IDs that may
    be setup as executing for that logical access will also be suspended or blocked.

- Command submitted to a specific Logical access will apply only to that logical access on that Optiq segment. If
   a Logical Access is suspended or blocked, all Firm IDs that may be identified as entering or executing on that
   logical access will be subject to the suspension or block
- A firm may have multiple logical accesses and a single short code may be present on multiple logical accesses
  of the same firm. Command submitted on an Optiq Segment to the Firm ID + Short code will apply to all
  orders, on all logical accesses where this firm has submitted orders with the identified short code
- In case TargetFirmID (21098) and TargetLogicalAccessID (21099) are both filled and TargetPartyID (21095) or TargetClientShortCode (21108) are not provided, command will apply only for the Logical Access (i.e. only combination of TargetFirmID and TargetLogicalAccessID (21099) is taken into account for the message processing).
- All fields that are ignored when not needed in the inbound message will not be sent in the outbound messages (e.g. if ActionType (21097) is set to Suspend, and OrderSizeLimit (21102) is also specified, the OSL limit will be ignored, and will not be populated in outbound messages).

#### 5.3.30.2 Message Structure

Tag	Field	Short Description	Format	Len	Values	Presence
	Header					
21060	RequestID	An identifier of a message assigned by the Client when submitting an order to the Exchange.	String	20	From -2^63+1 to 2^63- 1	Mandatory
48	SecurityID	Exchange identification code of the instrument/contract.	String	10	From 0 to 2^32-2	Conditional
22	SecurityIDSource	Gives the type of SecurityID.	String	1	(See field description)	Conditional
20020	EMM	Defines the Exchange Market Mechanism applied on each platform.	Int	2	(See field description)	Conditional
21097	ERGActionType	Specifies the scope of the message.	age. Int 1 1 = Suspend 2 = Unsuspend 3 = Block 4 = Unblock 5 = Order Size Limit		Mandatory	
21098	TargetFirmID	Identifier of the member firm to which the specified action is to be applied.	String	8	Alphanumeric	Mandatory
21095	TargetPartyID	Identifier of the ShortCode used as a filter to reduce the scope of the OrderMassCancelRequest (q) or an identifier of the shortcode to which the Risk Guard command is to be applied.	String	11	Alphanumeric	Optional
21108	TargetClientShortCo de	Identifier of the ClientIdentificationShortCode (provided through <i>Parties or NestedParties</i> ) to which the action will be applied.	String	11	Alphanumeric	Optional
21099	TargetLogicalAccess ID	Identifier of the Logical Access to which the specified action is to be applied.	Int	10	From 0 to 2^32-2	Optional
21100	Purge	Identifies the action to be applied to the active orders/quotes.	Boolean	1	Y = True N = False	Conditional
21101	OSLFlag	Indicates if the Order Size Limit functionality is to be activated or deactivated.	Boolean	1	Y = True N = False	Conditional
21102	OrderSizeLimit	Indicates the Maximum Order Size above which all orders will be rejected by the Matching Engine (applied per order level).	Qty	20	From 0 to 2^64-2	Conditional
	Trailer					

# 5.3.31 ERGCommandAck (U69)

Client **◀**OEG

Available for: EQD IDD CMO

# 5.3.31.1 Message Description

This message is used to acknowledge or indicate rejection of a Risk Manager inbound ERGCommand (U69) message:

- In case the message is sent as an acknowledgement the field AckStatus (5711) set to '0' (Accept).
- In case the messages is sent to indicated functional rejection the field AckStatus (5711) set to '1' (Reject) and ErrorCode (9955) is filled with the reason for the rejection.

# 5.3.31.2 Message Structure

Tag	Field	Short Description	Format	Len	Values	Presence
	Header					
21005	ClientMessageSendi ngTime	Indicates the time of message transmission, the consistency of the time provided is not checked by the Exchange. (Time in number of nanoseconds since 01/01/1970 UTC)	UTCTimestamp	27	Valid values: YYYY = 0000-9999, MM = 01-12, DD = 01-31, HH = 00-23, MM = 00-59, SS = 00-59, SSSSSSS = 000000000-999999999 (nanoseconds)	Conditional
5979	OEGINFromMember	Order Entry Gateway IN time from member (in ns), measured when inbound message enters the gateway (Time in number of nanoseconds since 01/01/1970 UTC).	UTCTimestamp	27	Valid values: YYYY = 0000-9999, MM = 01-12, DD = 01-31, HH = 00-23, MM = 00-59, SS = 00-59, SSSSSSS = 000000000-999999999 (nanoseconds)	Conditional
21002	BookINTime	Matching Engine IN time (in ns), time at which the corresponding inbound message entered the Matching Engine. (Time in number of nanoseconds since 01/01/1970 UTC)	UTCTimestamp	27	Valid values: YYYY = 0000-9999, MM = 01-12, DD = 01-31, HH = 00-23, MM = 00-59, SS = 00-59, SSSSSSS = 000000000-999999999 (nanoseconds)	Conditional
21003	BookOUTTime	Matching Engine OUT time (in ns), when message leaves the Matching Engine (Time in number of nanoseconds since 01/01/1970 UTC).	UTCTimestamp	27	Valid values: YYYY = 0000-9999, MM = 01-12, DD = 01-31, HH = 00-23, MM = 00-59, SS = 00-59, SSSSSSS = 0000000000-999999999 (nanoseconds)	Conditional

Tag	Field	Short Description	Format	Len	Values	Presence
7765	OEGINFromME	Gateway IN time from ME (in ns), measured when outbound message enters the gateway (Time in number of nanoseconds since 01/01/1970 UTC).	UTCTimestamp	27	Valid values: YYYY = 0000-9999, MM = 01-12, DD = 01-31, HH = 00-23, MM = 00-59, SS = 00-59, SSSSSSS = 000000000-999999999 (nanoseconds)	Conditional
7764	OEGOUTT <sub>0</sub> ME	Gateway OUT time to ME (in ns), measured when inbound message leaves the gateway (Time in number of nanoseconds since 01/01/1970 UTC).	UTCTimestamp	27	Valid values: YYYY = 0000-9999, MM = 01-12, DD = 01-31, HH = 00-23, MM = 00-59, SS = 00-59, SSSSSSS = 000000000-999999999 (nanoseconds)	Conditional
21060	RequestID	An identifier of a message assigned by the Client when submitting an order to the Exchange.	String	20	From -2^63+1 to 2^63-1	Mandatory
21098	TargetFirmID	Identifier of the member firm to which the specified action is to be applied.	String	8	Alphanumeric	Mandatory
21095	TargetPartyID	Identifier of the ShortCode used as a filter to reduce the scope of the OrderMassCancelRequest (q) or an identifier of the shortcode to which the Risk Guard command is to be applied	String	11	Alphanumeric	Optional
21108	TargetClientshortCo de	Identifier of the ClientidentificationShortCode (provided through <i>Parties or</i> <i>NestedParties</i> ) to which the action will be applied.	String	11	Alphanumeric	Optional
21099	TargetLogicalAccessI D	Identifier of the Logical Access to which the specified action is to be applied.	Int	10	From 0 to 2^32-2	Optional
48	SecurityID	Exchange identification code of the instrument/contract.	String	10	From 0 to 2^32-2	Optional
22	SecurityIDSource	Gives the type of SecurityID.	String	1	(See field description)	Optional
20020	EMM	Defines the Exchange Market Mechanism applied on each platform.	Int	2	(See field description)	Optional
21100	Purge	Identifies the action to be applied to the active orders/quotes.	Boolean	1	Y = True N = False	Conditional
21101	OSLFlag	Indicates if the Order Size Limit functionality is to be activated or deactivated.	Boolean	1	Y = True N = False	Optional
21102	OrderSizeLimit	Indicates the Maximum Order Size above which all orders will be rejected by the Matching Engine.	Qty	20	From 0 to 2^64-2	Optional
5711	AckStatus	Indicates if incoming message is accepted or rejected.	Char	1	0 = Accept 1 = Reject	Mandatory
9955	ErrorCode	Error code in case of rejection.	Int	5	From 0 to 2^16-2	Conditional
	Trailer					

# 5.3.32 GetRiskControls (U70)

Client ► OEG

Available for: EQD IDD CMO

### 5.3.32.1 Message Description

This message allows Risk Managers to request the latest RiskGuard settings submitted. The message can be submitted to request setting for each individual Risk Control Type or globally for all submitted settings of the Risk Manager. The granularity of the request can be:

- Firm, by populating only the TargetFirmID (21098);
- Trader or Algorithm (identified by the Short code), by populating the TargetFirmID (21098) and either TargetPartyID (21095) with ExecutionWithinFirmShortCode or TargetClientShortCode (21095) with ClientIdentificationShortCode:
- Logical Access, by populating entering TargetFirmID (21098) and the TargetLogicalAccessID (21099);

In order to be able to submit any of the Euronext RiskGuard service commands, Risk Managers must have a Logical Access for each Optiq Segment where they need to perform their monitoring, which is configured with a Functional Access Role of RiskGuard.

The GetRiskControls (U70) message receives the following response messages:

- For acknowledgement the RiskControlDetails (U71) message containing available details of the controls currently setup by that risk manager,
- For rejection:
  - In case of a session level rejection: the Reject (3) message with SessionRejectReason (373) is provided;
  - In case of a functional or technical rejection: the RiskControlDetails (U71) message containing AckStatus (5711) set to '1' (Reject) and ErrorCode (9955);

Table below identifies the field that need to be provided to obtain the risk control details for each identified granularity:

Granularity at which the details are requested	Identifier Field Provided
Firm	TargetFirmID (21098)
Logical Access	TargetFirmID (21098) and TargetLogicalAccessID (21099)
ExecutionWithinFirmShortCode	TargetFirmID (21098) and TargetPartyID (21095)
ClientIdentificationShortCode	TargetFirmID (21098) and TargetClientShortCode (21108)

All requests submitted to the system not respecting the combinations present in the table above are rejected.

**Note:** In case a **GetRiskControls (U70)** is submitted to request details for a granularity on which no **ERGCommand (U68)** has been submitted, the message will be rejected with a **RiskControlDetails (U71)** and an appropriated error code.

### 5.3.32.2 Message Structure

Tag	Field	Short Description	Format	Len	Values	Presence
	Header					
21060	RequestID	An identifier of a message assigned by the Client when submitting an order to the Exchange.	String	20	From -2^63+1 to 2^63-1	Mandatory

Tag	Field	Short Description	Format	Len	Values	Presence
21098	TargetFirmID	Identifier of the member firm to which the specified action is to be applied.	String	8	Alphanumeric	Mandatory
21095	TargetPartyID	Identifier of the ShortCode used as a filter to reduce the scope of the OrderMassCancelRequest (q) or an identifier of the shortcode to which the Risk Guard command is to be applied.	String	11	Alphanumeric	Optional
21108	TargetClientShortCode	Identifier of the ClientIdentificationShortCode (provided through Parties or NestedParties) to which the action will be applied.	String	11	Alphanumeric	Optional
21099	TargetLogicalAccessID	Identifier of the Logical Access to which the specified action is to be applied.	Int	10	From 0 to 2^32-2	Optional
21103	RiskControlType	Identifies the type of Risk Guard Control on which the details are requested.	Int	1	1 = All Parameters 2 = Order Size Limit 3 = Suspend 4 = Block	Mandatory
	Trailer					

## 5.3.33 RiskControlDetails (U71)

Client **◀**OEG

Available for: EQD IDD CMO

# 5.3.33.1 Message Description

This message is used to acknowledge or indicate a functional rejection of an inbound **GetRiskControls** (U70) message to a Risk Manager that submitted the request. The details of the configured risk controls are provided within the repeating group *NoParameters* and reflect information selected in the field *RiskControlType* (21103).

This message is populated as following for the different cases:

- For acknowledgement, AckStatus (5711) set to '0' (Accept),
- For rejection, AckStatus (5711) set to '1' (Reject) and ErrorCode (9955) is filled with the reason for the rejection.

## Please note that:

- Each Risk Manager (whether representing a Global Clearing Member or Non Clearing Member) gets only the details
  of the actions that were triggered by that risk manager.
- In case the request is to receive all parameters, the details provided within the NoParameteres are sent in the order of broader granularity first followed by the narrower granularity if it exists / applies.
  - <u>Example:</u> in case Firm B is suspended and Firm B + Trader Algo 123 are blocked on contract AEX, with both actions being triggered by the Risk Manager requesting the risk control details, the NoParameters group will contain first information on suspension of Firm B, followed by the more granular setting that Firm B + Trader Algo 123 is blocked on contract AEX;
- The details provided will always concern the latest status at a given level, meaning, if a given Firm was Suspended and then Unsuspended by a given Risk Manager, the status that will be provided within RiskControlDetails (U71) is "Unsuspended".

# 5.3.33.2 Message Structure

Tag	Field	Short Description	Format	Len	Values	Presence
	Header	Onore Description	Torride		- Tanaco	
21005	ClientMessageSendingTime	Indicates the time of message transmission, the consistency of the time provided is not checked by the Exchange. (Time in number of nanoseconds since 01/01/1970 UTC)	UTCTimestamp	27	Valid values: YYYY = 0000-9999, MM = 01-12, DD = 01-31, HH = 00-23, MM = 00-59, SSSSSSS = 000000000-999999999 (nanoseconds)	Conditional
5979	OEGINFromMember	Order Entry Gateway IN time from member (in ns), measured when inbound message enters the gateway (Time in number of nanoseconds since 01/01/1970 UTC).	UTCTimestamp	27	Valid values: YYYY = 0000-9999, MM = 01-12, DD = 01-31, HH = 00-23, MM = 00-59, SSSSSSS = 00000000000-999999999 (nanoseconds)	Conditional
21002	BookINTime	Matching Engine IN time (in ns), time at which the corresponding inbound message entered the Matching Engine. (Time in number of nanoseconds since 01/01/1970 UTC)	UTCTimestamp	27	Valid values: YYYY = 0000-9999, MM = 01-12, DD = 01-31, HH = 00-23, MM = 00-59, SSSSSSS = 00000000000-999999999 (nanoseconds)	Conditional
21003	BookOUTTime	Matching Engine OUT time (in ns), when message leaves the Matching Engine (Time in number of nanoseconds since 01/01/1970 UTC).	UTCTimestamp	27	Valid values: YYYY = 0000-9999, MM = 01-12, DD = 01-31, HH = 00-23, MM = 00-59, SSSSSSSS = 000000000-999999999 (nanoseconds)	Conditional
7765	OEGINFromME	Gateway IN time from ME (in ns), measured when outbound message enters the gateway (Time in number of nanoseconds since 01/01/1970 UTC).	UTCTimestamp	27	Valid values: YYYY = 0000-9999, MM = 01-12, DD = 01-31, HH = 00-23, MM = 00-59, SSSSSSS = 0000000000-999999999 (nanoseconds)	Conditional
7764	OEGOUTToME	Gateway OUT time to ME (in ns), measured when inbound message leaves the gateway (Time in number of nanoseconds since 01/01/1970 UTC).	UTCTimestamp	27	Valid values: YYYY = 0000-9999, MM = 01-12, DD = 01-31, HH = 00-23, MM = 00-59, SSSSSSSS = 000000000-999999999 (nanoseconds)	Conditional
21060	RequestID	An identifier of a message assigned by the Client when submitting an order to the Exchange.	String	20	From -2^63+1 to 2^63-1	Mandatory

Tag	Field	Short Description	Format	Len	Values	plication Message.  Presence
5711	AckStatus	Indicates if incoming message is accepted or rejected.	Char	1	0 = Accept 1 = Reject	Mandatory
9955	ErrorCode	Error code in case of rejection.	Int	5	From 0 to 2^16-2	Conditional
21103	RiskControlType	Identifies the type of Risk Guard Control on which the details are requested.	Int	1	1 = All Parameters 2 = Order Size Limit 3 = Suspend 4 = Block	Mandatory
21107	NoParameters	Indicates the number of control parameters provided after a request of the risk controls.	NumInGroup	3	From 1 to 254	Conditional
21098	TargetFirmID	Identifier of the member firm to which the specified action is to be applied.	String	8	Alphanumeric	Conditional
21095	TargetPartyID	Identifier of the ShortCode used as a filter to reduce the scope of the OrderMassCancelRequest (q) or an identifier of the shortcode to which the Risk Guard command is to be applied	String	11	Alphanumeric	Optional
21108	TargetClientShortCode	Identifier of the ClientIdentificationShortCo de (provided through Parties or NestedParties) to which the action will be applied.	String	11	Alphanumeric	Optional
21099	TargetLogicalAccessID	Identifier of the Logical Access to which the specified action is to be applied.	Int	10	From 0 to 2^32-2	Optional
48	SecurityID	Exchange identification code of the instrument/contract.	String	10	From 0 to 2^32-2	Conditional
22	SecurityIDSource	Gives the type of SecurityID.	String	1	(See field description)	Conditional
20020	EMM	Defines the Exchange Market Mechanism applied on each platform.	Int	2	(See field description)	Conditional
21105	ERGStatus	Indicates the Status of the Broker, Logical Access, Trader or ClientIdentificationShortCo de.	Int	1	1 = Suspended 2 = Unsuspended 3 = Blocked 4 = Unblocked	Optional
21101	OSLFlag	Indicates if the Order Size Limit functionality is to be activated or deactivated.	Boolean	1	Y = True N = False	Conditional
21102	OrderSizeLimit	Indicates the Maximum Order Size above which all orders will be rejected by Matching Engine.	Qty	20	From 0 to 2^64-2	Conditional
	Trailer					

### 5.3.34 InstrumentSynchronizationList (U50)

Client **◀**OEG

Available for: EQ FND FXI SP EQD IDD CMO BLK

### 5.3.34.1 Message Description

The **InstrumentSynchronizationList** (U50) message is sent in order to associate each instrument with a *ResynchronizationID* (20030). This ID is used only in case of failover of the matching engine.

Please refer to message SynchronizationTime (U51) for further details.

### 5.3.34.2 Message Structure

Tag	Field	Short Description	Format	Len	Values	Presence
	Header					
20030	ResynchronizationID	Each instrument is assigned to a Resynchronization ID, that is use in case of failover.	Int	5	From 0 to 2^16-2	Mandatory
146	NoRelatedSym	Number of related symbols (instruments) in a message.	NumInGroup	3	From 1 to 254	Mandatory
48	SecurityID	Exchange identification code of the instrument/contract.	String	10	From 0 to 2^32-2	Mandatory
22	SecurityIDSource	Gives the type of SecurityID.	String	1	(See field description)	Mandatory
20020	EMM	Defines the Exchange Market Mechanism applied on each platform.	Int	2	(See field description)	Mandatory
	Trailer					

# 5.3.35 SynchronizationTime (U51)

Client **◀**OEG

Available for: EQ FND FXI FXI SP EQD IDD CMO BLK

### 5.3.35.1 Message Description

The **SynchronizationTime** (U51) message is sent after a disruptive incident affecting the trading chain to help the clients assess whether the messages received immediately before the disruptive incident are in valid and stored state or if they must be discarded.

This message provides a timestamp (*LastBookInTime* (20031)) of the last known valid and stored message, and is sent by the system for the associated resynchronization ID (*ResynchronizationID* (20030)).

Upon the reception of the message, clients must check the list of all the instruments associated to the field ResynchronizationID (20030) and analyze all received messages related to these instruments. Messages having BookInTime (21002) or TransactTime (60) higher than the associated LastBookInTime (20031) must be discarded.

For example, upon the reception of a **SynchronizationTime** (U51) message, if a client previously received an **ExecutionReport** (8) message as a notification of a Fill with the *BookInTime* (21002) higher than the *LastBookInTime* (20031), then this **ExecutionReport** (8) notification must be ignored and the order fill must be reversed in the client system; the trade is considered as if it has never happened (i.e. the quantity has not been traded, and the order may still be present in the order book for further execution).

Similarly, if a client previously received an **ExecutionReport** (8) as a Kill notification with the *TransactTime* (60) higher than the *LastBookInTime* (20031), then the Kill notification must be ignored (meaning that the order may still present in the order book for further execution).

All the messages received after a **SynchronizationTime** (U51) message must be processed normally.

## 5.3.35.2 Message Structure

Tag	Field	Short Description	Format	Len	Values	Presence
	Header					
20030	ResynchronizationI D	Each instrument is assigned to a Resynchronization ID, that is use in case of failover.	Int	5	From 0 to 2^16-2	Mandatory
20031	LastBookInTime	Last Matching Engine IN time (in ns) processed on the associated Resynchronization ID.	UTCTimestamp	27	Valid values: YYYY = 0000-9999, MM = 01-12, DD = 01-31, HH = 00-23, MM = 00-59, SS = 00- 59, ssssssss = 00000000- 999999999 (nanoseconds)	Mandatory
	Trailer					

### 5.3.36 RFQAudit (U72)

Client **◀**OEG Available for: FND

## 5.3.36.1 Message Description

The **RFQAudit** (U72) message is sent by OEG to the RFQ issuer enabling him to have a summary about all orders and LP answers involved in the RFQ response.

<u>This message is used only for the Cash Markets</u>, it is sent only after the RFQ confirmation and all Fill message reception.

In case the RFQ is not confirmed; because it is expired or cancelled, the RFQAudit message is not sent.

The RFQAudit message generation do not lead to a specific market data publication.

For more details in behaviour and handling on the Cash market clients should review the associated Kinematics in kinematics specification document.

# 5.3.36.2 Message Structure

Tag	Field	Short Description	Format	Len	Values	Presence
	Header					
21002	BookINTime	Matching Engine IN time (in ns), time at which the corresponding inbound message entered the Matching Engine. (Time in number of nanoseconds since 01/01/1970 UTC)	UTCTimestamp	27	Valid values: YYYY = 0000- 9999, MM = 01-12, DD = 01-31, HH = 00-23, MM = 00-59, SS = 00-59, ssssssss = 000000000- 999999999 (nanoseconds)	Mandatory
21003	BookOUTTime	Matching Engine OUT time (in ns), when message leaves the Matching Engine (Time in number of nanoseconds since 01/01/1970 UTC).	UTCTimestamp	27	Valid values: YYYY = 0000- 9999, MM = 01-12, DD = 01-31, HH = 00-23, MM = 00-59, SS = 00-59, sssssssss = 000000000- 9999999999 (nanoseconds)	Conditional

Ton	Field	Chart Description	Farmet	Lan		ication Messages
Tag	Field	Short Description	Format	Len	Values	Presence
7765	OEGINFromME	Gateway IN time from ME (in ns), measured when outbound message enters the gateway (Time in number of nanoseconds since 01/01/1970 UTC).	UTCTimestamp	27	Valid values: YYYY = 0000- 9999, MM = 01-12, DD = 01-31, HH = 00-23, MM = 00-59, SS = 00-59, sssssssss = 000000000- 9999999999 (nanoseconds)	Conditional
7764	OEGOUTToME	Gateway OUT time to ME (in ns), measured when inbound message leaves the gateway (Time in number of nanoseconds since 01/01/1970 UTC).	UTCTimestamp	27	Valid values: YYYY = 0000- 9999, MM = 01-12, DD = 01-31, HH = 00-23, MM = 00-59, SS = 00-59, ssssssss = 000000000- 999999999 (nanoseconds)	Conditional
131	QuoteReqID	Numerical RFQ identifier assigned by the matching engine, unique per instrument and EMM.	String	20	From 0 to 2^64-2	Mandatory
48	SecurityID	Exchange identification code of the instrument/contract.	String	10	From 0 to 2^32-2	Mandatory
22	SecurityIDSource	Gives the type of SecurityID.	String	1	(See field description)	Mandatory
20020	EMM	Defines the Exchange Market Mechanism applied on each platform.	Int	2	(See field description)	Mandatory
21110	NoRFQCounterparts	Indicates the number of counterpart having participated to the RFQ	NumInGroup	1	From 1 to 50	Conditional
1724	OrderOrigination	Identifies the origin of the order.	Int	1	(See field description)	Optional
44	Price	Instrument price per quantity unit (To be calculated with Price/Index Level Decimals).	Price	20	From -2^63+1 to 2^63-1	Optional
32	LastQty	The Last Traded Quantity indicates the quantity of last fill on an instrument (to be calculated with the Quantity Decimals).	Qty	20	From 0 to 2^64-2	Optional
20052	DarkExecutionInstruct ion	Field used as instruction for dark order handling. This field can contain up to 8 values, space delimited, provided in different positions.	MultipleCharVal ue	9	(See field description)	Optional
110	MinQty	Minimum quantity to be executed upon order entry (else the order is rejected), (To be calculated with Quantity Decimals).	Qty	20	Value '0' by default and depending to a minimum value for the given instrument and/or market type	Optional
	Trailer					

#### 5.3.37 IOI (6)

Client ►OEG Available for: BLK

#### 5.3.37.1 Message Description

**IOI** (6) is used by the Buy Side to trigger a search for liquidity, onto the Euronext Block MTF, by targeting a specific group of counterparties or several. OEG acknowledges or rejects it with **IOINotification (U73).** 

This message is allowed on the Block Segment only and might be sent as:

- an indication of interest IOITransType (28) set to "New";
  - All Mandatory tags should be provided as well as the conditional that became mandatory depending on what's provided in other tags;
- cancellation of a previous indication of interest IOITransType (28) set to "Cancel";
  - All Mandatory tags should be provided as well as the conditional that became mandatory depending on what's
    provided in other tags <u>plus</u> the *IOIRefID* (26) please note this message should be a reflection of the original
    request that was submitted (apart from the *IOIID* (23) and *IOITransType* (28)) and is now being targeted to be
    cancelled;
  - Please note that the system identifies uniquely the indication of interest based on Member ID, IOIRefID (26), SecurityID (48) and EMM (20020). All other fields are ignored (if populated with values that successfully pass the technical checks) for the purpose of cancelling the indication of interest and returned in the acknowledgement message exactly as received. Please note that the counterparties cancellation notifications will contain the information of the original indication of interest or of the indication of interest after the modification.
- modification of a previous indication of interest IOITransType (28) set to "Replace";
  - All Mandatory tags should be provided as well as the conditional that became mandatory depending on what's provided in other tags <u>plus</u> the *IOIRefID* (26) please note this message should be a reflection of the original request that was submitted (apart from the *IOIID* (23), *IOITransType* (28) and the tags being targeted for modification) and is now being targeted to be replaced;
  - Please note that it's possible to modify the content of several tags at the same time, if they are part of the list
    of tags available for modification below the list:
    - Side (54);
    - OrderQty (38);
    - IOIQty (27);
    - IOIQltyInd (25);
    - Any attempt to modify any of the other parameters leads to the rejection of the modification and the original indication of interest remains active;

# IOIID Management

Clients must provide an indication of interest id in every inbound application message (IOI (6)), otherwise the message will be immediately rejected by the OEG. Clients may provide any value that respects the IOI ID format, which is an 8-byte signed integer. The Exchange recommends setting a unique ID per Indication of Interest, Firm and Symbol Index. For Indication of interest submission, the IOIID (23) value is not checked by the Exchange, it is simply returned in the corresponding outbound message to allow clients to reconcile the response message with their original inbound request. For modification and cancellation using the IOIRefID (26) as unique identifier, the value is checked by the Exchange for possible duplicates, that would represent

different live indications of interest originally submitted with the same indication of interest id. In case of duplicates, the inbound request is rejected with the associated error code.

- Upon receptition of an indication of interest Optiq assigns a unique ID, provided within ExchangelOIID (21114)
   valid for the lifetime of the indication of interest and used:
  - To notify counterparties;
  - As the unique identifier to link the orders submitted by the members (as a reply to the indication of interest)
    to the original indication of interest;

#### Notes:

- While attempting to cancel or replace an existing indication of interest the IOIRefID (26) must be populated with the value provided within the IOIID (23) of the IOI (6) message – if the IOIRefID (26) specified in the message is not found in the active indication of interest list, the modification is rejected with "Unknown Indication of Interest";
- In case the member submitting the IOI (6) decides to cancel it or modify it:
  - In case no order has yet been submitted as an answer to the indication of interest: counterparties are notified
    of the indication of interest cancellation;
  - In case one or several orders had already been submitted as an answer to the indication of interest: counterparties are notified of the indication of interest cancellation or modification. Once counterparties receive the notification that the indication of interest was cancelled it's their responsibility to cancel or modidy any order they might have previously submitted as a response to that same indication of interest;
- IOIID (23): unique ID of the IOI (6) message, returned by the Exchange in the IOINotification (U73) message unicity
  of it is not checked by Optiq;
- IOIRefID (26) ignored by the system in all cases where IOITransType (28) is different than "Cancel" or "Replace" must be filled with the IOIID (23) provided in the IOI (6) message previously sent with IOITransType (28) set to New. Please note that even if ignored, meaning, not use during the functional processing of the indication of interest, the value received will still be provided back in the IOINotification (U73) message.
- RoutingGrp: used to provide the list of target counterparties being targeted by the indication of interest meaning, will receive an IOINotification (U73) - because of the IOI (6);
  - This repeating group is composed of the following tags:
    - NoRoutingIDs (215): indicates the number of occurrences of the repeating group;
    - RoutingType (216): indicates the list of counterparties that should be notified because of the IOI (6).
       It's composed of a list of values that allow member to specify if a given counterpart should be notified and, in that case, the value to be provided must be "2 = TargetList" depending on the RoutingID (217).
    - Equivalence between Counterparties and RoutingID (217) values:

Counterparties	RoutingID (217)
Buy Side	BUYSIDE
Sell Side	Sell Side
Local Community of Specialist Paris	LOCALSPECIALISTSPAR
Local Community of Specialist Lisbon	LOCALSPECIALISTSLIS
Local Community of Specialist Brussels	LOCALSPECIALISTSBRU
Local Community of Specialist Amsterdam	LOCALSPECIALISTSAMS
Interest Lists	INTERESTLIST
Holdings	HOLDINGS
Quality of Sell Side Counterparty	SELLSIDEQUALITY
Euronext Data Driven	EURONEXTDRIVEN

#### Example:

- How to populate the RoutingGrp to notify Buy and Sell Side:
  - NoRoutingIDs (215) = 2
  - RoutingType (216) = 2
  - RoutingID (217) = BUYSIDE
  - RoutingType (216) = 2
  - RoutingID (217) = SELLSIDE
- Side (54): used to indicate if the IOI (6) message submitter intends to Buy or Sell in case the intention is not to disclose this information, the field must be set to "Undisclosed";
- IOIQty (27): used by the IOI (6) message submitter to give a qualitative indication of the "size" of the indication of interest in case it's set to "Undisclosed Qty" then OrderQty (38) must not be provided it will be ignored if provided;
- OrderQty (38): used to specify the volume of the indication of interest required only when IOIQty (27) different
  than "Undisclosed Qty" ignored in all other cases. Please note that even if ignored, meaning, not use during the
  functional processing of the indication of interest, the value received will still be provided back in the
  IOINotification (U73) message.
- *IOIQItyInd (25)*: used to provide a qualitative indication of the quality of the indication of interest No special processing or logic is attached to the field for now *it's for future use*;
- There is a restriction on the number of indications of interest that can be submitted by a given Firm ID. The maximum number is controlled per Session for the combination of Optiq Segment/EMM/Symbol Index. When the maximum number is reached the Wave For Liquidity (73) is rejected with Wave For Liquidity Notification (74) and the error code "Maximum number of Indication of Interest for the session exceeded".

# 5.3.37.2 Message Structure

Tag	Field	Short Description	Format	Len	Values	Presence
	Header					

Tag	Field	Short Description	Format	Len	Values	Presence
23	IOIID	Unique identifier of IOI message.	String	20	From -2^63+1 to 2^63-1	Mandatory
28	IOITransType	Identifies IOI message transaction type	Char	1	N = New C = Cancel R = Replace	Mandatory
26	IOIRefID	Reference identifier used with CANCEL and REPLACE, transaction types.	String	20	From -2^63+1 to 2^63-1	Conditional
48	SecurityID	Exchange identification code of the instrument/contract.	String	10	From 0 to 2^32-2	Mandatory
22	SecurityIDSource	Gives the type of SecurityID.	String	1	(See field description)	Mandatory
20020	EMM	Defines the Exchange Market Mechanism applied on each platform.	Int	2	(See field description)	Mandatory
54	Side	Indicates the side of the Indication of interest.	Char	1	1 = Buy 2 = Sell 7 = Undisclosed	Mandatory
38	OrderQty	Total quantity of the indication of interest, per quantity unit.(To be calculated with Quantity Decimals).	Qty	20	From 0 to 2^64-2	Conditional
27	IOIQty	Indication of the size of the indication of interest.	Char	1	S = Small M = Medium L = Large U = Undisclosed Qty	Mandatory
25	IOIQltyInd	Relative Quality of the indication of interest.	Char	1	H = High L = Low M = Medium	Optional
215	NoRoutingIDS	Required if any RoutingType and RoutingIDs are specified.	NumInGroup	2	From 1 to 10	Mandatory
216	RoutingTypes	Indicates type of RoutingID.	Int	2	2 = Target List	Mandatory
217	RoutingID	Identifies routing destination.	String	30	BUYSIDE SELLSIDE LOCALSPECIALISTSAMS LOCALSPECIALISTSLIS LOCALSPECIALISTSBRU LOCALSPECIALISTSPAR INTERESTLIST HOLDINGS SELLSIDEQUALITY EURONEXTDRIVEN	Mandatory
	Trailer					

# 5.3.38 IOINotification (U73)

Client **◀**OEG Available for:

# 5.3.38.1 Message Description

IOINotification (U73) it's issued by OEG to:

- Acknowledge an incoming IOI (6) message;
  - Please note that, in this case, all tags are provided except for the ErrorCode (9955);
- Reject an incoming IOI (6) message;
  - Please note that, in this case, all tags are provided in some specific cases its possible not all OEG timestamps are provided – it depends on the reason of the rejection;

#### Notify:

- Counterparties that a given IOI (6) message was submitted onto the Euronext Block MTF with a given set of
  characteristics and targeting one or several groups of counterparties to which those members belong;
  - Please note that, in this case, all tags will be provided except for the ErrorCode (9955);
- Counterparties that a given IOI (6) message, targeting one or several groups of counterparties to which those members belong and previously submitted, <u>was modified</u>;
  - Please note that, in this case, only the following tags will be provided:
    - OEG Timestamps;
    - IOIID (23);
    - IOIRefID (26);
    - IOIType (21113);
    - SecurityID (48) and SecurityIDSource (22);
    - EMM (20020);
    - Tags representing the fields that were modified. Any of the parameters available for modification but not impacted will not be provided;
- Counterparties that a given IOI (6) message, targeting one or several groups of counterparties to which those members belong and previously submitted, <u>was cancelled</u>;
  - Please note that, in this case, only the following tags will be provided:
    - OEG Timestamps;
    - IOIID (23);
    - IOIRefID (26): in case the indication of interest being cancelled had been modified;
    - IOIType (21113);
    - SecurityID (48) and SecurityIDSource (22);
    - EMM (20020);
    - Side (54);
    - OrderQty (38): only for the cases where the indication of interest disclosed the quantity;
- Member submitting the indication of interest that a member just <u>placed an order</u> as response to his IOI (6) message;
  - Please note that, in this case, all tags will be provided except for the ErrorCode (9955);
- In case the message is sent as an acknowledgement the field IOIType (21113) is set to '1' (New);

- In case the message is sent to indicate functional rejection the field IOIType (21113) is set to '2' (Reject) and ErrorCode (9955) is filled with the reason for the rejection;
- In case the message is sent to notify counterparties that an IOI (6) message was just submitted onto the Euronext Block MTF, IOIType (21113) is set to '3' (New IOI Notification);
- In case the message is sent to notify the member who submitted the indication of interest that a NewOrderSingle
  (D), sent as an answer to an IOI (6), was just successfully accepted by the Euronext Block MTF, IOIType (21113) set
  to '4' (IOI Reply Notification);
- In case the message is sent to notify counterparties that an IOI (6) message, previously submitted, was just cancelled, IOIType (21113) set to '5' (IOI Cancellation Notification);
- In case the message is sent to notify counterparties that an IOI (6) message, previously submitted, was just modified, IOIType (21113) set to '6' (IOI Replacement Notification);

# 5.3.38.2 Message Structure

Tag	Field	Short Description	Format	Len	Values	Presence
	<u>Header</u>					
21005	ClientMessageSendi ngTime	Indicates the time of message transmission, the consistency of the time provided is not checked by the Exchange. (Time in number of nanoseconds since 01/01/1970 UTC)	UTCTimestamp	27	Valid values: YYYY = 0000-9999, MM = 01-12, DD = 01-31, HH = 00-23, MM = 00-59, SS = 00-59, SSSSSSS = 000000000-999999999 (nanoseconds)	Conditional
21002	BookInTime	Matching Engine IN time (in ns), time at which the corresponding inbound message entered the Matching Engine. (Time in number of nanoseconds since 01/01/1970 UTC)	UTCTimestamp	27	Valid values: YYYY = 0000-9999, MM = 01-12, DD = 01-31, HH = 00-23, MM = 00-59, SS = 00-59, SSSSSSSS = 000000000-999999999 (nanoseconds)	Conditional
21003	BookOutTime	Matching Engine OUT time (in ns), when message leaves the Matching Engine (Time in number of nanoseconds since 01/01/1970 UTC).	UTCTimestamp	27	Valid values: YYYY = 0000-9999, MM = 01-12, DD = 01-31, HH = 00-23, MM = 00-59, SS = 00-59, SSSSSSS = 000000000-999999999 (nanoseconds)	Conditional
5979	OEGINFromMembe r	Order Entry Gateway IN time from member (in ns), measured when inbound message enters the gateway (Time in number of nanoseconds since 01/01/1970 UTC).	UTCTimestamp	27	Valid values: YYYY = 0000-9999, MM = 01-12, DD = 01-31, HH = 00-23, MM = 00-59, SS = 00-59, SSSSSSS = 000000000-999999999 (nanoseconds)	Conditional

Tag	Field	Short Description	Format	Len	Values	Presence
7765	OEGINFromME	Gateway IN time from ME (in ns), measured when outbound message enters the gateway (Time in number of nanoseconds since 01/01/1970 UTC)	UTCTimestamp	27	Valid values: YYYY = 0000-9999, MM = 01-12, DD = 01-31, HH = 00-23, MM = 00-59, SS = 00-59, SSSSSSS = 000000000-9999999999 (nanoseconds)	Conditional
7764	OEGOUTTOME	Gateway OUT time to ME (in ns), measured when inbound message leaves the gateway (Time in number of nanoseconds since 01/01/1970 UTC).	UTCTimestamp	27	Valid values: YYYY = 0000-9999, MM = 01-12, DD = 01-31, HH = 00-23, MM = 00-59, SS = 00-59, SSSSSSSS = 000000000-999999999 (nanoseconds)	Conditional
23	IOIID	Unique identifier of IOI message.	String	20	From -2^63+1 to 2^63-1	Conditional
21114	ExchangelOIID	Unique identifier of IOI message, assigned by the Exchange.	String	20	From -2^63+1 to 2^63-1	Conditional
21113	ЮІТуре	Identifies the reason why the IOINotification (U73) is being sent.	Int	1	1 = Ack 2 = Reject 3 = New IOI Notification 4 = IOI Reply Notification 5 = IOI Cancellation Notification 6 = IOI Replacement Notification	Mandatory
26	IOIRefID	Reference identifier used with CANCEL and REPLACE, transaction types.	String	20	From -2^63+1 to 2^63-1	Conditional
48	SecurityID	Exchange identification code of the instrument/contract.	String	10	From 0 to 2^32-2	Mandatory
22	SecurityIDSource	Gives the type of SecurityID.	String	1	(See field description)	Mandatory
20020	EMM	Defines the Exchange Market Mechanism applied on each platform.	Int	2	(See field description)	Conditional
54	Side	Indicates the side of the order.	Char	1	1 = Buy 2 = Sell 7 = Undisclosed	Conditional
38	OrderQty	Total order quantity, per quantity unit.(To be calculated with Quantity Decimals).	Qty	20	From 0 to 2^64-2	Conditional
27	IOIQty	Indication of the size of the indication of interest.	String	1	S = Small M = Medium L = Large U = Undisclosed Qty	Conditional
25	IOIQltyInd	Relative Quality of the indication of interest.	Char	1	H = High L = Low M = Medium	Optional
9955	ErrorCode	Error code in case of rejection.	Int	5	From 0 to 2^16-2	Conditional
	Trailer					

## 5.3.39 TradeCaptureReport (AE)

Client ▶OEG Available for: TCS

## 5.3.39.1 Message Description

The TradeCaptureReport (AE) message is used for:

- sending of TCS Declarations (i.e. Declaration Entry)
- requesting cancellation of a previously matched declaration, or
- to refuse a declaration submitted by the counterparty

## **Components Usage within the Message:**

TCS messages use repeating groups for provision of information for the clearing information and the following short code cases: ExecutionwithinFirmShortCode, ClientIdentificationShortCode and InvestmentDecisionwithinFirmShortCode repeating groups, fields and settings for identification of the Clearing data and the MIFID II short codes, as well as the associated rules and presence conditions in TradeCaptureReport (AE) message are identical to the ones identified for NewOrderSingle (D) provided in overall Optiq message specifications – FIX interface.

For TCS messages the additional repeating group combination is required to identify the Counterparty IDs, which should be provided with the following values:

- PartyID (448) = field in which the ID is provided
- PartyIDSource (447) = D (Proprietary / Custom Code)
- PartyRole (452) = 17 (Contra Firm)
- PartyRoleQualifier (2376) = 23 (Firm or legal entity)

For Cross declaration, if submitted to cover orders of two different clients, the combination used to provide the ClientIdentificationShortCode in repeating group NestedParties may be provided twice. As elsewhere the first instance of the field represents information provided for the buy side and the second represents information provided for the sell side.

## 5.3.39.2 Message Structue

Tag	Field	Short Description	Format	Len	Values	Presence
	Header					
571	TradeReportID	Unique identifier of trade capture report.	String	20	From -2^63+1 to 2^63-1	Mandatory
1003	TradeID	The unique ID assigned by the matching engine to the trade entity, once it is received or matched.	String	20	From 0 to 2^64-2	Conditional
487	TradeReportTransType	Trade Report Transaction Type.	Int	1	0 = New 1 = Cancel	Mandatory
856	TradeReportType	Trade Report Type.	Int	1	1 = Alleged 3 = Decline 6 = Trade Report Cancel	Conditional

Tee	Field	Short Description	Farmet	Lan		plication Messages
Tag	Field	Short Description	Format	Len	Values	Presence
48	TrdType SecurityID	Type of Operation.  Exchange identification code of the instrument, represented by SecurityID. This identifier is unique per triplet: MIC, ISIN and currency. The correspondence between the SecurityID and the instrument characteristics is	Int String	10	(See field description) From 0 to 2^32-2	Conditional Mandatory
22	SecurityIDSource	provided in the standing data messages and associated files.  Gives the type of SecurityID.	String	1	8 = Symbol Index	Mandatory
20020	EMM	Defines the Exchange Market Mechanism applied on each platform.	String	2	(See field description)	Mandatory
552	NoSides	Number of sides.	NumInGrou p	1	If provided, from 1 to 2	Conditional
54	Side	Indicates the side of the order.	Char	1	1 = Buy 2 = Sell	Conditional
1	Account	Account Number. Client account number identifying the investor's account. This field is part of the clearing aggregate.	String	12	Alphanumeric	Conditional
6399	AccountCode	Indicates the account type for which the order is entered. For example, an order can be entered for a client account, a house account or a liquidity provider account.	Int	1	(See field description)	Conditional
29	LastCapacity	MiFID II field that indicates whether the order submission results from trading as matched principal, on own account or as any other capacity.	Char	1	7 = Dealing on own account (DEAL) 8 = Matched principal (MTCH) 9 = Any other capacity (AOTC)	Conditional
58	Text	Free Text is manually entered by the trader issuing the order. This field is part of the clearing aggregate.	String	18	Alphanumeric	Optional
20155	PrincipalCode	Identifies the beneficiary of the transaction when trading on behalf of another establishment.	String	20	Alphanumeric	Optional
53	Quantity	Number of traded or ordered units (to be calculated with Quantity Decimals).	Qty	20	From 0 to 2^64-2	Conditional
44	Price	Instrument price per quantity unit (to be calculated with Price/Index Level Decimals).	Price	20	From -2^63+1 to 2^63-1	Conditional
453	NoPartyIDs	Number of PartyID entries.	NumInGrou p	1	If provided, from 1 to 2	Conditional
448	PartyID	Party identifier/code. See PartyIDSource (447) and PartyRole (452).	String	11	Alphanumeric	Conditional

Tag	Field	Short Description	Format	Len	Values	Presence
447	PartyIDSource	Source of PartyID value.	Char	1	D = Proprietary / Custom code P = Short code identifier	Conditional
452	PartyRole	Identifies the type or role of the PartyID (448) specified.	Int	3	1 = Executing Firm 3 = Client ID 12 = Executing Trader 17 = Contra Firm	Conditional
2376	PartyRoleQualifier	Used to further qualify the value of PartyRole(452).	Int	2	22 = Algorithm 23 = Firm or legal entity 24 = Natural person	Conditional
21065	MICofSecondaryListing	Identifies the secondary listing place to which an instrument belongs by its MIC (Market Identification Code), segment MIC according to ISO 10383.	String	10	(See field description)	Conditional
2593	NoOrderAttributes	Number of order attribute entries.	NumInGrou p	1	If provided, from 1 to 2	Optional
2594	OrderAttributeType	The type of order attribute.	Int	1	0 = Aggregated order 1 = Pending allocation 3 = Risk reduction order	Optional
2595	OrderAttributeValue	The value associated with the order attribute type specified in OrderAttributeType (2594).	String	1	Y = Yes	Optional
539	NoNestedPartyIDs	Number of NestedPartyID entries.	NumInGrou p	1	If provided, from 1 to 3	Conditional
524	NestedPartyID	Party identifier/code. See NestedPartyIDSource (525) and NestedPartyRole (538).	String	11	Alphanumeric	Conditional
525	NestedPartyIDSource	Source of NestedPartyID value.	Char	1	D = Proprietary / Custom code P = Short code identifier	Conditional
538	NestedPartyRole	Identifies the type or role of the NestedPartyID (524) specified.	Int	3	3 = Client ID 4 = Clearing Firm 17 = Contra Firm 122 = Investment decision maker	Conditional
2384	NestedPartyRoleQualifi er	Used to further qualify the value of NestedPartyRole(538).	Int	2	3 = General clearing member 4 = Individual clearing member 22 = Algorithm 23 = Firm or legal entity 24 = Natural person	Conditional
1724	OrderOrigination	Identifies the origin of the order.	Int	1	5 = Order received from a direct access or sponsored access customer	Conditional
21063	DeferralIndicator	Trade publication type indicator. Indicates whether the publication is immediate or not (differed). (1: Immediate; 0: Differed)	Char	1	0 = False 1 = True	Conditional
10055	SettlPeriod	Indicates the settlement delay in trading days, from 0 to 30 days.	Int	2	From 0 to 30	Conditional

Tag	Field	Short Description	Format	Len	Values	Presence
9970	SettlementFlag	Indicates whether the trade must be settled or not. (0: Not Settled ; 1: Settled)	Char	1	0 = False 1 = True	Conditional
9971	GuaranteeFlag	Indicates if the trade is guaranteed or not (for clearing purposes).	Char	1	1 = Cleared but not Guaranteed 2 = Cleared and Guaranteed	Conditional
1839	TradePriceCondition	Contribution to price formation or the price discovery process.	Int	3	15 = Non-price forming trade (NPFT) 101 = Plain Vanilla Trade 102 = Trade Not Contributing to Price Discovery Process 103 = Dark Trade (For Future Use)	Optional
10026	VWAPBegTime	Start time for the Volume Weight Average price computation period.	UTCTimesta mp	27	YYYYMMDD- HH:MM:SS.sss.nnn	Optional
10027	VWAPEndTime	End time for the Volume Weight Average price computation period.	UTCTimesta mp	27	YYYYMMDD- HH:MM:SS.sss.nnn	Optional
381	GrossTradeAmt	Total amount of a Declaration.	Amt	9	Amount	Conditional
21068	CentralisationDate	Cut-off for the trading cycle / session on the Euronext Funds Service	String	10	Valid values: YYYY = 0000-9999, MM = 01-12, DD = 01-31	Optional
	Header					

# 5.3.40 TradeCaptureReportAck (AR)

Client **◀**OEG Available for: TCS

# 5.3.40.1 Message Description

The **TradeCaptureReportAck** (AR) message is sent in response to the **TradeCaptureReport** (AE) and **FundPriceInput** (U44) messages. It is also sent as an unsolicited message to provide the status of a previously submitted declaration to counterparties.

The message is sent as:

- Declaration notification to the counterparty;
- Declaration refusal notice;
- Matching Notice;
- Expiration Notice;
- Trade Cancellation Notice
- Rejection

Please note that the following fields are provided only in case the notice is issued for a Fill or a Pre-Match (TrdRptStatus = '18' or '19') and only to the concerned member if the corresponding necessary values were submitted in the original declaration: TransactTime, NestedParties (Clearing Firm ID), PrincipalCode, AccountCode, Account, Text, TrdRegPublicationReason.

### Components Usage within the Message:

Use of the groups and values within them:

- The repeating group *SideCrossOrdModGrp* is used to identify the order side
- The repeating group *Parties* is also used to specify the Entering Counterparty for the order
- The repeating group *NestedParties* is used to specify the Clearing Firm for the order

For identification of the clearing firm or entering counterparty the fields in the repeating groups should be specified in the NestedParties repeating group, in the same manner as described in the Euronext Cash Markets – OEG Client Specifications – FIX 5.0 Interface document.

For TCS messages the additional repeating group combination is required to identify the Counterparty IDs, which should be provided with the following values:

- PartyID (448) = field in which the ID is provided
- PartyIDSource (447) = **D** (Proprietary / Custom Code)
- *PartyRole (452)* = **17** (Contra Firm)
- PartyRoleQualifier (2376) = 23 (Firm or legal entity)

## 5.3.40.2 Message Structure

Tag	Field	Short Description	Format	Len	Values	Presence
	Header					
571	TradeReportID	Unique identifier of trade capture report.	String	20	From -2^63+1 to 2^63-1	Mandatory
1003	TradeID	The unique ID assigned by the matching engine to the trade entity, once it is received or matched.	String	20	From 0 to 2^64-2	Conditional
939	TrdRptStatus	Trade Report Type.	Int	2	(See field description)	Conditional
828	TrdType	Type of Operation.	Int	4	(See field description)	Conditional
48	SecurityID	Exchange identification code of the instrument, represented by SecurityID. This identifier is unique per triplet: MIC, ISIN and currency. The correspondence between the SecurityID and the instrument characteristics is provided in the standing data messages and associated files.	String	10	From 0 to 2^32-2	Mandatory
22	SecurityIDSource	Gives the type of SecurityID.	String	1	8 = Symbol Index	Mandatory
20020	EMM	Defines the Exchange Market Mechanism applied on each platform.	String	2	(See field description)	Conditional
21065	MICofSecondaryListing	Identifies the secondary listing place to which an instrument belongs by its MIC (Market Identification Code), segment MIC according to ISO 10383.	String	10	(See field description)	Conditional
10042	PreMatchingIndicator	Pre-matching delay indicator for a TCS Declaration.	Int	1	(See field description)	Conditional

Tag	Field	Short Description	Format	Len	Values	Presence
60	TransactTime	Indicates the time of message transmission (Format: YYYYMMDD-HH:MM:SS.ssssssss).	UTCTimesta mp	27	Valid values: YYYY = 0000-9999, MM = 01-12, DD = 01-31, HH = 00-23, MM = 00-59, SS = 00-59, SSSSSSS = 00000000- 999999999 (nanoseconds)	Conditional
2670	TrdRegPublicationReason	Waiver Indicator. ESMA description of the field: Indication as to whether the transaction was executed under a pre-trade waiver in accordance with Articles 4 and 9 of Regulation (EU) 600/2014.	Int	2	(See field description)	Conditional
552	NoSides	Number of sides.	NumInGrou p	1	If provided, always set to 1	Conditional
54	Side	Indicates the side of the order.	Char	1	1 = Buy 2 = Sell	Conditional
1	Account	Account Number. Client account number identifying the investor's account. This field is part of the clearing aggregate.	String	12	Alphanumeric	Conditional
6399	AccountCode	Indicates the account type for which the order is entered. For example, an order can be entered for a client account, a house account or a liquidity provider account.	Int	1	(See field description)	Conditional
29	LastCapacity	MiFID II field that indicates whether the order submission results from trading as matched principal, on own account or as any other capacity.	Char	1	7 = Dealing on own account (DEAL) 8 = Matched principal (MTCH) 9 = Any other capacity (AOTC)	Conditional
58	Text	Free Text is manually entered by the trader issuing the order. This field is part of the clearing aggregate.	String	18	Alphanumeric	Optional
20155	PrincipalCode	Identifies the beneficiary of the transaction when trading on behalf of another establishment.	String	20	Alphanumeric	Optional
53	Quantity	Number of traded or ordered units (to be calculated with Quantity Decimals).	Qty	20	From 0 to 2^64-2	Conditional
44	Price	Instrument price per quantity unit (to be calculated with Price/Index Level Decimals).	Price	20	From -2^63+1 to 2^63-1	Conditional
453	NoPartyIDs	Number of PartyID entries.	NumInGrou p	1	If provided, from 1 to 2	Conditional
448	PartyID	Party identifier/code. See PartyIDSource (447) and PartyRole (452).	String	11	Alphanumeric	Conditional
447	PartyIDSource	Source of PartyID value.	Char	1	D = Proprietary / Custom code	Conditional

Tag	Field	Short Description	Format	Len	Values	Presence
452	PartyRole	Identifies the type or role of the PartyID (448) specified.	Int	3	1 = Executing Firm 17 = Contra Firm	Conditional
2376	PartyRoleQualifier	Used to further qualify the value of PartyRole(452).	Int	2	23 = Firm or legal entity	Conditional
539	NoNestedPartyIDs	Number of NestedPartyID entries.	NumInGrou p	1	If provided, from 1 to 2	Conditional
524	NestedPartyID	Party identifier/code. See NestedPartyIDSource (525) and NestedPartyRole (538).	String	11	Alphanumeric	Conditional
525	NestedPartyIDSource	Source of NestedPartyID value.	Char	1	D = Proprietary / Custom code P = Short code identifier	Conditional
538	NestedPartyRole	Identifies the type or role of the NestedPartyID (524) specified.	Int	3	4 = Clearing Firm 17 = Contra Firm 122 = Investment decision maker	Conditional
2384	NestedPartyRoleQualifier	Used to further qualify the value of NestedPartyRole(538).	Int	2	3 = General clearing member 4 = Individual clearing member 22 = Algorithm 24 = Natural person	Conditional
10055	SettlPeriod	Indicates the settlement delay in trading days, from 0 to 30 days.	Int	2	From 0 to 30	Conditional
9970	SettlementFlag	Indicates whether the trade must be settled or not. (0: Not Settled; 1: Settled)	Char	1	0 = False 1 = True	Conditional
9971	GuaranteeFlag	Indicates if the trade is guaranteed or not (for clearing purposes).	Char	1	1 = Cleared but not Guaranteed 2 = Cleared and Guaranteed	Conditional
1839	TradePriceCondition	Contribution to price formation or the price discovery process.	Int	3	15 = Non-price forming trade (NPFT) 101 = Plain Vanilla Trade 102 = Trade Not Contributing to Price Discovery Process 103 = Dark Trade (For Future Use)	Conditional
10026	VWAPBegTime	Start time for the Volume Weight Average price computation period.	UTCTimesta mp	27	YYYYMMDD- HH:MM:SS.sss.nnn	Optional
10027	VWAPEndTime	End time for the Volume Weight Average price computation period.	UTCTimesta mp	27	YYYYMMDD- HH:MM:SS.sss.nnn	Optional
381	GrossTradeAmt	Total amount of a Declaration.	Amt	9	Amount	Conditional
9952	PreviousDayFlag	Flag indicator whether declaration matched at D or D- 1. (0: [indicated as False] means "matched at D" ; 1: [indicated as True] means "matched at D- 1")	Boolean	1	0 = False 1 = True	Conditional

Tag	Field	Short Description	Format	Len	Values	Presence
137	MiscFeeAmt	Miscellaneous Fee Value. Total order fees related to the funds share creation or redemption applied by the Asset Manager per order.	Amt	20	From -2^63+1 to 2^63-1	Conditional
9955	ErrorCode	Error code in case of rejection.	Int	5	From 0 to 2^16-2	Conditional
372	RefMsgType	The MsgType (35) of the FIX message being referenced.	String	3	Value received in the rejected inbound message, if any	Conditional
21068	CentralisationDate	Cut-off for the trading cycle / session on the Euronext Funds Service	String	10	Valid values: YYYY = 0000-9999, MM = 01-12, DD = 01-31	Optional
21040	CCPID	Clearing House code attached to a firm. (For Future Use)	Char	1	0= No CCP 1 = LCH SA 2= Bilateral Settlement 3= LCH Limited 5= SIX x-clear 6 = EuroCCP	Conditionnal
	Header					

# 5.3.41 FundPriceInput (U44)

Client ▶OEG Available for: TCS

# 5.3.41.1 Message Description

The **FundPriceInput** (U44) message is used by the Dutch Fund Manager to send a price to TCS matching engine used for Fixing and in order to match declaration, when *TrdType* = '1002' or '1003'.

# 5.3.41.2 Message Structure

Tag	Field	Short Description	Format	Len	Values	Presence
	Message Header					Mandatory
11	ClOrdID	An identifier of an Order assigned by the Client when submitting an order to the Exchange.	String	20	From -2^63+1 to 2^63- 1	Mandatory
22	SecurityIDSource	Gives the type of SecurityID.	String	1	8 = Symbol Index	Mandatory
48	SecurityID	Exchange identification code of the instrument, represented by SecurityID. This identifier is unique per triplet: MIC, ISIN and currency. The correspondence between the SecurityID and the instrument characteristics is provided in the standing data messages and associated files.	String	10	From 0 to 2^32-2	Mandatory
20020	EMM	Defines the Exchange Market Mechanism applied on each platform.	String	2	(See field description)	Mandatory

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	1				,-	prication message.
Tag	Field	Short Description	Format	Len	Values	Presence
44	Price	Instrument price per quantity unit (to be calculated with Price/Index Level Decimals).	Price	20	From -2^63+1 to 2^63- 1	Mandatory
10053	ByPassControlFlag	Control indicator of the price and quantity. Indicates whether a trade should bypass the price and quantity controls or not. (0: Control; 1: No Control)	Char	1	0 = False 1 = True	Conditional
	Trailer					Mandatory

#### 5.3.42 FundPriceInputAck (U45)

Client **◀**OEG Available for: TCS

## 5.3.42.1 Message Description

The **FundPriceInputAck** (U45) message is sent to provide the positive acknowlewdgement of a previously submitted **FundPriceInput** (U44) message.

#### 5.3.42.2 Message Structure

Tag	Field	Short Description	Format	Len	Values	Presence
	Header					Mandatory
11	ClOrdID	An identifier of an Order assigned by the Client when submitting an order to the Exchange.	String	20	From -2^63+1 to 2^63-1	Mandatory
22	SecurityIDSource	Gives the type of SecurityID.	String	1	8 = Symbol Index	Mandatory
48	SecurityID	Exchange identification code of the instrument, represented by SecurityID. This identifier is unique per triplet: MIC, ISIN and currency. The correspondence between the SecurityID and the instrument characteristics is provided in the standing data messages and associated files.	String	10	From 0 to 2^32-2	Mandatory
20020	EMM	Defines the Exchange Market Mechanism applied on each platform.	String	2	(See field description)	Conditional
44	Price	Instrument price per quantity unit (to be calculated with Price/Index Level Decimals).	Price	20	From -2^63+1 to 2^63-1	Mandatory

Tag	Field	Short Description	Format	Len	Values	Presence
10053	ByPassControlFlag	Control indicator of the price and quantity. Indicates whether a trade should bypass the price and quantity controls or not. (0: Control); 1: No Control)	Char	1	0 = False 1 = True	Conditional
	Trailer					Mandatory

### 6. FIELD DESCRIPTION



## Account

Field Name	Account
Tag	1
Description	Account Number. Client's position account ID, identifying the investor's account. This field is part of the clearing aggregate.
Format	String
Length	12
Possible Values	Alphanumeric
Conditions	In ExecutionReport (8) message, this field is provided only for Drop Copy. Conditions for Drop Copy will be provided at a later date.
Used In	ExecutionReport (8)  MassQuote (i)  MassQuoteAck (b)  NewOrderSingle (D)  OrderCancelReplaceRequest (G)  NewWholesaleOrder (U64)  CrossOrder (U67)  TradeCaptureReport (AE)  TradeCaptureReport (AR)
Used For	Cash and Derivatives

#### AccountCode

Field Name	AccountCode
Tag	6399
Description	Indicates the account type for which the order is entered. For example, an order can be entered for a client account, a house account or a liquidity provider account.  For Cross orders it specifies the account type for which the buy side of a cross order is entered.  - Non-LP clients are not allowed to use the type '6' (Liquidity Provider).  - Only members acting as Retail Member Organizations (RMO) can send '4' (RO) orders on behalf of their retail clients.
Format	Int
Length	2
Possible Values	1 = Client 2 = House 4 = RO 6 = Liquidity Provider 7 = Related Party 8 = Structured Product Market Maker 14 = Omega Client 15 = Ceres Client
Conditions	It is mandatory for every NewOrderSingle (D). For ETF Access platform, the field is mandatory in QuoteRequest (R) In OrderCancelReplaceRequest (G) message, if provided the field is ignored. In NewWholesaleOrder (U64) message, required if NoSides (552) >= 1.
Used In	MassQuote (i) MassQuoteAck (b)

Field Name	AccountCode
	NewOrderSingle (D)
	OrderCancelReplaceRequest (G)
	OrderMassCancelReport (r)
	OrderMassCancelRequest (q)
	NewWholesaleOrder (U64)
	CrossOrder (U67)
	QuoteRequest (R)
	RFQNotification (U35)
	TradeCaptureReport (AE)
	TradeCaptureReportAck (AR)
Used For	Cash and Derivatives

#### AckPhase

Field Name	AckPhase
Tag	21013
Description	Indicates the trading phase during which the Matching Engine has processed the event that has triggered this ExecutionReport (8) message.
Format	Char
Length	1
Possible Values	1 = Continuous Trading Phase
	2 = Call Phase
	3 = Halt Phase
	4 = Closed Phase
	5 = Trading At Last Phase
	6 = Reserved
	7 = Suspended
	8 = Random Uncrossing Phase
Conditions	It is provided only as response to NewOrderSingle (D) and OrderCancelReplaceRequest (G) message.
Used In	ExecutionReport (8)
Used For	Cash and Derivatives

## AckQualifiers

Field Name	AckQualifiers
Tag	21014
Description	Field used to provide additional information on the corresponding order. A single field can contain up to 8 values, space delimited, provided in different positions.
	- Dark Indicator: Indicates whether the corresponding order was entered as a dark order or not. (0: LIT; 1: Dark). For Iceberg Order it indicates whether its undisclosed part is eligible to the Dark pool of liquidity or not.
	- Queue Indicator: indicates whether the corresponding inbound message was queued because of throttling or not. (0: No; 1: Yes).
	- Request with Client Order ID: Indicates whether the order entry is applied with Client Order ID or not. (0: No; 1: Yes)
	- Use of Cross Partition: Indicates whether the corresponding message routing is applied in different partition or not. (0: No; 1: Yes)
	- Executed Upon Entry: Indicates whether the corresponding entered order generates trade or not. This indicator is on 2 bitmaps: number 6 and 7. (00: Information not provided; 10: No trade generated; 11: Trade generated)
Format	MultipleCharValue
Length	15
Possible Values	0 = Dark Indicator
	1 = Queue Indicator
	2 = Request with Client Order ID

Field Name	AckQualifiers
	3 = Use of Cross Partition
	4 = Internal1
	5 = Internal2
	6 = Execution Upon Entry flag Enabled
	7 = Executed Upon Entry flag
Conditions	Provided only as a response to a NewOrderSingle (D) and to OrderCancelReplaceRequest (G).
Used In	ExecutionReport (8)
	MassQuoteAck (b)
	OrderCancelReject (9)
	OrderMassCancelReport (r)
	WholesaleOrderAck (U65)
Used For	Cash and Derivatives

### AckStatus

Field Name	Ack Status
Tag	5711
Description	Indicates if incoming message is accepted or rejected.
Format	Char
Length	1
Possible Values	0 = Accept
	1 = Reject
Used In	WholesaleOrderAck (U65)
	ERGCommandAck (U69)
	RiskControlDetails (U71)
Used For	Derivatives

## **AFQReason**

Field Name	AFQReason
Tag	9939
Description	Indicates the reason why the AskForQuote (UL) message has been sent to the Liquidity Provider.
Format	Char
Length	1
Possible Values	1 = Quote cancelled by the Liquidity Provider 2 = Quote cancelled by Market Control 3 = No quote M minutes before an uncrossing 4 = No quote S seconds before an uncrossing 5 = Quote completely matched
Conditions	Always provided.
Used In	AskForQuote (UL)
Used For	Cash



# BeginSeqNo

Field Name	BeginSeqNo
Tag	7
Description	Message sequence number for first message.
Format	SeqNum
Length	10
Possible Values	From 1 to 2^32-2
Used In	ResendRequest (2)
Used For	Cash and Derivatives

# BeginString

Field Name	BeginString
Tag	8
Description	Beginning of message identifier. Identifies the beginning of message and the protocol version. Must be the first field in message. Always unencrypted.
Format	String
Length	9
Possible Values	FIXT.1.1 (Always unencrypted, must be first field in message)
Conditions	Inbound messages: Mandatory. Outbound messages: Always Provided.
Used In	Header
Used For	Cash and Derivatives

## BidErrorCode

Field Name	BidErrorCode
Tag	9934
Description	Error code returned when quote contains an invalid bid.  See Euronext Markets - Optiq & TCS Error List file (.csv) for details of error codes.
Format	Int
Length	6
Possible Values	From 0 to 2^16-2
Conditions	If an error is detected in the field BidSize (134) or in the field BidPx (132), the error code is provided in the BidErrorCode (9934) field.
Used In	MassQuoteAck (b)
Used For	Cash and Derivatives

### ${\bf BidNonExecCIID}$

Field Name	BidNonExecCIID
Tag	21089
Description	This field will be used as unique client Key for the Bid side. Field indicating the client ID of the participant in a commercial package, e.g. Ceres, Omega, etc.

Field Name	BidNonExecCIID
Format	Int
Length	5
Possible Values	From 0 to 2^16-1
Used In	NewWholesaleOrder (U64)
	WholesaleOrderAck (U65)
Used For	Derivatives

#### **BidPx**

Field Name	BidPx
Tag	132
Description	Quote bid price (to be calculated with Price/Index Level Decimals).
Format	Price
Length	20
Possible Values	From -2^63+1 to 2^63-1
Conditions	In MassQuote (i) either this BidPx (132) field, or OfferPx (133), or both, must be populated.
Used In	MassQuote (i)
Used For	Cash and Derivatives

### **BidQuoteID**

Field Name	BidQuoteID
Tag	1747
Description	Numerical order identifier assigned by the matching engine, unique per instrument and EMM.
Format	String
Length	20
Possible Values	From 0 to 2^64-2
Conditions	Provided only if the MassQuote (i) message contains a bid quote. The field OrderID (37) in ExecutionReport (8) message sent in case of trade resulting from a matching against a (bulk) Quote is filled with value in BidQuoteID (1747) field corresponding to the Bid quote that participated in the trade.
Used In	MassQuoteAck (b) WholesaleOrderAck (U65)
Used For	Cash and Derivatives

### BidSize

Field Name	BidSize
Tag	134
Description	Quote bid quantity (to be calculated with Quantity Decimals). Cancels a quote if set to zero '0'.
Format	Qty
Length	20
Possible Values	From 0 to 2^64-2
Conditions	Cancels the quote if set to '0'. In the NewWholesaleOrder (U64) messages submitted by the Initiator the BidSize (134) must be the maximum volume to match in the transaction when the leading side is Buy.
Used In	MassQuote (i) NewWholesaleOrder (U64)
Used For	Cash and Derivatives

# BodyLength

Field Name	BodyLength
Tag	9
Description	Message length including header, body and trailer.  Message length, in bytes, forward to checksum field. Must be second field in message. Always unencrypted.
Format	Length
Length	6
Possible Values	Integer
Conditions	Inbound messages: Mandatory.
	Outbound messages: Always Provided.
Used In	Header
Used For	Cash and Derivatives

### BookINTime

Field Name	BookINTime
Tag	21002
Description	Matching Engine IN time (in ns), time at which the corresponding inbound message entered the Matching Engine (Format: YYYYMMDD-HH:MM:SS.ssssssss).
Format	UTCTimestamp
Length	27
Possible Values	Valid values: YYYY = 0000-9999, MM = 01-12, DD = 01-31, HH = 00-23, MM = 00-59, SS = 00-59, SSSSSSSS = 000000000-999999999 (nanoseconds)
Conditions	In ExecutionReport (8) message and depending on the values populating the fields ExecType (150) and OrdStatus (39):  - it corresponds to the order creation/modification time or to the cancellation time.  - in case of an acknowledgement notification, it corresponds to the time at which the event generating the ExecutionReport (8) entered the matching engine.
	- in case of a kill notification, it corresponds to the time at which the corresponding order has been killed.
	- in case of trade cancellation notification, it corresponds to the trade cancellation time.
Used In	ExecutionReport (8)  MassQuoteAck (b) OrderCancelReject (9) OrderMassCancelReport (r) QuoteRequestReject (AG) RequestAckMessage (Uy) RFQLPMatchingStatus (U37) RFQMatchingStatus (U36) RFQNotification (U35) SecurityDefinition (d) WholesaleOrderAck (U65)
	RFQAudit (U72)
	ERGCommandAck (U69)
	RiskControlDetails (U71)
	IOINotification (U73)
Used For	Cash and Derivatives

Field Code Changed	
Field Code Changed	
Field Code Changed	

### BookOUTTime

Field Name	BookOUTTime
Tag	21003

Field Name	BookOUTTime
Description	Matching Engine OUT time (in ns), when message leaves the Matching Engine (Format: YYYYMMDD-HH:MM:SS.sssssss).
Format	UTCTimestamp
Length	27
Possible Values	Valid values: YYYY = 0000-9999, MM = 01-12, DD = 01-31, HH = 00-23, MM = 00-59, SS = 00-59, sssssssss = 000000000-999999999 (nanoseconds)
Used In	ExecutionReport (8)  MassQuoteAck (b)  OrderCancelReject (9)  OrderMassCancelReport (r)  QuoteRequestReject (AG)  RequestAckMessage (Uy)  RFQLPMatchingStatus (U37)  RFQMatchingStatus (U36)  RFQNotification (U35)  SecurityDefinition (d)  WholesaleOrderAck (U65)  RFQAudit (U72)  ERGCommandAck (U69)  RiskControlDetails (U71)
	IOINotification (U73)
Used For	Cash and Derivatives

Field Code Changed	
Field Code Changed	
Field Code Changed	

### BreachedCollarPrice

Field Name	BreachedCollarPrice
Tag	21001
Description	Breached collar price in case of collar rejection (to be calculated with Price/Index Level Decimals).
Format	Price
Length	20
Possible Values	From -2^63+1 to 2^63-1
Conditions	Provided only in case of a rejection due to a collar breach. This field is not populated when ExecutionReport (8) message is sent in cases of rejection that do not involve collars (e.g. for rejection of creation of strategies).
Used In	ExecutionReport (8)
	OrderCancelReject (9)
Used For	Cash

# BuyRevisionIndicator

Field Name	BuyRevisionIndicator
Tag	21008
Description	Indicates whether the bid quote is a new quote, a replacement of a previous quote or a cancellation.
Format	Int
Length	1
Possible Values	0 = New
	1 = Replacement
	2 = Cancellation
Conditions	Provided only if the MassQuote (i) message contains a bid quote.
Used In	MassQuoteAck (b)
Used For	Cash and Derivatives

## ByPassControlFlag

Field Name	ByPassControlFlag
Tag	10053
Description	Control indicator of the price and quantity. Indicates whether a trade should bypass the price and quantity controls or not. (0: Control ; 1: No Control)
Format	Char
Length	1
Possible Values	0 = False
	1 = True
Conditions	For Fund Price Input (44) message, it indicates whether a NAV+/- should be checked against a percentage deviation from the last known NAV+/
Used In	FundPriceInput (U44)
	FundPriceInputAck (U45)
Used For	TCS ( Cash and Derivatives)



### CancelOnDisconnectionIndicator

Field Name	CancelOnDisconnectionIndicator
Tag	21018
Description	Indicates whether the order is not in scope of the Cancel On Disconnect mechanism (order is persisted) or if order should be handled as defined by default. (0: Default Configuration; 1: Order not in the scope of Cancel On Disconnect - Order is to be persisted)
Format	Int
Length	1
Possible Values	0 = Per Default Configuration 1 = Order not in the scope of Cancel On Disconnect
Conditions	If the OrderCancelReplaceRequest (G) is used to confirm a new order that can be executed upon entry, but whose matching price hits a collar, this field can't be populated.
Used In	ExecutionReport (8)  NewOrderSingle (D)  OrderCancelReplaceRequest (G)
Used For	Cash and Derivatives

## CCPID

Field Name	CCPID
Tag	21040
Description	Clearing House code
Format	Char
Length	1
Possible Values	0 = No CCP
	1 = LCH SA
	3 = LCH Limited
	5 = SIX x-clear
	6 = EuroCCP

Conditions	This field is mandatory when a transaction is cleared by a CCP.
Used In	TradeCaptureReportAck (AR)
Used For	TCS (Cash)

### ${\bf Centralisation Date}$

Field Name	CentralisationDate
Tag	21068
Description	Cut-off for the trading cycle / session on the Euronext Funds Service: Paris is not identified by the fund agent; as such there is no technical cut-off of a trading session set for such funds.  Centralisation date may be used by the client to inform the fund agent for which session the declaration should be eligible for, and may be used as a criteria by the fund agent to accept, or not, a declaration.  When used, the declaration should be automatically accepted for the following order collection cycle / session if:  - centralisation date is not specified by the client AND the session has passed its cut-off, OR  - centralisation date is specified, and fund agent elects not to acknowledge the declaration during the session identified in the broker's message AND doesn't reject the declaration.  Should be provided in binary equivalent of YYYY-MM-DD, where YYYY = 0000-9999, MM = 01-12, DD = 01-31  Should be provided for Euronext Funds Service: Paris instruments only.
Format	String
Length	10
Possible Values	Valid values: YYYY = 0000-9999, MM = 01-12, DD = 01-31
Conditions	For TradeCaptureReport (AE) message, it is mandatory for declarations when TrdType = '1002' or '1003'.
Used In	TradeCaptureReport (AE) TradeCaptureReportAck (AR)
Used For	TCS ( Cash and Derivatives)

## CheckSum

Field Name	CheckSum
Tag	10
Description	Simple checksum. Always 3 bytes, always unencrypted, always last field in message.
Format	String
Length	3
Possible Values	Numerical
Conditions	Inbound messages: Mandatory. Outbound messages: Always Provided.
Used In	<u>Trailer</u>
Used For	Cash and Derivatives

### ClassID

Field Name	ClassID
Tag	9945
Description	Instrument Trading Group / Class Identifier.
Format	String
Length	2

Field Name	ClassID
Possible Values	Alphanumeric
Conditions	In OrderMassCancelRequest (q): mutually exclusive with SecurityID (48). In OrderMassCancelRequestReport (r), provided with the value submitted in the OrderMassCancelRequest (q).
Used In	OrderMassCancelReport (r) OrderMassCancelRequest (q)
Used For	Cash

# ClearingInstruction

Field Name	ClearingInstruction
Tag	577
Description	Clearing Instruction.
	Indicates the pre-posting and give-up action to be taken by the clearing system when a trade has occurred.
	■ Process normally
	■ Manual mode (pre-posting and/or pre-giveup)
	■ Automatic posting mode (trade posting to the position account number specified)
	■ Automatic give-up mode (trade give-up to the give-up destination number specified)
Format	Int
Length	4
Possible Values	0 = Process normally (formerly Systematic posting)
	8 = Manual mode
	9 = Automatic posting mode
	10 = Automatic give-up mode
Conditions	In ExecutionReport (8) message, this field is provided only for Drop Copy. Conditions for Drop Copy will be provided at a
	later date.
Used In	ExecutionReport (8)
	MassQuote (i)
	MassQuoteAck (b)
	NewOrderSingle (D)
	NewWholesaleOrder (U64)
	OrderCancelReplaceRequest (G)
	CrossOrder (U67)
Used For	Cash and Derivatives

## ${\bf Client Message Sending Time}$

Field Name	ClientMessageSendingTime
Tag	21005
Description	Indicates the time of inbound message transmission (Format: YYYYMMDD-HH:MM:SS.sssssss).
Format	UTCTimestamp
Length	27
Possible Values	Valid values: YYYY = 0000-9999, MM = 01-12, DD = 01-31, HH = 00-23, MM = 00-59, SS = 00-59, ssssssss = 000000000-999999999 (nanoseconds)
Conditions	This field is provided only if the ExecutionReport (8) is a response to a requested inbound message.
Used In	ExecutionReport (8)  MassQuoteAck (b)  OrderCancelReject (9)  OrderMassCancelReport (r)  RequestAckMessage (Uy)  SecurityDefinition (d)

Field Name	ClientMessageSendingTime
	WholesaleOrderAck (U65)
	ERGCommandAck (U69)
	RiskControlDetails (U71)
	IOINotification (U73)
Used For	Cash and Derivatives

#### ClOrdID

Field Name	ClOrdID
Tag	11
Description	An identifier of an Order assigned by the Client when submitting an order to the Exchange.
	Clients must provide a ClOrdID (11) in every inbound application message, otherwise the message will be immediately rejected by the OEG.
	Clients may provide any value that respects the CIOrdID (11) format, which is a string of 20 characters, and the ranges as defined according to their access. The Exchange recommends setting an unique ID per order, SenderCompID (49)/OnBeahlfOfCompID (115) and SecurityID (48).
	For order entry, the CIOrdID (11) value is not checked by the Exchange, it is simply returned in the corresponding outbound message to allow clients to reconcile the response message with their original inbound request.
	For modification and cancellation using the OrigClOrdID (41) as unique identifier, the value is checked by the Exchange for possible duplicates, i.e. different orders submitted with the same ClOrdID (11). In case of duplication, the inbound request is rejected with the according error code.
Format	String
Length	20
Possible Values	From -2^63+1 to 2^63-1
Conditions	In inbound application messages, this field is always mandatory.
	In outbound application messages, this field is provided for solicited messages and not provided for unsolicited messages.
	In outbound ExecutionReport (8) messages if MassStatusReqID (584) is filled ClOrdID (11) is not provided.
	If message is sent due to breach of collars, as in that case there is an order acknowledgement ExecutionReport (8) before (the exchange "OrderID (37)" is provided), the ClOrdID (11) is not sent for the rejection message.
Used In	ExecutionReport (8)
	LiquidityProviderCommand (UZ)
	NewOrderSingle (D)
	NewWholesaleOrder (U64)
	OrderCancelReject (9)
	OrderCancelReplaceRequest (G)
	OrderCancelRequest (F)
	OrderMassCancelReport (r)
	OrderMassCancelRequest (q)
	OwnershipRequest (U18)
	OwnershipRequestAck (U29)
	PriceInput (UI)
	QuoteRequest (R)
	QuoteRequestReject (AG)
	WholesaleOrderAck (U65)
	RequestForImpliedExecution (U66)
	CrossOrder (U67)
	FundPriceInput (U44)
	FundPriceInputAck (U45)
Used For	Cash and Derivatives

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## CollarRejType

Field Name	CollarRejType
Tag	9962
Description	Hit collar type (high or low) in case of order rejection due to collar breach.
Format	Char
Length	1
Possible Values	1 = Low dynamic collar
	2 = High dynamic collar
Conditions	Provided only in case of a rejection due to a collar breach. This field is not populated when ExecutionReport (8) message is sent in cases of rejection that do not involve collars (e.g. for rejection of creation of strategies).
Used In	ExecutionReport (8)
	OrderCancelReject (9)
Used For	Cash and Derivatives

## ConditionalOrderFlag

Field Name	ConditionalOrderFlag
Tag	21800
Description	Field used to specify if the order is a conditional or a firm order.
Format	Char
Length	1
Possible Values	0 = Firm (default)
	1 = Conditional
Used In	ExecutionReport (8)
	NewOrderSingle (D)
	OrderCancelReplaceRequest (G)
Used For	Cash

## ConfirmFlag

Field Name	ConfirmFlag
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 this additional checks.  Field also used in cancel/replace request to confirm a collar pass-through in case of rejection due to collar breach.
Format	Char
Length	1
Possible Values	0 = Not confirmed (default) 1 = Confirmed
Conditions	ConfirmFlag (9930) set to 1 is not applicable for Dark orders.
Used In	OrderCancelReplaceRequest (G)
Used For	Cash and Derivatives

#### ContraBroker

Field Name	ContraBroker
Tag	375

Field Name	ContraBroker
Description	ID of the clearing house in case of a CCP clearable transaction – also in the specific case of Internal Matching Service (IMS) with clearing:
	'1': LCH SA
	'3': LCH Limited
	′5′: SIX x-clear
	'6': EuroCCP
	ID of the Counterpart Firm in specific cases described below.
	The counterpart identifier is provided in the ExecutionReport (8) message in case the notified trade is the result of :
	- the Internal Matching Service (IMS) without clearing,
	-the Internal Clearing Service (ICS),
	- a transaction performed on the Public Auctions Market (VPU),
	- a transaction performed on a non-clearable <del>or non-guaranteed</del> -instrument,
	- a transaction performed under a Bilateral Settlement agreement.
Format	String
Length	20
Possible Values	From 0 to 2^64-2
Conditions	Provided in the ExecutionReport (8) message in case the trade is the result of one of the cases listed above.
	Else not provided.
Used In	ExecutionReport (8)
Used For	Cash

### CumQty

Field Name	CumQty
Tag	14
Description	Cumulated quantity (to be calculated with Quantity Decimals).  Total number of shares filled or Lots of a Derivative instrument. If an order is partially filled for a quantity q1, then partially filled for a quantity q2, in the first execution report, CumQty (14) = q1 and in the second execution report, CumQty (14) = q1 + q2.
Format	Qty
Length	20
Possible Values	From -1 to 2^64-2
Conditions	CumQty (14) is set to "-1" in case of Kill, Reject and Trade cancellation (i.e. If the OrdStatus(39) equal to '4' (Canceled), '3' (Done For Day), 'C' (Expired), '8' (Rejected) or H (Cancel Trade)) or ExecType (150) is set to 'j' (RFQ Ack)].
Used In	ExecutionReport (8)
Used For	Cash and Derivatives

## CxlRejResponseTo

Field Name	CxlRejResponseTo
Tag	434
Description	Identifies the type of request that the OrderCancelReject (9) is in response to.
Format	Char
Length	1
Possible Values	1 = OrderCancelRequest (F)
	2 = OrderCancelReplaceRequest (G)
	3 = MassQuote (i)
	4 = OrderMassCancelRequest (q)
Used In	OrderCancelReject (9)
Used For	Cash and Derivatives



### DarkExecutionInstruction

Field Name	DarkExecutionInstruction
Tag	20052
Description	Field used as instruction for dark order handling. This field can contain up to 8 values, space delimited, provided in different positions.
	- Dark Indicator: indicates whether the client requests its order to benefit from LiS Pre-Transparency waiver to match the order in the Dark. (0: No; 1: Yes)
	- Deferred Trade Indicator: [Deprecated] indicates whether the client requests a deferred publication for a Hidden Order. (0: No ; 1: Yes)
	- Display Order Interaction: [Deprecated] indicates whether the client requests its hidden order to match also with LIT orders. (0: No ; 1: Yes)
	- Sweep Order Indicator: indicates whether the client requests his order to sweep between both lit and the hidden pool of liquidity (Dark). (0: No; 1: Yes)
	- Minimum Quantity Type: indicates whether the Minimum Quantity for a dark order is MES or MAQ. (0: MAQ ; 1: MES)
Format	MultipleCharValue
Length	9
Possible Values	0 = Dark Indicator
	1 = Deferred Trade Indicator - <b>Deprecated</b>
	2 = Displayed Order Interaction - <b>Deprecated</b>
	3 = Sweep Order Indicator
	4 = Minimum Quantity Type
Conditions	On ETF MTF: Value 0: No is mandatory for the position 3 (Sweep Order Indicator) for any type of LIT order sent by the client.
	In OrderCancelReplaceRequest (G) message:
	- (i) when sent to confirm a breached collar of an order, values in this field must be provided, but won't be taken into consideration
	- (ii) when sent to modify an order, value will be modified to the one provided
	Values flagged as deprecated should always be populated with value zero (0). If not provided, the message will be rejected.
Used In	ExecutionReport (8)
	NewOrderSingle (D)
	OrderCancelReplaceRequest (G)
	QuoteRequest (R)
	RFQNotification (U35)
	RFQAudit (U72)
Used For	Cash

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## DefaultApplVerID

Field Name	DefaultApplVerID
Tag	1137
Description	Specifies the service pack release being applied, by default, to the message at the session level
Format	String
Length	1
Possible Values	9 = FIX50SP2
Used In	Logon (A)
Used For	Cash and Derivatives

### DeferralIndicator

Field Name	DeferralIndicator
Tag	21063
Description	Trade publication type indicator. Indicates whether the publication is immediate or not (differed). (1: Immediate; 0: Differed)
Format	Char
Length	1
Possible Values	0 = False
	1 = True
Conditions	For TradeCaptureReport (AE) message, it is mandatory when TrdType = '51', '1001' or '1004'.
Used In	TradeCaptureReport (AE)
Used For	TCS ( Cash and Derivatives)

## ${\bf Deliver To CompID}$

Field Name	DeliverToCompID
Tag	128
Description	ID of the receiving firm when the message is sent through a third party.
	This field holds the same information as the one held by OnBehalfOfCompID in inbound messages.
Format	String
Length	8
Possible Values	Inbound: Not used / Outbound: Firm ID
Conditions	In case a firm's Logical access is configured with Additional allowed member code(s) [ACL] on top of the mandatory
	Member Code [Owner] that owns / requests the connection:
	If these member codes (between Owner and ACL) are not the same, in a selected list of Outbound application messages (provided below) the field DeliverToCompID (128) is populated with the value specified in the field OnBehalfOfCompID
	(115). Otherwise, the field is not provided in Outbound messages.
	List of selected outbound messages: ExecutionReport (8), OrderCancelReject (9), MassQuoteAck (b),
	QuoteRequestReject (AG), OrderMassCancelReport (r), RequestAckMessage (Uy), OwnershipRequestAck (U29), SecurityDefinition (d).
Used In	Header
Used For	Cash and Derivatives

## DisplayQty

Field Name	DisplayQty
Tag	1138
Description	Maximum number of quantity units to be shown to market participants (Iceberg Order). DisplayQty (1138) is to be calculated with Quantity Decimals.
Format	Qty
Length	20
Possible Values	From 0 to 2^64-2
Conditions	The DisplayQty (1138) is provided only if OrdType (40) = X (Iceberg) and ExecType (150) is '0' (New) or 'e' (Refilled Iceberg Ack).
	DisplayQty (1138) should be multiple of the instrument's lot size, otherwise the order will be rejected.
	If upon entry an Iceberg order immediately matches, its acknowledgement message will contain the DisplayQty (1138) that is adjusted for the amount that has matched.
Used In	ExecutionReport (8)
	NewOrderSingle (D)

Field Name	DisplayQty
	OrderCancelReplaceRequest (G)
Used For	Cash

# ${\bf Disclosed Qty Rand Indicator}$

Field Name	DisclosedQtyRandIndicator
Tag	21016
Description	Indicates whether the client requests or not a randomization for the DisplayQty (1138) of his iceberg order.
Format	Int
Length	1
Possible Values	0 = No
	1 = Yes
Conditions	Mandatory if OrdType (40) = X (Iceberg).
Used In	ExecutionReport (8)  NewOrderSingle (D)  OrderCancelReplaceRequest (G)
Used For	Cash and Derivatives

## E

#### **EMM**

Field Name	EMM
Tag	20020
Description	Defines the Exchange Market Mechanism applied on each platform.
Format	Int
Length	2
Possible Values	1 = Cash and Derivative Central Order Book (COB)
	2 = NAV Trading Facility
	3 = SATURN On-Exchange Off-Book
	4 = Derivative Wholesales
	5 = Cash On Exchange Off book
	6 = Euronext off-exchange trade reports
	7 = Derivative On Exchange Off book
	8 = ETF MTF - NAV Central Order Book
	9 = Listed-not traded
	15 = Delta Neutral Contingency Leg
	99 = Not Applicable (For indices and iNAV)
Conditions	If the EMM (20020) present in the inbound message is not relevant (i.e. the value is one of the authorized values but not relevant in this case), it is sent back as it is in the outbound message used for the rejection.
	In TCS messages, the only possible values is '5' = Cash On Exchange Off book.
	In message RequestAckMessage (Uy) field populated when sent to provide positive acknowledgement of message PriceInput (UI) or LiquidityProviderCommand (UZ) with value provided by the client.
	In case of rejection of PriceInput (UI), LiquidityProviderCommand (UZ), OwnershipRequest (U18), OrderMassStatusRequest (AF) messages – field may not be provided in case of technical rejection, or if the data wasn't provided by the client in the Inbound message.
	In the MassQuotes (i) message the only possible value is '1' = Cash and Derivative Central Order Book (COB).
	In the message ERGCommand (U68):
	- required when ActionType (21097) is set to 5 = Order Size Limit and must always be set to '1' = Cash and Derivative Central Order Book (COB) – otherwhise the message is rejected;

Field Name	EMM
	- will be ignored if field ActionType (21097) is set with any known values other than '5' = Order Size Lmit.
	- if filled with a value that's not known by the Exchange the message is rejected;
Used In	AskForQuote (UL)
	ExecutionReport (8)
	InstrumentSynchronizationList (U50)
	LiquidityProviderCommand (UZ)
	MassQuote (i)
	MassQuoteAck (b)
	NewOrderSingle (D)
	OrderCancelReject (9)
	OrderCancelReplaceRequest (G)
	OrderCancelRequest (F)
	OrderMassCancelReport (r)
	OrderMassCancelRequest (q)
	OrderMassStatusRequest (AF)
	OwnershipRequest (U18)
	PriceInput (UI)
	QuoteRequest (R)
	RequestAckMessage (Uy)
	RequestForExecution (UM)
	RFQLPMatchingStatus (U37)
	RFQMatchingStatus (U36)
	RFQNotification (U35)
	RequestForImpliedExecution (U66)
	<u>CrossOrder (U67)</u>
	ERGCommand (U68)
	ERGCommandAck (U69)
	TradeCaptureReport (AE)
	TradeCaptureReportAck (AR)
	FundPriceInput (U44)
	FundPriceInputAck (U45)
	RFQAudit (U72)
	<u>JOI (6)</u>
	IOINotification (U73)
Used For	Cash and Derivatives

#### Field Code Changed

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Field Code Changed

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## Field Code Changed

### EncryptMethod

Field Name	EncryptMethod
Tag	98
Description	Method of encryption for the new FIX session
Format	Int
Length	1
Possible Values	Always set to 0 (No encryption)
Used In	Logon (A)
Used For	Cash and Derivatives

# EndSeqNo

Field Name	EndSeqNo
Tag	16

Field Name	EndSeqNo
Description	Message sequence number for last message
Format	SeqNum
Length	10
Possible Values	From 1 to 2^32-2
Used In	ResendRequest (2)
Used For	Cash and Derivatives

## **ERGActionType**

Field Name	ERGActionType
Tag	21097
Description	Specifies the scope of the message.
Format	Int
Length	1
Possible Values	1 = Suspend
	2 = Unsuspend
	3 = Block
	4 = Unblock
	5 = Order Size Limit
Used In	ERGCommand (U68)
Used For	Derivatives

#### **ERGStatus**

Field Name	ERGStatus
Tag	21105
Description	Indicates the Status of the Broker, Logical Access, Trader or ClientIdentificationShortCode.
Format	Int
Length	1
Possible Values	1 = Suspended
	2 = Unsuspended
	3 = Blocked
	4 = Unblocked
Used In	RiskControlDetails (U71)
Used For	Derivatives

#### **ErrorCode**

Field Name	ErrorCode
Tag	9955
Description	Error code in case of rejection.  Provides the return error code when a request is rejected for a functional or a technical reason.
Format	Int
Length	5
Possible Values	From 0 to 2^16-2
Conditions	In ExecutionReport (8) message this field is provided when OrdStatus = 8 (Rejected).
Used In	ExecutionReport (8) OrderCancelReject (9) RequestAckMessage (Uy) SecurityDefinition (d)

Field Name	ErrorCode
	WholesaleOrderAck (U65)
	ERGCommandAck (U69)
	RiskControlDetails (U71)
	TradeCaptureReportAck (AR)
	IOINotification (U73)
Used For	Cash and Derivatives

### **ESCBMembership**

Field Name	ESCBMembership
Tag	21096
Description	Indicates if the trade is submitted by a member of the European System of Central Bank (ESCB) in performance of monetary, foreign exchange and financial stability policy.
Format	Int
Length	1
Possible Values	0 = False
	1 = True
Used In	ExecutionReport (8)
	NewWholesaleOrder (U64)
	WholesaleOrderAck (U65)
Used For	Derivatives

### **EvaluatedPrice**

Field Name	EvaluatedPrice
Tag	21802
Description	This field is used for the Total Return Future (TRF) and Market On Close (MOC) contracts to provide the trade price calculated against provisional (a.k.a. preliminary) or final price of the underlying index or stock, while Last Traded Price provides price in Spread (in basis or index points). The value in field Trade Type allows to identify if the trade message contains provisional or final price.
Format	Price
Length	20
Possible Values	From -2^63+1 to 2^63-1
Conditions	Used only for Total Return Future and Market On Close Future trading
Used In	ExecutionReport (8)
Used For	Derivatives

## ExchangelOIID

Field Name	ExchangelOIID
Tag	21114
Description	Unique identifier of IOI message, assigned by the Exchange.
Format	String
Length	20
Possible Values	From -2^63+1 to 2^63-1
Conditions	Populated when IOINotification (U73) is sent:  - to acknowledge the IOI (6);  - to reject, due to functional reasons, the IOI (6);  - to notify counterparties that a new indication of interest was submitted;  - to notify the submitter of the indication of interest that an order was placed as an answer to his indication of interest;

Field Name	ExchangelOIID
	<ul> <li>to notify counterparties that an existing indication of interest was cancelled;</li> </ul>
	<ul> <li>to notify counterparties that an existing indication of interest was modified;</li> </ul>
Used In	IOINotification (U73)
Used For	Cash

### ExecRefID

Field Name	ExecRefID
Tag	19
Description	The ExecRefID (19) is an unique identifier of a trade per instrument. This field is provided in case of trade cancellation.
Format	String
Length	10
Possible Values	Sequential number. From 0 to 2^32-2
Conditions	Provided only in case of Trade Cancellation - filled with the ExecID (17) of the Trade being cancelled.
Used In	ExecutionReport (8)
Used For	Cash and Derivatives

### ${\bf ExecRestatement Reason}$

Field Name	ExecRestatementReason
Tag	378
Description	The reason for restatement when ExecutionReport (8) message is sent with ExecType (150) = 'D' (Restated) or used when communicating an unsolicited cancel.
Format	Int
Length	1
Possible Values	0 = GT corporate action 1 = GT renewal / restatement (no corporate action)
Used In	ExecutionReport (8)
Used For	Cash and Derivatives

## ExecType

Field Name	ExecType
Tag	150
Description	Describes the specific ExecutionReport (8) while OrdStatus (39) will always identify the current order status (e.g. Partially Filled).
Format	Char
Length	1
Possible Values	0 = New
	1 = Order Cancelled due to an incorrect Reactor Response
	2 = Cross Order Ack
	3 = Done for Day
	4 = Cancelled
	5 = Replaced
	8 = Rejected
	a = Cancelled by STP
	b = Order Cancelled due to Cancel On Disconnect Mechanism
	c = Conditional Order cancelled due to Potential Matching
	d = Collar Confirmation Ack
	e = Refilled Iceberg Ack

Field Name	ExecType
	f = LP Order cancelled due to RFQ cancellation
	g = Quote cancelled due to Knock-Out
	h = Iceberg Transformed to Limit due to Minimum size
	i = Order Creation By Market Operations
	j = RFQ Ack
	k = OwnershipRequest Ack
	m = OrderMassStatusRequest Ack
	n = Order Cancelled due to a potential trade outside FSP limits
	q = RFQ Remaining quantity killed
	r = LP Order cancelled due to RFQ expiration
	s = LP Order cancelled due to RFQ confirmation
	v = Order Cancelled by Clearing Risk Manager
	w = Order Cancelled due to Trade Price Validation
	C = Expired
	D = Restated
	F = Trade (Partial Fill or Fill)
	G = Trade Creation by Market Operation
	H = Cancel Trade
	I = Order Status
	L = Triggered or Activated by System
	O = Eliminated by corporate event
	P = Cancelled by Member Risk Manager (For Future Use)
	Q = RFQ expired
	R = RFQ partially or fully matched with other counterparts
	S = RFQ cancelled by the issuer
	T = RFQ Not matched due to issuer order's features
	U = Order Cancelled by Market Operations
	V = Cancelled due to a Kill command
	W = Cancelled MTL in an empty Order Book
	X = Remaining quantity killed (IOC)
	Y = Beginning of PAKO Period
	Z = Too many collar breach attempts
	! = Remaining RFC quantity cancelled
Conditions	Values Q; R; S; T will be used only on ETF Access platform.
	Value Q is used when an order is cancelled due to RFQ expiration. It happens when the RFQ issuer does not validate the
	RFQ after a predefine period of time.
Used In	ExecutionReport (8)
Used For	Cash and Derivatives

#### ExecID

Field Name	ExecID
Tag	17
Description	The ExecID (17) is unique per instrument and per day. It is the unique identifier of a trade per instrument. This field is provided in case of fill, partial fill or trade cancellation.
	For example, let x be the reference identifier of a given trade, x is reported in the two ExecutionReport (8) messages generated for the both sides of the trade. x will also be used as reference for this trade in the Drop Copy feed.
	And if this trade is cancelled, x is again reported in the ExecutionReport (8) messages sent for the 2 sides of the trade.
Format	String
Length	10
Possible Values	Sequential number. From 0 to 2^32-2
Conditions	In Order Information reports and Market Operations Trade Cancellation reports, provided with the reference ID of the current execution, during the current day and for the concerned instrument.

Field Name	ExecID
	For trades on a strategy, in ExecutionReport (8) messages, the ExecID (17) field contains the execution for the Strategy, and the LegExecID (1893) contains the ExecID (17) of the individual strategy leg (i.e. the outright).
	This field is populated with 'NA' for all events concerning order creation, modification and triggering (such as, New orders, Refilled and Transformation of Iceberg order, Modification of an order, Triggering of MTL, Stop, VFU / VFC, Order Status and Ownership request), cancellations and rejections.
Used In	ExecutionReport (8)
Used For	Cash and Derivatives

#### **ExecPhase**

Field Name	ExecPhase
Tag	21023
Description	Indicates the trading phase during which the trade has occurred.
Format	Char
Length	1
Possible Values	1 = Continuous Trading Phase 2 = Uncrossing Phase 3 = Trading At Last Phase 4 = Continuous Uncrossing Phase 5 = IPO
Conditions	Provided only in case of Full or Partial executions.
Used In	ExecutionReport (8)
Used For	Cash and Derivatives

## **ExpireDate**

Field Name	ExpireDate
Tag	432
Description	Field used as date of order expiration (last day the order can trade) for GTD orders(Format: YYYYMMDD).
Format	LocalMktDate
Length	8
Possible Values	Valid values: YYYY = 0000-9999, MM = 01-12, DD = 01-31
Conditions	ExpireDate (432) is mandatory in the inbound NewOrderSingle (D) messages for GTD orders.  This field is not provided in the Outbound messages in trading OEG.  This field is populated in order related messages in Drop Copy.  If the field contains the day before the current trading day, it will assume that the year is current year+1  If the date provided is equal to the current trading date, it will be accepted  In OrderCancelReplaceRequest (G) message:  - (i) when sent to confirm a breached collar of an order, values in this field must be provided, but won't be taken into consideration  - (ii) when sent to modify an order, value will be modified to the one provided
Used In	ExecutionReport (8) NewOrderSingle (D) OrderCancelReplaceRequest (G)
Used For	Cash and Derivatives

### **ExpireTime**

Field Name	ExpireTime
Tag	126
Description	Field used as time of order expiration for GTT orders (Format: YYYYMMDD-HH:MM:SS.ssssssss).
Format	UTCTimestamp
Length	27
Possible Values	Valid values: YYYY = 0000-9999, MM = 01-12, DD = 01-31, HH = 00-23, MM = 00-59, SS = 00-59, ssssssss = 000000000-999999999 (nanoseconds)
Conditions	ExpireTime (126) is mandatory in the Inbound NewOrderSingle (D) messages for GTT orders. Valid timestamps must have the current trade date and a time specified at a second level. The last 9 characters (nanoseconds) are ignored for this field.  This field is not provided in the Outbound messages in trading OEG.  This field is populated in order related messages in Drop Copy.  In OrderCancelReplaceRequest (G) message:  - (i) when sent to confirm a breached collar of an order, values in this field must be provided, but won't be taken into consideration  - (ii) when sent to modify an order, value will be modified to the one provided
Used In	ExecutionReport (8) NewOrderSingle (D) OrderCancelReplaceRequest (G)
Used For	Cash



### FRMARAMPLP

Field Name	FRMARAMPLP
Tag	21801
Description	Indicates whether the order is subject to French Market Abuse Regulation Accepted Market Practice Liquidity provision or not (0: Not subject to FR MAR AMP LP; 1: Subject to FR MAR AMP LP).
Format	Char
Length	1
Possible Values	0 = Not subject to FR MAR AMP LP (default)
	1 = Subject to FR MAR AMP LP
Used In	ExecutionReport (8)
	MassQuote (i)
	NewOrderSingle (D)
Used For	Cash

### **FinalExecID**

Field Name	FinalExecID
Tag	21806
Description	This field is used for the Market On Close (MOC) contracts to provide the exec ID of the original trade on the final future instrument
Format	String
Length	10
Possible Values	Sequential number. From 0 to 2^32-2
Conditions	Used only for trades of Market On Close Future
Used In	ExecutionReport (8)

Field Name	FinalExecID
Used For	Derivatives

## FinalSecurityID

Field Name	FinalSecurityID
Tag	21805
Description	This field is used for the Market On Close (MOC) contracts to provide the symbol index of the final future instrument.
Format	String
Length	10
Possible Values	From 0 to 2^32-2
Conditions	Used only for trades of Market On Close Future
Used In	ExecutionReport (8)
Used For	Derivatives



## **GapFillFlag**

Field Name	GapFillFlag
Tag	123
Description	Purpose of sequence reset.
Format	Boolean
Length	1
Possible Values	Y = Gap fill message
	N = Sequence reset
Used In	SequenceReset (4)
Used For	Cash and Derivatives

#### ${\bf GrossTradeAmt}$

Field Name	GrossTradeAmt
Tag	381
Description	Total amount of a Declaration. Indicates the global amount of a declaration when it is expressed as an amount.
Format	Amt
Length	9
Possible Values	Amount
Conditions	For inbound TradeCaptureReport (AE) message (TCS), it is applicable only when TrdType = '1003' for a trade/declaration on Dutch Funds if expressed as an amount. If expressed as a quantity, this field should not be provided.
	In outbound TradeCaptureReportAck (AR) messages (from TCs) field GrossTradeAmt (381) is provided only for messages with TrdType = '1003' AND TrdRptStatus (939) set to 19 = Filled, 18 = Pre-Matched OR 2 = Cancelled
Used In	TradeCaptureReport (AE) TradeCaptureReportAck (AR)
Used For	TCS ( Cash and Derivatives)

## GuaranteeFlag

Field Name	GuaranteeFlag
Tag	9971
Description	Indicates if the trade is guaranteed or not (for clearing purposes).
Format	Char
Length	1
Possible Values	1 = Cleared but not Guaranteed
	2 = Cleared and Guaranteed
Conditions	In inbound TradeCaptureReport (AE) messages field is mandatory if it is submitted with
	TradeReportTransType (487) set to 0 = New
	In outbound TradeCaptureReportAck (AR) messages (from TCS) field is provided if the field SettlementFlag (9970) is set to 1 = True
Used In	TradeCaptureReport (AE)
	TradeCaptureReportAck (AR)
Used For	TCS ( Cash and Derivatives)



### HeartBtInt

Field Name	HeartBtint
Tag	108
Description	Heartbeat interval (in seconds).
Format	Int
Length	3
Possible Values	Numerical
Used In	Logon (A)
Used For	Cash and Derivatives



# InputPxType

Field Name	InputPxType
Tag	9950
Description	Type of input price.
Format	Char
Length	1
Possible Values	1 = Valuation Price 2 = Alternative Indicative Price (AIP)
Used In	PriceInput (UI)
Used For	Cash

## Instrument Scope Security ID

Field Name	InstrumentScopeSecurityID
Tag	1538
Description	Security ID.
Format	String
Length	10
Possible Values	From 0 to 2^32-2
Conditions	Mandatory if NoInstrumentScopes (1656)>= 1.  If provided in the UserNotification (CB) message, it specifies the scope of the action specified in UserStatus (926).
Used In	<u>UserNotification (CB)</u>
Used For	Cash and Derivatives

# Instrument Scope Security ID Source

Field Name	InstrumentScopeSecurityIDSource
Tag	1539
Description	Used to limit instrument scope.
Format	String
Length	1
Possible Values	8 = Symbol Index
Conditions	Mandatory if NoInstrumentScopes (1656) >=1.  If provided in the UserNotification (CB) message, is always set to value '8' = Symbol Index.
Used In	<u>UserNotification (CB)</u>
Used For	Cash and Derivatives

## IOIQItyInd

Field Name	IOIQltyInd
Tag	25
Description	Relative Quality of the indication of interest.
Format	Char
Length	1
Possible Values	H = High
	L = Low
	M = Medium
Used In	<u>IOI (6)</u>
	IOINotification (U73)
Used For	Cash

# **IOIQty**

Field Name	IOIQty
Tag	27
Description	Indication of the size of the indication of interest.
Format	Char
Length	1
Possible Values	S = Small
	M = Medium

Field Name	IOIQty
	L = Large
	U = Undisclosed Qty
Used In	<u>IOI (6)</u>
	IOINotification (U73)
Used For	Cash

### IOIRefID

Field Name	IOIRefID
Tag	26
Description	Reference identifier used with CANCEL and REPLACE transaction types.
Format	String
Length	20
Possible Values	From -2^63+1 to 2^63-1
Conditions	In IOI (6) required when:
	<ul> <li>attempting to cancel or modify a previously submitted indication of interest;</li> </ul>
	In IOINotification (U73) provided when:
	<ul> <li>the message is being sent to acknowledge the cancellation or modification of a previously submitted indication of interest;</li> </ul>
Used In	<u>IOI (6)</u>
	IOINotification (U73)
Used For	Cash

## **IOITransType**

Field Name	IOITransType
Tag	28
Description	Identifies the reason why the IOI message is being sent to the Exchange.
Format	Char
Length	1
Possible Values	N = New
	C = Cancel
	R = Replace
Used In	<u>IOI (6)</u>
Used For	Cash

# IOIType

Field Name	IOIType
Tag	21113
Description	Identifies the reason why the IOINotification (U73) is being sent by the Exchange.
Format	Int
Length	1
Possible Values	1 = Ack
	2 = Reject
	3 = New IOI Notification
	4 = IOI Reply Notification
	5 = IOI Cancellation Notification
	6 = IOI Replacement Notification

Field Name	ЮТуре
Used In	IOINotification (U73)
Used For	Cash

#### IOIID

Field Name	IOIID
Tag	23
Description	Unique identifier of IOI message.
Format	String
Length	20
Possible Values	From -2^63+1 to 2^63-1
Conditions	In the NewOrderSingle (D), when populated must be set to the value of the ExchangelOIID (21114) provided by the Exchange in the IOINotification (U73) sent to acknowledge the IOI (6).
Used In	NewOrderSingle (D) IOI (6) IOINotification (U73)
Used For	Cash



#### KillReason

Field Name	KillReason
Tag	21807
Description	Future Use.
	Detailed reason for cancellation of an order
Format	Char
Length	5
Possible Values	1 = Order Cancelled by Client
	2 = Order Expired
	3 = Order Cancelled by Market Operations
	4 = Order Eliminated due to Corporate Event
	5 = Done for day
	6 = Cancelled MTL in an empty Order Book
	7 = Cancelled by STP
	8 = Remaining quantity killed (IOC)
	9 = Beginning of PAKO Period
	11 = Order Cancelled due to Cancel On Disconnect Mechanism
	12 = RFQ expired
	13 = RFQ partially or fully matched with other counterparts
	14 = RFQ cancelled by the issuer
	15 = RFQ Not matched due to issuer order's features
	16 = Quote cancelled due to Knock-Out
	17 = Order cancelled due to a Kill command
	19 = LP Order cancelled due to RFQ expiration
	20 = LP Order cancelled due to RFQ cancellation
	21 = RFQ Remaining quantity killed
	22 = LP Order cancelled due to RFQ confirmation
	23 = Order cancelled due to Market Maker Protection
	24 = Order cancelled by clearing risk manager
	25 = Order cancelled by member risk manager

Field Name	KillReason
	26 = Order cancelled due to Trade Price Validation
	30 = Conditional Order cancelled due to Potential Matching
	36 = Order Cancelled due to a potential trade outside FSP limits
	37 = Remaining RFC Quantity Cancelled
	38 = Order Cancelled due to an incorrect Reactor response
Conditions	Future Use
Used In	ExecutionReport (8)
Used For	Cash and Derivatives



## LastBookInTime

Field Name	LastBookInTime
Tag	20031
Description	Last Matching Engine In Time (in ns) processed on the associated ResynchronizationID. (Format: YYYYMMDD-HH:MM:SS.sssssss).
Format	UTCTimestamp
Length	27
Possible Values	Valid values: YYYY = 0000-9999, MM = 01-12, DD = 01-31, HH = 00-23, MM = 00-59, SS = 00-59, SSSSSSSS = 000000000-9999999999 (nanoseconds)
Used In	SynchronizationTime (U51)
Used For	Cash and Derivatives

## LastCapacity

Field Name	LastCapacity
Tag	29
Description	Indicates whether the order submission results from trading as matched principal, on own account or as any other capacity.
Format	Char
Length	1
Possible Values	7 = Dealing on own account (DEAL) 8 = Matched principal (MTCH) 9 = Any other capacity (AOTC)
Conditions	In outbound messages this field is populated only in Drop Copy
Used In	ExecutionReport (8)  MassQuote (i) NewOrderSingle (D) NewWholesaleOrder (U64) CrossOrder (U67) TradeCaptureReport (AE) TradeCaptureReportAck (AR)
Used For	Cash and Derivatives

#### LastPx

Field Name	LastPx
Tag	31
Description	The LastPx (31) indicates the price of last fill on an instrument (to be calculated with Price/Index Level Decimals).
Format	Price
Length	20
Possible Values	From -2^63+1 to 2^63-1
Conditions	Provided only in case of a Full or Partial execution, or Trade Cancellation.  For a trade cancellation in ExecutionReport (8) the LastPx (31) refers to price of the cancelled trade.  Negative values are possible:  on ETF Access when the order is sent on the NAV trading Order Book (EMM = 8);  on Derivatives markets, in any conditions that results a negative price;
Used In	ExecutionReport (8)
Used For	Cash and Derivatives

# LastQty

Field Name	LastQty
Tag	32
Description	The LastQty (32) indicates the quantity of the last fill on an instrument (to be calculated with Quantity Decimals).
Format	Qty
Length	20
Possible Values	From 0 to 2^64-2
Conditions	Provided only in case of a Full or Partial execution and Trade Cancellation. In the ExecutionReport (8) message, sent as a notification of a trade cancellation, the LastQty (32) refers to Quantity of the cancelled trade.
Used In	ExecutionReport (8) RFQAudit (U72)
Used For	Cash and Derivatives

## ${\bf Last Msg Seq Num Processed}$

Field Name	LastMsgSeqNumProcessed
Tag	369
Description	Indicates to the Client which was the Message Sequence Number of the last message processed by the Exchange.
Format	SeqNum
Length	10
Possible Values	From 1 to 2^32-2
Conditions	Provided to clients in outbound messages.
Used In	Header
Used For	Cash and Derivatives

## LeavesQty

Field Name	LeavesQty
Tag	151
Description	Indicates the remaining quantity of an order, i.e. the quantity open for further execution (to be calculated with Quantity Decimals).

Field Name	LeavesQty
Format	Qty
Length	20
Possible Values	From -1 to 2^64-2
Conditions	If the OrdStatus(39) is = 4 (Canceled), 3 (Done For Day), C (Expired) or 8 (Rejected) (in which case the order is no longer active) then LeavesQty is set to '0'. If the ExecType (150) and OrdStatus(39) is = H (Cancel Trade) then LeavesQty (151) is set to '-1' (meaning not provided).  If the ExecType (150) and OrdStatus(39) are set to 'H' (Cancel Trade) or if ExecType (150) is set to value 'j' (RFQ Ack) then LeavesQty (151) is set to '-1' (meaning not provided).
Used In	ExecutionReport (8)
Used For	Cash and Derivatives

## LegErrorCode

Field Name	LegErrorCode
Tag	21084
Description	Error code of the Leg in case of rejection.
	Provides the return error code when a request is rejected for a functional or a technical reason.
Format	Int
Length	5
Possible Values	From 0 to 2^16-2
Used In	WholesaleOrderAck (U65)
Used For	Derivatives

# LegExecID

Field Name	LegExecID
Tag	1893
Description	The LegExecID (1893) is unique per instrument and per day. It is the unique identifier of a trade for each leg of the strategy trade. This field is provided in case of fill, partial fill or trade cancellation for a strategy.
Format	String
Length	10
Possible Values	From 0 to 2^32-2
Used In	ExecutionReport (8)
Used For	Derivatives

### LegLastPx

Field Name	LegLastPx
Tag	637
Description	Execution price assigned to a leg (to be calculated with Price/Index Level Decimals).
Format	Price
Length	20
Possible Values	From -2^63+1 to 2^63-1
Conditions	For derivatives markets only.
Used In	ExecutionReport (8)
	CrossOrder (U67)
Used For	Derivatives

## LegLastQty

Field Name	LegLastQty
Tag	1418
Description	Execution quantity for the leg (to be calculated with Quantity Decimals).
Format	Qty
Length	20
Possible Values	From 0 to 2^64-2
Conditions	For derivatives market only.
Used In	ExecutionReport (8)
	CrossOrder (U67)
Used For	Derivatives

## LegLast Trading Date

Field Name	LegLastTradingDate
Tag	21092
Description	Maturity Date of the leg of the strategy (text formatted as YYYYMMDD).
Format	LocalMktDate
Length	8
Possible Values	Valid values: YYYY = 0000-9999, MM = 01-12, DD = 01-31
Conditions	In SecurityDefinitionRequest (c) and NewWholesaleOrder (U64) messages this field should be populated when required to identify a Derivative outright as a leg of the strategy.
Used In	NewWholesaleOrder (U64) SecurityDefinitionRequest (c)
Used For	Derivatives

# LegPrice

Field Name	LegPrice
Tag	566
Description	Price of corresponding strategy leg (to be calculated with the Price/Index Level Decimals).
Format	Price
Length	20
Possible Values	From -2^63+1 to 2^63-1
Conditions	This field is populated in all SecurityDefinitionRequest (c) messages, except for the submission of a Delta-neutral strategy. For Delta-neutral this field should not be provided.
	The field is used to provide the price of the Underlying leg in a submission of a Delta-neutral strategy using the Security Definition Request (c) messages. In all other cases of submission of the Security Definition Request (c) messages this field should not be provided.
Used In	NewWholesaleOrder (U64)
	SecurityDefinitionRequest (c)
Used For	Derivatives

# LegPutOrCall

Field Name	LegPutOrCall
Tag	1358
Description	Type of the option as leg.

Field Name	LegPutOrCall
Format	Int
Length	1
Possible Values	1 = Call
	0 = Put
Conditions	Only for Derivative Markets and Mandatory in message SecurityDefinitionRequest (c) and NewWholesaleOrder (U64) only populated for strategies when leg is an Option, and LegSecurityType (609) = 'OPT'.
Used In	NewWholesaleOrder (U64)
	SecurityDefinitionRequest (c)
Used For	Derivatives

# LegRatio

Field Name	LegRatio
Tag	21091
Description	Ratio of lots for the leg. For contingent trades, the delta.
	■ For Contracts (Future or Option), it is the leg ratio, with the maximum value being 99999. If the value submitted by a customer is higher, it will be changed by the system to the maximum value (99999).
	■ For Underlyings (Cash or Future), the delta is used with special rules: For the Underlying leg of volatility strategies, this should be the delta represented directly as an integer value of the percentage, without division or decimals (e.g.: a delta of 65% should be represented by 65), with the maximum value being 9999 (9999%). If the value submitted by a customer is higher, it will be changed by the system to the maximum value (9999). For Conversion Reversal Strategies (Type = 'R'), the delta is always set to 100.
Format	Int
Length	7
Possible Values	From 0 to 2^32-2
Conditions	For NewWholesaleOrder (U64) only populated for strategies
Used In	NewWholesaleOrder (U64)
	SecurityDefinitionRequest (c)
Used For	Derivatives

# LegSecurityIDSource

Field Name	LegSecurityIDSource
Tag	603
Description	Gives the type of LegSecurityID (602).
Format	String
Length	1
Possible Values	8 = Symbol Index
Conditions	Required if LegSecurityID (602) is provided. For Derivatives markets only.
Used In	ExecutionReport (8) SecurityDefinitionRequest (c) NewWholesaleOrder (U64) WholesaleOrderAck (U65) CrossOrder (U67)
Used For	Derivatives

## LegSecurityType

Field Name	LegSecurityType
Tag	609
Description	Defines the type of instrument of the Leg
Format	String
Length	11
Conditions	Defines the value in LegSecurityID (602). Required if LegSecurityID (602) is provided.
Possible Values	FUT = Future  OPT = Option  CASH = Cash
Used In	NewWholesaleOrder (U64) SecurityDefinitionRequest (c)
Used For	Derivatives

# LegSide

Field Name	LegSide
Tag	624
Description	Indicates the side of the trade leg.
Format	Char
Length	1
Possible Values	1 = Buy
	2 = Sell
Conditions	For Derivatives markets only. For NewWholesaleOrder (U64) only populated for strategies
Used In	ExecutionReport (8)
	SecurityDefinitionRequest (c)
	WholesaleOrderAck (U65)
Used For	Derivatives

# LegStrikePrice

Field Name	LegStrikePrice
Tag	612
Description	The strike price of an option/warrant is the specified price at which the underlying can be bought (in the case of a call/right to buy) or sold (in case of a put/right to sell) by the holder (buyer) of the option/warrant contract, at the moment he exercises his right against a writer (seller) of the option/warrant.
Format	Price
Length	20
Possible Values	From -2^63+1 to 2^63-1
Conditions	In SecurityDefinitionRequest (c) message this field should not be populated.
	The value provided with Price/Index Level Decimals if the leg is an option.
Used In	SecurityDefinitionRequest (c)
Used For	Derivatives

# LegSymbol

Field Name	LegSymbol
Tag	600

Field Name	LegSymbol
Description	Identifies the contract of this instrument by its Symbol Index.
Format	String
Length	10
Possible Values	From 0 to 2^32-2
Conditions	Required if NoLegs (555) >= 1. For Derivatives markets only. When populated should always contain the Symbol Index of the Contract
Used In	SecurityDefinitionRequest (c) WholesaleOrderAck (U65) CrossOrder (U67)
Used For	Derivatives

## LegSecurityID

Field Name	LegSecurityID
Tag	602
Description	MDG proprietary identification code of the instrument leg for the strategy. This identifier is unique per triplet: MIC, ISIN and currency. Once the instrument is expired its number can be used for a new instrument.
Format	String
Length	10
Possible Values	From 0 to 2^32-2
Conditions	For Derivatives Markets only.
Used In	SecurityDefinitionRequest (c) NewWholesaleOrder (U64) WholesaleOrderAck (U65) CrossOrder (U67)
Used For	Derivatives

#### LISTransactionID

Field Name	LISTransactionID
Tag	21085
Description	ID that can be used to associated Executions belonging to the same LIS Transaction
Format	String
Length	10
Possible Values	From 0 to 2^32-2
Used In	ExecutionReport (8)
	NewWholesaleOrder (U64)
	WholesaleOrderAck (U65)
Used For	Derivatives

### LogicalAccessID

Field Name	LogicalAccessID
Tag	21021
Description	Identifier of the Logical Access.
Format	Int
Length	10
Possible Values	From 0 to 2^32-2

Field Name	LogicalAccessID
Conditions	It is required in Logon (A) message.
	It is required in the OwnershipRequest (U18) message when the OrderID (37) is not provided.
	In the ExecutionReport (8) message, when combined to the OEPartitionID (21019), it provides the OE Session that owns the order.
	In the OrderMassCancelRequest (q) message it can be used as filter to cancel orders belonging to this Logical Access.
	In OrderCancelReject (9) message this field is provided only in Drop Copy.
Used In	ExecutionReport (8)
	Logon (A)
	OrderMassCancelReport (r)
	OrderMassCancelRequest (q)
	OwnershipRequest (U18)
	OwnershipRequestAck (U29)
	<u>UserNotification (CB)</u>
	OrderCancelReject (9)
Used For	Cash and Derivatives

### LongClientID

Field Name	LongClientID
Tag	21804
Description	Field used to identify the Client (investor), or trader's reference / posting order number for a pre-posting, entered as a free text used for clearing purposes. This field is part of the clearing aggregate for Derivatives.
Format	String
Length	16
Possible Values	(see field description)
Conditions	If the field LongClientID (21804) is also provided for the Cash markets, it will be ignored.
Used In	ExecutionReport (8)  NewOrderSingle (D)  OrderCancelReplaceRequest (G)  NewWholesaleOrder (U64)
	CrossOrder (U67)
Used For	Derivatives

### **LPActionCode**

Field Name	LPActionCode
Tag	10076
Description	Action the Liquidity Provider wants to apply on the specified instrument of warrant type.
Format	Char
Length	1
Possible Values	1 = Knock-In By Issuer (KIBI)
	2 = Knock-Out By Issuer (KOBI)
	3 = Payment After Knock-Out (PAKO)
	4 = Bid Only
	5 = Offer Only
	6 = Price Input
Conditions	For RequestAckMessage (Uy) it is provided only if it is an answer to a LiquidityProviderCommand (UZ). In inbound LiquidityProviderCommand (UZ) messages, 6 (Price Input) is not a possible value, and is only provided in outbound RequestAckMessage (Uy) in response of the PriceInput (UI)
Used In	LiquidityProviderCommand (UZ)
	RequestAckMessage (Uy)

Field Name	LPActionCode
Used For	Cash

#### **LPRole**

Field Name	LPRole
Tag	20021
Description	Identifies the type of the Liquidity Provider when AccountCode is equal to 'Liquidity Provider'.
Format	Int
Length	2
Possible Values	1 = Liquidity Provider or Market Maker 3 = Retail Liquidity Provider 12 = RFQ Liquidity Provider
Conditions	LPRole (20021) is mandatory when AccountCode (6399) is equal to 'Liquidity Provider'. In OrderCancelReplaceRequest (G) message, if provided the value is ignored.
Used In	ExecutionReport (8)  MassQuote (i)  MassQuoteAck (b)  NewOrderSingle (D)  OrderCancelReplaceRequest (G)
Used For	Cash and Derivatives



## MassActionReportID

Field Name	MassActionReportID
Tag	1369
Description	Exchange allocated order mass cancel report ID.
Format	String
Length	20
Possible Values	Value provided by the Trading Engine
Used In	OrderMassCancelReport (r)
Used For	Cash and Derivatives

### ${\bf Mass Cancel Request Type}$

Field Name	MassCancelRequestType
Tag	530
Description	Specifies the scope of the OrderMassCancelRequest (q). The specified action is only applicable to the orders already present in the book.
Format	Char
Length	1
Possible Values	1 = Cancel orders for a security
	A = Cancel orders for a security group
	3 = Cancel Orders for a Product
Used In	OrderMassCancelReport (r)
	OrderMassCancelRequest (g)

Field Name	MassCancelRequestType
Used For	Cash and Derivatives

### ${\bf Mass Cancel Response}$

Field Name	MassCancelResponse
Tag	531
Description	Specifies the action taken by counterparty order handling system as a result of the OrderMassCancelRequest (AF).
Format	Char
Length	1
Possible Values	1 = Cancel orders for a security
	A = Cancel orders for a security group
Used In	OrderMassCancelReport (r)
Used For	Cash and Derivatives

### ${\bf Mass Status Req ID}$

Field Name	MassStatusReqID
Tag	584
Description	Unique Identifier assigned by the client to the OrderMassStatusRequest (AF).
Format	String
Length	20
Possible Values	From -2^63+1 to 2^63-1
Conditions	Mandatory in inbound OrderMassStatusRequest (AF) message. Provided in outbound ExecutionReport (8) if sent as a response to a OrderMassStatusRequest (AF) message.
	In outbound ExecutionReport (8) messages if MassStatusReqID (584) is filled ClOrdID (11) is not provided.
Used In	ExecutionReport (8)
	OrderMassStatusRequest (AF)
Used For	Cash and Derivatives

### ${\bf Mass Status Req Type}$

Field Name	MassStatusReqType
Tag	585
Description	Specifies the scope of the OrderMassStatusRequest (AF).
Format	Int
Length	3
Possible Values	101 = Status of a single order
Used In	OrderMassStatusRequest (AF)
Used For	Cash and Derivatives

### Message Price Notation

Field Name	MessagePriceNotation
Tag	21803
Description	This field provides the type of price notation used per message. For TRF and MOC products the value "Price" is used for TAM Trading mode, the values "Spread in basis points" and "Spread" are used for TAIC trading mode.
Format	Int

Field Name	MessagePriceNotation
Length	2
Possible Values	1 = Price
	2 = Spread in Basis Points
	3 = Spread
Conditions	Currently this functionality is used only for TRF and MOC products. Note that for the TRF products the value "Spread" means "Spread in index point"
Used In	ExecutionReport (8)
	NewWholesaleOrder (U64)
	CrossOrder (U67)
Used For	Derivatives

### **MinQty**

Field Name	MinQty
Tag	110
Description	Minimum quantity to be executed upon order entry (else the order is rejected), to be calculated with Quantity Decimals.
Format	Qty
Length	20
Possible Values	Value '0' by default and depending to a minimum value for the given instrument and/or market type
Conditions	Optional when entered in NewOrderSingle (D).
	Provided as is (if previously entered by client) in ExecutionReport (8).
Used In	ExecutionReport (8)
	NewOrderSingle (D)
	QuoteRequest (R)
	RFQNotification (U35)
	RFQAudit (U72)
Used For	Cash and Derivatives

### MICofSecondaryListing

Field Name	MICofSecondaryListing
Tag	21065
Description	Identifies the secondary listing place to which an instrument belongs by its MIC (Market Identification Code), segment MIC according to ISO 10383.
Format	String
Length	10
Possible Values	(See field description)
Conditions	In inbound TradeCaptureReport (AE) messages for declarations on the secondary listing place (TrdType = '1004'), the fields SecurityID and MICofSecondaryListing must be provided.
	In associated outbound messages, provided only to acknowledge receipt of the original declaration
Used In	TradeCaptureReport (AE)
	TradeCaptureReportAck (AR)
Used For	TCS (Cash)

### MiscFeeAmt

Field Name	MiscFeeAmt
Tag	137

Description	Miscellaneous Fee Value. Total order fees related to the funds share creation or redemption applied by the Asset Manager per order.
Format	Amt
Length	20
Possible Values	From -2^63+1 to 2^63-1
Used In	TradeCaptureReportAck (AR)
Used For	TCS (Cash)

### MsgSeqNum

Field Name	MsgSeqNum
Tag	34
Description	The MsgSeqNum (34) is mandatory for all inbound messages and identifies the sequence number of the inbound or outbound message.
Format	SeqNum
Length	10
Possible Values	From 1 to 2^32-2
Used In	Header
Used For	Cash and Derivatives

## MsgType

Field Name	MsgType
Tag	35
Description	Specifies the Message type.
Format	String
Length	3
Possible Values	0 = Heartbeat
	1 = TestRequest
	2 = ResendRequest
	3 = Reject
	4 = SequenceReset
	5 = Logout
	6 = IOI
	8 = ExecutionReport
	9 = OrderCancelReject
	A = Logon
	D = NewOrderSingle
	F = OrderCancelRequest
	G = OrderCancelReplaceRequest
	R = QuoteRequest
	b = MassQuoteAck
	i = MassQuote
	q = OrderMassCancelRequest
	r = OrderMassCancelReport
	AF = OrderMassStatusRequest
	AG = QuoteRequestReject
	CB = UserNotification
	U18 = OwnershipRequest
	U29 = OwnershipRequestAck
	U35 = RFQNotification

Field Name	MsgType
	U36 = RFQMatchingStatus
	U37 = RFQLPMatchingStatus
	UI = PriceInput
	c = SecurityDefinitionRequest
	d = SecurityDefinition
	UM = RequestForExecution
	UL = AskForQuote
	UZ = LiquidityProviderCommand
	Uy = RequestAckMessage
	U64 = NewWholesaleOrder
	U65 = WholesaleOrderAck
	U66 = RequestForImpliedExecution
	U67 = CrossOrder
	U68 = ERGCommand
	U69 = ERGCommandAck
	U70 = GetRiskControls
	U71 = RiskControlDetails
	U72 = RFQAudit
	U73 = IOINotification
	U50 = InstrumentSynchronizationList
	U51 = SynchronizationTime
	AE = TradeCaptureReport
	AR = TradeCaptureReportAck
	U44 = FundPriceInput
	U45 = FundPriceInputAck
Used In	Header
Used For	Cash and Derivatives



### ${\bf Nested Order Attribute Type}$

Field Name	NestedOrderAttributeType
Tag	21087
Description	Represents the type of order attribute.
Format	Int
Length	1
Possible Values	0 = Aggregated order
	1 = Pending allocation
Conditions	Required if NoNestedOrderAttributes(21086) >= 1.
Used In	NewWholesaleOrder (U64)
	WholesaleOrderAck (U65)
	ExecutionReport (8)
Used For	Cash and Derivatives

#### NestedOrderAttributeValue

Field Name	NestedOrderAttributeValue
Tag	21088
Description	The value associated with the order attribute type specified in NestedOrderAttributeType (21087).

Field Name	NestedOrderAttributeValue
Format	String
Length	1
Possible Values	Y = Yes
Conditions	Required if NoNestedOrderAttributes(21086) >= 1.
Used In	NewWholesaleOrder (U64) WholesaleOrderAck (U65) ExecutionReport (8)
Used For	Cash and Derivatives

### NestedPartyID

Field Name	NestedPartyID
Tag	524
Description	Party identifier/code within a repeating group. See NestedPartyIDSource (525) and NestedPartyRole (538).
Format	String
Length	11
Possible Values	Alphanumeric
Conditions	Mandatory if NoNestedPartyIDs (539) >= 1.  When used for MiFID short codes, the field's characters are restricted to numerical values ('0''9'), with possible values range from -2^31 to 2^31-1.  When used in the inbound messages for specifying the Clearing Firm ID and the Client ID, the maximum length is 8
	characters long, and value may be alphanumeric.  When used to provide the ClientIdentificationShortCode values 1 and 2 in this field are reserved for internal use by the Exchange, and must not be provided in the inbound messages. If submitted the associated inbound message will be rejected.
Used In	ExecutionReport (8)  MassQuote (i)  NewOrderSingle (D)  OrderCancelReplaceRequest (G)  NewWholesaleOrder (U64)  WholesaleOrderAck (U65)  RequestForImpliedExecution (U66)  CrossOrder (U67)  TradeCaptureReport (AE)  TradeCaptureReportAck (AR)
Used For	Cash and Derivatives

### NestedPartyIDSource

Field Name	NestedPartyIDSource
Tag	525
Description	Source of NestedPartyID (524) value.
Format	Char
Length	1
Possible Values	D = Proprietary / Custom code
	P = Short code identifier
	C = Generally accepted market participant identifier
Conditions	Mandatory if NoNestedPartyIDs (539)>= 1
Used In	ExecutionReport (8)
	MassQuote (i)
	NewOrderSingle (D)

Field Name	NestedPartyIDSource
	OrderCancelReplaceRequest (G)
	NewWholesaleOrder (U64)
	WholesaleOrderAck (U65)
	RequestForImpliedExecution (U66)
	CrossOrder (U67)
	TradeCaptureReport (AE)
	TradeCaptureReportAck (AR)
Used For	Cash and Derivatives

### ${\bf Nested Party Role}$

Field Name	NestedPartyRole
Tag	538
Description	Identifies the type or role of the NestedPartyID (524) specified.
Format	Int
Length	3
Possible Values	3 = Client ID 4 = Clearing Firm 26 = Correspondent Broker 122 = Investment decision maker 999 = Not Applicable
Conditions	Mandatory if No NestedPartyIDs (539) >= 1.  Value 999 = Not Applicable is used only in Drop Copy. The value is used when the original message from the trading OEG is sent in SBE and has no equivalent values in FIX protocol.
Used In	ExecutionReport (8)  MassQuote (i)  NewOrderSingle (D)  OrderCancelReplaceRequest (G)  NewWholesaleOrder (U64)  WholesaleOrderAck (U65)  RequestForImpliedExecution (U66)  CrossOrder (U67)  TradeCaptureReport (AE)  TradeCaptureReportAck (AR)
Used For	Cash and Derivatives

### NestedPartyRoleQualifier

Field Name	NestedPartyRoleQualifier
Tag	2384
Description	Used to further qualify the value of NestedPartyRole(538).
Format	Int
Length	2
Possible Values	3 = General clearing member
	4 = Individual clearing member
	22 = Algorithm
	23 = Firm or legal entity
	24 = Natural person
	99 = Not Applicable
Conditions	In Inbound messages Mandatory if NoNestedPartyIDs (539) >= 1
	In Outbound messages, with exception of case listed below - if submitted by the client, filled in with this information.

Field Name	NestedPartyRoleQualifier
	Exception case: in messages from TCS when the repeating group is used to provide the Clearing Firm ID - In this case, where NestedPartyIDSource (525)is set to D (Proprietary / Custom Code) AND NestedPartyRole (538) = 4 (Clearing Firm), this field is not provided.
	Value 99 = Not Applicable is used only in Drop Copy. The value is used when the original message from the trading OEG is sent in SBE and has no equivalent values in FIX protocol.
Used In	ExecutionReport (8)
	MassQuote (i)
	NewOrderSingle (D)
	OrderCancelReplaceRequest (G)
	NewWholesaleOrder (U64)
	WholesaleOrderAck (U65)
	RequestForImpliedExecution (U66)
	CrossOrder (U67)
	TradeCaptureReport (AE)
	TradeCaptureReportAck (AR)
Used For	Cash and Derivatives

## NextExpectedMsgSeqNum

Field Name	NextExpectedMsgSeqNum
Tag	789
Description	Indicates the sequence number plus one (+1) of the last message received by the Client from the Exchange on the OE Session.
Format	SeqNum
Length	10
Possible Values	From 1 to 2^32-2
Used In	Logon (A)
Used For	Cash and Derivatives

## NewSeqNo

Field Name	NewSeqNo
Tag	36
Description	Identifies the MsgSeNum (34) of the next message to be received from the counterpart application.
Format	SeqNum
Length	10
Possible Values	From 1 to 2^32-2
Used In	SequenceReset (4)
Used For	Cash and Derivatives

# NoInstrumentScopes

Field Name	NoInstrumentScopes
Tag	1656
Description	Number of Instrument scopes entries.
Format	NumInGroup
Length	1
Possible Values	If provided, always set to 1
Conditions	Provided in case UserStatus (926) referes to Block, Unblock or Order Size Limit.

Field Name	NoInstrumentScopes
Used In	UserNotification (CB)
Used For	Cash and Derivatives

### NoLegs

Field Name	NoLegs
Tag	555
Description	Number of legs entries for the requested strategy.
Format	NumlnGroup
Length	2
Possible Values	From 1 to 32
Conditions	Provided as is (if previously entered by client) in ExecutionReport (8).
Used In	ExecutionReport (8) SecurityDefinitionRequest (c) NewWholesaleOrder (U64) WholesaleOrderAck (U65) CrossOrder (U67)
Used For	Cash and Derivatives

#### NonExecCIID

Field Name	NonExecClID
Tag	21081
Description	This field will be used as unique client Key. Field indicating the client ID of the participant in a commercial package, e.g. Ceres, Omega, etc.
Format	Int
Length	5
Possible Values	From 0 to 2^16-1
Conditions	In NewOrderSingle (D) message this field must be populated if AccountCode (6399) is "Omega Client" or "Ceres Client"
Used In	NewOrderSingle (D)
	CrossOrder (U67)
Used For	Derivatives

## NoNestedPartyIDs

Field Name	NoNestedPartyIDs
Tag	539
Description	Number of NestedPartyID entries.
Format	NumInGroup
Length	1
Possible Values	From 1 to 10
Used In	ExecutionReport (8)
	MassQuote (i)
	NewOrderSingle (D)
	OrderCancelReplaceRequest (G)
	NewWholesaleOrder (U64)
	WholesaleOrderAck (U65)
	RequestForImpliedExecution (U66)

Field Name	NoNestedPartyIDs
	CrossOrder (U67)
	TradeCaptureReport (AE)
	TradeCaptureReportAck (AR)
Used For	Cash and Derivatives

### NoOrderAttributes

Field Name	NoOrderAttributes
Tag	2593
Description	Number of order attribute entries.
Format	NuminGroup
Length	1
Possible Values	If provided, From 1 to 2
Used In	ExecutionReport (8) LiquidityProviderCommand (UZ) MassQuote (i) NewOrderSingle (D) OrderCancelReplaceRequest (G) OrderCancelRequest (F) OrderMassCancelRequest (q) OrderMassStatusRequest (AF) OwnershipRequest (U18) PriceInput (U1) NewWholesaleOrder (U64) WholesaleOrderAck (U65) RequestForImpliedExecution (U66) CrossOrder (U67) TradeCaptureReport (AE)
Used For	Cash and Derivatives

### NoNestedOrderAttributes

Field Name	NoNestedOrderAttributes
Tag	21086
Description	Number of NoNestedOrderAttributes (21086) entries.
Format	NumInGroup
Length	1
Possible Values	If provided, Always set to 1
Used In	NewWholesaleOrder (U64)
	WholesaleOrderAck (U65)
	ExecutionReport (8)
Used For	Cash and Derivatives

### **NoParameters**

Field Name	NoParameters
Tag	21107
Description	Indicates the number of control parameters provided after a request of the risk controls.
Format	NumInGroup

Field Name	NoParameters
Length	3
Possible Values	From 1 to 254
Used In	RiskControlDetails (U71)
Used For	Derivatives

### NoPartyIDs

Field Name	NoPartyIDs
Tag	453
Description	Number of PartyID entries.
Format	NumInGroup
Length	1
Possible Values	From 1 to 2
Used In	ExecutionReport (8)
	<u>LiquidityProviderCommand (UZ)</u>
	MassQuote (i)
	NewOrderSingle (D)
	NewWholesaleOrder (U64)
	OrderCancelReplaceRequest (G)
	OrderCancelRequest (F)
	OrderMassCancelRequest (q)
	OrderMassStatusRequest (AF)
	OwnershipRequest (U18)
	PriceInput (UI)
	QuoteRequest (R)
	<u>UserNotification (CB)</u>
	WholesaleOrderAck (U65)
	RequestForImpliedExecution (U66)
	CrossOrder (U67)
	OrderMassCancelReport (r)
	TradeCaptureReport (AE)
	TradeCaptureReportAck (AR)
Used For	Cash and Derivatives

### NoQuoteEntries

Field Name	NoQuoteEntries
Tag	295
Description	Number of entries in Quotes repeating group.
Format	NumInGroup
Length	1
Possible Values	Always set to 1
Used In	MassQuote (i)
	MassQuoteAck (b)
Used For	Cash and Derivatives

### NoQuoteSets

Field Name	NoQuoteSets
Tag	296

Field Name	NoQuoteSets
Description	The number of sets of quotes in the message
Format	NumInGroup
Length	3
Possible Values	From 1 to 150
Conditions	On the Warrants & Certificates segment the possible values and maximum number of repetitions for this group is 150
Used In	MassQuote (i)
	MassQuoteAck (b)
Used For	Cash and Derivatives

## NoRelatedSym

Field Name	NoRelatedSym
Tag	146
Description	Number of related symbols (instruments) in a message
Format	NumInGroup
Length	3
Possible Values	From 1 to 254
Used In	InstrumentSynchronizationList (U50)
	QuoteRequestReject (AG)
Used For	Cash and Derivatives

### NoRoutingIDs

Field Name	NoRoutingIDs
Tag	215
Description	Required if any RoutingType and RoutingIDs are specified.
Format	NumInGroup
Length	2
Possible Values	From 1 to 10
Used In	<u>IOI (6)</u>
Used For	Cash

### **NoSides**

Field Name	NoSides
Tag	552
Description	Number of sides.
Format	NumlnGroup
Length	1
Possible Values	From 1 to 2
Used In	ExecutionReport (8)
	NewOrderSingle (D)
	NewWholesaleOrder (U64)
	CrossOrder (U67)
	TradeCaptureReportAck (AR)
Used For	Cash and Derivatives

### NoRFQCounterparts

Field Name	NoFRQCounterpartss
Tag	21110
Description	Indicates the number of counterpart having participated to the RFQ.
Format	NumlnGroup
Length	1
Possible Values	From 1 to 50
Used In	RFQAudit (U72)
Used For	Cash

### NumberOfLPs

Field Name	NumberOfLPs
Tag	21034
Description	Indicates the number of LPs who sent an answer to a specific RFQ.
Format	Int
Length	2
Possible Values	From 0 to 2^8-2
Conditions	In RFQ Matching Status (U36) this field is not sent when equal 0.
Used In	RFQMatchingStatus (U36)
Used For	Cash



### **OEPartitionID**

Field Name	<b>OEPartitionID</b>
Tag	21019
Description	Identifies uniquely an OE Optiq partition by which the engine is reached.
Format	Int
Length	5
Possible Values	From 0 to 2^16-2
Conditions	In Logon (A) message it must be set according to the partition to which the messages are sent.
	In the OwnershipRequest (U18) message it is optional. If populated it is used to restrict the request of ownership to the orders belonging to the specified LogicalAccessID (21021) and entered through this partition.
	In the OrderMassCancelRequest (q) message it is optional, but if populated then LogicalAccessID (21021) field is mandatory. If populated it is used as a filter to cancel Potential Matching Price Orders entered through this partition (it can be combined with other criteria).
	In the ExecutionReport (8) message it indicates to which OE Session the orders belong to (in response to OrderMassStatusRequest (AF) and OwnershipRequest (U18)).
	In OrderCancelReject (9) message this field is provided only in Drop Copy.
Used In	ExecutionReport (8) Logon (A) OrderMassCancelReport (r) OrderMassCancelRequest (q) OwnershipRequest (U18) OwnershipRequestAck (U29) OrderCancelReject (9)

Field Name	OEPartitionID
Used For	Cash and Derivatives

#### **OEGINFromME**

Field Name	OEGINFromME
Tag	7765
Description	Gateway IN time from ME (in ns), measured when outbound message enters the gateway (Format: YYYYMMDD-HH:MM:SS.sssssss).
Format	UTCTimestamp
Length	27
Possible Values	Valid values: YYYY = 0000-9999, MM = 01-12, DD = 01-31, HH = 00-23, MM = 00-59, SS = 00-59, ssssssss = 000000000-999999999 (nanoseconds)
Used In	ExecutionReport (8)
	MassQuoteAck (b)
	OrderCancelReject (9)
	OrderMassCancelReport (r)
	QuoteRequestReject (AG)
	RequestAckMessage (Uy)
	RFQLPMatchingStatus (U37)
	RFQMatchingStatus (U36)
	RFQNotification (U35)
	SecurityDefinition (d)
	WholesaleOrderAck (U65)
	RFQAudit (U72)
	ERGCommandAck (U69)
	RiskControlDetails (U71)
	<u>IOI (6)</u>
	IOINotification (U73)
Used For	Cash and Derivatives

1	Formatted: Dutch (Netherlands)
1	Field Code Changed
Y	Formatted: Dutch (Netherlands)
Y	Field Code Changed
Y	Field Code Changed

### **OEGINFromMember**

Field Name	<b>OEGINFromMember</b>
Tag	5979
Description	Order Entry Gateway IN time from member (in nanoseconds), measured when inbound message enters the gateway (Format: YYYYMMDD-HH:MM:SS.ssssssss).
Format	UTCTimestamp
Length	27
Possible Values	Valid values: YYYY = 0000-9999, MM = 01-12, DD = 01-31, HH = 00-23, MM = 00-59, SS = 00-59, SSSSSSSS = 000000000-9999999999 (nanoseconds)
Used In	ExecutionReport (8)
	MassQuoteAck (b)
	OrderCancelReject (9)
	OrderMassCancelReport (r)
	QuoteRequestReject (AG)
	RequestAckMessage (Uy)
	SecurityDefinition (d)
	WholesaleOrderAck (U65)
	ERGCommandAck (U69)
	RiskControlDetails (U71)
	<u>IOI (6)</u>

Field Name	OEGINFromMember
	IOINotification (U73)
Used For	Cash and Derivatives

### **OEGOUTTOME**

Field Name	OEGOUTTOME
Tag	7764
Description	Gateway OUT time to ME (in ns), measured when inbound message leaves the gateway (Format: YYYYMMDD-HH:MM:SS.sssssss).
Format	UTCTimestamp
Length	27
Possible Values	Valid values: YYYY = 0000-9999, MM = 01-12, DD = 01-31, HH = 00-23, MM = 00-59, SS = 00-59, ssssssss = 000000000-999999999 (nanoseconds)
Used In	ExecutionReport (8)
	MassQuoteAck (b)
	OrderCancelReject (9)
	OrderMassCancelReport (r)
	QuoteRequestReject (AG)
	RequestAckMessage (Uy)
	RFQLPMatchingStatus (U37)
	RFQMatchingStatus (U36)
	RFQNotification (U35)
	SecurityDefinition (d)
	<u>WholesaleOrderAck (U65)</u>
	RFQAudit (U72)
	ERGCommandAck (U69)
	RiskControlDetails (U71)
	<u>IOI (6)</u>
	IOINotification (U73)
Used For	Cash and Derivatives

Field Code Changed	
Field Code Changed	
Field Code Changed	

### OfferErrorCode

Field Name	OfferErrorCode
Tag	9935
Description	Error code returned when a quote contains an invalid offer.  See Euronext Markets - Optiq & TCS Error List file (.csv) for details of error codes.
Format	Int
Length	6
Possible Values	From 0 to 2^16-2
Conditions	If an error is detected in the field OfferSize (135) or in the field OfferPx (133), the error code is provided in the OfferErrorCode (9935) field.
Used In	MassQuoteAck (b)
Used For	Cash and Derivatives

### OfferQuoteID

Field Name	OfferQuoteID
Tag	1748
Description	Numerical order identifier assigned by the matching engine, unique per instrument and EMM.

Field Name	OfferQuoteID
Format	String
Length	20
Possible Values	From 0 to 2^64-2
Conditions	Provided only if the MassQuote (i) message contains an offer quote. The field OrderID (37) in ExecutionReport (8) message sent in case of trade resulting from a matching against a (bulk) Quote is filled with value in OfferQuoteID (1748) field corresponding to the Offer quote that participated in the trade.
Used In	MassQuoteAck (b) WholesaleOrderAck (U65)
Used For	Cash and Derivatives

### OfferNonExecClID

Field Name	OfferNonExecCIID
Tag	21090
Description	This field will be used as unique client Key for the Offer side. Field indicating the client ID of the participant in a commercial package, e.g. Ceres, Omega, etc.
Format	Int
Length	5
Possible Values	From 0 to 2^16-1
Used In	NewWholesaleOrder (U64) WholesaleOrderAck (U65)
Used For	Derivatives

### OfferPx

Field Name	OfferPx
Tag	133
Description	Quote offer price (to be calculated with Price/Index Level Decimals).
Format	Price
Length	20
Possible Values	From -2^63+1 to 2^63-1
Conditions	In MassQuote (i) either the field OfferPx (133), or the field BidPx (132), or both, must be populated.
Used In	MassQuote (i)
Used For	Cash and Derivatives

### OfferSize

Field Name	OfferSize
Tag	135
Description	Quote offer quantity (to be calculated with Quantity Decimals). Cancels a quote if set to zero '0'.
Format	Qty
Length	20
Possible Values	From 0 to 2^64-2
Conditions	Cancels the quote if set to '0'. In the NewWholesaleOrder (U64) messages submitted by the Initiator the OfferSize (135) must be the maximum volume to match in the transaction when the leading side is Sell.
Used In	MassQuote (i) NewWholesaleOrder (U64)
Used For	Cash and Derivatives

## OnBehalfOfCompID

Field Name	OnBehalfOfCompID
Tag	115
Description	ID of the issuing firm when the message is send through a third party.
Format	String
Length	8
Possible Values	Inbound: Not used / Outbound: Firm ID
Conditions	In case a firm's Logical access is configured with Additional allowed member code(s) [ACL] on top of the mandatory Member Code [Owner] that owns / requests the connection:
	If these member codes (between Owner and ACL) are not the same, the field OnBehalfOfCompID (115) is mandatory in Inbound messages. Otherwise the field is not mandatory.
Used In	Header
Used For	Cash and Derivatives

### OrderActorType

Field Name	OrderActorType
Tag	21109
Description	Member role for RFC.
Format	Int
Length	1
Possible Values	1 = Initiator
	2 = Reactor
Used In	CrossOrder (U67)
Used For	Derivatives

## **OrderCategory**

Field Name	OrderCategory
Tag	21041
Description	Field used as instruction for order handling. When not provided, it is assumed to be set at value 1 "Lit Order".
	- Lit Order: indicates whether the client requests to cancel a Lit order.
	- LIS Order: indicates whether the client requests to cancel a LIS order.
	- Quote Request: indicates whether the client requests to cancel a Quote Request.
	- RFQ LP Answer: indicates whether the client requests to cancel an LP Answer to a Quote Request.
Format	Char
Length	1
Possible Values	1 = Lit Order
	2 = LIS Order
	3 = Quote Request
	4 = RFQ LP Answer
Conditions	When not provided or provided, it is assumed to be set at value 1 "Lit Order".
Used In	OrderCancelRequest (F)
	OrderMassCancelReport (r)
	OrderMassCancelRequest (q)
	OrderMassStatusRequest (AF)
	OwnershipRequest (U18)
	OwnershipRequestAck (U29)
	RFQNotification (U35)

Field Code Changed
Field Code Changed

Field Name	OrderCategory
Used For	Cash

### OrderID

Field Name	OrderiD
Tag	37
Description	Numerical order identifier assigned by the matching engine, unique per instrument and EMM.
Format	String
Length	20
Possible Values	From 0 to 2^64-2
Conditions	In case a message is rejected for Technical reasons, it isn't processed by the trading engine and the OrderID (37) is not provided in the rejection message.
	Technical rejection cases can be identified by the type of the Error code, as provided in the field "Technical / Functional" within the Euronext Markets - Optiq & TCS Error List file (.csv).
	If a client sends an OrderID (37) which, however, can be decoded by the system, this value is provided back to the client in the OrderCancelReject (9), exactly as entered.
	The field OrderID (37) in ExecutionReport (8) message sent in case of trade resulting from a matching against a (bulk) Quote is filled with value of either BidQuoteID (1747) or OfferQuoteID (1748), corresponding to the side of the quote that participated in the trade.
	On ETF Access platform:
	- In case of an ExecutionReport (8) message sent as a response to a QuoteRequest (R), the OrderID (37) field will contains the "RFQ Identifier" information.
	- In case the client uses OrderCancelRequest (F) to cancel an RFQ sent through the QuoteRequest (R), the OrderID (37) field should contain the "RFQ Identifier" information previously received in the ExecutionReport (8) message.
	- In case of an OrderCancelReject (9) message sent as a response to an OrderCancelRequest (F) previously sent about an RFQ, the OrderID (37) field will contains the "RFQ Identifier" information.
	For the Derivatives segments – in response to the Quote Request message (for RFQ) the value in this field is the same as the one provided in the QuoteReqID (131) field.
Used In	ExecutionReport (8)
	OrderCancelReject (9)
	OrderCancelReplaceRequest (G)
	OrderCancelRequest (F)
	OrderMassStatusRequest (AF)
	OwnershipRequest (U18)
	OwnershipRequestAck (U29)
	RequestForImpliedExecution (U66)
Used For	Cash and Derivatives

### **OrderPriority**

Field Name	OrderPriority
Tag	21004
Description	Rank giving the priority of the order. The order with the lowest value of OrderPriority has the highest priority.  OrderPriority (21004) is unique per SecurityID (48) and EMM (20020), therefore, it is also used as the unique order identifier in the market data feed.  Order Priority should then allow clients to reconcile their orders between private order entry and market data feed.  Used in conjunction with Previous Priority, for market data only.
Format	Int
Length	20
Possible Values	From 0 to 2^64-2
Used In	ExecutionReport (8)
Used For	Cash and Derivatives

## OrderQty

Field Name	OrderQty
Tag	38
Description	Total order quantity, per quantity unit (to be calculated with Quantity Decimals).
Format	Qty
Length	20
Possible Values	From 0 to 2^64-2
Conditions	In OrderCancelReplaceRequest (G) message:  - (i) when sent to confirm a breached collar of an order, values in this field must be provided, but won't be taken into consideration  - (ii) when sent to modify an order, value will be modified to the one provided.  In IOI (6) message:  - required only when IOIQty (27) different than "Undisclosed Qty" – ignored in all other cases
Used In	ExecutionReport (8) NewOrderSingle (D) OrderCancelReplaceRequest (G) QuoteRequest (R) RFQNotification (U35) CrossOrder (U67) JOI (6) JOINotification (U73)
Used For	Cash and Derivatives

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1	Field Code Changed

### OrderSizeLimit

Field Name	OrderSizeLimit
Tag	21102
Description	Indicates the Maximum Order Size above which all orders will be rejected by the Matching Engine (applied per order level). (to be calculated with Quantity Decimals).
Format	Qty
Length	20
Possible Values	From 0 to 2^64-2
Conditions	In ERGCommand (U68), required when ActionType (21097) is set to 5 = Order Size Limit and OSLFlag (21101) is set to Y = True — it's ignored in all the other cases.  In UserNotification (CB), for the cases when UserStatus (926) is sent with value 130 = Order Size Limit Deactivated by
	Risk Manager, OrderSizeLimit (21102) is not sent.
Used In	ERGCommand (U68)  ERGCommandAck (U69)  GetRiskControls (U70)  RiskControlDetails (U71)
	UserNotification (CB)
Used For	Derivatives

Fie	d Code Changed
Fie	d Code Changed

### OrdType

Field Name	OrdType
Tag	40
Description	Type of Order.
	Please note that the values Stop-market/Stop-market-on-Quote, Stop limit/Stop-limit-on-quote, Average Price, Iceberg
	and Mid-Point Peg are used only for the Order Entry, they will never be populated in the Market Data feed.

Field Name	OrdType
Format	Char
Length	1
Possible Values	1 = Market 2 = Limit 3 = Stop-Market / Stop-Market on quote 4 = Stop limit / Stop on quote limit K = Market to limit P = Peg
	T = Average Price X = Iceberg
Conditions	Value 'T' is used only for RFQ validation on ETF Access platform only.  The only possible value in case of Cross Order (67) is value '2'.  For OrderCancelReplaceRequest (G) and OrderCancelRequest (F) messages if the OrdType (40) is different than the OrdType (40) of the targeted order, the request will be rejected with the reason "Unknown Order".  In OrderCancelReplaceRequest (G) message:  - (i) when sent to confirm a breached collar of an order, values in this field must be provided, but won't be taken into consideration  - (ii) when sent to modify an order, if the value provided doesn't match the one of the original order, the modification is rejected.
Used In	ExecutionReport (8) NewOrderSingle (D) OrderCancelReplaceRequest (G) OrderCancelRequest (F) CrossOrder (U67)
Used For	Cash and Derivatives

### ${\bf Order Attribute Type}$

Field Name	OrderAttributeType
Tag	2594
Description	The type of order attribute.
Format	Int
Length	1
Possible Values	0 = Aggregated order
	1 = Pending allocation
	3 = Risk reduction order
Conditions	Required if NoOrderAttributes(2593) >= 1.
Used In	ExecutionReport (8)
	<u>LiquidityProviderCommand (UZ)</u>
	MassQuote (i)
	NewOrderSingle (D)
	NewWholesaleOrder (U64)
	OrderCancelReplaceRequest (G)
	OrderCancelRequest (F)
	OrderMassCancelRequest (q)
	OrderMassStatusRequest (AF)
	OwnershipRequest (U18)
	PriceInput (UI)
	WholesaleOrderAck (U65)
	RequestForImpliedExecution (U66)
	CrossOrder (U67)
	TradeCaptureReport (AE)

Field Name	OrderAttributeType
Used For	Cash and Derivatives

### OrderAttributeValue

Field Name	OrderAttributeValue
Tag	2595
Description	The value associated with the order attribute type specified in OrderAttributeType (2594).
Format	String
Length	1
Possible Values	Y = Yes
Conditions	Required if NoOrderAttributes(2593) >= 1.
Used In	ExecutionReport (8)
	<u>LiquidityProviderCommand (UZ)</u>
	MassQuote (i)
	NewOrderSingle (D)
	NewWholesaleOrder (U64)
	OrderCancelReplaceRequest (G)
	OrderCancelRequest (F)
	OrderMassCancelRequest (q)
	OrderMassStatusRequest (AF)
	OwnershipRequest (U18)
	PriceInput (UI)
	WholesaleOrderAck (U65)
	RequestForImpliedExecution (U66)
	CrossOrder (U67)
	TTradeCaptureReport (AE)
Used For	Cash and Derivatives

### OrderOrigination

Field Name	OrderOrigination
Tag	1724
Description	Identifies the origin of the order.
Format	Int
Length	1
Possible Values	5 = Order received from a direct access or sponsored access customer
	11 = Central Order Book 12 = LP Answer
Conditions	Mandatory in case of a DEA access.  In OrderCancelReplaceRequest (G) message:  - (i) when sent to confirm a breached collar of an order, values in this field must be provided, but won't be taken into consideration  - (ii) when sent to modify an order, value will be modified to the one provided.  In outbound messages this field is populated only in Drop Copy.
Used In	ExecutionReport (8) MassQuote (i) NewOrderSingle (D) NewWholesaleOrder (U64) OrderCancelReplaceRequest (G) WholesaleOrderAck (U65) RequestForImpliedExecution (U66)

Field Name	OrderOrigination
	CrossOrder (U67)
	RFQAudit (U72)
	TradeCaptureReport (AE)
Used For	Cash and Derivatives

#### **OrdStatus**

Field Name	OrdStatus
Tag	39
Description	Identifies the current status of the order.
Format	Char
Length	1
Possible Values	0 = New
	1 = Partially filled
	2 = Filled
	3 = Done for Day
	4 = Cancelled
	5 = Replaced
	8 = Rejected
	C = Expired
	H = Cancel Trade
	I = Order Status
	M = RFQ expired
	O = RFQ cancelled by the issuer
	P = RFQ Not matched due to issuer order's features
	Q = VFU/VFC Triggered Ack
	R = OrderMassStatusRequest Ack
	S = Stop Triggered Ack
	T = MTL Second Ack
	Z = Message Rejected
Used In	ExecutionReport (8)
	OrderCancelReject (9)
Used For	Cash and Derivatives

## OrigClOrdID

Field Name	OrigClOrdID
Tag	41
Description	Identifies the ClOrdID (11) of the original order, used to identify the previous order on cancel and replacement requests.
Format	String
Length	20
Possible Values	From -2^63+1 to 2^63-1
Conditions	It is provided in the ExecutionReport (8) message only as response of a modification or cancellation done on OrigClOrdID (41).
Used In	ExecutionReport (8) OrderCancelReplaceRequest (G) OrderCancelRequest (F) OrderMassStatusRequest (AF) OwnershipRequest (U18)
Used For	Cash and Derivatives

## OrigSendingTime

Field Name	OrigSendingTime
Tag	122
Description	Time (in ns) of message transmission (Format: YYYYMMDD-HH:MM:SS.ssssssss).
Format	UTCTimestamp
Length	27
Possible Values	YYYY = 0000-9999, MM = 01-12, DD = 01-31, HH = 00-23, MM = 00-59, SS = 00-59, ssssssss = 000000000-999999999 (nanoseconds)
Conditions	Required for applicative messages resent as a result of a ResendRequest (2) or automatic resynchronization at Logon. Field is not populated in outbound SequenceReset-GapFill message and is not expected in inbound SequenceReset-GapFill message.
Used In	Header
Used For	Cash and Derivatives

### **OSLFlag**

Field Name	OSLFlag
Tag	21101
Description	Indicates if the Order Size Limit functionalityis to be activated or deactivated.
Format	Boolean
Length	1
Possible Values	Y=True
	N = False
Conditions	In ERGCommand (U68), required when ActionType (21097) is set to 5 = Order Size Limit – it's ignored in all the other
	cases.
Used In	ERGCommand (U68)
	ERGCommandAck (U69)
	GetRiskControls (U70)
	RiskControlDetails (U71)
Used For	Derivatives

Field Code Changed
Field Code Changed



#### **ParentExecID**

Field Name	ParentExecID
Tag	21094
Description	Unique identifier of a parent trade executed on the strategy.
Format	String
Length	10
Possible Values	From 0 to 2^32-2
Conditions	For Derivatives markets the notifications of a trade cancelation for a strategy are sent on the individual leg level. When provided the field ParentExecID (21094) identifies the ExecID (17) provided in the ExecutionReport (8) for each partial or full fill and allows to map all legs of the strategy.
Used In	ExecutionReport (8)
Used For	Derivatives

### ParentSecurityID

Field Name	ParentSecurityID ParentSecurityID
Tag	21093
Description	Exchange identification code used to point to the strategy in the leg specific messages
Format	String
Length	10
Possible Values	From 0 to 2^32-2
Conditions	For the Derivatives markets ExecutionReport (8) messages sent for cancellation of a trade for a strategy are sent on the individual leg level. When provided the fields ParentSecurityID (21093) and ParentExecID (21094), identify the original trade communicated via ExecutionReport (8) message.
Used In	ExecutionReport (8)
Used For	Derivatives

## PartyID

Field Name	PartyID
Tag	448
Description	Party identifier/code. See PartyIDSource (447) and PartyRole (452).
Format	String
Length	11
Possible Values	Alphanumeric
Conditions	Mandatory if NoPartyIDs >= 1.  When used for MiFID short codes, the field's characters are restricted to numerical values ('0' '9'), with possible values range from -2^31 to 2^31-1.  When used to provide the ClientIdentificationShortCode values 1 and 2 in this field are reserved for internal use by the Exchange, and must not be provided in the inbound messages. If submitted the associated inbound message will be rejected.
Used In	ExecutionReport (8) LiquidityProviderCommand (UZ) MassQuote (i) NewOrderSingle (D) NewWholesaleOrder (U64) OrderCancelReplaceRequest (G) OrderCancelRequest (F) OrderMassCancelRequest (Q) OrderMassStatusRequest (AF) OwnershipRequest (U18) PriceInput (UI) QuoteRequest (R) UserNotification (CB) WholesaleOrderAck (U65) RequestForImpliedExecution (U66) CrossOrder (U67) OrderMassCancelReport (AE) TradeCaptureReport (AE) TradeCaptureReport (AE) TradeCaptureReport (AE)
Used For	Cash and Derivatives

### **PartyIDSource**

Field Name	PartyIDSource
Tag	447
Description	Source of PartyID value.
Format	Char
Length	1
Possible Values	D = Proprietary / Custom Code
	P = Short code identifier
Conditions	Mandatory if NoPartyIDs >= 1
Used In	ExecutionReport (8)
	<u>LiquidityProviderCommand (UZ)</u>
	MassQuote (i)
	NewOrderSingle (D)
	NewWholesaleOrder (U64)
	OrderCancelReplaceRequest (G)
	OrderCancelRequest (F)
	OrderMassCancelRequest (q)
	OrderMassStatusRequest (AF)
	OwnershipRequest (U18)
	PriceInput (UI)
	QuoteRequest (R)
	<u>UserNotification (CB)</u>
	WholesaleOrderAck (U65)
	RequestForImpliedExecution (U66)
	CrossOrder (U67)
	OrderMassCancelReport (r)
	TradeCaptureReport (AE)
	TradeCaptureReportAck (AR)
Used For	Cash and Derivatives

### **PartyRole**

Field Name	PartyRole
Tag	452
Description	Identifies the type or role of the PartyID (448) specified.
Format	Int
Length	3
Possible Values	1 = Executing Firm 3 = Client ID 12 = Executing Trader 17 = Contra Firm 999 = Not Applicable
Conditions	Mandatory if NoPartyIDs >= 1.  For every inbound message, at least one authorized value must be provided, e.g 12,3.  Value 999 = Not Applicable is used only in Drop Copy. The value is used when the original message from the trading OEG is sent in SBE and has no equivalent values in FIX protocol.
Used In	ExecutionReport (8) LiquidityProviderCommand (UZ) MassQuote (i) NewOrderSingle (D) NewWholesaleOrder (U64)

Field Name	PartyRole
	OrderCancelReplaceRequest (G)
	OrderCancelRequest (F)
	OrderMassCancelRequest (q)
	OrderMassStatusRequest (AF)
	OwnershipRequest (U18)
	PriceInput (UI)
	QuoteRequest (R)
	<u>UserNotification (CB)</u>
	WholesaleOrderAck (U65)
	RequestForImpliedExecution (U66)
	CrossOrder (U67)
	OrderMassCancelReport (r)
	TradeCaptureReport (AE)
	TradeCaptureReportAck (AR)
Used For	Cash and Derivatives

## PartyRoleQualifier

Field Name	PartyRoleQualifier
Tag	2376
Description	Used to further qualify the value of PartyRole(452).
Format	Int
Length	2
Possible Values	22 = Algorithm 23 = Firm or legal entity 24 = Natural person 99 = Not Applicable
Conditions	Mandatory if NoPartyIDs >= 1 For notifications triggered due to Risk Guard Service this field is not sent. Value 99 = Not Applicable is used only in Drop Copy. The value is used when the original message from the trading OEG is sent in SBE and has no equivalent values in FIX protocol.
Used In	ExecutionReport (8) LiquidityProviderCommand (UZ) MassQuote (i) NewOrderSingle (D) NewWholesaleOrder (U64) OrderCancelReplaceRequest (G) OrderCancelRequest (F) OrderMassCancelRequest (AF) OwnershipRequest (U18) PriceInput (UI) QuoteRequest (R) UserNotification (CB) WholesaleOrderAck (U65) RequestForImpliedExecution (U66) CrossOrder (U67) OrderMassCancelReport (r) TradeCaptureReport (AE) TradeCaptureReportAck (AR)
Used For	Cash and Derivatives

## PegOffsetValue

Field Name	PegOffsetValue
Tag	211
Description	Tick offset for a pegged order.  Used to indicate the signed tick added to the peg reference for a pegged order.
Format	Int
Length	3
Possible Values	From -127 to 127
Conditions	Mandatory for Primary and Market Peg Orders.  If the OrderCancelReplaceRequest (G) is used to confirm a new order that can be executed upon entry, but whose matching price hits a collar, this field can't be populated.
Used In	ExecutionReport (8) NewOrderSingle (D) OrderCancelReplaceRequest (G)
Used For	Cash

# PegPriceType

Field Name	PegPriceType
Tag	1094
Description	Defines the type of the peg order.
Format	Int
Length	1
Possible Values	2 = Mid-price peg (midprice of inside quote) 4 = Market peg 5 = Primary peg (primary market - buy at bid or sell at offer)
Conditions	Mandatory if OrdType = P (Peg). In OrderCancelReplaceRequest (G) message: - (i) when sent to confirm a breached collar of an order, values in this field must be provided, but won't be taken into consideration - (ii) when sent to modify an order, value will be modified to the one provided
Used In	ExecutionReport (8) NewOrderSingle (D) OrderCancelReplaceRequest (G) OrderCancelRequest (F)
Used For	Cash

## PossDupFlag

Field Name	PossDupFlag
Tag	43
Description	Identifies if a message is being retransmitted or not.
Format	Boolean
Length	1
Possible Values	N = Original transmission (default) Y = Possible duplicate
Conditions	Field provided in all cases when the message is being resent.
Used In	Header
Used For	Cash and Derivatives

### PossResend

Field Name	PossResend
Tag	97
Description	Indicates if the message contains information that was already sent under a different sequence number.
Format	Boolean
Length	1
Possible Values	N = Original transmission
	Y = Possible resend
Used In	Header
Used For	Cash and Derivatives

### PostingAction

Field Name	PostingAction
Tag	7443
Description	Posting action code (Open/Close) for the order. This field is part of the clearing aggregate.
	This field can contain up to 9 values, space delimited, provided in different positions.
	The first character will be used to indicate whether this field is being actively used or not (1 = Actively Used; 0 = Field Not Used).
	For each Leg, 0 means Open and 1 means Close.
	Leg 2 to Leg 9 are applicable for Derivatives strategy instruments (not for cash instruments).
Format	MultipleCharValue
Length	19
Possible Values	0 = Field Actively Used
	1 = Leg 1
	2 = Leg 2
	3 = Leg 3
	4 = Leg 4
	5 = Leg 5
	6 = Leg 6
	7 = Leg 7
	8 = Leg 8
	9 = Leg 9
Used In	ExecutionReport (8)
	MassQuote (i)
	MassQuoteAck (b)
	NewOrderSingle (D)
	NewWholesaleOrder (U64)
	OrderCancelReplaceRequest (G)
	CrossOrder (U67)
Used For	Cash and Derivatives

## PotentialMatchingPrice

Field Name	PotentialMatchingPrice
Tag	21030
Description	The PotentialMatchingPrice (21030) indicates to the RFQ issuer the matching price (to be calculated with Price/Index Level Decimals) for the PotentialMatchingQuantity (21031).

Field Name	PotentialMatchingPrice
	The PotentialMatchingPrice (21030) is recalculated and resend to the RFQ issuer through the RFQMatchingStatus (U36) message each time the order book is updated.
Format	Price
Length	20
Possible Values	From -2^63+1 to 2^63-1
Conditions	Can be negative when the price is expressed in bps. Available only for EMM = 8 (ETF MTF - NAV)
Used In	RFQMatchingStatus (U36)
Used For	Cash

## PotentialMatchingQuantity

Field Name	PotentialMatchingQuantity
Tag	21031
Description	The Potential Matching Quantity (21031) indicates the maximum volume that would be matched in case of an RFQ validation (to be calculated with Quantity Decimals).
	When this message is sent to the RFQ issuer, it indicates the maximum volume that would be matched in case of an RFQ validation sent with an average limit price equal to the PotentialMatchingPrice (21030).
	When this message is sent to a Liquidity Provider, it indicates the total order quantity that would be matched in case of a validation sent by the RFQ Issuer.
Format	Qty
Length	20
Possible Values	From 0 to 2^64-2
Used In	RFQLPMatchingStatus (U37)
	RFQMatchingStatus (U36)
Used For	Cash

### PreMatchingIndicator

Field Name	PreMatchingIndicator
Tag	10042
Description	Pre-matching delay indicator for a TCS Declaration.
Format	Int
Length	1
Possible Values	1 = Not pre-matched
	2 = Pre-matched for the next fixing
	3 = Pre-matched for the second next fixing
	4 = Pre-matched for the third next fixing
	5 = Pre-matched for the fourth next fixing
	6 = Pre-matched for the fifth next fixing
Conditions	In inbound TradeCaptureReport (AE) message (TCS), provided only when TrdType = '1002' or '1003'.
	In outbound TradeCaptureReportAck (AR) messages (TCS) provided only for messages with TrdType is '1002' or '1003'
Used In	<u>TradeCaptureReportAck (AR)</u>
Used For	TCS ( Cash and Derivatives)

## PreviousDayFlag

Field Name	PreviousDayFlag
Tag	9952

Description	Flag indicator whether declaration matched at D or D-1. (0: [indicated as False] means "matched at D"; 1: [indicated as True] means "matched at D-1")
Format	Boolean
Length	1
Possible Values	0 = False
	1 = True
Used In	<u>TradeCaptureReportAck (AR)</u>
Used For	TCS (Cash)

### Purge

Field Name	Purge
Tag	21100
Description	Identifies the action to be applied to the active orders/quotes.
Format	Boolean
Length	1
Possible Values	Y = True
	N = False
Conditions	In ERGCommand (U68), only taken into account for the cases when ActionType (21097) is set to 1 = Suspend or 3 = Block — it's ignored in all the other cases.
Used In	ERGCommand (U68)
	ERGCommandAck (U69)
Used For	Derivatives

### Price

Field Name	Price
Tag	44
Description	Instrument price per quantity unit (to be calculated with Price/Index Level Decimals).
	It is mandatory for priced orders (Limit, Stop-limit) and must not be sent when the price is irrelevant (Market, Stopmarket, Peg, MTL).
Format	Price
Length	20
Possible Values	From -2^63+1 to 2^63-1
Conditions	In NewOrderSingle (D) and OrderCancelReplaceRequest (G) requests:
	<ul> <li>Mandatory if: OrdType (40) = 2 (Limit), OrdType (40) = 4 (Stop Limit) or OrdType (40) = X (Iceberg).;</li> </ul>
	<ul> <li>Negative values are possible on the Derivatives Markets and on ETF Access when the order is sent on the NAV trading Order Book (EMM = 8).</li> </ul>
	In OrderCancelReplaceRequest (G) message:
	- (i) when sent to confirm a breached collar of an order, values in this field must be provided, but won't be taken into consideration
	- (ii) when sent to modify an order, value will be modified to the one provided
	In NewWholesaleOrder (U64) message, for the Derivative markets, when price is not applicable, the field Price (44) should be populated with value of zero (0).
Used In	ExecutionReport (8)
	NewOrderSingle (D)
	OrderCancelReplaceRequest (G)
	PriceInput (UI)
	NewWholesaleOrder (U64)
	WholesaleOrderAck (U65)

Field Name	Price
	CrossOrder (U67)
	TradeCaptureReport (AE)
	TradeCaptureReportAck (AR)
	FundPriceInput (U44)
	FundPriceInputAck (U45)
	RFQAudit (U72)
Used For	Cash and Derivatives

## PrincipalCode

Field Name	PrincipalCode
Tag	20155
Description	Identifies the beneficiary of the transaction when trading on behalf of another establishment.
Format	String
Length	20
Possible Values	Alphanumeric
Used In	TradeCaptureReport (AE)
	TradeCaptureReportAck (AR)
Used For	TCS ( Cash and Derivatives)



## Quantity

Field Name	Quantity
Tag	53
Description	Number of traded or ordered units (to be calculated with Quantity Decimals).
Format	Qty
Length	20
Possible Values	From 0 to 2^64-2
Conditions	For TradeCaptureReport (AE) message, it is always provided when TrdType = '43', '44', '51', '1001', '1002' or '1004'. For a trade/declaration on Dutch Funds if expressed as an amount (TrdType = '1003'), this field should not be provided.  In NewWholesaleOrder (U64) message for the Derivative markets, when quantity is not applicable, the field Quantity (53) should be populated with value of zero (0).
Used In	NewWholesaleOrder (U64) WholesaleOrderAck (U65) TradeCaptureReport (AE) TradeCaptureReportAck (AR)
Used For	Cash and Derivatives

### QueueingIndicator

Field Name	QueueingIndicator
Tag	21020
Description	Indicates whether the client requests its orders to be queued or rejected in case of throttling. (0: False - Reject; 1: True - Queue).
Format	Int
Length	1
Possible Values	0 = False

Field Name	QueueingIndicator
	1 = True
Used In	Logon (A)
Used For	Cash and Derivatives

### QuoteEntryID

Field Name	QuoteEntryID
Tag	299
Description	Uniquely identifies the quote across the complete set of all quotes for a given quote provider.
Format	String
Length	10
Possible Values	From 0 to 2^32-2
Used In	MassQuote (i)
	MassQuoteAck (b)
Used For	Cash and Derivatives

### QuoteID

Field Name	QuoteID
Tag	117
Description	Quote identifier.
Format	String
Length	20
Possible Values	From -2^63+1 to 2^63-1
Used In	MassQuote (i)
	MassQuoteAck (b)
Used For	Cash and Derivatives

## QuoteReqID

Field Name	QuoteReqID
Tag	131
Description	Numerical RFQ identifier assigned by the matching engine, unique per instrument and EMM.
Format	String
Length	20
Possible Values	From 0 to 2^64-2
Conditions	For ETF Access Platform, this field is Mandatory if the fields RFQAnswerIndicator (21037) and RFQConfirmationIndicator (21038) are set to 'Yes'.  For the Derivatives segments — this field specifies the Quote Request ID of the original submitted Quote Request (R) message (for RFQ) and has the same value as in the field OrderID (37).
Used In	ExecutionReport (8) NewOrderSingle (D) QuoteRequestReject (AG) RFQLPMatchingStatus (U37) RFQMatchingStatus (U36) RFQNotification (U35) RFQAudit (U72)
Used For	Cash

### ${\bf Quote Request Reject Reason}$

Field Name	QuoteRequestRejectReason
Tag	658
Description	Reason the QuoteRequest (R) was rejected.
Format	Int
Length	2
Possible Values	99 = Other
Used In	QuoteRequestReject (AG)
Used For	Cash and Derivatives

### QuoteSetID

Field Name	QuoteSetID
Tag	302
Description	Unique ID for the Quote set.
Format	String
Length	10
Possible Values	From 1 to 2^32-2
Conditions	Sequential number for the Quote Set. For a given QuoteID (117) - assumed to start at 1. Must be the first field in the repeating group.
Used In	MassQuote (i) MassQuoteAck (b)
Used For	Cash and Derivatives

### QuoteStatus

Field Name	QuoteStatus
Tag	297
Description	Status of the mass quote acknowledgement.
Format	Int
Length	2
Possible Values	0 = Accepted
	5 = Rejected
Used In	MassQuoteAck (b)
Used For	Cash and Derivatives



### RefMsgType

Field Name	RefMsgType
Tag	372
Description	The MsgType (35) of the FIX message being referenced.
Format	String
Length	3

Field Name	RefMsgType
Possible Values	Value received in the rejected inbound message, if any
Conditions	This field is provided only if the message type is referenced in the rejection.
Used In	Reject (3)
	RequestAckMessage (Uy)
	<u>TradeCaptureReportAck (AR)</u>
Used For	Cash and Derivatives

## RefSeqNum

Field Name	RefSeqNum
Tag	45
Description	Identifies the message sequence number (MsgSeqNum (34)) of the message being rejected.
Format	SeqNum
Length	10
Possible Values	From 1 to 2^32-2
Used In	Reject (3)
Used For	Cash and Derivatives

## RefTagID

Field Name	RefTagID
Tag	371
Description	Identifies the tag number of the FIX field being referenced as the reason triggering the rejection.
Format	Int
Length	6
Possible Values	Integer
Conditions	This field is provided only if the tag number is referenced in the rejection.
Used In	Reject (3)
Used For	Cash and Derivatives

### RequestID

Field Name	RequestID
Tag	21060
Description	Unique message identifier as assigned by the Client when submitting the message request.
Format	String
Length	20
Possible Values	From -2^63+1 to 2^63-1
Conditions	In case of an acknowledgement or rejection message for PriceInput (UI), LiquidityProviderCommand (UZ) or OwnershipRequest U18) message, this field is filled with the ClOrdID (11).  In case of an acknowledgement or rejection message for OrderMassStatusRequest (AF) message, this field is filled with the MassStatusReqID (584).  In case of an acknowledgement or rejection message for RequestForImpliedExecution (U66) message, this field is filled with the ClOrdID (11).
Used In	RequestAckMessage (Uy) ERGCommand (U68) ERGCommandAck (U69) GetRiskControls (U70)

Field Name	RequestID
	RiskControlDetails (U71)
Used For	Cash and Derivatives

# Resynchronization ID

Field Name	ResynchronizationID
Tag	20030
Description	Each Instrument is assigned to a ResynchronizationID (20030) that is used in case of failover.
Format	Int
Length	5
Possible Values	From 0 to 2^16-2
Used In	InstrumentSynchronizationList (U50) SynchronizationTime (U51)
Used For	Cash and Derivatives

# ${\bf Risk Control Type}$

Field Name	RiskControlType
Tag	21103
Description	Identifies the type of Risk Guard Control on which the details are requested.
Format	Int
Length	1
Possible Values	1 = All Parameters
	2 = Order Size Limit
	3 = Suspend
	4 = Block
Used In	GetRiskControls (U70)
	RiskControlDetails (U71)
Used For	Derivatives

# RiskFamily

Field Name	RiskFamily
Tag	20165
Description	Identifier of the family.
Format	String
Length	8
Possible Values	Alphanumeric
Conditions	If provided in the UserNotification (CB) message, it specifies the scope of the action specified in UserStatus (926).
Used In	UserNotification (CB)
Used For	Cash and Derivatives

## **RFEAnswer**

Field Name	RFEAnswer
Tag	20022
Description	Indicate whether the MassQuote (i) message is an answer to a RequestForExecution (UM) message or not. (0: No [False]; 1: Yes [True])

Field Name	RFEAnswer
Format	Int
Length	1
Possible Values	0 = False
	1 = True
Used In	MassQuote (i)
Used For	Cash and Derivatives

# RFQAnswerIndicator

Field Name	RFQAnswerIndicator
Tag	21037
Description	Indicates whether the message is, or not, a quote sent as an answer to a QuoteRequest (R) message.
Format	Int
Length	1
Possible Values	0 = No
	1 = Yes
Conditions	For ETF Access Platform, this field is Mandatory if the field QuoteReqID (131) is provided.
Used In	ExecutionReport (8)
	NewOrderSingle (D)
Used For	Cash and Derivatives

# ${\bf RFQConfirmation Indicator}$

Field Name	RFQConfirmationIndicator
Tag	21038
Description	Indicates whether the message is, or not, an order sent as a confirmation of a QuoteRequest (R) message.
Format	Int
Length	1
Possible Values	0 = No 1 = Yes
Conditions	For ETF Access Platform, this field is Mandatory if the field QuoteReqID (131) is provided and if the Client is the RFQ issuer.
Used In	ExecutionReport (8) NewOrderSingle (D)
Used For	Cash and Derivatives

# RoutingID

Field Name	RoutingID
Tag	217
Description	Identifies routing destination.
Format	String
Length	30
Possible Values	BUYSIDE
	SELLSIDE
	LOCALSPECIALISTSAMS
	LOCALSPECIALISTSLIS
	LOCALSPECIALISTSBRU

Field Name	RoutingID
	LOCALSPECIALISTSPAR
	INTERESTLIST
	HOLDINGS
	SELLSIDEQUALITY
	EURONEXTDRIVEN
Used In	<u>IOI (6)</u>
Used For	Cash

# RoutingTypes

Field Name	RoutingTypes
Tag	216
Description	Indicates type of RoutingID.
Format	Int
Length	2
Possible Values	2 = Target List
Used In	<u>IOI (6)</u>
Used For	Cash



# SecurityID

Field Name	SecurityID
Tag	48
Description	Exchange identification code of the instrument, represented by SecurityID (48). This identifier is unique per triplet: MIC, ISIN and currency. The correspondence between the SecurityID (48) and the instrument characteristics is provided in the standing data messages and associated files. Symbol Index is valid for the life of the instrument.
Format	String
Length	10
Possible Values	From 0 to 2^32-2
Conditions	In Message RequestAckMessage (Uy) the field SecurityID is populated when the message is sent to provide positive acknowledgement to a message PriceInput (UI) or LiquidityProviderCommand (UZ).
	In case of rejection of PriceInput (UI), LiquidityProviderCommand (UZ), OwnershipRequest (U18), OrderMassStatusRequest (AF) messages – field may not be provided in case of technical rejection, or if the data wasn't provided by the client in the Inbound message.
	For wholesale order this represents numerical leg instrument identifier (SecurityID (48)).
	In ERGCommand (U68) required when ActionType (21097) is set to 3 = Block, 4 = Unblock or 5 = Order Size Limit.
Used In	AskForQuote (UL)
	ExecutionReport (8)
	InstrumentSynchronizationList (U50)
	LiquidityProviderCommand (UZ)
	MassQuote (i)
	MassQuoteAck (b)
	NewOrderSingle (D)
	NewWholesaleOrder (U64)
	OrderCancelReject (9)
	OrderCancelReplaceRequest (G)
	OrderCancelRequest (F)
	OrderMassCancelReport (r)
	<u>OrderMassCancelRequest (q)</u>

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Field Name	SecurityID
	OrderMassStatusRequest (AF)
	OwnershipRequest (U18)
	OwnershipRequestAck (U29)
	PriceInput (UI)
	QuoteRequest (R)
	QuoteRequestReject (AG)
	RequestAckMessage (Uy)
	RequestForExecution (UM)
	RFQLPMatchingStatus (U37)
	RFQMatchingStatus (U36)
	RFQNotification (U35)
	SecurityDefinition (d)
	SecurityDefinitionRequest (c)
	WholesaleOrderAck (U65)
	RequestForImpliedExecution (U66)
	<u>CrossOrder (U67)</u>
	ERGCommand (U68)
	ERGCommandAck (U69)
	GetRiskControls (U70)
	RiskControlDetails (U71)
	TradeCaptureReportAck (AR)
	TradeCaptureReportAck (AR)
	FundPriceInput (U44)
	RFQAudit (U72)
	<u>IOI (6)</u>
	IOINotification (U73)
	FundPriceInputAck (U45)
Used For	Cash and Derivatives

SecurityReqID

Field Name	SecurityReqID
Tag	320
Description	ID of a strategy security definition request
	Clients must provide a SecurityReqID (320) in every SecurityDefinitionRequest (U60) message, otherwise the message will be immediately rejected by the OEG.
	Clients should provide any numerical value. The Exchange recommends setting an unique ID per request and Firm.
	The SecurityReqID (320) value is not checked by the Exchange (besides the format), it is simply returned in the corresponding SecurityDefinitionAck (U61) message to allow clients reconciling the response message with their original security definition request.
Format	String
Length	30
Possible Values	From -2^63+1 to 2^63-1
Used In	SecurityDefinition (d)
	SecurityDefinitionRequest (c)
Used For	Derivatives

# SecurityIDSource

Field Name	SecurityIDSource
Tag	22
Description	Gives the type of SecurityID.

Field Name	SecurityIDSource	
Format	String	
Length	1	
Possible Values	8 = Symbol Index	1
Conditions	In Message RequestAckMessage (Uy) field populated when sent to provide positive acknowledgement of message PriceInput (UI) or LiquidityProviderCommand (UZ). In case of rejection of PriceInput (UI), LiquidityProviderCommand (UZ), OwnershipRequest (U18), OrderMassStatusRequest (AF) messages - field may not be provided in case of technical rejection, or if the data wasn't provided by the client in the inbound message.	
Used In	AskForQuote (UL) ExecutionReport (8) InstrumentSynchronizationList (U50) LiquidityProviderCommand (UZ) MassQuote (i) MassQuoteAck (b) NewOrderSingle (D) NewWholesaleOrder (U64) OrderCancelReject (9) OrderCancelReject (9) OrderCancelReplaceRequest (G) OrderCancelReplaceRequest (F) OrderMassCancelReport (r) OrderMassCancelReport (r) OrderMassCancelRequest (AF) OwnershipRequest (U18) OwnershipRequest (U18) OwnershipRequest (W29) PriceInput (UI) QuoteRequest (R) QuoteRequest (R) QuoteRequestReject (AG) RequestAckMessage (Uy) RequestForExecution (UM) RFQLPMatchingStatus (U37) RFQMatchingStatus (U35) SecurityDefinitionRequest (c) WholesaleOrderAck (U65) RequestForImpliedExecution (U66) CrossOrder (U67)	
	ERGCommand (U68) ERGCommandAck (U69)	
	GetRiskControls (U70)	
	RiskControlDetails (U71)	
	TradeCaptureReport (AE)	
	TradeCaptureReportAck (AR) FundPriceInput (U44),	-
	FundPriceInputAck (U45),	$\rightarrow$
	RFQAudit (U72)	$\uparrow \setminus$
	101 (6)	
	IOINotification (U73)	
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## SecurityRequestType

Field Name	SecurityRequestType
Tag	321

Field Name	SecurityRequestType
Description	Gives the type of SecurityDefinitionRequest (c)
Format	Int
Length	2
Possible Values	4 = Symbol
Used In	SecurityDefinitionRequest (c)
Used For	Derivatives

# **SecurityType**

Field Name	SecurityType
Tag	167
Description	Indicates type of security.
Format	String
Length	4
Possible Values	MLEG = MLEG
Used In	NewWholesaleOrder (U64)
	SecurityDefinitionRequest (c)
	WholesaleOrderAck (U65)
Used For	Derivatives

# SecuritySubType

Field Name	SecuritySubType
Tag	762
Description	Exchange-recognized strategy code
Format	String
Length	1
Possible Values	A = Jelly Roll
	B = Butterfly
	D = Spread
	E = Calendar Spread
	F = Diagonal Calendar Spread
	G = Guts
	H = Two by One Ratio Spread
	I = Iron Butterfly
	J = Combo
	K = Strangle
	L = Ladder
	M = Strip
	N = Straddle Calendar Spread
	O = Pack
	P = Diagonal Straddle Calendar Spread
	Q = Simple Inter Commodity Spread
	R = Conversion / Reversal
	S = Straddle V = Volatility Trade
	v = volatility frade W = Condor
	X = Box
	X = BOX Y = Bundle
	a = Ladder versus Underlying
	a - Lauder versus Onderrying

Field Name	SecuritySubType
	b = Butterfly versus Underlying
	c = Call Spread versus Put versus Underlying
	d = Call or Put Spread versus Underlying
	e = Call or Put Calendar Spread versus Underlying
	f = Call/Put Diagonal Calendar Spread versus Underlying
	g = Guts versus Underlying
	h = Two by One Call or Put Ratio Spread versus Underlying
	i = Iron Butterfly versus Underlying
	j = Combo versus Underlying
	k = Strangle versus Underlying
	m = Exchange for Physical
	n = Straddle Calendar Spread versus Underlying
	p = Put Spread versus Call versus Underlying
	q = Diagonal Straddle Calendar Spread versus Underlying
	r = Synthetic
	s = Straddle versus Underlying
	t = Condor versus Underlying
	v = Iron Condor versus Underlying
	w = Iron Condor
	x = Call Spread versus Sell a Put
	y = Put Spread versus Sell a Call
	z = Put Straddle versus Sell a Call or a Put
Used In	NewWholesaleOrder (U64)
	SecurityDefinitionRequest (c)
	WholesaleOrderAck (U65)
Used For	Derivatives

## SellRevisionIndicator

Field Name	SellRevisionIndicator
Tag	21009
Description	Indicates whether the offer quote is a new quote, a replacement of a previous quote or a cancellation.
Format	Int
Length	1
Possible Values	0 = New
	1 = Replacement
	2 = Cancellation
Conditions	Provided only if the MassQuote (i) message contains an offer quote.
Used In	MassQuoteAck (b)
Used For	Cash and Derivatives

# SenderCompID

Field Name	SenderCompID
Tag	49
Description	Identifier of the member firm that sends the message.
	It is provided by the Exchange upon the registration of the Firm by the Membership department
Format	String
Length	8
Possible Values	Inbound: Firm ID / Outbound: Exchange ID

Field Name	SenderCompID
Conditions	In inbound messages it is the ID of the firm that sent the message. In outbound messages it is the ID of the Exchange.
Used In	Header
Used For	Cash and Derivatives

# SendingTime

Field Name	SendingTime
Tag	52
Description	Time (in ns) of message transmission (Format: YYYYMMDD-HH:MM:SS.sssssss).
Format	UTCTimestamp
Length	27
Possible Values	YYYY = 0000-9999, MM = 01-12, DD = 01-31, HH = 00-23, MM = 00-59, SS = 00-59, ssssssss = 000000000-999999999 (nanoseconds)
Used In	Header
Used For	Cash and Derivatives

## SessionStatus

Field Name	SessionStatus
Tag	1409
Description	Provides the code associated to the reason for the logout.
Format	Int
Length	3
Possible Values	4 = Session logout complete
	5 = Invalid username or password
	9 = Received MsgSeqNum(34) is too low
	10 = Received NextExpectedMsgSeqNum(789) is too high
	100 = Regular Logout By Client
	101 = End Of Day
	102 = System unavailable
	103 = Client session already logged on
	104 = Invalid Logon Value
	105 = SequenceReset - Reset Mode not allowed
	106 = Excessive Number of Messages
	107 = Excessive Amount of Data in Bytes
	108 = Excessive Number of Messages and Amount of Data in Bytes
Used In	Logout (5)
Used For	Cash and Derivatives

# SessionRejectReason

Field Name	SessionRejectReason
Tag	373
Description	Session reject reason code. Code to identify the reason for a session-level rejection message.
Format	Int
Length	2
Possible Values	0 = Invalid Tag Number

Field Name	SessionRejectReason
	1 = Required Tag Missing
	2 = Tag not defined for this message type
	3 = Undefined tag
	4 = Tag specified without a value
	5 = Value is incorrect (out of range) for this tag
	6 = Incorrect data format for value
	7 = Decryption problem
	8 = Signature problem
	9 = CompID problem
	11 = Invalid MsgType
	13 = Tag appears more than once
	14 = Tag specified out of required order
	15 = Repeating group fields out of order
	16 = Incorrect NumInGroup count for repeating group
	18 = Invalid/Unsupported Application Version
	19 = NewSeqNo(36) too low
	20 = Requested MsgSeqNum is higher than last known MsgSeqNum
	21 = EndSeqNo is lower than BeginSeqNo
	22 = MsgSeqNum too high
	23 = Invalid MsgType while waiting for Gap fill
	24 = PossDupFlag set to Y while OEG is not in Gap Fill Mode
	25 = Throttling queue full
	26 = Throttling Rate exceeded
	27 = System busy
	28 = Message type not allowed for the functional configuration of the Logical Access
	99 = Other
Conditions	Provided only in case of rejection due to a poorly formatted message or unknown message type.
Used In	Reject (3)
Used For	Cash and Derivatives

## SettlementFlag

Field Name	SettlementFlag
Tag	9970
Description	Indicates whether the trade must be settled or not. (0: Not Settled ; 1: Settled)
Format	Char
Length	1
Possible Values	0 = False 1 = True
Conditions	In inbound TradeCaptureReport (AE) messages field is mandatory if it is submitted with TradeReportTransType (487) set to 0 = New In outbound TradeCaptureReportAck (AR) messages (from TCS) field SettlementFlag (9970) is always provided
Used In	TradeCaptureReport (AE) TradeCaptureReportAck (AR)
Used For	TCS (Cash)

## **SettlPeriod**

Field Name	SettlPeriod
Tag	10055
Description	Indicates the settlement delay in trading days, from 0 to 30 days.

Format	Int
Length	2
Possible Values	From 0 to 30
Conditions	In inbound TradeCaptureReport (AE) messages field is mandatory if it is submitted with TradeReportTransType (487) set to 0 = New In outbound TradeCaptureReportAck (AR) messages (from TCS) field is provided if the field SettlementFlag (9970) is set to 1 = True
Used In	TradeCaptureReport (AE) TradeCaptureReportAck (AR)
Used For	TCS (Cash)

## Side

Field Name	Side
Tag	54
Description	Indicates the side of the order.
Format	Char
Length	1
Possible Values	1 = Buy 2 = Sell 7 = Undisclosed
Conditions	For OrderCancelReplace (G) and OrderCancelRequest (F) messages if the Side (54) is different than the Side (54) of the targeted order, the request will be rejected with the reason "Unknown Order".  In OrderCancelReplaceRequest (G) message:  - (i) when sent to confirm a breached collar of an order, values in this field must be provided, but won't be taken into consideration  - (ii) when sent to modify an order, if the value provided doesn't match the one of the original order, the modification is rejected.  Mandatory in every inbound TradeCaptureReport (AE) message where TradeReportTransType (487) is 0 = New.  In outbound TradeCaptureReportAck (AR) messages provided only when TrdRptStatus (939) is one of the following values: 4 = Pending New, 10 = Verified, 19 = Filled or 18 = Pre-Matched.  In all inbound messages required if NoSides (552) >= 1.  Value 7 = Undisclosed it's only allowed while sending an IOI (6) — if used in any other inbound message, the message will be rejected;
Used In	ExecutionReport (8)  NewOrderSingle (D)  NewWholesaleOrder (U64)  OrderCancelReplaceRequest (G)  OrderMassCancelReport (r)  OrderMassCancelRequest (q)  QuoteRequest (R)  RFQLPMatchingStatus (U37)  RFQMatchingStatus (U36)  RFQNotification (U35)  CrossOrder (U67)  TradeCaptureReport (AE)  TradeCaptureReportAck (AR)  IOI (6)  IOI (6)  IOINotification (U73)
Used For	Cash

### SoftwareProvider

Field Name	SoftwareProvider
Tag	21050
Description	Free text field entered by the client in the Logon (A) message, identifying the provider of the software used for exchange of messages for trading purposes.
Format	String
Length	8
Possible Values	Free text field
Used In	Logon (A)
Used For	Cash and Derivatives

# StopPx

Field Name	StopPx
Tag	99
Description	Stop Trigger Price is mandatory for stop orders.
Format	Price
Length	20
Possible Values	From -2^63+1 to 2^63-1
Conditions	This field is mandatory for Stop orders.  In OrderCancelReplaceRequest (G) message:  - (i) when sent to confirm a breached collar of an order, values in this field must be provided, but won't be taken into consideration  - (ii) when sent to modify an order, value will be modified to the one provided. It is not provided in the ExecutionReport (8) in outgoing messages.
Used In	ExecutionReport (8) NewOrderSingle (D) OrderCancelReplaceRequest (G)
Used For	Cash

## SelfMatchPreventionID

Field Name	SelfMatchPreventionID
Tag	2362
Description	For Future Use.
Format	String
Length	5
Possible Values	From 0 to 2^16-2
Used In	ExecutionReport (8)
	NewOrderSingle (D)
	OrderCancelReplaceRequest (G)

# STPAggressorIndicator

Field Name	STPAggressorIndicator
Tag	21015
Description	Field used as instruction for order handling STP resting order: indicates whether the STP rule is "cancel resting order" or not. (0: STP Resting Order deactivated; 1: Cancel Resting Order)

Field Name	STPAggressorIndicator
	- STP incoming order: indicates whether the STP rule is "cancel incoming order" or not. (0: STP Incoming Order deactivated; 1: Cancel Incoming Order)
	- STP is not applicable for Dark Orders
Format	Int
Length	1
Possible Values	0 = Cancel resting order
	1 = Cancel incoming order
	9 = Disable STP
Used In	ExecutionReport (8)
	NewOrderSingle (D)
	OrderCancelReplaceRequest (G)
Used For	Cash and Derivatives



# **TargetClientShortCode**

Field Name	TargetClientShortCode
Tag	21108
Description	Identifier of the ClientIdentificationShortCode (provided through <i>Parties or NestedParties</i> ) to which the action will be applied.
Format	String
Length	11
Possible Values	Alphanumeric
Conditions	If provided within ERGCommand (U68) message identifies the ClientIdentificationShortCode upon which the action specified within ActionType (21097) is to be applied – requires TargetFirmID (21098) to be provided as well.  If provided within GetRiskControls (U70) message identifies the ClientIdentificationShortCode for which the risk control details are to be provided.
Used In	ERGCommand (U68)  ERGCommandAck (U69)  GetRiskControls (U70)  RiskControlDetails (U71)
Used For	Cash and Derivatives

# Field Code Changed Field Code Changed

# TargetFirmID

Field Name	TargetFirmID
Tag	21098
Description	Identifier of the member firm to which the specified action is to be applied.
Format	String
Length	8
Conditions	In ERGCommand (U68) message required in case TargetLogicalAccessID (21099), TargetPartyID (21095) or TargetClientShortCode (21108) are specified, or in case ActionType (21097) is 5 = Order SizeLimit.  In GetRiskControls (U70) message required in case TargetLogicalAccessID (21099), TargetPartyID (21095) or TargetClientShortCode (21108) are specified.
Used In	ERGCommand (U58) ERGCommandAck (U69) GetRiskControls (U70) RiskControlDetails (U71)
Used For	Derivatives

Field Code Changed	
Field Code Changed	

# TargetCompID

Field Name	TargetCompID
Tag	56
Description	Message receptor ID.
Format	String
Length	8
Possible Values	Inbound: Exchange ID / Outbound: Firm ID
Conditions	In inbound messages it is the ID of the Exchange. In outbound messages it is the ID of the firm to which the message is sent.
Used In	Header
Used For	Cash and Derivatives

# TargetLogicalAccessID

Field Name	TargetLogicalAccessID
Tag	21099
Description	Identifier of the Logical Access for which the specified action is to be applied.
Format	Int
Length	10
Possible Values	From 0 to 2^32-2
Conditions	In ERGCommand (U68) message the field TargetLogicalAccessID (21099) is ignored if field ActionType (21097) is set to value 5 = Order Size Limit.
Used In	ERGCommand (U68) ERGCommandAck (U69) GetRiskControls (U70) RiskControlDetails (U71)
Used For	Cash and Derivatives

# Field Code Changed Field Code Changed

# TargetPartyID

Field Name	TargetPartyID
Tag	21095
Description	Identifier of the ShortCode used as:  - a filter to reduce the scope of the OrderMassCancelRequest (q) or  - an identifier of the shortcode for which the Risk Guard command is to be applied;
Format	String
Length	11
Possible Values	Alphanumeric
Conditions	If provided in the OrderMassCancelRequest (q) message acts as a filter to reduce the scope of the orders and quotes submitted by the Firm and specified Short code. Value provided in this field may differ from the value specified in PartyID (448), within Parties group, as being the ExecutionWithinFirmShortCode, in the OrderMassCancelRequest (1) message.  If provided within ERGCommand (U68) message identifies the Trader or Algorithm upon which the action specified within ActionType (21097) is to be applied – requires TargetFirmID (21098) to be provided as well.  If provided within GetRiskControls (U70) message identifies the Trader or Algorithm for which the risk control details are to be provided.
Used In	OrderMassCancelRequest (q) OrderMassCancelReport (r) ERGCommand (U68) ERGCommandAck (U69) GetRiskControls (U70) RiskControlDetails (U71)

Field Name	TargetPartyID
Used For	Cash and Derivatives

# ${\bf Technical Ord Type}$

Field Name	TechnicalOrdType
Tag	9941
Description	Indicates the origin of the order; for example, manual entry, or an order coming from a Program Trading system. This field is part of the clearing aggregate.
Format	Char
Length	1
Possible Values	1 = Index trading arbitrage 2 = Portfolio strategy 3 = Unwind order 4 = Other orders (default) 5 = Cross margining
Conditions	In ExecutionReport (8) message, this field is provided only for Drop Copy. Conditions for Drop Copy will be provided at a later date.
Used In	ExecutionReport (8)  MassQuote (i)  MassQuoteAck (b)  NewOrderSingle (D)  NewWholesaleOrder (U64)  OrderCancelReplaceRequest (G)  CrossOrder (U67)
Used For	Cash and Derivatives

## TestReqID

Field Name	TestReqID
Tag	112
Description	Test Request ID to be returned in Heartbeat (0).
Format	String
Length	24
Possible Values	Numerical
Conditions	Required when the HeartBeat (0) message is the result of a TestRequest (1) Message.
Used In	Heartbeat (0)
	TestRequest (1)
Used For	Cash and Derivatives

## Text

Field Name	Text
Tag	58
Description	Free Text is manually entered by the trader issuing the order, or provided by the Exchange or Risk manager. For order submittion message this field is part of the clearing aggregate.
Format	String
Length	18
Possible Values	Alphanumeric

Field Name	Text
Conditions	In ExecutionReport (8) message, this field is provided only for Drop Copy. Conditions for Drop Copy will be provided at a later date.
Used In	ExecutionReport (8)  MassQuote (i)  NewOrderSingle (D)  NewWholesaleOrder (U64)  OrderCancelReplaceRequest (G)  QuoteRequestReject (AG)  UserNotification (CB)  CrossOrder (U67)
Used For	TradeCaptureReport (AE) TradeCaptureReportAck (AR)  Cash and Derivatives

## TimeInForce

Field Name	TimeInForce
Tag	59
Description	Specifies the maximum validity of an order.
	For Stop orders it provides the maximum validity when not triggered.
Format	Char
Length	1
Possible Values	0 = Day
	1 = Good Till Cancel (GTC)
	3 = Immediate or Cancel (IOC)
	4 = Fill or Kill (FOK)
	6 = Good till Date (GTD)
	7 = At the Close
	A = Good for Time (GTT)
	B = Good for Auction (GFA)
	S = Valid for Session
Conditions	In ExecutionReport (8) message, this field is provided only for Drop Copy. Absence of this field is NOT interpreted as a DAY order.
	In OrderCancelReplaceRequest (G) message:
	- (i) when sent to confirm a breached collar of an order, values in this field must be provided, but won't be taken into consideration
	- (ii) when sent to modify an order, value will be modified to the one provided; modifying order from, or to, one of the following validity types: 7 = At the Close (C), B = Good for Auction (GFA) (C), or S = Valid for Session (D), to any other, will result in loss of priority, or rejection of the request.
Used In	ExecutionReport (8)
	NewOrderSingle (D)
	OrderCancelReplaceRequest (G)
Used For	Cash and Derivatives

## TotalAffectedOrders

Field Name	TotalAffectedOrders
Tag	533
Description	Number of orders affected following a global request. It is set to -1 to indicate that the request is processed.
Format	Int
Length	10

Field Name	TotalAffectedOrders
Possible Values	From -2^31+1 to 2^31-1
Used In	OrderMassCancelReport (r)
	OwnershipRequestAck (U29)
Used For	Cash and Derivatives

## ${\bf Tot No Quot Entries}$

Field Name	TotNoQuotEntries
Tag	304
Description	Total number of quotes for the quote set across all messages. Should be the sum of all NoQuoteEntries (295) in each message that has repeating quotes that are part of the same quote set.
Format	Int
Length	1
Possible Values	Always equal to NoQuoteEntries (295)
Used In	MassQuote (i) MassQuoteAck (b)
Used For	Cash and Derivatives

### **TradeID**

Field Name	TradeID
Tag	1003
Description	The unique ID assigned by the matching engine to the trade entity, once it is received or matched.
Used For	Cash and Derivatives
Format	String
Length	20
Possible Values	From 0 to 2^64-2
Conditions	In TradeCaptureReportAck (AR) message, in case of a declaration acknowledgment or notice it provides the identifier of the declaration.
	In TradeCaptureReportAck (AR) message, in case of a declaration cancel and refusal it provides the identifier of the declaration refused/to be cancelled.
	In inbound TradeCaptureReport (AE) message, provided by the client requesting cancellation of a previously matched declartation.
Used In	TradeCaptureReport (AE) TradeCaptureReportAck (AR)

## TradePriceCondition

Field Name	TradePriceCondition
Tag	1839
Description	Contribution to price formation or the price discovery process.
Format	Int
Length	3
Possible Values	15 = Non-price forming trade (NPFT) 101 = Plain Vanilla Trade 102 = Trade Not Contributing to Price Discovery Process 103 = Dark Trade (For Future Use)
Conditions	In outbound <b>TradeCaptureReportAck</b> (AR) message provided only if previously set in the corresponding inbound <b>TradeCaptureReport</b> (AE) message

Used In	TradeCaptureReport (AE)
	TradeCaptureReportAck (AR)
Used For	TCS (Cash)

# TradeReportID

Field Name	TradeReportID
Tag	571
Description	Unique identifier of trade capture report.
Format	String
Length	20
Possible Values	From -2^63+1 to 2^63-1
Conditions	In outbound TradeCaptureReportAck (AR) messages (from TCS) field TradeReportID (571) is provided only if TrdRptStatus (939) is set to 19 = Filled OR 18 = Pre-Matched
Used In	TradeCaptureReport (AE) TradeCaptureReportAck (AR)
Used For	TCS (Casha and Derivatives)

# TradeReportTransType

Field Name	TradeReportTransType
Tag	487
Description	Trade Report Transaction Type.
Format	Int
Length	1
Possible Values	0 = New
	1 = Cancel
Used In	TradeCaptureReport (AE)
Used For	TCS (Cash)

# TradeReportType

Field Name	TradeReportType
Tag	856
Description	Trade Report Type.
Format	Int
Length	1
Possible Values	1 = Alleged 3 = Decline 6 = Trade Report Cancel
Conditions	Field used in conjunction with field TradeReportTransType to identify the action type for the TCS declaration.  Used only to Decline, Cancel or Refuse a declaration.
Used In	TradeCaptureReport (AE)
Used For	TCS (Cash and Detivatives)

## TradeQualifier

Field Name	TradeQualifier
Tag	21080
Description	Trade Qualifier. This field can contain up to 7 values, space delimited, provided in different positions.  - Uncrossing Trade: indicates whether the trade occurred during an Uncrossing, or not. (0: No; 1: Yes)  - Opening Trade: indicates whether the trade is the first trade of the day, or not. (0: No; 1: Yes) Please note that during an Uncrossing phase there can be multiple Opening Trades.  - Passive Order: indicates whether the corresponding order was passive, or not. (0: No; 1: Yes)  - Aggressive Order: indicates whether the corresponding order was aggressive, or not. (0: No; 1: Yes)  - Trade Creation by Market Operations: indicates whether the trade results from a creation by Market Operations, or not. (0: No; 1: Yes)  - NAV Trade expressed in bps: indicates whether the trade results from a NAV trade expressed in basis point on the ETF Access platform. (0: No; 1: Yes)  - NAV Trade expressed in price currency: indicates whether the trade is a NAV trade expressed in price currency. This trade is always an update from a previous NAV trade expressed in basis point on the ETF Access platform. (0: No; 1: Yes)  - Deferred Publication: indicates whether the trade publication is deferred or immediate. (0: Immediate Publication; 1: Deferred Publication)  For the Market Data feed:  - The values Passive Order and Aggressive Order always qualify the Buy order.
Format	MultipleCharValue
Length	13
Possible Values	0 = Uncrossing Trade 1 = First Trade Price 2 = Passive Order 3 = Aggressive Order 4 = Trade Creation by Market Operations 5 = NAV Trade expressed in bps 6 = NAV Trade expressed in price currency 7 = Deferred Publication
Conditions	Provided only in case of Fill or Partial Fill.  Values '5' and '6' will be used only for the NAV trading on the ETF Access platform.
Used In	ExecutionReport (8)
Used For	Cash and Derivatives

# TradeType

Field Name	TradeType
Tag	21010
Description	Type of trade.
Format	Int
Length	3
Possible Values	1 = Conventional Trade (Cash and Derivatives)
	2 = Large in Scale (LiS) Trade (Derivatives Only)
	4 = Large in Scale (LiS) Package Trade (Derivatives Only)
	5 = Guaranteed Cross Trade (Cash and Derivatives)
	6 = Against Actual Trade (Derivatives Only)
	9 = Exchange for Swaps Trade (Derivatives Only)
	11 = Strategy Leg Conventional Trade (Derivatives Only)
	20 = BoB Trade (Cash Only)
	24 = Trade Cancellation (Cash and Derivatives)
	25 = Out of Market Trade (Cash Only)

Field Name	TradeType
	26 = Delta Neutral Trade - Underlying Cash Leg (Cash Only)
	27 = Market VWAP Operation Trade (Cash Only)
	28 = Euronext Fund Service Trade (Cash Only)
	29 = Secondary Listing Trade (Cash Only)
	30 = Request for Cross Trade (Derivatives Only)
	31 = Request for cross strategy Leg Trade (Derivatives Only)
	32 = Trade Publication (Cash Only)
	33 = Dark Trade (Cash Only)
	34 = Delta Neutral Trade - Underlying Future Leg (Derivatives Only)
	36 = Total Traded Volume (For future use)
	39 = Guaranteed Cross – Negotiated deal NLIQ (Liquid)
	40 = Guaranteed Cross – Negotiated deal OILQ (illiquid)
	41 = Large in Scale (LIS) Trade (Cash)
	42 = Large in Scale (LiS) Trade in basis points (Derivatives Only)
	43 = Large in Scale (LiS) Package Trade in basis points (Derivatives Only)
	45 = Trade Reversal
	46 = Non-Standard Settlement
	47 = Repurchase Agreement – Repo (OBOE only)
	48 = Exchange Granted Trade (OBOE only)
	49 = Other (OBOE only)
	50 = Odd Lot
	100 = Conventional Trade - Provisional price
	101 = Large in Scale (LiS) Trade - Provisional price
	102 = Large in Scale (LiS) Package Trade - Provisional price
Conditions	For the ExecutionReport (8) message, the following values are NOT used: '4', '7', '10', '14', '16', '19', '22', '24', '25', '36', '37', '38' and '45'. Mandatory in ExecutionReport (8) message following a trade execution (Full or Partial).
Used In	ExecutionReport (8)
Used For	Cash and Derivatives

# TradingSessionID

Field Name	TradingSessionID
Tag	336
Description	Trading Session Validity. Defines the validity time periods for VFS (Valid for Session) orders.
	Sessions represent the following:
	■ Session 1 – Normal Trading Hours (Cash)
	■ Session 2 – Normal Trading Hours (Derivatives for future use)
	<ul> <li>Session 3 – Extended Trading Hours (for Index Derivatives segment, corresponds to the extension 17.30 CET - 22.00 CET for future use – for Structured Products segment, corresponds to the first extension 18.30 CET - 20.00 CET)</li> </ul>
	<ul> <li>Session 4 – Second Extended Trading Hours (for Structured Products segment, corresponds to the second extension 20.00 CET to 22.00 CET).</li> </ul>
Format	String
Length	3
Possible Values	101 = Session 1
	102 = Session 2 (future use)
	103 = Session 3 (future use)
	104 = Session 4 (future use)
	205 = Session 1 and Session 3
	313 = Session 1, 3 and Session 4
	123 = All Sessions, deprecated (no more used on Optiq)
Conditions	■ For Cash Markets segments except Structured Products:
	- Session 1 (101)
	For Cash Markets Structured Products segments:

Field Name	TradingSessionID
	- Session 1 (101)
	- Session 1 + Session 3 (205)
	- Session 1 + Session 3 + Session 4 (313)
	For Derivatives Markets, this field is not provided.
Used In	ExecutionReport (8)
	NewOrderSingle (D)
	OrderCancelReplaceRequest (G)
Used For	Cash and Derivatives

## TransactTime

Field Name	TransactTime
Tag	60
Description	Indicates the time of message transmission (Format: YYYYMMDD-HH:MM:SS.ssssssss).
Format	UTCTimestamp
Length	27
Possible Values	Valid values: YYYY = 0000-9999, MM = 01-12, DD = 01-31, HH = 00-23, MM = 00-59, SS = 00-59, ssssssss = 000000000-999999999 (nanoseconds)
Conditions	In ExecutionReport (8) it is provided only in case of Full or Partial execution.
Used In	ExecutionReport (8) NewOrderSingle (D) OrderCancelReplaceRequest (G) OrderCancelRequest (F) OrderMassCancelRequest (q) QuoteRequest (R) TradeCaptureReportAck (AR)
Used For	Cash and Derivatives

# TriggeredStopTimeInForce

Field Name	TriggeredStopTimeInForce
Tag	20175
Description	Specifies the maximum validity of an triggered stop order.  If both TimeInForce (59) and TriggeredStopTimeInForce (21075) are Good till Date they will both refer to the same ExpireDate (432) provided in the order. If ExpireDate (432) is modified it will be for both untriggered stop and triggered stop, or only for the triggered stop if the order was previously triggered.
Format	Char
Length	1
Possible Values	0 = Day 1 = Good Till Cancel 6 = Good till Date
Conditions	It is mandatory for stop orders. In OrderCancelReplaceRequest (G) message:  - (i) when sent to confirm a breached collar of an order, values in this field must be provided, but won't be taken into consideration  - (ii) when sent to modify an order, value will be modified to the one provided In outbound messages, this field is provided only in Drop Copy.
Used In	ExecutionReport (8)  NewOrderSingle (D)  OrderCancelReplaceRequest (G)
Used For	Cash and Derivatives

# ${\bf TrdRegPublicationReason}$

Field Name	TrdRegPublicationReason
Tag	2670
Description	Waiver Indicator. ESMA description of the field: Indication as to whether the transaction was executed under a pre-trade waiver in accordance with Articles 4 and 9 of Regulation (EU) 600/2014.  For all instruments: 'LRGS' = Large in scale For equity instruments: 'RFPT' = Reference price transaction 'NLIQ' = Negotiated transactions in liquid financial instruments 'OILQ' = Negotiated transactions in illiquid financial instruments 'PRIC' = Negotiated transactions subject to conditions other than the current market price of that equity financial instrument. For non-equity instruments: 'SIZE' = Above specific size transaction 'ILQD' = Illiquid instrument transaction This field shall only be populated for the market side of a transaction executed under a waiver on a trading venue.
Format	Int
Length	2
Possible Values	0 = LRGS (for future use) 1 = RFPT 2 = NLIQ 3 = OILQ 4 = PRIC 5 = SIZE 6 = ILQD 7 = OMF (for future use)
Conditions	In outbound TradeCaptureReportAck (AR) messages (from TCS) field TrdRegPublicationReason (2670) is filled with one of the possible values if TrdRptStatus (939) is set to 19 = Filled OR 18 = Pre-Matched; AND the transaction meets the conditions required for a waiver
Used In	TradeCaptureReportAck (AR)
Used For	TCS (Cash)

# **TrdRptStatus**

Field Name	TrdRptStatus
Tag	939
Description	Trade Report Type.
Format	Int
Length	2
Possible Values	1 = Rejected 2 = Cancelled 4 = Pending New 5 = Pending Cancel 10 = Verified 12 = Time Out 13 = Restated 14 = Expiration of a pending declaration 15 = Elimination of a pre-matched declaration following a CE 17 = Elimination of a pre-matched declaration by MOC 18 = Pre-Matched 19 = Filled
Used In	TradeCaptureReportAck (AR)
Used For	TCS (Cash)

# TrdType

Field Name	TrdType
Tag	828
Description	Type of Operation.
Format	Int
Length	4
Possible Values	51 = Volume weighted average trade
	1001 = Declaration of a trade outside the book
	1002 = Fund order (quantity)
	1003 = Fund order (cash amount)
	1004 = Declaration of a trade on a Secondary listing place
Conditions	Mandatory for every submission of a new TradeCaptureReport (AE) declaration message where TradeReportTransType is 0 = 'New'.
	In Message TradeCaptureReportAck (AR) the field is not provided in case the message is being sent back to indicate rejection of the TradeCaptureReport (AE) message due to technical of data inconsistency in the message.
Used In	TradeCaptureReport (AE)
	TradeCaptureReportAck (AR)
Used For	TCS (Cash)



# UndisclosedIcebergType

Field Name	UndisclosedIcebergType
Tag	20005
Description	[N/A](For Future Use, Pending Regulatory Approval) Order handling related to the undisclosed part of an Iceberg order eligible to a matching in the Dark pool of liquidity.
Format	Int
Length	1
Possible Values	1 = Limit 2 = Peg Mid-Point 3 = Peg Primary 4 = Peg Market
Conditions	In ExecutionReport (8) message, this field is provided only for Drop Copy. Conditions for Drop Copy will be provided at a later date.
Used In	ExecutionReport (8)  NewOrderSingle (D)  OrderCancelReplaceRequest (G)
Used For	Cash

## UndisclosedPrice

Field Name UndisclosedPrice		
Tag 20004		
<b>Description</b> (For Future Use, Pending Regulatory Approval) Optional price for the hidden part of an Iceberg order.		
Format Price		
Length 20		
Possible Values	From -2^63+1 to 2^63-1	

Field Name	UndisclosedPrice		
Conditions  In ExecutionReport (8) message, this field is provided only for Drop Copy. Conditions for Drop Copy will be p later date.			
Used In  ExecutionReport (8)  NewOrderSingle (D)  OrderCancelReplaceRequest (G)			
Used For	Cash		

# UserStatus

Field Name	UserStatus				
Tag	926				
Description	Status of the user.				
Format	Int				
Length	3				
Possible Values	101 = Trader-Algo Suspended				
	102 = Trader-Algo Suspension Cleared				
	103 = Trader-Algo Killed				
	104 = Trader-Algo Kill Cleared				
	105 = Firm Suspended				
	106 = Firm Suspension Cleared				
	107 = Firm Killed				
	108 = Firm Kill Cleared				
	109 = DEA Suspended				
	110 = DEA Suspension Cleared				
	111 = DEA Killed				
	112 = DEA Kill Cleared				
	113 = Trader - Algo Suspended by Risk Manager				
	114 = Trader - Algo Unsuspended by Risk Manager				
	115 = Firm Suspended by Risk Manager				
	116 = Firm Unsuspended by Risk Manager				
	117 = DEA Suspended by Risk Manager				
	118 = DEA Unsuspended by Risk Manager				
	119 = Logical Access Suspended by Risk Manager				
	120 = Logical Access Unsuspended by Risk Manager				
	121 = Trader - Algo Blocked by Risk Manager				
	122 = Trader - Algo Unblocked by Risk Manager				
	123 = Firm Blocked by Risk Manager				
	124 = Firm Unblocked by Risk Manager				
	125 = DEA Blocked by Risk Manager				
	126 = DEA Unblocked by Risk Manager				
	127 = Logical Access Blocked by Risk Manager				
	128 = Logical Access Unblocked by Risk Manager				
	129 = Order Size Limit Activated by Risk Manager				
	130 = Order Size Limit Deactivated by Risk Manager				
Conditions	For the cases where value 130 = Order Size Limit Deactivated by Risk Manager is ssent, OrderSizeLimit (21102) tag is not sent.				
Used In	UserNotification (CB)				
Used For	Cash and Derivatives				



## WholesaleSide

Field Name	WholesaleSide
Tag	21082
Description	Indicates the side of the Wholesale order.
Format	Char
Length	1
Possible Values	1 = Buy
	2 = Sell
	3 = Cross
Used In	NewWholesaleOrder (U64)
	WholesaleOrderAck (U65)
Used For	Derivatives

# Whole sale Trade Type

Field Name	WholesaleTradeType
Tag	21083
Description	Wholesale trade type supported by the trading host.
Format	Char
Length	1
Possible Values	0 = Large in Scale Trade
	1 = Against Actual
	2 = Exchange For Swaps
Used In	NewWholesaleOrder (U64)
	WholesaleOrderAck (U65)
Used For	Derivatives

# VWAPBegTime

Field Name	VWAPBegTime			
Tag	10026			
Description Start time for the Volume Weight Average price computation period.				
Format UTCTimestamp				
Length	27			
Possible Values YYYYMMDD-HH:MM:SS.sss.nnn				
Conditions  For TradeCaptureReport (AE) message, it is provided only for declarations when TrdType '51' (Volum weighted average trade), and if not provided it is assumed that the VWAP calculation period lasts upend of the trading session, and if not provided it is assumed that the VWAP calculation period start beginning of the trading session.				
Used In	TradeCaptureReport (AE)			
	TradeCaptureReportAck (AR)			
Used For	TCS (Cash)			

### **VWAPEndTime**

Field Name	VWAPEndTime				
Tag	10027				
Description	End time for the Volume Weight Average price computation period.				
Format	UTCTimestamp				
Length	27				
Possible Values	YYYYMMDD-HH:MM:SS.sss.nnn				
Conditions	For TradeCaptureReport (AE) message, it is provided only for declarations when TrdType '51' (Volume weighted average trade), and if not provided it is assumed that the VWAP calculation period lasts until the end of the trading session.				
Used In	TradeCaptureReport (AE) TradeCaptureReportAck (AR)				
Used For	TCS (Cash)				

## 7. EXAMPLES

# Example 1: Gap in Administration Messages that is not a Logon (A), Logout (5), Resendrequest (2) or a Sequencereset (4)

Example below indicates handling of the gap in this case, with the gap detected in the MsgSeqNum (34) field of the HeartBeat (0) message sent by the client.

	D 1 1 Oli 1		6 1 b - F b
#	Received From Client		Sent by Exchange
1	At the start of session client sends the first Logon (A) message Logon (A)	>	
	Logon (A)  MsgSeqNum (34) = 1	,	
	NextExpectedMsgSeqNum (789) = 1		
	Treatespectedinisgsequalii (105) = 1	<	Logon (A)
		`	MsgSeqNum (34) = 1
			NextExpectedMsgSeqNum (789) = 2
2	Following a successful logon the exchange of application message	es pr	
	NewOrderSingle (D) order #1	>	<u> </u>
	MsgSeqNum(34) = 2		
	Side (54) = 1 (Buy)		
		<	ExecutionReport (8)
			MsgSeqNum (34) = 2
	NowOrderSingle (D) order #2	>	OrdStatus (39) = 0 (New) / ExecType (150) = 0 (New)
	NewOrderSingle (D) order #2 MsgSeqNum (34) = 3	,	
	Side (54) = 1 (Buy)		
	JIGE (24) - 1 (20)	<	ExecutionReport (8)
			MsgSeqNum (34) = 3
			OrdStatus (39) = 0 (New) / ExecType (150) = 0 (New)
3	Following a period of inactivity Exchange sends a TestRequest (1)	) mes	
		<	TestRequest (1)
			MsgSeqNum (34) = <b>4</b>
4	In the meantime client is sending messages for new orders, that	do n	ot appear to be reaching the exchange
	NewOrderSingle (D) order #3	>	
	MsgSeqNum (34) = 4		
	Side (54) = 1 (Buy)		
	NewOrderSingle (D) order #4	>	
	MsgSeqNum (34) = 5	_	
	Side (54) = 1 (Buy)		
	\ \ \ \ \		
	NewOrderSingle (D) order #5	>	
	MsgSeqNum (34) = <b>6</b>		
	Side (54) = 1 (Buy)		
5	Either due to inactivity or as a delayed answer to the TestReques	t (1)	message in step 3 client's system sends a HeartBeat (0)
_	message		
	HeartBeat (0)	>	
-	MsgSeqNum (34) = 7		License a December of (2) to fill the con
6	Exchange detects a gap in the HeartBeat (0) message from client,	, and <	
		(	MsgSeqNum (34) = 5
			MisgseqNum (34) = <b>3</b> BeginSeqNo (7) = <b>4</b>
			EndSeqNo (16) = <b>7</b>
	Client resends order messages that were missed, starting with th	e inc	
7	acknowledging them		,
	NewOrderSingle (D) order #3	>	
	MsgSeqNum (34) = 4		
	Side (54) = 1 (Buy)		
	PossDupFlag (43) = Y (Possible duplicate)		
	OrgSendingTime (122) = set to time of original sending		F (0)
		<	
			MsgSeqNum (34) = 6  OrdStatus (39) = 0 (New) / ExecTupe (150) = 0 (New)
	NewOrderSingle (D) order #4	>	OrdStatus (39) = 0 (New) / ExecType (150) = 0 (New)
	MsgSeqNum (34) = 5	_	
	Side (54) = 1 (Buy)		
	PossDupFlag (43) = Y (Possible duplicate)		
	OrgSendingTime (122) = set to time of original sending		
		<	ExecutionReport (8)
			MsgSeqNum (34) = <b>7</b>
			OrdStatus (39) = 0 (New) / ExecType (150) = 0 (New)



## Example 2: Gap in Application Messages

Example below indicates handling of the gap in this a case, with the gap is detected in the field *MsgSeqNum* (34) of the **NewOrderSingle** (D) message sent by the client.

Received From Client		Sent by Exchange
At the start of session client sends the first Logon (A) message		
Logon (A)	>	
MsgSeqNum (34) = 1		
NextExpectedMsgSeqNum (789) = 1	<	Logon (A)
	`	MsgSeqNum (34) = 1
		NextExpectedMsgSeqNum (789) = 2
Following a successful logon the exchange of application messa	ges r	
NewOrderSingle (D) order #1	>	noceds during the session
MsgSeqNum (34) = <b>2</b>		
Side (54) = 1 (Buy)		
	<	ExecutionReport (8)
		MsgSeqNum (34) = 2
		OrdStatus (39) = 0 (New) / ExecType (150) = 0 (New)
NewOrderSingle (D) order #2	>	
MsgSeqNum (34) = <b>3</b>		
Side (54) = 1 (Buy)		= =(a)
	<	ExecutionReport (8)
		MsgSeqNum (34) = 3  OrdStatus (30) = 0 (Now) / ExacTupe (150) = 0 (Now)
Client conds three (2) massages for new orders that do not ann	oor t	OrdStatus (39) = 0 (New) / ExecType (150) = 0 (New)
Client sends three (3) messages for new orders that do not app NewOrderSingle (D) order #3	eai l	o be readining the exchange
MsgSeqNum (34) = 4	_	
Side (54) = 1 (Buy)		
, , , , , , , , , , , , , , , , , , , ,		
NewOrderSingle (D) order #4	>	
MsgSeqNum (34) = <b>5</b>		
Side (54) = 1 (Buy)		
NewOrderSingle (D) order #5	>	
MsgSeqNum(34) = 6		
Side (54) = 1 (Buy)		
Client sends one more order message that reaches the exchange		at indicates the gap of the previously missed messages
NewOrderSingle (D) order #6	>	
MsgSeqNum (34) = 7		
Side (54) = 1 (Buy)  Exchange detects a gap in sequence numbers in the NewOrderS	ingl	(D) message sent by the client, which reaches the exchange
and issues a ResendRequest (2) to fill the gap. The message for		
(-/ ··· ) (-/ ··· ) (-/ ··· ) (-/ ··· ) (-/ ··· )		ResendRequest (2)
		MsgSegNum(34) = 4
		BeginSeqNo (7) = 4
		EndSeqNo (16) = <b>7</b>
Client resends the four (4) order messages that were missed, st	artin	g with the indicated sequence number of 4 to fill the gap, with
Exchange acknowledging them		
NewOrderSingle (D) order #3	>	
MsgSeqNum (34) = <b>4</b>		
Side (54) = 1 (Buy)		
PossDupFlag (43) = Y (Possible duplicate)		
OrgSendingTime (122) = set to time of original sending		Fuggettion Deposit (Q)
	<	ExecutionReport (8)
		MsgSeqNum (34) = 5  OrdStatus (39) = 0 (New) / ExecTupe (150) = 0 (New)
		OrdStatus (39) = 0 (New) / ExecType (150) = 0 (New)
NewOrderSingle (D) order #4	>	
NewOrderSingle (D) order #4  MsaSeaNum (34) = 5	>	
MsgSeqNum (34) = 5	>	
MsgSeqNum (34) = <b>5</b> Side (54) = 1 (Buy)	>	
MsgSeqNum (34) = 5 Side (54) = 1 (Buy) PossDupFlag (43) = Y (Possible duplicate)	>	
MsgSeqNum (34) = <b>5</b> Side (54) = 1 (Buy)	>	ExecutionReport (8)
MsgSeqNum (34) = 5 Side (54) = 1 (Buy) PossDupFlag (43) = Y (Possible duplicate)		ExecutionReport (8) MsgSeqNum (34) = 6
MsgSeqNum (34) = 5 Side (54) = 1 (Buy) PossDupFlag (43) = Y (Possible duplicate)		
MsgSeqNum (34) = 5 Side (54) = 1 (Buy) PossDupFlag (43) = Y (Possible duplicate)		MsgSeqNum (34) = 6
MsgSeqNum (34) = 5 Side (54) = 1 (Buy) PossDupFlag (43) = Y (Possible duplicate) OrgSendingTime (122) = set to time of original sending  NewOrderSingle (D) order #5 MsgSeqNum (34) = 6	<	MsgSeqNum (34) = 6
MsgSeqNum (34) = 5 Side (54) = 1 (Buy) PossDupFlog (43) = Y (Possible duplicate) OrgSendingTime (122) = set to time of original sending  NewOrderSingle (D) order #5 MsgSeqNum (34) = 6 Side (54) = 1 (Buy)	<	MsgSeqNum (34) = 6
MsgSeqNum (34) = 5 Side (54) = 1 (Buy) PossDupFlag (43) = Y (Possible duplicate) OrgSendingTime (122) = set to time of original sending  NewOrderSingle (D) order #5 MsgSeqNum (34) = 6 Side (54) = 1 (Buy) PossDupFlag (43) = Y (Possible duplicate)	<	MsgSeqNum (34) = 6
MsgSeqNum (34) = 5 Side (54) = 1 (Buy) PossDupFlog (43) = Y (Possible duplicate) OrgSendingTime (122) = set to time of original sending  NewOrderSingle (D) order #5 MsgSeqNum (34) = 6 Side (54) = 1 (Buy)	>	MsgSeqNum (34) = 6 OrdStatus (39) = 0 (New) / ExecType (150) = 0 (New)
MsgSeqNum (34) = 5 Side (54) = 1 (Buy) PossDupFlag (43) = Y (Possible duplicate) OrgSendingTime (122) = set to time of original sending  NewOrderSingle (D) order #5 MsgSeqNum (34) = 6 Side (54) = 1 (Buy) PossDupFlag (43) = Y (Possible duplicate)	<	MsgSeqNum (34) = 6 OrdStatus (39) = 0 (New) / ExecType (150) = 0 (New)  ExecutionReport (8)
MsgSeqNum (34) = 5 Side (54) = 1 (Buy) PossDupFlag (43) = Y (Possible duplicate) OrgSendingTime (122) = set to time of original sending  NewOrderSingle (D) order #5 MsgSeqNum (34) = 6 Side (54) = 1 (Buy) PossDupFlag (43) = Y (Possible duplicate)	>	MsgSeqNum (34) = 6 OrdStatus (39) = 0 (New) / ExecType (150) = 0 (New)

#	Received From Client		Sent by Exchange
	NewOrderSingle (D) order #6	>	
	MsgSeqNum (34) = <b>7</b>		
	Side (54) = 1 (Buy)		
	PossDupFlag (43) = Y (Possible duplicate)		
	OrgSendingTime (122) = set to time of original sending		
		<	ExecutionReport (8)
			MsgSeqNum (34) = 8
			OrdStatus (39) = 0 (New) / ExecType (150) = 0 (New)

#### **Example 3: Gap in Logout Request**



## **REVISION HISTORY**

Version	Change Description
<u>4.6.10</u>	The following changes have been made to this version of the document:
	■ In Field Description:
	a) Updated description of field: ExpireDate and ContraBrokerAdd value 28 = Message type not allowed for the
	functional configuration of the Logical Access in the sessionRejectReason (373) list of authorized values;
4.6.0	The following changes have been made to this version of the document:
	■ In Field Description:
	<u>Updated description of field: ExpireDate and ContraBroker</u>
4.5.0	The following messages were added – only available for Block Segment:
	■ IOI (6)
	■ IOINotification (U73);
	The following message structure was updated:
	■ NewOrderSingle (D): Added IOIID (23);
	The following section was updated:
	<ul> <li>4.10 Direct Response to Application Messages to include the new IOI (6) message;</li> </ul>
	■ <u>5.3.1.1 Message Description</u> ;
	The following field got the possible values updated:
	■ MsgType (35):
	a) Value 6 = IOI added;
	b) Value U73= IOINotification added;
	c) Value U72 = RFQAudit added;
	SessionRejectReason (373):
	<ul> <li>a) 28 = Message type not allowed for the functional configuration of the Logical Access;</li> </ul>
	The following field got the conditions updated:
	<ul> <li>OrderQty (38): adjusted to include "In IOI (6) message: required only when IOIQty (27) different than "Undisclosed Qty" – ignored in all other cases"</li> </ul>
	The following fields got the list of messages on which they are used updated to include IOI (6) and IOINotification (U73):
	OrderQty (38);
	■ Side (54);
	■ EMM (20020);
	■ SecurityID (48);
	SecurityIDSource (22);
	■ ClientMessageSendingTime (21005);
	■ BookINTime (21002);
	■ BookOUTTime (21003);
	OEGINFromME (7765);
	OEGINFromMember (5979);
	■ OEGOUTToME (7764);
	■ ErrorCode (9955);
4.4.0	Introduction of SBE 304 – no impacts
4.3.0	The following changes have been made to this version of the document:
	■ In Error Codes, removal of the note indicating "Dark feature is for future use"*
	■ Correction of the definition of the session 3 for the field Trading Session ID
4.2.1	Adjusted section 4.2 Structure Representation:
	<ul> <li>Representation of examples of components and nested components within the messages structures adjusted;</li> </ul>
	Text describing those same representations adjusted as well.
4.2.0 [FBO]	Integration of Oslo Fixed Incomes:
	■ New values for Trade Type:
	46 = Non-Standard Settlement
	47 = Repurchase Agreement – Repo (OBOE only)
	48 = Exchange Granted Trade (OBOE only)
	49 = Other (OBOE only)
	50 = Odd Lot

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Version	Change Description
	Added note on TVTIC determination in section 5.3.2.1 ExecutionReport (8) ExecutionReport (8) ExecutionReport (8) ExecutionReport (8)
	description.
4.1.0	The following changes have been made to this version of the document:
	■ In <u>Direct Responses to Application Messages</u> – added QuoteRequest (R).
	In OrderMassCancelRequest (q) – added details for processing of mass cancellation.
	<ul> <li>In <u>Application Messages</u>:</li> <li>QuoteRequest (R): AccountCode changed from Optional to Conditional (Mandatory for ETF Access Platform).</li> </ul>
	■ In Field Description:
	- Enriched conditions and descriptions of fields: ContraBroker (375), NumberOfLPs (21034), AccountCode (6399),
	<u>TradingSessionID</u> (334);
	- Enriched values for field as follows: <u>TradingSessionID</u> (334) with new value '104' (Session 4).
4.0.3	The following changes have been made to this version of the document:
	<ul> <li>Field OEGOUTTOME is conditional in messages: RFQNotification (U35), RFQMatchingStatus (U36) and RFQLPMatchingStatus (U37).</li> </ul>
4.0.2	The following changes have been made to this version of the document:
	Document Improvements:
	Add following definition in Conditions for field "LegStrikePrice": The value provided with Price/Index Level Decimals if the leg is an option.
	<ul> <li>ConditionalOrderFlag field "Used In" is update to "Cash" instead of "Cash and Derivatives" because it is only used for Block.</li> </ul>
	The segment Financial Derivatives FID is removed from the document.
	Update Scope section.by adding new table.
	Add "Document Audience" section.
	Change the PREFACE page before the CONTENTS.
4.0.1	The following changes have been made to this version of the document:
	Document Improvements:
	<ul> <li>Update the Support contact information.</li> <li>Change the name of Purpose section to "About This document".</li> </ul>
	Add Scope section.
	<ul> <li>Add note about Financial Derivatives segment which is out of scope in page 40 ( Optiq segment table).</li> </ul>
	More details about Client Order ID Usage for Order Management are added in section 2.3.2 . (New paragraph displayed
	before the last one on the section).
	In WholesaleOrderAck (U65) message add new note about MIFID II Short Codes section.
	Merge of TCS OEG FIX :
	■ The section 4.4 "Date and Time Conventions" is add under section for Data and Timestamp format in case of TCS reporting.
	<ul> <li>Add all TCS Application messages are added under 5.4 Application Messages section. (From section 5.3.37 to section 5.3.40).</li> </ul>
	■ In section 1.4 add the definition of the use of "Declaration" for TCS.
	Add list of TCS fields that was not available in OEG FIX document and used for TCS messages under section 6. Fields Description.
	Update existing fields by adding TCS messages using that fields in "Used in" at field description level.
	<ul> <li>Update CCP ID field description by adding new values used for Oslo Market Place.</li> </ul>
4.0.0	The following changes have been made to this version of the document:
	1) Document Improvements:
	Change StrikeLegPrice by LegPrice in 3 sections for Deulta Neutral Strategy description.      The parties 5.3.30 FRCCommand (UCO) the case of Target Firm ID (31000) description is undetected.
	<ul> <li>In section 5.3.30 ERGCommand (U68), the case of TargetFirmID (21098) description is updated</li> <li>In OrderCancelReject (9) message section, update description to highlight that fields LogicalAccessID (21021) and</li> </ul>
	OEPartitionID are only provided in Drop Copy.
	■ Update the NoPartyIDs (453) value from Always set to 1 to From 1 to 2 in OrderMassCancelReport section 5.3.19.
	For User Notification (page 109), Case 4 is updated by removing value 24 from PartyRoleQualifier (2376) and update the value of PartyIDSource (447) to D.
	■ Update the number of occurence of NoOrderAttributes in OwnershipRequest (U18) message to "if provided always set to 1"
	■ The table in section 4.10 updated by adding the message <b>RequestForImpliedExecution</b> (U66) and its reject message <b>RequestAck</b> (Uy).

Version	Change Description							
	■ Update <b>Delta-Neutral</b> description in page 134.							
	■ Update the Wholesale Transaction paragraph in page 133.							
	<ul><li>Follo</li></ul>	llowing fields are optional in message SecurityDefinition (d): SecurityID (48) and SecurityIDSource (22).						
	In se	■ In section 2.3.3.1 update the restricted values from 0 to 2 63 -1 for Regular "In House" Accesses.						
	In the ExecutionReport (8) section 5.3.2, add details in ClientIdentificationShortCode to mention that the field is not provided in cas of Cross Orders rejection.							
	2) ETF A	ccess / Oslo Migration and ETF Warrant Updates :						
	■ Add t	the field AccountCode as optional for following messages: RFQNotification (35) and QuoteRequest (R).						
	Add new message <b>RFQ Audit</b> in section 5.3.36							
	Add new field "NoRFQCounterparts" definition. This field is used in message RFQ Audit.							
	■ Orde	erOrigination field updated by adding two values: 11 and 12.						
	■ <b>RFQ issuer</b> description added in sections 5.3.5.1, 5.3.11.1 and 5.3.18.1							
	Cont	rabroker field updated by adding 3 new values: 2 = Bilateral Settlement, 3 = LCH Limited and 5 = SIX x-clear.						
2.1.1		n Execution Report (8) message description, it was mentioned that using this message in case of order collar tion report was restricted to cash markets, which is not the case.						
2.1.0		owing changes have been made:						
		following new messages have been added:						
	a)	RequestForImpliedExecution (U66)						
	b) c)	CrossOrder (U67); ERGCommand (U68);						
		ERGCommandAck (U69);						
	e)	GetRiskControls (U70);						
	f)	RiskControlDetails (U71);						
		following changes have been applied in the existing messages:						
	a)	UserNotification (CB):						
		i) Added fields LogicalAccessID (21021) and OrderSizeLimit (21102) for Risk Guard Service;						
		ii) Message description updated to accommodate Risk Guard Service;						
		iii) Added Combinations used to provide ShortCodes for Risk Guard Service;						
	L.\	iv) NoPartyIDs and NoInstrumentScope changed from Mandatory to Conditional;						
	D)	ExecutionReport (8): i) Message description adjusted:						
		<ul> <li>i) Message description adjusted:</li> <li>(1) with clarifications concerning cancellation of orders triggered by an OrderCancelRequest (F) or an</li> </ul>						
		OrderMassCancelRequest (q);						
		(2) with clarifications concerning QuoteRequest (R) message;						
		(3) with clarifications concerning how to fill clearing data information for both Cash and Derivatives Markets;						
		(4) with clarifications concerning cancellation of orders at the close of business;						
		(5) notes on processing of Fill messages sent for Strategy transactions submitted as Wholesales.						
		ii) Table updated to accommodate CrossOrder functionality;						
		<ul><li>Added fields: LongClient (21804) for clearing data information, FinalSecurityID (21805), FinalExecID (21806), MessagePriceNotation (21803) for TRF and MOC;</li></ul>						
	c)	RequestAckMessage (Uy):						
		i) Message description updated to accommodate request for implied execution functionality;						
	d)	TestRequest (1):						
	- 1	i) Message description adjusted;						
	e)	NewWholesaleOrder (U64):						
		i) Message description updated to:						
		(1) clarify delta neutral functionality;  (2) Parroya Client ID information as one of the possible combinations to be provided within Nectod Parties.						
		(2) Remove Client ID information as one of the possible combinations to be provided within NestedParties repeating group;						
		(3) Added notes on processing of Fill messages sent for Strategy transactions submitted as Wholesales.						
		ii) Added LongClient (21804) for clearing data information and MessagePriceNotation (21803) for TRF and MOC;						
		iii) LastCapacity (29) moved into NoSides group;						
	f)	WholesaleOrderAck (U65):						
		i) Changed presence of the field <i>LegSide</i> (624) to conditional;						
	-1	ii) LastCapacity (29) removed;						
	g)	OrderCancelReplaceRequest (G):						
		i) Added LongClient (21804) for clearing data information;						

markets;  h) NewOrderSingle (D):  i) Added LongClient (21804) for clearing data information;  ii) Message description adjusted concerning how to fill clearing data information for both Cash and Demarkets;  = Field Descriptions:  a) Added fields: LongClient (21804), FinalSecurityID (21805), FinalExecID (21806), MessagePriceNotation (2 killReson (21807))  b) Enriched values for fields as follows: ExecType (150) with values v= Order Cancelled due to Trade Price Valid Order Cancelled due to a potential trade outside FSP limits, w = Order Cancelled due to Trade Price Valid Order Cancelled due to an incorrect Reactor Response, 2 = Cross Order Ack; 1 = Remaining RFC quantity, UserStruct (950) with values 113 = Trader - Algo Unsus Risk Manager, 115 = Firm Suspended by Risk Manager, 116 = Firm Unsuspended by Risk Manager, 117 = Suspended by Risk Manager, 128 = Logical Access Suspended Manager, 120 = Logical Access Unsuspended by Risk Manager, 121 = Tarder - Algo Unsus Risk Manager, 122 = Drade Cases Unsuspended by Risk Manager, 123 = Firm Unblocked by Risk Manager, 124 = Firm Unblocked by Risk Manager, 125 = DRA Unsuspended by Risk Manager, 124 = Firm Unblocked by Risk Manager, 125 = DRA Unsuspended by Risk Manager, 124 = Firm Unblocked by Risk Manager, 125 = DRA Unsuspended by Risk Manager, 125 = DRA Unsuspended by Risk Manager, 126 = DRA Unsuspended by Risk Manager, 127 = Firm Holiocked by Risk Manager, 126 = DRA Unsuspended Manager, 126 = DRA Unblocked by Risk Manager, 127 = Order Size Limit Activated by Risk Manager, 128 = Order Size Limit Activated by Risk Manager, 128 = DRA DRA Unsuspended (130) = DRA DRA DRA Unsuspended (130) = DRA Unsuspended (130) = DRA	o eneme opecijiet	Revision This Co.
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a) Conditions updated for fields SecurityID (48), UserStatus (926), RequestID (21060), PartyD (448), PartyRole PartyRoleQualifier (2376), NestedPartyID (524), NestedPartyRole (538), NestedPartyRoleQualifier (2384) (37), QuoteReqID (131), RFQAnswerIndicator (21037), RFQConfirmationIndicator (21038), CumQty (14) a LeavesQty (151));  b) Conditions removed for field SelfMatchPreventionID (2362) – field is for future use; c) "Used For" adjusted for fields CollarRejType (9962) and OrdType (40)  • Section 1.2.1 Maintenance of Relevant Data relating to Orders in Financial instruments adjusted with the new • Section 4.10 Direct response to Application messages adjusted with Risk Guard service messages; c) Clarifications added for how ClientIdentificationShortCode should be provided  2.0.0  Major update for the migration of the Derivatives Markets to Optiq. The following changes have been made: • For support of the Derivative segments, the following New messages have been added: a) Security Definition Request (c) and Security Definition (d) for intraday strategy creation b) NewWholesaleOrder (U64) and WholesaleOrderAck (U65) for wholesale Order messages • In section 5.3 "Administration Messages" – added support for the Derivatives segments For support of the Derivative segments, the following existing messages have been updated as following: a) NewOrderSingle (D): Added new fields NonExecClID (21081) for Derivatives segments, FRMARAMPLP (2 UndisclosedIcebergType (20005) – for future use on Cash segments; Removed field CustOrderCapacity (5 support for the Derivative segments b) ExecutionReport (8): Added new fields NonExecClID (21081), ParentExecID (21094), ParentSecurityID (21 ESCBMembership (21096), LegSymbol (600), LegExecID (1893), LISTransactionID (21085) for Derivatives segments FRMARAMPLP (21810) and UndisclosedIcebergType (20005) – for future use on Cash segments; Remove CustOrderCapacity (582), UnderlyingLastPx (651), PackageID (5883), OtherLegSecurityID (7773), QtyDelt OtherLegSecurityIDSource (7489), OtherLegRe	c)	Order Cancelled due to a potential trade outside FSP limits, w = Order Cancelled due to Trade Price Validation, 1 = Order Cancelled due to an incorrect Reactor Response, 2 = Cross Order Ack; 1 = Remaining RFC quantity cancelled; UserStatus (926) with values 113 = Trader - Algo Suspended by Risk Manager, 114 = Trader - Algo Unsuspended by Risk Manager, 115 = Firm Suspended by Risk Manager, 116 = Firm Unsuspended by Risk Manager, 117 = DEA Suspended by Risk Manager, 118 = DEA Unsuspended by Risk Manager, 119 = Logical Access Suspended by Risk Manager, 120 = Logical Access Unsuspended by Risk Manager, 121 = Trader - Algo Blocked by Risk Manager, 122 = Trader - Algo Unblocked by Risk Manager, 123 = Firm Blocked by Risk Manager, 124 = Firm Unblocked by Risk Manager, 125 = DEA Blocked by Risk Manager, 126 = DEA Unblocked by Risk Manager, 127 = Logical Access Blocked by Risk Manager, 128 = Logical Access Unblocked by Risk Manager, 129 = Order Size Limit Activated by Risk Manager, 130 = Order Size Limit Deactivated by Risk Manager, 129 = Order Size Limit Activated by Risk Manager, 130 = Order Size Limit Deactivated by Risk Manager, 129 = Not Applicable; PartyRole (452) – 999 = Not Applicable; PartyRoleQualfifer (2376) – 99 = Not Applicable; NestedPartyRole (538) – 999 = Not Applicable; NestedPartyRole (101 = Large in Scale (LiS) Package Trade - Provisional price, 101 = Large in Scale (LiS) Trade - Provisional price, 102 = Large in Scale (LiS) Package Trade - Provisional price; ; MsgType (35) with values for new messages U66, U67, U68, U69, U70, U71 The following values have been removed from SecuritySubType (762): 'C' - Call or Put Cabinet, 'Z' - Reduced Tick Spread, 'u' - Buy Write; Possible Values updated for NoLegs (555), from "1 to 7" to "1 to 32";
PartyRoleQualifier (2376), NestedPartyID (524), NestedPartyRole (538), NestedPartyRoleQualifier (2384) (37), QuoteReqID (131), RFQAnswerIndicator (21037), RFQConfirmationIndicator (21038), CumQty (14) a LeavesQty (151));  b) Conditions removed for field SelfMatchPreventionID (2362) – field is for future use; c) "Used For" adjusted for fields CollarRejType (9962) and OrdType (40)  Section 1.2.1 Maintenance of Relevant Data relating to Orders in Financial instruments adjusted with the new Section 4.10 Direct response to Application messages adjusted with Risk Guard service messages; Clarifications added for how ClientIdentificationShortCode should be provided  2.0.0 Major update for the migration of the Derivatives Markets to Optiq. The following changes have been made: For support of the Derivative segments, the following New messages have been added: a) Security Definition Request (c) and Security Definition (d) for intraday strategy creation b) NewWholesaleOrder (U64) and WholesaleOrderAck (U65) for wholesale order messages In section 5.3 "Administration Messages" – added support for the Derivatives segments For support of the Derivative segments, the following existing messages have been updated as following: a) NewOrderSingle (D): Added new fields NonExecClID (21081) for Derivatives segments, FRMARAMPLP (2 UndisclosedIcebergType (20005) – for future use on Cash segments; Removed field CustOrderCapacity (5: support for the Derivative segments b) ExecutionReport (8): Added new fields NonExecClID (21081), ParentExecID (21094), ParentSecurityID (21 ESCBMembership (21096), LegSymbol (600), LegExecID (1893), LISTransactionID (21085) for Derivatives of FRMARAMPLP (21810) and UndisclosedIcebergType (20005) – for future use on Cash segments; Remove CustOrderCapacity (582), UnderlyingLastPx (651), PackageID (5883), OtherLegSecurityID (7773), QtyDelt OtherLegSecurityID (27489), OtherLegReferenceNo (7774); Added support for the Derivative segments c) NOTE: MassQuote (i) was not modified. Derivatives markets do not suppo	e)	Updated description for field LegRatio (21091);";
c) "Used For" adjusted for fields CollarRejType (9962) and OrdType (40)  Section 1.2.1 Maintenance of Relevant Data relating to Orders in Financial instruments adjusted with the new  Section 4.10 Direct response to Application messages adjusted with Risk Guard service messages;  Clarifications added for how ClientIdentificationShortCode should be provided  Aligor update for the migration of the Derivatives Markets to Optig. The following changes have been made:  For support of the Derivative segments, the following New messages have been added:  Security Definition Request (c) and Security Definition (d) for intraday strategy creation b) NewWholesaleOrder (U64) and WholesaleOrderAck (U65) for wholesale order messages  In section 5.3 "Administration Messages" – added support for the Derivatives segments  For support of the Derivative segments, the following existing messages have been updated as following:  a) NewOrderSingle (D): Added new fields NonExecCIID (21081) for Derivatives segments, FRMARAMPLP (2 UndisclosedIcebergType (20005) – for future use on Cash segments; Removed field CustOrderCapacity (5 support for the Derivative segments  b) ExecutionReport (8): Added new fields NonExecCIID (21081), ParentExecID (21094), ParentSecurityID (21 ESCBMembership (21096), LegSymbol (600), LegExecID (1893), LISTransactionID (21085) for Derivatives segments FRMARAMPLP (21810) and UndisclosedIcebergType (20005) – for future use on Cash segments; Remove CustOrderCapacity (582), UnderlyingLastPx (651), PackageID (5883), OtherLegSecurityID (7773), QtyDelt OtherLegSecurityIDSource (7489), OtherLegReferenceNo (7774); Added support for the Derivative segments Updated description to clarify use for Cash and Derivative segments  c) NOTE: MassQuote (i) was not modified. Derivatives markets do not support submission of Quotes in FIX	a)	Conditions updated for fields SecurityID (48), UserStatus (926), RequestID (21060), PartyD (448), PartyRole (452), PartyRoleQualifier (2376), NestedPartyID (524), NestedPartyRole (538), NestedPartyRoleQualifier (2384), OrderID (37), QuoteReqID (131), RFQAnswerIndicator (21037), RFQConfirmationIndicator (21038), CumQty (14) and LeavesQty (151));
<ul> <li>Section 1.2.1 Maintenance of Relevant Data relating to Orders in Financial instruments adjusted with the new</li> <li>Section 4.10 Direct response to Application messages adjusted with Risk Guard service messages;</li> <li>Clarifications added for how ClientIdentificationShortCode should be provided</li> <li>Major update for the migration of the Derivatives Markets to Optiq. The following changes have been made:         <ul> <li>For support of the Derivative segments, the following New messages have been added:</li></ul></li></ul>	b)	Conditions removed for field SelfMatchPreventionID (2362) – field is for future use;
<ul> <li>Section 4.10 Direct response to Application messages adjusted with Risk Guard service messages;</li> <li>Clarifications added for how ClientIdentificationShortCode should be provided</li> <li>Major update for the migration of the Derivatives Markets to Optiq. The following changes have been made:         <ul> <li>For support of the Derivative segments, the following New messages have been added:</li></ul></li></ul>	c)	"Used For" adjusted for fields CollarRejType (9962) and OrdType (40)
<ul> <li>Clarifications added for how ClientidentificationShortCode should be provided</li> <li>Major update for the migration of the Derivatives Markets to Optiq. The following changes have been made:         <ul> <li>For support of the Derivative segments, the following New messages have been added:</li></ul></li></ul>	<ul><li>Section</li></ul>	ion 1.2.1 Maintenance of Relevant Data relating to Orders in Financial instruments adjusted with the new messages;
2.0.0 Major update for the migration of the Derivatives Markets to Optiq. The following changes have been made:  For support of the Derivative segments, the following New messages have been added:  a) Security Definition Request (c) and Security Definition (d) for intraday strategy creation  b) NewWholesaleOrder (U64) and WholesaleOrderAck (U65) for wholesale order messages  In section 5.3 "Administration Messages" – added support for the Derivatives segments  For support of the Derivative segments, the following existing messages have been updated as following:  a) NewOrderSingle (D): Added new fields NonExecCIID (21081) for Derivatives segments, FRMARAMPLP (2  UndisclosedIcebergType (20005) – for future use on Cash segments; Removed field CustOrderCapacity (5  support for the Derivative segments  b) ExecutionReport (8): Added new fields NonExecCIID (21081), ParentExecID (21094), ParentSecurityID (21  ESCBMembership (21096), LegSymbol (600), LegExecID (1893), LISTransactionID (21085) for Derivatives of FRMARAMPLP (21810) and UndisclosedIcebergType (20005) – for future use on Cash segments; Remove CustOrderCapacity (582), UnderlyingLastPx (651), PackageID (5883), OtherLegSecurityID (7773), QtyDelta OtherLegSecurityIDSource (7489), OtherLegReferenceNo (7774); Added support for the Derivative segment Updated description to clarify use for Cash and Derivative segments  c) NOTE: MassQuote (i) was not modified. Derivatives markets do not support submission of Quotes in FIX	<ul><li>Section</li></ul>	ion 4.10 Direct response to Application messages adjusted with Risk Guard service messages;
<ul> <li>For support of the Derivative segments, the following New messages have been added:         <ul> <li>Security Definition Request (c) and Security Definition (d) for intraday strategy creation</li> <li>NewWholesaleOrder (U64) and WholesaleOrderAck (U65) for wholesale order messages</li> <li>In section 5.3 "Administration Messages" – added support for the Derivatives segments</li> <li>For support of the Derivative segments, the following existing messages have been updated as following:                  <ul></ul></li></ul></li></ul>	<ul><li>Clarif</li></ul>	ifications added for how ClientIdentificationShortCode should be provided
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support for the Derivative segments  b) ExecutionReport (8): Added new fields NonExecCIID (21081), ParentExecID (21094), ParentSecurityID (21085) for Derivatives (21086), LegSymbol (600), LegExecID (1893), LISTransactionID (21085) for Derivatives (21086), ParentSecurityID (21085) for Derivatives (21086), ParentSecurityID (21810) and UndisclosedIcebergType (20005) – for future use on Cash segments; Remove CustOrderCapacity (582), UnderlyingLastPx (651), PackageID (5883), OtherLegSecurityID (7773), QtyDeltOtherLegSecurityIDSource (7489), OtherLegReferenceNo (7774); Added support for the Derivative segment Updated description to clarify use for Cash and Derivative segments  c) NOTE: MassQuote (i) was not modified. Derivatives markets do not support submission of Quotes in FIX	a) b) • In sec	Security Definition Request (c) and Security Definition (d) for intraday strategy creation  NewWholesaleOrder (U64) and WholesaleOrderAck (U65) for wholesale order messages ection 5.3 "Administration Messages" – added support for the Derivatives segments support of the Derivative segments, the following existing messages have been updated as following:  NewOrderSingle (D): Added new fields NonExecCIID (21081) for Derivatives segments, FRMARAMPLP (21810) and
<ul> <li>e) OrderCancelRequest (F): Removed mention of field DarkExecutionInstruction (20052); Added support for Derivative segments;</li> <li>f) OrderCancelReplaceRequest (G): Added new fields FRMARAMPLP (21810) and UndisclosedIcebergType</li> </ul>	c) d) e)	support for the Derivative segments  ExecutionReport (8): Added new fields NonExecClID (21081), ParentExecID (21094), ParentSecurityID (21093),  ESCBMembership (21096), LegSymbol (600), LegExecID (1893), LISTransactionID (21085) for Derivatives segments,  FRMARAMPLP (21810) and UndisclosedIcebergType (20005) – for future use on Cash segments; Removed fields  CustOrderCapacity (582), UnderlyingLastPx (651), PackageID (5883), OtherLegSecurityID (7773), QtyDeIta (8011),  OtherLegSecurityIDSource (7489), OtherLegReferenceNo (7774); Added support for the Derivative segments;  Updated description to clarify use for Cash and Derivative segments  NOTE: MassQuote (i) was not modified. Derivatives markets do not support submission of Quotes in FIX protocol  MassQuoteAck (b): Added new field AckQualifier (21014)  OrderCancelRequest (F): Removed mention of field DarkExecutionInstruction (20052); Added support for the

description to clarify use for Cash and Derivative segments

Cash and Derivative segments

g) OrderCancelReject (9): Added new field AckQualifier (21014); Added support for the Derivative segments; Updated description to clarify use for Cash and Derivative segments

h) QuoteRequest (R): Added support for the Derivative segments without changes to the message structure; Updated

#### Version **Change Description**

- OrderMassCancelOrderRequest (q): Added new field TargetPartyID (21095); Removed field DerivativeSymbol (1214), DerivativePutOrCall (1323), MaturityMonthYearFormat (1303), MaturityMonthYear (200): Fields flagged for Futures use LPRole (20021), AccountCode (6399); Added support for the Derivative segments without changes to the message structure; Updated description to clarify use for Cash and Derivative segments
- OrderMassCancelReport (r): added new field AckQualifier (21014), TargetPartyID (21095), NoPartyIDs (453), PartyID (448), PartyIDSource (447), PartyRole (452), PartyRoleQualifier (2376); Removed field DerivativeSymbol (1214), DerivativePutOrCall (1323), MaturityMonthYearFormat (1303), MaturityMonthYear (200); Added support for the Derivative segments; Updated description to clarify use repeating groups
- RFQNotification (U35): added field OrderCategory (21041) for future use on Cash segments
- For support of the Derivative segments, the following changes have been updated in the existing messages:
- Added support for the Derivatives segments for the existing messages that do not change in structure: RequestAckMessage (Uy),OwnershipRequest (U18), OwnershipRequestAck (U29), QuoteRequestReject (AG), UserNotification (CB), OrderMassStatusRequest (AF), InstrumentSynchronizationList (U50), SynchronizationTime (U51)
- Field Descriptions:
  - a) Added new fields: AckStatus (5711), BidNonExecClID (21089), ESCBMembership (21096), FRMARAMPLP (21810), LegErrorCode (21084), LegExecID (1893), LegLastTradingDate (21092), LegPrice (566), LegPutOrCall (1358), LegRatio (21091), LegSecurityType (609), LegStrikePrice (612), LegSymbol (600), LISTransactionID (21085), NestedOrderAttributeType (21087), NestedOrderAttributeValue (21088), NestedPartyRoleQualifier (2384), NonExecClID (21081), NoNestedOrderAttributes (21086), OfferNonExecClID (21090), ParentExecID (21094), ParentSecurityID (21093), Quantity (53), SecurityReqID (320), SecurityRequestType (321), SecurityType (167), SecuritySubType (762), TargetPartyID (21095), UndisclosedIcebergType (20005), WholesaleSide (21082), WholesaleTradeType (21083)
  - Enriched values for fields as follows: AckQualifiers (21014) with new values '2' (Request with Client Order ID), '3' (Use of Cross Partition), '6' (Execution Upon Entry Flag Enabled) and '7' (Executed Upon Entry Flag); MassCancelRequestType (530) with new value '3' (Cancel orders for a Product); PostingAction (7443) with new values 'Leg 2' through 'Leg 7'; AccountCode (6399) with new values '14' (Ceres Client) and '15' (Omega Client); PartyRole (452) value 17 renamed from 'Contract Broker' to FIX value 'Contra Firm'; ExecType (150) added values for future use on the Cash segments R = RFQ partially or fully matched with other counterparts, S = RFQ cancelled by the issuer, T = RFQ Not matched due to issuer order's features;
  - Enriched conditions and descriptions of fields: AFQReason (9939), BidErrorCode (9934), BidPx (132), BookInTime (21002), BreachedCollarPrice (21001), BuyRevisionIndciator (21088), ClassID (9945), ClOrdID (11), CollarRejType (9962), CumOty (14), CxlreiResponseTo (434), DarkExecutionInstruction (20052), DisclosedOtyRandIndicator (21016), DisplayQty (1138), EMM (20020), ExecID (17), ExecPhase (21023), ExecRefID (19), ExecType (150), ExpireDate (432), ExpireTime (126), InstrumentScopeSecurityID (1538), InstrumentScopeSecurityIDSource (1539), LastCapacity (29), LastMsgSeqNumProcessed (369), LastPx (31), LastQty (32), LeavesQty (151), LegExecID (1893), LegLastPx (637), LegLastQty (1418), LegRatioQty (623), LegSecurityID (602), LegSecurityType (609), LogicalAccessID (21021), LPActionCode (10076), LPRole (20021), MassCancelRequestType (530), MassStatusReqID (584), MinQty (110), MsgType (35), NestedPartyID (524), NestedPartyIDSource (525), NestedPartyrole (538), NestedpartyRoleQualifier (2384), NewSeqNo (36), OEPartitionID (21019), OfferErrorCode (9935), OfferPx (133), OfferQuoteID (1748), OfferSize (135), OnBehalfOfCompID (115), OrderID (37), OrderOrigination (1724), OrdType (40), OrigClOrdID (41), OrigSendingTime (122), PossDupFlag (43), PotentialMatchingPrice (21030), PotentialMatchingQty (21031), Price (44), Quantity (53), QuoteReqID (131), QuoteSetID (302), RefSeqNum (45), RefTaaID (371), REOAnswerIndicator (21037), REOConfirmationIndicator (21038), SecurityID (48), SecurityIDSource (22), SellRevisionIndicator (21009), Side (54), StopPx (99), TestReqID (112), Text (58), TimeInForce (59), TradeType (21010), TransactTime (60)
  - Removed fields: CustOrderCapacity (582), DerivativeSymbol (1214), DerivativePutOrCall (1323), MaturityMonthYearFormat (1303), MaturityMonthYear (200); PackageID (5883), OtherLegSecurityID (7773), QtyDelta (8011), OtherLegSecurityIDSource (7489), OtherLegReferenceNo (7774)
  - Use of the following fields extended to be for both Cash and Derivatives: BuvRevisionIndicator (21008). OrderPriority (21004), RFEAnswer (20022), SellRevisionIndicator (21009), TechnicalOrdType (9941)
- - References to "Cash Markets" updated to "Cash and Derivatives Markets" where applicable, and added clarification for differences in messages, and specific uses and behaviour for the individual markets Updated references to the documentation, that covers both Cash and Derivatives markets

  - Formatting updates and correction of phrasing, typos and cosmic changes
  - Replaced segment tags on individual messages with text based ones, for convenient searching
- Added section 1.5 "Error Codes" where description from the dedicated document "Euronext Markets Optiq & TCS Error List". Associated references to the document removed.
- Updated content of section "Work in Progress"
- Section 4.5 "Price. Quantity. Ratio and Amount Formats" added clarification for prices in basis points
- Section 4.6.2 "Order Priority" added clarification for reconciliation use in Market data for Cash markets only
- Section 4.10 "Direct Responses to Application Messages" updated with responses to the newly added messages
- Section 5.1.1 "Scope of Messages and Functionalities" updated the list of Optiq Segments, to include Derivatives segments, and use text-based tags used for the segments

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Revision History

Version	Change Description			
1.6.3	DarkExecutionInstruction (20052) has been added in RFQNotification (U35) message.			
1.6.2	OrderCategory (21041) has been removed from RFQNotification (U35) message.			
	DarkExecutionInstruction (20052) has been removed from OrderCancelRequest (F) message.			
	Clarification in the <i>DarkExecutionInstruction</i> (20052) [Used In] description: DarkExecutionInstruction is present in ExecutionReport (8) message only for Drop Copy.			
	MinQty (110) and DarkExecutionInstruction (20052) have been added in QuoteRequest (R) message.			
1.6.1	Correction in ExecutionReport (8) Message Signature Tags table for two cases:  - Cancellation due to RFQ cancellation			
	Cancellation due to RFQ confirmation			
1.6.0	Please note that all the changes introduced with this release and listed below are applicable and used for Euronext Block only			
	The following field has been created:			
	ConditionalOrderFlag (21800) is used to determine if an order is conditional or firm in NewOrderSingle (D), OrderCancelReplaceRequest (G) and ExecutionReport (8) messages.			
	Values have been updated for the following fields:			
	AckPhase (21013): addition of value 8 = Random Uncrossing Phase			
	ExecType (150): addition of the following value:			
	c = Conditional Order cancelled due to Potential Matching			
	Formatting changes:			
	Tag that been added in the whole document for each message on which Block Optiq Segment is applied on.			
1.5.0	The following message has been created:			
	- RFQLPMatchingStatus (U37).			
	The following messages have been been updated:			
	- NewOrderSingle (D): QuoteReqID, Dark Execution Instruction, Peg Offset: 'For Future Use' has been removed from field			
	description			
	<ul> <li>OrderCancelReplaceRequest (G): Dark Execution Instruction, Peg Offset: 'For Future Use' has been removed from field description</li> </ul>			
	- QuoteRequest (R): fields QuoteReqID, EndClient and SenderCompIDPublication have been removed			
	- OrderCancelRequest (F): field OrderCategory has been added			
	- OrderMassStatusRequest (AF): field OrderCategory has been added			
	- OrderMassCancelRequest (q): field OrderCategory has been added			
	- OrderMassCancelReport (r): field OrderCategory has been added			
	- OwnershipRequest (U18): field OrderCategory has been added			
	- OwnershipRequestAck (U29): field OrderCategory has been added			
	<ul> <li>RFQNotification (U35): fields OrderCategory and MinQty have been added. Fields EndClient, ContraBroker and RFQUpdateType have been removed</li> </ul>			
	<ul> <li>RFQMatchingStatus (U36): field RecipientType has been removed; 'For Future Use' has been removed from message description</li> </ul>			
	The following field has been created: Order Category			
	The following field has been removed: Undisclosed Iceberg Type			
	Values have been updated for the following fields:			
	TradeQualifier (21080): addition of value 7 = Deferred Publication			
	EMM (20020): addition of value 9 (= Listed-not traded)			
	ExecType (150): addition of the following values:			
	r = LP Order cancelled due to RFQ expiration			
	f = LP Order cancelled due to RFQ cancellation			
	q = RFQ Remaining quantity killed s = LP Order cancelled due to RFQ confirmation			
	S = LP Order cancelled due to KFQ confirmation  DarkExecutionInstruction (20052):			
	First Position = Dark Indicator (0: No ; 1: Yes)			
	First Position = Dark Indicator (U: No ; 1: Yes)			

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	Forfth Position = Sweep Order Indicator (0: No ; 1: Yes)					
	Fifth Position = Minimum Quantity Type (0: MAQ; 1: MES)					
	Descriptions have been updated for the following fields:					
	STPAggressorIndicator (21015): STP is not applicable for Dark orders					
	Formatting changes :					
	In <u>OrderMassCancelRequest (q)</u> and <u>OrderMassCancelReport (r)</u> messages:					
	- Fields DerivativeSymbol (1214), DerivativePutOrCall (1323), MaturityMonthYearFormat (1303), MaturityMonthYear					
	(200) have been greyed and set to italic.					
	- Tag FUND has been added					
1.4.1	The following messages have been been updated:					
	- ExecutionReport (8): field IDCCP has been removed.					
	The following field description has been updated:					
	- ContraBroker (375)					
1.4.0	The following field description has been updated:					
	- ContraBroker (375)					
1.3.2	Conditions have been updated for the following fields:					
	OrigSendingTime (122) ; LastMsgSeqNumProcessed (369) ; LastCapacity (29) ; OrderOrigination (1724) ; DisplayQty					
	(1138); SecurityID (48); SecurityIDSource (22); EMM (20020); LPActionCode (10076), OrderID (37);					
	OnBehalfOfCompID (115); DeliverToCompID (128).					
	Description have been updated for the following fields:					
	IDCCP (21040) ; ConfirmFlag (9930)					
	Presence Rule has been updated for the following fields:					
	- In Message Header LastMsgSeqNumProcessed (369) is Conditional					
	- In RequestAckMessage (Uy), BookINTime (21002), SecurityID (48), SecurityIDSource (22), EMM (20020) are Conditional.					
	Values have been updated for the following fields:					
	- SessionRejectReason (373): addition of values values identified for rejection in case of throttling:					
	25 = Throttling queue full; 26 = Throttling Rate exceeded; 27 = System busy.					
	- DisplayQty (1138) : Value starts from 1.					
	- RefSeqNum (45), NextExpectedMsgSeqNum (789), MsgSeqNum (34), LastMsgSeqNumProcessed (369): Values go from 1					
	to 2^32-2.					
	The following sections have been updated:					
	- "2.4 Order ID" paragraph revamping for clarification.					
	<ul> <li>"4.7.1 Message Header": Values indicated for field LastMsgSeqNumProcessed (369) are incorrect and are changed to "From 1 to 2^32-2". Clarification regarding OnBehalfOfCompID (115) and DeliverToCompID (128) fields.</li> </ul>					
	<ul> <li>"4.8 Rejection and Disconnection when handling missing mandatory tags or incorrect values in tags": addition of a clarification regarding unknown tags in messages.</li> </ul>					
	<ul> <li>"4.9.1.4 Gap Fill Processing – Rejection Cases": clarification in the case when message resent by the client does not have the OrigSendingTime (122).</li> </ul>					
	- "5.2.4 SequenceReset (4)": Removal of this case: While a ResendRequest (2) is pending, if the Client sends a					
	SequenceReset – Gap Fill Mode message with MsgSeqNum lower than the expected sequence number and					
	PossDupFlag (43) set to 'Y', the trading engine ignores the message;					
	- "5.3.2 Execution Report": Correction in the table "ExecutionReport (8) Message Signature Tags",					
	For Order Status case value of ExecType (150) is "m",					
	For Ownership Request case, the value of ExecType (150) is "k".					
	- "5.3.17 OrderMassStatusRequest (AF)": correction of ExecType="m".					
	- "5.3.14 UserNotification (CB)": add clarification on notification of suspension. In "Case 4:					
	ExecutionwithinFirmShortCode for a Firm or DEA change the value of PartyIDSource (447) is P (Short code identifier).					
	- "5.3.5 OrderCancelRequest (F)", "5.3.9 OwnershipRequest (U18)", "5.3.15 PriceInput (UI)", "5.3.16					
	LiquidityProviderCommand (UZ)", "5.3.17 OrderMassStatusRequest (AF)", "5.3.18 OrderMassCancelRequest (q)", add					

	ent specifications – Fix 5.0 interface Revision Histo
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	clarification on Components Usage within the message section for ClientIdentificationShortcode: if the information in
	the repeating group is not identical, the message is rejected.
	- "5.3.7 OrderCancelReject (9)" addition of Rejection Behaviour paragraph
	The following section has been added:
	- "4.10 Direct Responses to Application Messages"
1.3.1	The following messages have been updated:
	- <b>Header:</b> Added field <i>LastMsgSeqNumProcessed</i> (369).
	<ul> <li>UserNotification (CB): The fields NoOrderAttributes (2593), OrderAttributeType (2594), OrderAttributeValue (2595)         have been removed.</li> </ul>
	The following values have been removed:
	- In field <i>OrdStatus</i> (39): values 'F' (Trade) and 'N' (RFQ partially or fully matched with other counterparts (Future Use)
	have been removed.
	- In field ExecType (150): values '1' (Partially filled) and '2' (Filled) have been removed.
	- In field <i>TradeType</i> (21010): values not supported by OEG have been removed.
	The values for the following field were updated:
	- SessionStatus (1409): new values are added for the excessive breaches of rate (throttling limits):
	106 = Excessive Number of Messages; 107 = Excessive Amount of Data in Bytes; 108 = Excessive Number of Messages &
	Amount of Data in Bytes
	- Values of fields identify number of repeating sections to be remove possible value of Zero (0). If a repeating group is
	optional or conditional, and no values are to be provided, these fields are no sent. Impacted fields: NoOrderAttributes
	(2593); NoNestedPartyIDs (539); NoPartyIDs (453).
	Conditions updated for the following fields:
	ClOrdID (11); CumQty (14); ExecID (17); ExecRefID (19); LastCapacity (29); OrderID (37); PossDupFlag (43); Side (54); ExpireTime (126); LeavesQty (151); ExpireDate (432); NestedPartyRoleQualifier (2384); NestedPartyID (524);
	ClearingInstruction (577); MassStatusReqID (584); OrderAttributeType (2594); OrderAttributeValue (2595);
	TriggeredStopTimeInForce (20175); TradeType (21010) ; StopPx (99)
	Description of the following messages has been updated with clarifications and corrections:
	- ResendRequest (2) / [Section 5.2.2]: Simplified description, and removed repeating text
	- Reject (3) / [Section 5.2.3]: Simplified description. Rejection cases moved to new sections on rejection and
	disconnection, add use of message for throttling.
	- SequenceReset (4) / [Section 5.2.4]: Added clarification on fields and codes used
	- ExecutionReport (8) / [Section 5.3.2]: Added clarification for use of repeating group to provide Clearing Firm ID and the Client ID data
	- <b>UserNotification</b> (CB) / [Section 5.3.14]: Added identifiers used in various cases of Kill scope
	The following field description has been updated:
	- DarkExecutionInstruction (20052): Label of values "LiS Indicator" updated
	The following sections have been added:
	- "4.8 Rejection and Disconnection when Handling Missing Mandatory Tags or Incorrect Values"
	- "4.9 Sequence Number Gap Management & Rejection"
	. "7 Examples"
	The following sections have been updated:
	"2.4 Order ID": Added notes on cases where Order Id is not provided and how to identify them.
	- "4.3 FIX Optional Fields": Added further clarification
	- "4.5 Price, Quantity, Ratio and Amount Formats": Updated intra-document link references
	- "4.6.1 Symbol Index": added the tag for field <i>SymbolIndex</i> (48) in the description
	The following section has been removed:  "1.2.3 Short Codes management before January 2019"
	"1.2.3 Short Codes management before January 2018"
1.3.0	The following messages have been updated:
	- <b>Header</b> : Added field <i>OrigSendingTime</i>

#### Version Change Description

- Logon (A): Update description for NextExpectedMsgSeqNum management, update presence of the field NextExpectedMsgSeqNum from Conditional to Mandatory
- Reject (3): Update description for special cases
- ResendRequest (2): Update description for gap fill management
- SequenceReset (4): Update global description
- Heartbeat (0): Update description for message rejection cases
- NewOrderSingle (D): Update presence of the field DisclosedQtyRandIndicator from Optional to Conditional, Update
  presence of the field DarkExecutionInstruction from Mandatory to Conditional
- ExecutionReport (8): Updated description for VFU/VFC Ack, update Message Signature Tags table following the
  updates of the fields ExecType and OrdStatus, updated presence of the field LastCapacity from Mandatory to
  Conditional, removed field TradeTime, added fields ExecRestatementReason, IDCCP, MassStatusReqID and
  ClientMessageSendingTime
- MassQuote (i): Updated description for rejection message and for Clearing Data and Short Codes management, removed fields ClOrdID and TransactTime
- MassQuoteAck (b): Added field ClientMessageSendingTime, updated presences of the following fields from Mandatory to Conditional: OEGINFromMember and OEGOUTTOME, removed repeating groups Parties and NestedParties, removed field TransactTime, updated description following the removal of repeating groups and for rejection message
- OrderCancelRequest (F): Updated description and added repeating group OrderAttributeGrp for particular client short code management (AGGR and PNAL)
- OrderCancelReplaceRequest (G): Updated description, removed field AccountCode, Update presence of the field DarkExecutionInstruction from Mandatory to Conditional
- OrderCancelReject (9): Updated description for rejection in case of invalid values, added field
   ClientMessageSendingTime, removed field TransactTime
- RequestAckMessage (Uy): Updated description for message use, removed fields ClordID and TransactTime, added fields ClientMessageSendingTime and RequestID, Updated presences of the following fields from Mandatory to Conditional: OEGINFromMember, OEGOUTTOME, BookOUTTime and OEGINFromME
- OwnershipRequest (U18): Updated description and added repeating group OrderAttributeGrp for particular client short code management (AGGR and PNAL), updated description for rejection message, added fields OrigClOrdID and EMM, removed field TransactTime
- AskForQuote (AL): removed field TransactTime
- PriceInput (UI): Updated description and added repeating group OrderAttributeGrp for particular client short code
  management (AGGR and PNAL), Removed value '3' (Reference Price) from the field InputPxType, updated description
  following the removal of this value, removed field TransactTime
- LiquidityProviderCommand (UZ): Updated description and added repeating group OrderAttributeGrp for particular client short code management (AGGR and PNAL), removed field TransactTime
- OrderMassStatusRequest (AF): Updated description and added repeating group OrderAttributeGrp for
  particular client short code management (AGGR and PNAL), removed fields ClOrdID and TransactTime
- OrderMassCancelRequest (q): Updated description and added repeating group OrderAttributeGrp for particular client short code management (AGGR and PNAL)
- OrderMassCancelReport (r): Added field ClientMessageSendingTime
- UserNotification (CB): Updated description for repeating group usage in case of a firm suspension, updated description and added repeating group OrderAttributeGrp for particular client short code management (AGGR and PNAL), updated presences of the following fields from Mandatory to Conditional: NoInstrumentScopes, InstrumentScopeSecurityID and InstrumentScopeSecurityIDSource, added value 'D' (Proprietary / Custom Code) to the field PartyIdSource

#### The following messages have been added:

- InstrumentSynchronisationList (U50)
- SynchronisationTime (U51)

#### The following fields have been updated:

 Multiple integer fields updated to align possible values with their presence in messages structures: the mandatory fields have one less authorized value (Null Value is not accepted)

#### Version Change Description

- Multiple bitmap fields updated to remove "Future Use" values previously set on unused bits
- Updated descriptions for fields: Account; LastCapacity; OrderPriority; Price; SoftwareProvider; STPAggressorIndicator
- Updated length for fields as follows: Account: from '14' to '12'; AckQualifiers: from '15' to '3'; DarkExecutionInstruction: from '8' to '9'; MassStatusReaID: from '30' to '20'; PostinaAction: from '19' to '17'
- <u>Updated or Added conditions for fields:</u> Account; AckPhase; BidErrorCode; BidPx; BidQuotelD; BidSize; BuyRevisionIndicator; ClOrdID; CancelOnDisconnectionIndicator; ClearingInstruction; DarkExecutionInstruction; DeliverToComplD; DisplayQty; ExecID; ExpireDate; ExpireDime; InstrumentScopeSecurityIDSource; InvestmentDecisionWFirmShortCode; LPRole; OfferErrorCode; OfferPx; OfferQuotelD; OfferSize; OrderOrigination; OrderQty; OrdType; PegOffsetValue; PegPriceType; Price; QuoteReqID; RequestID; SelfMatchPreventionID; SelfRevisionIndicator; SenderComplD; Side; StopPx; STPAggressorIndicator; TargetCompID; TechnicalOrdType; Text; TimeInForce; TradeType; TradingSessionID; TriggeredStopTimeInForce; UndisclosedIcebergType; UndisclosedPrice

Modified Values as follows: AccountCode: value '8' changed from 'Riskless Principal' to 'Structured Product Market Maker'; AckQualifiers: removed values '2 = Future Ack Use 1', '3 = Future Ack Use 2', '4 = Future Ack Use 3', '5 = Future Ack Use 4', '6 = Future Ack Use 5' and '7 = Future Ack Use 6'; CumQty: update values from 'From 0 to 2^64-2' to 'From -1 to 2^64-2'; DarkExecutionInstruction:up removed values '5 = Future Dark Use 1', '6 = Future Dark Use 2' and '7 = Future Dark Use 3', EMM: value 'Not Applicable' changed from '254' to '99'; ExecType: added values 'D = Restated', 'L = Triggered or Activated by System' and 'm = OrderMassStatusRequest Ack': removed values 'c = Stop Triggered Ack' and 'f = MTL Second Ack': InputPxType: removed value '3'; LastCapacity: update values from '1 = Dealing on own account (DEAL)', '2 = Matched principal (MTCH)' and '3 = Any other capacity (AOTC)' to '7 = Dealing on own account (DEAL)', '8 = Matched principal (MTCH)' and '9 = Any other capacity (AOTC)'; LeavesQty: update values from 'From 0 to 2^64-1' to 'From -1 to 2^64-2'; MassStatusRegID: update value from 'User-defined value' to 'From -2^63 to 2^63-1'; MsgSeqNum: update values from 'From 0 to 2^32-1' to 'From 1 to 2^32-1'; MsqType: added values 'U50 = InstrumentSynchronizationList' and 'U51 = SynchronizationTime'; NextExpectedMsgSeqNum: update values from 'Integer' to 'From 1 to 2^32-1'; NoInstrumentScopes: update value from 'From 1 to 100' to 'If provided, always set to 1'; OrdStatus: added values 'M = RFQ expired', 'N = RFQ partially or fully matched with other counterparts', 'O = RFQ cancelled by the issuer', 'P = RFQ Not matched due to issuer  $order's\ features',\ 'Q=VFU/VFC\ Triggered\ Ack',\ 'R=OrderMassStatusRequest\ Ack'\ and\ 'Z=Message\ Rejected',\ removed$ value 'L = Triggered or Activated by System'; PostingAction: removed value '0 = Field Actively Used', values '2' to '9' set for Derivatives only; RefTagID: update values from 'Integer' to 'From 1 to 999 999'; SessionRejectReason: added value '19 = NewSeqNo(36) too low'; TradeType: removed value '35', added values '37' and '38'; TriggeredStopTimeInForce: removed values '2', '3', '4', '5', '7' and '8'

#### The following sections have been added: 1.3 FUTURE USE

#### The following sections have been modified:

- 1.2.1 Maintenance of Relevant Data relating to Orders in Financial Instruments: Added paragraph on short code general presence rules
- 2.2.2 Drop Copy: Removed details of SBE Drop Copy as it will be provided in FIX only
- 4.1 Field Format: Added further explanation for MultipleCharValue field type usage
- 4.6.1 Symbol Index: Removed tab depicting Symbol Index ranges
- 5.1.1 Scope of Messages and Functionalities: Removed 'TCS & Transaction Reporting service' segment

#### The following sections have been removed:

- 2.4 Throttling Mechanism: will be described in a dedicated document
- 2.5 Throttling Parameters: will be described in a dedicated document

#### 1.2.0 The following sections have been updated:

- 1.2 MiFID Related Changes: updated fields possible values in description.
- 4.6.1 Price, Quantity, Ratio and Amount Formats: added fields calculation method and formulas description.

#### The following messages have been updated:

#### General message description updates:

 Description of messages updated with clarification & examples of field use for MIFID II short codes and clearing IDs: NewOrderSingle, ExecutionReport, MassQuote, MassQuoteAck, OrderCancelRequest, OrderCancelReplaceRequest, OrderCancelReject, OwnershipRequest, QuoteRequest, UserNotification, PriceInput, LiquidityProviderCommand, OrderMassStatusRequest, OrderMassCancelRequest

#### NewOrderSingle:

- Updated field from Optional to Conditional: NoNestedPartyIDs
- Updated field from Mandatory to Conditional: NestedPartyRoleQualifier

#### ExecutionReport:

#### **Version** Change Description

- Updated fields from Mandatory to Conditional: BookInTime, DarkExecutionInstruction,LastPx, LastQty, AckQualifiers,
  TradeType, ExecPhase, TradeQualifier, TradeTime, OEPartitionID, LogicalAccessID, OrdType, TimeInForce, NoSides,
  AccountCode, NestedPartyRoleQualifier, ErrorCode, TransactTime
- Update fields from Optional to Conditional: UndisclosedPrice, MinQty, ClearingInstruction, Text, Account, TechnicalOrdType, NoNestedPartyIDs

#### MassQuote:

- Added fields: NoNestedPartyIDs, NestedPartyID, NestedPartyIDSource, NestedPartyRole, NestedPartyRoleQualifier

#### MassQuoteAck:

- Updated field from Mandatory to Conditional: BookInTime
- Added fields: NoNestedPartyIDs, NestedPartyID, NestedPartyIDSource, NestedPartyRole, NestedPartyRoleQualifier

#### OrderCancelReplaceRequest:

- Added fields: NoNestedPartyIDs, NestedPartyID, NestedPartyIDSource, NestedPartyRole, NestedPartyRoleQualifier

#### OrderCancelReject:

- Removed unused field: OrigClOrdID
- Updated field from Mandatory to Conditional: ErrorCode

#### RequestAckMessage:

- Updated field from Mandatory to Conditional: ErrorCode

#### The following individual field descriptions have been updated:

- Description updated for fields: SoftwareProvider, BidPx, BidSize, CumQty, DisplayQty, LastPx, LastQty, LeavesQty, LegLastPx, LegLastQty, MinQty, OfferPx, OrderQty, OfferSize, PotentialMatchingPrice, PotentialMatchingQuantity, BreachedCollarPrice, Price, ClOrdID
- Updated length of fields: NestedPartyID from 10 to 11, OEPartitionID from 10 to 5
- Updated / Added Conditions of field: BookInTime, CumQty, DarkExecutionInstruction, ErrorCode, ExpireTime, ExpireDate, LeavesQty, DisplayQty
- Updated possible values of fields: BeginSeqNo, EndSeqNo, ExecType, EMM, SessionStatus, OrdStatus, NestedPartyRoleQualifier , PartyRole, PartyRoleQualifier , PartyIDSource, OrderAttributeType

# 1.1.0 Specifications, including all messages, components, structures, descriptions and values have been fully revamped to take into consideration:

- $\qquad \text{Latest guidelines from the FIX community on specifications and best practices on implementation of version 5.0} \\$
- Implementation of MIFID II and MIFIR requirements EP222 Critical data requirements identified by the sub-working groups on transparency, and order data and recordkeeping
- Client consultations on functionalities previously identified or missing from the scope of the Optiq specifications

#### The following sections & messages have been removed:

- Sections: 1.2 Work In Progress Section & 3.1.5 Accepted messages
- Messages: NewOrderMiFIDExtension (U02) & NewOrderMiFIDExtensionAck (U30)

#### The following sections & messages have been added:

- Sections: 1.2 MiFID II Related Changes; 1.2.3 Short Codes management before January 2018; 2.3 Client Order ID Management; 2.3.1 Client Order ID Overview; 2.3.2 Client Order ID usages for Order Management; 2.3.3 Client Order ID Ranges; 2.4 Throttling Mechanism; 2.4.1 General Overview; 2.4.2 Throttling Scope; 2.5 Throttling parameters; 2.5.1 Throttling Methods; 2.5.2 Counting Window; 2.5.3 Unacknowledged Requests; 2.5.4 Queuing or Rejection; 4.4 Date and Time Conventions; 4.5 Sequence Numbers; 4.6.2 Order Priority; 5.3.9 OwnershipRequestAck (U29); 5.3.10 OwnershipRequest (U18); 5.3.11 QuoteRequest (R); 5.3.12 RFQNotification (U35); 5.3.13 RFQMatchingStatus (U36); 5.3.14 UserNotification (CB)
- Messages: OwnershipRequestAck (U29); OwnershipRequest (U18); QuoteRequest (R); RFQNotification (U35);
   RFQMatchingStatus (U36); UserNotification (CB)

#### 1.0.0 First Version

### **Document History**

Optiq OEG Client S	Specifications – FIX 5	.0 Interface	Revision Histor
Revision No.	Date	Author	Change Description
4.6.0	8 Feb 2021	IT Market Services – WMA	Introduction of SBE 306 – no impacts
4.5.0	4 Jan 2021	IT Market Services	Major release for Euronext Block
4.4.0	2 Nov 2020	IT Market Services – WMA	Introduction of SBE 304 – no impacts
4.3.0	25 Sep 2020	IT Market Services – WMA	Removal of mention indicating "Dark is for future use".
			Correction of the definition of the session 3 for the field Trading
			Session ID
4.2.1	10 Jun 2020	IT Solutions - FNA	Adjusted section 4.2 Structure Representation.
4.2.0	2 Jun 2020	IT Solutions – FBO	Integration of Oslo Fixed Incomes.
			Added note on TVTIC trade ID in Execution Report (8).
4.0.2	23 Mar 2020	IT Solutions - IZE	Document Improvements
4.0.1	13 Mar 2020	IT Solutions - IZE	Document Improvements and Mege of TCS FIX specification into this
			document
4.0.0	28 Feb 2020	IT Solutions - IZE	Oslo integration, ETF Access , Dublin, ETF Warrant projects updates
			and Document improvements
2.1.0	6 Sept 2019	IT Solutions - WMA	Second update for migration of the Derivatives Markets to Optiq
2.0.0	21 May 2019	IT Solutions - WMA	Major update for the migration of the Derivatives Markets to Optiq
1.6.3	24 Jan 2019	IT Solutions	Third minor release for Euronext Block
1.6.2	19 Nov 2019	IT Solutions	Second minor release for Euronext Block
1.6.1	20 Nov 2018	IT Solutions	Minor release for Euronext Block
1.6.0	14 Nov 2018	IT Solutions – FLO	Major release for Euronext Block
1.5.0	9 Nov 2018	IT Solutions – FLO	Major Release for ETF Access and Dark Initiative
1.3.3	27 Mar 2018	IT Solutions – FLO	Seventh Release
1.3.2	9 Mar 2018	IT Solutions – FLO	Sixth Release
1.3.1	16 Jan 201816	IT Solutions – FLO	Fifth Release
	Jan 201816 Jan		
	2018		
1.3.0	7 Dec 20177	IT Solutions - DCO	Fourth Release
	Dec 20177 Dec		
	2017		
1.2.0	28 Jun 201728	IT Solutions - DCO	Third Release
	Jun 201728 Jun		
	2017		
1.1.1	6 Sep 20176	IT Solutions – DCO	Minor Release for Updated Account Number length
	Sep 20176 Sep		
	2017		
1.1.0	16 Mar 201716	IT Solutions - DCO	Second Release
	Mar 201716		
	Mar 2017		
1.0.0	31 Oct 2016	IT Solutions – DCO	First Release