Document title

OPTIQ OEG FIX 5.0 MESSAGES - INTERFACE SPECIFICATION

Document type or subject

INTERFACE SPECIFICATION - EURONEXT CASH AND DERIVATIVES MARKETS -

Version number Date

Version Number: <u>5.31.0</u> <u>1 Dec 2023</u>

Number of pages Author

313314 Euronext – IT Market Services

Related SBE Version 331

This publication is for information purposes only and is not a recommendation to engage in investment activities. This publication is provided "as is" without representation or warranty of any kind. Whilst all reasonable care has been taken to ensure the accuracy of the content, Euronext does not guarantee its accuracy or completeness. Euronext will not be held liable for any loss or damages of any nature ensuing from using, trusting or acting on information provided. No information set out or referred to in this publication shall form the basis of any contract. The creation of rights and obligations in respect of financial products that are traded on the exchanges operated by Euronext's subsidiaries shall depend solely on the applicable rules of the market operator. All proprietary rights and interest in or connected with this publication shall vest in Euronext. No part of it may be redistributed or reproduced in any form without the prior written permission of Euronext.

Euronext refers to Euronext N.V. and its affiliates. Information regarding trademarks and intellectual property rights of Euronext is located at www.euronext.com/terms-use.

© 2023, Euronext N.V. - All rights reserved.

PREFACE

PURPOSE

The purpose of this document is to set out the client messages specification for Optiq OEG using FIX 5.0 format. More specifically, it describes the content of administrative and application messages and provides detailed field descriptions.

TARGET AUDIENCE

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

SCOPE

The scope of this document is listed below (✓ In scope, ♣ 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	×							
Forex FOREX	15 *								
Euronext Derivatives Market									
Commodity Derivatives CMO	8	✓							
Index Derivatives IDD	11	✓							
Equity Derivatives EQD	12	✓							
Euro	next Indices								
Indices Indices	9	×							
Euronext Approved Public	ation Arrangement (APA)	Facility							
Trade Reporting and Publication TRP	10	×							
Oth	er Markets								
Luxembourg Stock Exchange BDL	5	✓							

SUPPORT

Please find below the contact details:

- Operational Client Services Desk: <u>clientsupport@euronext.com</u>
- Belgium +32 2 620 0585
- France +33 1 8514 8585
- Ireland +353 1 617 4289
- Netherlands +31 20 721 9585
- Portugal +351 2 1060 8585
- UK +44 20 7660 8585

WHAT'S NEW?

The following lists only the most recent modification made to this revision/version. For the Document History table, see the <u>Appendix</u>.

VERSION NO.	CHANGE DESCRIPTION							
5.31.0	The following changes have been made to this version of the document:							
	Section 4.6.2 Order Priority – updated to reflect the behaviour regarding Order Priority of							
	Dark Sweep Orders once they move to the Central Order Book							
	Section 5.3.2 ExecutionReport (8): OrderTolerablePrice field is added							
	Section 5.3.9 OwnershipRequest (U18) message – Added explanation on how to proper							
	identify Dark (Sweep and not Sweep) Orders to be identified through the							
	<u>"OrderCategory" field</u>							
	Section 5.3.17 OrderMassStatusRequest (AF) message – Added explanation on how to							
	properly identify Dark (Sweep and not Sweep) Orders to be identified through the							
	"OrderCategory" field							
	Section 5.3.29 CrossOrder (U67): OrderTolerablePrice field is added							
	Section 5.3.43 FundPriceInput (U44): Removal of "Dutch" mention as trading in amount							
	is authorized on both Dutch Fund and ATFund markets							
	In 6. Field Description:							
	- Field "OrdStatus" – Added new possible values used for the acknowledgment of Dark							
	Sweep Orders becoming Lit Orders							
	- Field "OrderTolerablePrice" is added							
	Ticla Oraci role abici rice is added							

ASSOCIATED DOCUMENTS

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

- Optiq OEG SBE Messages Interface Specification Euronext Cash and Derivatives Markets
- Optiq OEG MDG Kinematics Specification Euronext Cash Markets
- Optiq OEG MDG Kinematics Specification Euronext Derivatives Markets
- Optiq & TCS Error List Euronext Markets file (.csv)
- Optiq MDG Messages Interface Specification Euronext Cash and Derivatives Markets
- Optiq Files Interface Specification Euronext Cash and Derivatives Markets
- Optiq OEG Connectivity Specification Euronext Markets

CONTENTS

1.	SOLUTION OVERVIEW
1.1	Introduction
1.2	MiFID II Related Fields & Values <u>78</u>
1.2.1	Maintenance of Relevant Data relating to Orders in Financial Instruments
1.2.2	Reporting to Competent Authorities <u>910</u>
1.3	Future Use
1.4	Glossary
1.5	Error Codes
2.	ORDER ENTRY MAIN PRINCIPLES <u>1314</u>
2.1	New Instrument Segregation - Optiq Segment 1314
2.1.1	Optiq Segments
2.1.2	Partitions
2.1.3	Logical Access and OE Sessions
2.1.4	Full mesh OEG-ME Connection
2.1.5	Determine the "shorter path"
2.1.6	Setting Up Connectivity
	Overnight instrument migration between partitions $\underline{1718}$
2.1.8	Added / Removed Partition
2.2	Technical Features
2.2.1	Latency Monitoring and Timestamps
2.2.2	Drop Copy
2.3	Client Order ID Management
2.3.1	Client Order ID Overview
	Client Order ID for Order Management
2.3.3	Client Order ID Ranges
2.4	Order ID
3.	ORDER ENTRY GATEWAY SPECIFICS
3.1	Session Management
3.1.1	Logon Overview
3.1.2	Heartbeats and TestRequests
	Logout
3.1.4	Message Sequence Usage
3.2	Cancel On Disconnect Mechanism
4.	FORMATTING
4.1	Field Format
4.2	Structure Representation
4.3	FIX Optional Fields
4.4	Date and Time Conventions
4.5	Price, Quantity, Ratio and Amount Formats
4.6	Instrument Identification and EMM
4.6.1	Symbol Index
4.6.2	Order Priority
4.6.3	EMM <u>30</u> 31

4.7	Message Header & Trailer	<u>30</u> 31
4.7.1	Message Header	<u>30</u> 31
4.7.2	Message Trailer	<u>32</u> 33
4.8	Rejection and Disconnection when handling missing mandatory tags	or Incorrect
value	s in tags	<u>3233</u>
4.9	Sequence Number Gap Management & Rejection	<u>34</u> 35
4.9.1	Gap Detection & Management	<u>35</u> 36
4.10	Direct Responses to Application Messages	<u>3738</u>
5.	MESSAGES	<u>39</u> 4 0
5.1	Important Notes	<u>39</u> 40
5.1.1	Scope of Messages and Functionalities	<u>39</u> 40
5.1.2	Conditional Values in Outbound Messages	
5.2	Administration Messages	39 40
5.2.1	Logon (A)	
5.2.2	ResendRequest (2)	
	Reject (3)	
5.2.4	SequenceReset (4)	
	Logout (5)	
5.2.6	Heartbeat (0)	
	TestRequest (1)	
5.3	Application Messages	<u>4546</u>
5.3.1	NewOrderSingle (D)	
	ExecutionReport (8)	
	MassQuote (i)	
5.3.4	MassQuoteAck (b)	<u>7576</u>
5.3.5	OrderCancelRequest (F)	<u>7879</u>
5.3.6	OrderCancelReplaceRequest (G)	<u>80</u> 81
5.3.7	OrderCancelReject (9)	<u>87</u> 88
5.3.8	RequestAckMessage (Uy)	<u>90</u> 91
5.3.9	OwnershipRequest (U18)	<u>91</u> 92
5.3.10	OwnershipRequestAck (U29)	<u>94</u> 95
5.3.11	. QuoteRequest (R)	<u>95</u> 96
5.3.12	QuoteRequestReject (AG)	<u>97</u> 98
5.3.13	BAskForQuote (UL)	<u>99</u> 100
5.3.14	UserNotification (CB)	<u>99</u> 100
5.3.15	FriceInput (UI)	<u>105</u> 106
5.3.16	LiquidityProviderCommand (UZ)	<u>108</u> 109
5.3.17	OrderMassStatusRequest (AF)	<u>110</u> 111
5.3.18	OrderMassCancelRequest (q)	<u>113</u> 114
5.3.19	OrderMassCancelReport (r)	<u>116</u> 117
5.3.20	RFQNotification (U35)	<u>120</u> 121
5.3.21	RFQMatchingStatus (U36)	<u>121122</u>
5.3.22	RFQLPMatchingStatus (U37)	<u>122123</u>
	RequestForExecution (UM)	
5.3.24	SecurityDefinitionRequest (c)	<u>124</u> 125
5.3.25	SecurityDefinition (d)	<u>126127</u>

5.3.26 NewWholesaleOrder (U64)	128 129
5.3.27 WholesaleOrderAck (U65)	<u>136137</u>
5.3.28 RequestForImpliedExecution (U66)	. <u>141142</u>
5.3.29 CrossOrder (U67)	. <u>144</u> 145
5.3.30 ERGCommand (U68)	. <u>149150</u>
5.3.31 ERGCommandAck (U69)	. <u>157158</u>
5.3.32 ERGMEPBreachAlert (U76)	. <u>160161</u>
5.3.33 GetRiskControls (U70)	. <u>162163</u>
5.3.34 RiskControlDetails (U71)	. <u>164</u> 165
5.3.35 InstrumentSynchronizationList (U50)	. <u>168</u> 169
5.3.36 SynchronizationTime (U51)	<u> 169</u> 170
5.3.37 ClearBook (U75)	. <u>169</u> 170
5.3.38 RFQAudit (U72)	<u>170171</u>
5.3.39 IOI (6)	<u>172</u> 173
5.3.40 IOINotification (U73)	<u> 175176</u>
5.3.41 TradeCaptureReport (AE)	<u>178</u> 179
5.3.42 TradeCaptureReportAck (AR)	<u> 182183</u>
5.3.43 FundPriceInput (U44)	<u> 186</u> 187
5.3.44 FundPriceInputAck (U45)	. <u>187</u> 188
6. FIELD DESCRIPTION	<u> 189</u> 190
7. EXAMPLES	281 282

1. SOLUTION OVERVIEW

1.1 INTRODUCTION

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

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 NestedOrderAttributeGrp group. Details of cases and values are contained in the message descriptions. The various cases are referred to as: ClientIdentificationShortCode	NewOrderSingle (D) ExecutionReport (8) MassQuote (i) OrderCancelRequest (F) OrderCancelReplaceRequest (G) OwnershipRequest (U18) QuoteRequest (R) UserNotification (CB) PriceInput (UI)

Field in the Act	Used In			
Investment decision within firm	Populated via combination of components in the NestedParties group. Details of cases and values are contained in the message descriptions. The various cases are referred to as: InvestmentDecisionWFirmShortCode	LiquidityProviderCommand (UZ) OrderMassStatusRequest (AF) OrderMassCancelRequest (q) NewWholesaleOrder (U64) WholesaleOrderAck (U65) RequestForImpliedExecution (U66) CrossOrder (U67) NewOrderSingle (D) ExecutionReport (8) MassQuote (i) NewWholesaleOrder (U64) WholesaleOrderAck (U65)		
Execution within firm	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: ExecutionWithinFirmShortCode	CrossOrder (U67) NewOrderSingle (D) ExecutionReport (8) MassQuote (i) OrderCancelRequest (F) OrderCancelReplaceRequest (G) OwnershipRequest (U18) QuoteRequest (R) UserNotification (CB) PriceInput (UI) LiquidityProviderCommand (UZ) OrderMassStatusRequest (AF) OrderMassCancelRequest (q) NewWholesaleOrder (U64) WholesaleOrderAck (U65) RequestForImpliedExecution (U66) CrossOrder (U67)		
Non-executing broker	Populated via combination of components in the NestedParties group. Details of cases and values are contained in the message descriptions. The various cases are referred to as: NonExecutingBrokerShortCode	NewOrderSingle (D) ExecutionReport (8) MassQuote (i) NewWholesaleOrder (U64) WholesaleOrderAck (U65) CrossOrder (U67)		
Commodity derivatives indicator	Populated via combination of components in the OrderAttributeGrp group. Details of cases and values are contained in the message descriptions. The various cases are referred to as: CommodityDerivativesIndicator	NewOrderSingle (D) ExecutionReport (8) MassQuote (i) NewWholesaleOrder (U64) WholesaleOrderAck (U65) RequestForImpliedExecution (U66) CrossOrder (U67)		
Investment algo indicator	Populated via combination of components in the NestedParties group. Details of cases and values are contained in the message descriptions. The various cases are referred to as: InvestmentAlgoIndicator	NewOrderSingle (D) ExecutionReport (8) MassQuote (i) NewWholesaleOrder (U64) 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 2³¹-1) 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 2³¹-1
 - ♦ ISV algorithms: negative range of values between -2³¹+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.
- NonExecutingBrokerShortCode is optional in all 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 Euronext 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.
- **OE Session:** 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.
- **Symbol Index**: 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.
- Self-Trade Prevention (STP): 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: Error Code List, 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

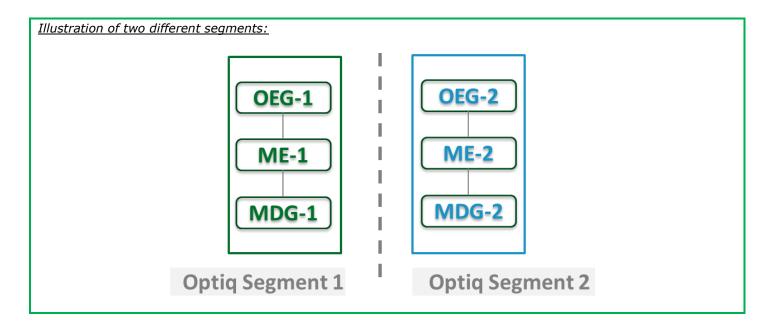
An Optiq Segment defines a universe of instruments sharing common trading and financial properties, it allows Euronext to segregate instruments among hermetic universes to facilitate clients' organisation toward Euronext financial markets.

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.



2.1.2 Partitions

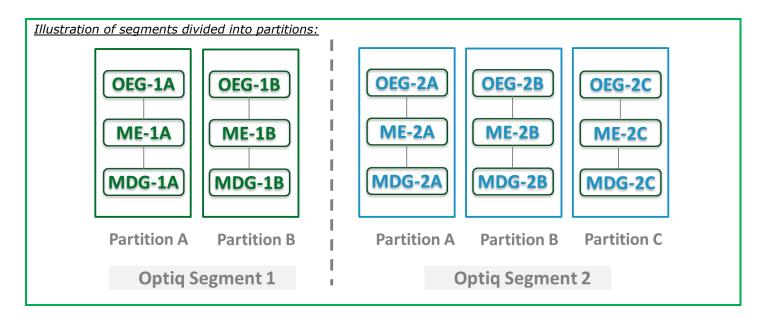
An Optiq Segment may be comprised of one or more physical partitions.

A partition is composed of an Order Entry Gateway (OEG), a Matching Engine (ME) and a Market Data Gateway (MDG).

¹ Standing data files and messages refer to the data provided for Cash and Derivatives, instruments, contracts, outrights and strategies

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.

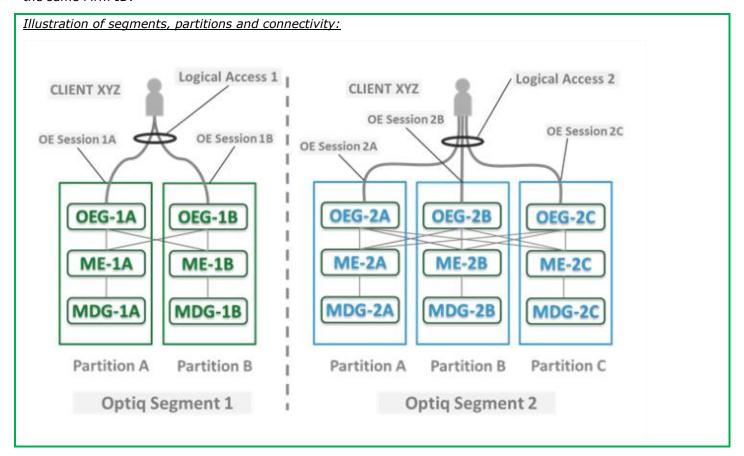
2.1.4 Full mesh OEG-ME Connection

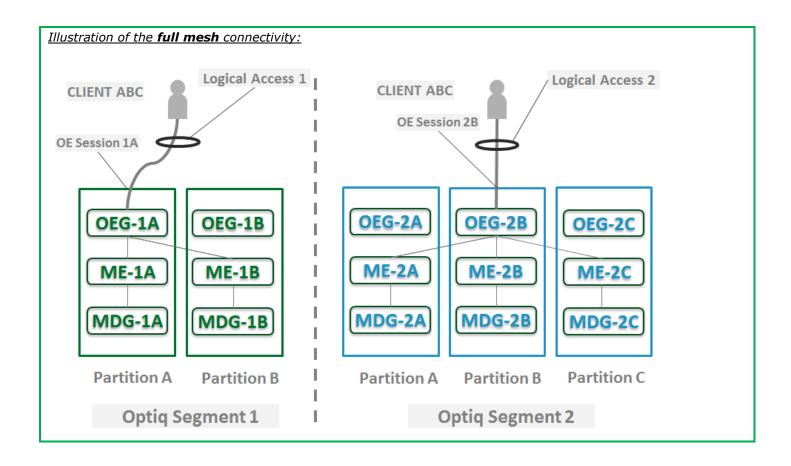
If a segment has multiple partitions, for the best possible response times, clients should initiate an OE session for each available partition and send messages through it only for the instruments hosted on this partition. However, a client may use a single OE Session to access all the instruments of 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.²

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 sub-set 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 Cash and Derivatives Markets – Optiq MDG Messages – Interface Specification* document.

² 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 basis.

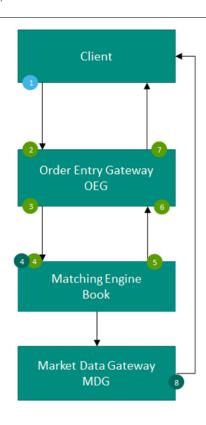
In all cases clients will always be provided prior notice - before such changes are performed.

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:



COLOR CODES

- Sent by client in private inbound messages
 Sent back to the client by Euronext in outbound
 messages
- Sent by Euronext in private Outbound messages
- Sent by Euronext in public 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 **CIOrdID** (11). Clients may provide any value that respects the *CIOrdID* 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 Exchange³, 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 identifier⁴, 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 *ClOrdID* 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.

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.

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.

³ With the exception of the Service Bureau accesses for which a check is always performed.

⁴ If both *OrigClOrdID* and *ClOrdID* are provided in a modification or cancellation request, the *OrigClOrdID* is totally ignored and the request is performed on *OrderID* only.

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
- numerically it means that clients are restricted to a range from -XXX0000000000000000 to

The use of the ISV ID is optional and 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 -XXX0000000000000000 to
 - -XXX99999999999999, 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.

1- Step 1: conversion of the internal OrderID assigned by Optiq in hexadecimal:

The internal OrderID assigned by Optiq in internal format is composed of three parts, as depicted below:

- The least-significant 2-bytes include the relative calendar days number since 1-jan-1970 at 0:00 UTC (EPOCH), the date is converted in hexadecimal.
- Then 1-byte includes the EMM, this EMM is converted in hexadecimal.
- Then the remaining most-significant 5-bytes contain the Order Number which is a sequence number restarted at 1 at each start of day, this order number is converted inhexa.

The result of this first step is the representation of the internal OrderID in hexadecimal.

2- <u>Step 2: the conversion of the internal OrderID from Hexadecimal (resulting from Step 1) to Decimal value</u> gives the OrderID provided in FIX Tag 37.

Example:

- Let's take an order submitted on 10/03/17 on EMM = 1 having a sequence number = 1234
- The corresponding OrderID assigned by Optiq in internal format is calculated as follows:
 - $_{\odot}$ The relative number of days of 10/03/20 since EPOCH is 17235 ===> 43 53 in hexa
 - \circ The EMM = 1 ===> 01 in hexa
 - Sequence number 1234 ====> 04 D2 in hexa
- The internal representation of the OrderID in hexadecimal is then: 00 00 00 04 D2 01 43 53
- The conversion in decimal of the OrderID is: 20703167315
- The OrderID (37) FIX tag will then contains a 11-characters string equal to "20703167315"

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:

- <u>Heartbeat</u> (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.
- **TestRequest** (1) message 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 Cash and Derivatives Markets - Optiq OEG Connectivity Aruba Datacentre - Technical Specification 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 session.

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 Cash and Derivatives Markets – Optiq OEG Connectivity Aruba Datacentre – Technical Specification* 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.sssssssss)				

Alphanumerical fields: authorized characters are the following ones:

`0′..′9′`a′..′z′`A′..′Z′`″``#′`\$′`&′`(``)′`+′`-′`.′`,′`,′`,′`;′`<``=``>``@′`*′`+′`^′`_′``′`~′`,′`-′``

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 \neq 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 Price, Quantity, Ratio and Amounts Formats

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

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 Price, Quantity, Ratio and Amounts Formats

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 <u>TradeQualifier (21080)</u> 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.
- "sssssssss" is the fraction of a second (nanoseconds).

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

⁵ For Future use

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 8-byte 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.

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:

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

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 Cash and Derivatives Markets – Optiq MDG Messages – Interface Specification* 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 the Dark Functionality, the *OrderPriority (21004)* will be provided in the private **ExecutionReport** (8) acknowledgement message. This order priority indicates the rank of the Dark order on its arrival.

When Dark orders are triggered, a new **ExecutionReport** (8) acknowledgement message is issued, with the field *OrdStatus* (39) properly populated, they will be assigned a new order priority that indicates their priority vs. the rest of the book. For the Dark Functionality, the *OrderPriority* (21004) will be provided in the private **ExecutionReport** (8) acknowledgement message. This order priority indicates the rank of the Dark order on its arrival.

When Dark orders are triggered, a new **ExecutionReport** (8) acknowledgement message is issued, with the field *OrdStatus* (39) properly populated, they will be assigned a new order priority that indicates their priority vs. the rest of the book.

For both Cash and Derivatives Markets

For Stop orders, the *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</u> (56).

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 <u>OnBehalfOfCompID</u> (115) is mandatory in Inbound messages, otherwise the field is not required
- if value is provided in field <u>OnBehalfOfCompID</u> (115) of the inbound message, the field <u>DeliverToCompID</u> (128) 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.
- <u>PossResend (97)</u> 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.
- <u>PossResend (97)</u> 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	FIFLD	SHORT DESCRIPTION	FORMAT	LEN	VALUES	PRESENCE

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	<u>BodyLength</u>	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	<u>MsgType</u>	Specifies the Message type.	String	3	(See field description)	Mandatory
34	<u>MsgSeqNum</u>	The MsgSeqNum (34) is mandatory for all inbound messages and identifies the sequence number of the inbound or outbound message.	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	OnBehalfOfCompI D	ID of the issuing firm when the message is sent through a third party.	String	8	Inbound: Firm ID / Outbound: Not used	Conditional
128	<u>DeliverToCompID</u>	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	<u>PossResend</u>	Indicates if the message contains information that was already sent under a different sequence number.	Boolean	1	(See field description)	Optional
52	<u>SendingTime</u>	Time (in ns) of message 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 = 00000000- 99999999 (nanoseconds)	Mandatory

TAG	FIELD	SHORT DESCRIPTION	FORMAT	LEN	VALUES	PRESENCE
122	<u>OrigSendingTime</u>	Time (in ns) of message 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, sssssssss = 00000000- 99999999 (nanoseconds)	Conditional
369	LastMsqSeqNumPr ocessed	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	PRESENC E
10	CheckSum	Simple checksum. Always 3 bytes, always unencrypted, always last field in message.	String	3	Numerical	Mandatory

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.

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.	
Basin Chuin a (0)	Missing	If the inbound message is missing the field <i>BeginString</i> (8) or if	
BeginString (8)	Incorrect Value	this field has an unauthorized value, then the OEG will close the connection and 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 <i>BodyLength</i> (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	

Field (tag)	Value	Behaviour
MsgSeqNum (34) Missing		If this field is missing in the first Logon (A) message, OEG sends back a Logout (5) with <i>SessionStatus</i> (1409) = 104 (Invalid logon Value)
		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 Reject (3) with fields set as <i>TargetCompID</i> (56) = INCORRECT VALUE and <i>SessionRejectReason</i> (373) = 9 (CompID 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	If the Logon (A) message sent by the client has the <i>TargetCompID</i> (56) that exceeds the length of the field, OEG disconnects the client
	Value	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 Reject (3) with <i>SessionRejectReason</i> (373) = 9 (CompID problem)
	=Y	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)		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 Logon (A) message OEG sends a Reject (3) message with SessionRejectReason (373) = 5 (Value is incorrect (out of range) for this tag)
	Missing	If the field is missing in the first message that is a Logon (A), OEG sends back a Reject (3) with <i>SessionRejectReason</i> (373) = 1 (Required Tag Missing)
	3	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 Logon (A), OEG sends back a Reject (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	If the field is provided with an incorrect value in the first message that is a Logon (A), OEG sends back a Reject (3) with SessionRejectReason (373) = 6 (Incorrect data format for value)
	Value	If the field is provided with an incorrect value in the first message that is <u>not</u> a Logon (A), OEG closes the connection
HeartBtInt (108)	Incorrect Value	If the client sends a Logon (A) message with <i>HeartBtInt</i> (108) having an incorrect value, OEG sends back a Reject (3) with <i>SessionRejectReason</i> (373) = 5 (Value is Incorrect (out of range) for this tag)
EncryptMethod (98)	≠ 0	If the client sends a Logon (A) message with <i>EncryptMethod</i> (98) with a value different from 0 (zero), OEG sends back: • a Reject (3) message with <i>SessionRejectReason</i> (373) = 7 (Decryption problem), followed by • a Logout (5) message with <i>SessionStatus</i> (1409) = 104 (Invalid logon Value)
OEPartitionID (21019) LogicalAccess (21021)	Unknown combination	If the client sends a Logon (A) message with an unknown combination of values in fields <i>OEPartitionID</i> (21019) and <i>LogicalAccess</i> (21021), OEG sends back a Logout (5) message with <i>SessionStatus</i> (1409) = 5 (Invalid Username or Password)

Field (tag)	Value	Behaviour
NextExpectedMsgSeq	> 1	If the client sends the first Logon (A) message of the day with NextExpectedMsgSeqNum (789) higher than 1, OEG sends back a Logout (5) message with SessionStatus (1409) = 10 (Received NextExpectedMsgSeqNum(789) is too high)
Num (789)	< 1	If the client sends the first Logon (A) message of the day with NextExpectedMsgSeqNum (789) equal to 0 (zero), OEG sends back a Reject (3) with SessionRejectReason (373) = 5 (Value is incorrect (out of range) for this tag)
DefaultAppIVerID (1137)	≠ 9	If the client sends a Logon (A) message with <i>DefaultAppIVerID</i> (1137) with a value different than 9 (nine), OEG sends back a Reject (3) message with <i>SessionRejectReason</i> (373) = 18 (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 re-connecting 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 higher than the expected one	Value received is the expected 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 <i>SequenceReset</i> (4) message indicating the next correct sequence number to be processed by the Exchange		
Value received is the expected one	Value received is lower than the expected one	OEG will acknowledge the Logon (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 higher than the expected one	Value received is lower 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 gap is filled OR
 - 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 "NextExpectedSegNum".

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 Reject (3) with <i>SessionRejectReason</i> (373) = 5 (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 Reject (3) with <i>SessionRejectReason</i> (373) = 20 (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 Reject (3) with <i>SessionRejectReason</i> (373) = 21 (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 Reject (3) with <i>SessionRejectReason</i> (373) = 20 (Requested MsgSeqNum is higher than last known MsgSeqNum)
The message resent by the client does not have the PossDupFlag (43)	OEG issues a Reject (3) with <i>SessionRejectReason</i> (373) = 1 (Required tag Missing)

Description of Case Causing Rejection	Associated OEG Behaviour
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 message and is not expected in inbound SequenceReset-GapFill message.	OEG issues a Reject (3) with SessionRejectReason (373) = 1 (Required tag Missing). For more details please review carefully sections in this document on "Gap Sequence Number Gap Management & Rejection"
The message resent by the client has the OrigSendingTime (122) higher than the SendingTime (52)	OEG issues a Reject (3) with <i>SessionRejectReason</i> (373) = 5 (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 Logout (5) with <i>SessionStatus</i> (1409) = 9 (Received MsgSeqNum(34) is too low)
The message resent by the client has a <i>MsgSeqNum</i> (34) higher than the expected one	OEG issues a Reject (3) with <i>SessionRejectReason</i> (373) = 22 (MsgSeqNum too high)
The client issues a SequenceReset (4) with GapFillFlag (123) set to N	OEG issues a Logout (5) with <i>SessionStatus</i> (1409) = 105 (SequenceReset - Reset Mode not allowed)
The client issues a SequenceReset (4) with NewSeqNo (36) lower than the MsgSeqNum (34)	OEG issues a Reject (3) with <i>SessionRejectReason</i> (373) = 19 (NewSeqNo too low)
The client issues an HeartBeat (0), TestRequest (1), ResendRequest (2), Logout (5) or Logon (A) with <i>PossDupFlag</i> (43) set to Y while OEG is waiting for a gap to be filled	OEG issues a Reject (3) with <i>SessionRejectReason</i> (373) = 23 (Invalid MsgType while waiting for Gap fill)
The client sends a message with <i>PossDupFlag</i> (43) set to Y when OEG is not in Gap Fill Mode	OEG issues a Reject (3) with <i>SessionRejectReason</i> (373) = 24 (PossDupFlag set to Y 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:
 - <u>Functional Rejection</u>: 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.
 - <u>Technical rejection</u>: 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).

	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)	Reject (3)		
		In All Other Cases: OrderCancelReject (9)			
OrderCancelRequest (F)	ExecutionReport (8)	OrderCancelReject (9)	Reject (3)		
OrderCancelReplaceReque st (G)	ExecutionReport (8)	OrderCancelReject (9)	Reject (3)		
OwnershipRequest (U18)	OwnershipRequestAck (U29)	RequestAckMessage (Uy)	Reject (3)		
PriceInput (UI)	RequestAckMessage (Uy)	RequestAckMessage (Uy)	Reject (3)		
LiquidityProviderComman d (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)	Errors in strategy leg definition:SecurityDefinition (d)	Reject (3)		
NewWholesaleOrder (U64)	WholesaleOrderAck (U65)	 Errors in strategy leg definition: WholesaleOrderAck (U65) 	Reject (3)		
CrossOrder (U67)	ExecutionReport (8)	ExecutionReport (8)	Reject (3)		
ERGCommand (U68)	ERGCommandAck (U69)	ERGCommandAck (U69)	Reject (3)		
GetRiskControls (U70)	RiskControlDetails (U71)	RiskControlDetails (U71)	Reject (3)		
RequestForImpliedExecuti on (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:

- LogicalAccessID (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.
- DefaultApplVerID (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	FORM AT	LEN	VALUES	PRESENCE
	<u>Header</u>					
108	<u>HeartBtInt</u>	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
2101 9	<u>OEPartitionID</u>	Identifies uniquely an OE Optiq partition by which the engine is reached.	Int	5	From 0 to 2^16-2	Mandatory
2102 1	LogicalAccessID	Identifier of the Logical Access.	Int	10	From 0 to 2^32-2	Mandatory
789	NextExpectedMsgSeq Num	Indicates the sequence number plus one (+1) of the last message received by the Client from the Exchange on the OE Session.	SeqNu m	10	Integer.	Mandatory
2102 0	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	<u>DefaultApplVerID</u>	Specifies the service pack release being applied, by default, to the message at the session level.	String	1	(See field description)	Mandatory

TAG	FIELD	SHORT DESCRIPTION	FORM AT	LEN	VALUES	PRESENCE
2105	<u>SoftwareProvider</u>	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
	<u>Trailer</u>					

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
	<u>Header</u>					
7	<u>BeginSeqNo</u>	Message sequence number for first message.	SeqNum	10	From 1 to 2^32-2	Mandatory
16	<u>EndSeqNo</u>	Message sequence number for last message.	SeqNum	10	From 1 to 2^32-2	Mandatory
	<u>Trailer</u>					

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
	<u>Header</u>					
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	SessionRejectRea son	Provides the logon rejection reason.	Int	2	(See field description)	Mandatory
	<u>Trailer</u>					

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
	<u>Header</u>					
36	<u>NewSeqNo</u>	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	1 (See field O description)	
	<u>Trailer</u>					

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
	<u>Header</u>					
1409	SessionStatus	Provides the code associated to the reason for the logout.	Int	3	(See field description)	Mandatory
	<u>Trailer</u>					

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) initia 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
	<u>Header</u>					
112	<u>TestReqID</u>	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 Cash and Derivatives Markets - Optiq OEG Connectivity Aruba Datacentre - Technical Specification* document for the values of the parameter 'n'.

5.2.7.2 Message Structure

TAG FIELD	SHORT DESCRIPTION	FORMAT	LEN	VALUES	PRESENCE	l
-----------	-------------------	--------	-----	--------	----------	---

TAG	FIELD	SHORT DESCRIPTION	FORMAT	LEN	VALUES	PRESENCE
	<u>Header</u>					
112	<u>TestReqID</u>	Test Request ID to be returned in Heartbeat (0).	String	24	Numerical	Mandatory
	<u>Trailer</u>					

5.3 APPLICATION MESSAGES

5.3.1 NewOrderSingle (D)

Client ▶OEG

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 <u>other than</u> Limit Orders, Iceberg Orders, Average Price 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), LongClientID (21804), OrderCapacity (528) 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 algorithm 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) = 3 (for 'NORE') should be provided
 - PartyIDSource (447) = P (Short code identifier)
 - PartyRole (452) = 3 (Client ID)
 - PartyRoleQualifier (2376) = 23 (Firm or legal entity) OR 24 (Natural person)

<u>ClientIdentificationShortCode</u>

<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

<u>InvestmentDecisionwithinFirmShortCode</u>

<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"

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 orders⁶.

⁶ Cross orders on COB using NewOrderSingle (D) message can be submitted only for the Cash markets.

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

- For the Cash Markets 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.

The field *LongClientID* (21804) is used as following:

- For the Derivatives market, in place of the NestedParties group which is used to provide the Client ID for Cash markets only;
 - 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;
 - LongClientID (21804) can be used to its maximum length of 16 characters;
- For Cash markets, must be provided in case of IPO market model where the allocation algorithm is tax id, to provide the tax code information. For all other cases is ignored;

Trading Capacity

The following describes how clients should populate the Order Capacity data:

<u>For standard Buy and Sell Orders</u> – Trading Capacity value will be provided by the Member in the body of the message via the current field *LastCapacity (29)*.

For Cross Orders - Trading Capacity will be provided by the Member:

- Either in the body of the message via the field LastCapacity (29)
- OR via the field *OrderCapacity (528)* in the repeating section **SideCrossOrdModGrp** in the two occurrences. As elsewhere, the first occurrence of the field represents the information provided for the Buy side and the second represents the information provided for the Sell side. Nevertheless, there is no technical control enforcing it. When the field *OrderCapacity (528)* is not present in the message, the value provided in the field *LastCapacity (29)* present in the body of the message, must be considered as a common value for the Buy side and the Sell side.
- Following combination of LastCapacity (29) values is rejected:
 - DEAL vs. DEAL
 - DEAL vs. MTCH
 - MTCH vs. DEAL
 - MTCH vs. MTCH

MinQty

The field *MinQty (110)* is conditional as the client must enter a quantity when the field *DarkExecutionInstruction (20052)* bit in position 5 from the left (corresponding to Minimum Quantity Type) is equal to 1 (MES); else the order could never be executed during the RFQ matching mechanism.

5.3.1.2 Message Structure

TAG	FIELD	SHORT DESCRIPTION	FORMAT	LEN	VALUES	PRESENCE
	<u>Header</u>					
60	<u>TransactTime</u>	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- 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	<u>SecurityID</u>	Exchange identification code of the instrument/contract.	String	10	From 0 to 2^32-2	Mandatory
22	SecurityIDSourc e	Gives the type of SecurityID.	String	1	(See field description)	Mandatory
2002	<u>EMM</u>	Defines the Exchange Market Mechanism applied on each platform.	Int	2	(See field description)	Mandatory
44	<u>Price</u>	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	<u>OrdType</u>	Type of Order.	Char	1	(See field description)	Mandatory
59	<u>TimeInForce</u>	Specifies the maximum validity of an order.	Char	1	(See field description)	Mandatory
336	TradingSessionI D	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)	Conditional
2108 1	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.	Int	5	From 0 to 2^16-1	Optional
453	<u>NoPartyIDs</u>	Number of PartyID entries.	NumInGroup	1	Always set to 1	Mandatory
448	<u>PartyID</u>	Party identifier/code. See PartyIDSource (447) and PartyRole (452).	String	11	Alphanumeric	Mandatory

TAG	FIELD	SHORT DESCRIPTION	FORMAT	LEN	VALUES	PRESENCE
447	<u>PartyIDSource</u>	Source of PartyID value.	Char	1	(See field description)	Mandatory
452	<u>PartyRole</u>	Identifies the type or role of the PartyID (448) specified.	Int	3	(See field description)	Mandatory
2376	<u>PartyRoleQualifi</u> <u>er</u>	Used to further qualify the value of PartyRole(452).	Int	2	(See field description)	Mandatory
2101 5	STPAggressorIn dicator	Field used as instruction for order handling. - Cancel resting order: indicates that the STP mechanism is "cancel resting order". - Cancel incoming order: indicates that the STP mechanism is "cancel incoming order". - Cancel both orders: indicates that the STP mechanism is "cancel both orders".	Int	1	(See field description)	Optional
		- Disable STP is not applicable for Dark Orders.				
2101 6	<u>DisclosedQtyRan</u> <u>dIndicator</u>	Indicates whether the client requests or not a randomization for the DisplayQty (1138) of his iceberg order.	Int	1	(See field description)	Conditional
2101	CancelOnDiscon nectionIndicator	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	<u>PegPriceType</u>	Defines the type of the peg order.	Int	1	(See field description)	Conditional
211	<u>PegOffsetValue</u>	Tick offset for a pegged order.	Int	3	From -127 to 127	Conditional
2005	DarkExecutionIn struction	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
1724	<u>OrderOrigination</u>	Identifies the origin of the order.	Int	1	(See field description)	Conditional
2593	NoOrderAttribut es	Number of order attribute entries.	NumInGroup	1	If provided, From 1 to 2	Optional
2594	OrderAttributeTy pe	The type of order attribute.	Int	1	(See field description)	Optional
2595	OrderAttributeVa lue	The value associated with the order attribute type specified in OrderAttributeType (2594).	String	1	(See field description)	Optional
2362	SelfMatchPreven tionID	An identifier of a group of Users or Traders sharing the same business activity at the same Firm.	String	5	From 0 to 2^16-2	Optional
99	<u>StopPx</u>	Stop Trigger Price is mandatory for stop orders.	Price	20	From -2^63+1 to 2^63-1	Conditional

TAG	FIELD	SHORT DESCRIPTION	FORMAT	LEN	VALUES	PRESENCE
2000	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
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
126	<u>ExpireTime</u>	[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 = 000000000- 999999999 (nanoseconds)	Conditional
432	<u>ExpireDate</u>	Field used as date of order expiration for GTD orders.	LocalMktDate	8	Valid values: YYYY = 0000-9999, MM = 01-12, DD = 01-31	Conditional
2000 5	<u>UndisclosedIceb</u> <u>ergType</u>	[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
2017 5	TriggeredStopTi meInForce	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
2103 7	RFQAnswerIndic ator	Indicates whether the message is, or not, a quote sent as an answer to a QuoteRequest (R) message.	Int	1	(See field description)	Conditional
2103 8	RFQConfirmation Indicator	Indicates whether the message is, or not, an order sent as a confirmation of a QuoteRequest (R) message.	Int	1	(See field description)	Conditional
2180 0	ConditionalOrder Flag	Field used to specify if the order is a conditional or a firm order.	Char	1	(See field description)	Conditional
2180	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 (AMAFI) (default) 1 = Subject to FR MAR AMP LP (AMAFI)	Optional
23	IOIID	Unique identifier of IOI message.	String	20	From -2^63+1 to 2^63-1	Optional
552	<u>NoSides</u>	Number of sides.	NumInGroup	1	From 1 to 2	Mandatory

TAG	FIELD	SHORT DESCRIPTION	FORMAT	LEN	VALUES	PRESENCE
54	<u>Side</u>	Indicates the side of the order.	Char	1	(See field description)	Mandatory
577	<u>ClearingInstructi</u> <u>on</u>	Clearing Instruction.	Int	4	(See field description)	Optional
58	<u>Text</u>	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
2002 1	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	TechnicalOrdTyp e	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	<u>PostingAction</u>	Open Close Indicator, Posting action. This field is part of the clearing aggregate.	MultipleCharV alue	19	(See field description)	Optional
2180 4	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. For Cash Markets this field is ignored except for IPO where this field is used to provide the information of the tax code.	String	16	(See field description)	Optional
528	<u>OrderCapacity</u>	Indicates for a cross order 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
539	NoNestedPartyI Ds	Number of NestedPartyID entries.	NumInGroup	1	If provided, From 1 to 5	Conditional
524	<u>NestedPartyID</u>	Party identifier/code within a repeating group. See NestedPartyIDSource (525) and NestedPartyRole (538).	String	11	Alphanumeric	Conditional
525	NestedPartyIDS ource	Source of NestedPartyID (524) value.	Char	1	(See field description)	Conditional
538	<u>NestedPartyRole</u>	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	NestedPartyRole Qualifier	Used to further qualify the value of NestedPartyRole(538).	Int	2	(See field description)	Conditional
	<u>Trailer</u>					

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 QuoteRegID (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 **ExecutionReport** (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. **ExecutionReport** (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 **ExecutionReport** (8) message, as a notification of the cancellation, is sent to the Logical Access or OE session that submitted the cancellation
 - <u>Example</u>: 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	ExecType (Tag 150)	OrdStatus (Tag 39)
New Order Submission & Co	reation		
New Order	Message 8 sent: in response to a NewOrderSingle (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 NewOrderSingle (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 QuoteRequest (R) that is successfully received and accepted	j	0
New CrossOrder (Derivatives)	Message 8 sent: in response to a CrossOrder (U67) that is successfully received and accepted	2	0
FUTURE USE	FUTURE USE		
Order Creation	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
Individual Order Cancellation			
Individual Order Cancelled by User	Message 8 sent: to report cancellation of an Order in response to an OrderCancelRequest (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 by a clearing risk manager	V	4
Individual Order cancelled due Maximum Exposure Position set by Risk Manager	Message 8 sent: to report cancellation of an Order when the cancelation takes place due to a breach of the Maximum Exposure Position sent by a risk manager	#	4
Individual Order cancelled due Maximum Exposure Position set by Clearing Risk Manager	Message 8 sent: to report cancellation of an Order when the cancelation takes place due to a breach of the Maximum Exposure Position sent by a Clearing risk manager	*	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

Cases when ExecutionReport (8) is sent	Details of the Case	ExecType (Tag 150)	OrdStatus (Tag 39)
Order Elimination & Automa	atic Cancellation		
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	Y	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
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
Elimination of RFC Queued order	Message 8 sent: when RFC queued order is eliminated due to a potential order activation outside of trading hours	!	4
Cancelled due to Order Price Control Collar breach	Message 8 sent: when an Order is cancelled due to Order Price Control Collar breach	-	4
Cancelled due to Static Collars	Message 8 sent: when an Order is cancelled due to Static Collars	t	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

Cases when ExecutionReport (8) is sent	Details of the Case	ExecType (Tag 150)	OrdStatus (Tag 39)
Re-filled Iceberg order	Message 8 sent: As a notification of a refill of an Iceberg order	е	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	Q
Order Status & Ownership F	Request		
Order Status	Message 8 sent: in response to an OrderMassStatusRequest (AF) message	m	R
Ownership Request	Message 8 sent: in response to an OwnershipRequest (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.

For the Derivatives Markets, the ExecutionReport (8) message provides the Order Priority.

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 ClOrdID (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 EU and UK MiFID II framework. Each individual trade has a corresponding TVTIC. As a reminder, MiFID II reporting is at leg level.

The different ways to get a trade TVTIC are:

For Cash / Outright trades:

- Using the public Market Data feed, getting the Trade Unique Identifier in the Full Trade Information (1004) message;
- Using the private Order Entry feed:
 - In SBE Fill (04) or SBE Declaration Notice (42): getting the Trade Unique Identifier;
 - In FIX ExecutionReport (8) or FIX TradeCaptureReportAck (AR): getting the Regulatory Trade
 ID with Regulatory Trade ID Type equals 5 (TVTIC);
- Retrieving the TVTIC field from the EOD Day Trade file (FTRRM).

For Strategies:

- Using the private Order Entry feed:
 - In SBE Fill (04): getting the Trade Unique Identifier in Strategy fields section to get the "Leg" Trade Unique Identifier;
 - In FIX **ExecutionReport** (8): getting the *Regulatory Trade ID* with *Regulatory Trade ID Type* equals 5 (TVTIC) where *RegulatoryLegRefID* equals the corresponding *Leg ID* in NoLegs section.

For APA Trades:

◆ Using the public Market Data feed, getting the *Trade Unique Identifier* in the **APA Full Trade**Information (1028) message.

Components Use within the Message

This message contains five 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 RegulatoryTradeIDGrp is composed of the fields: RegulatoryTradeID (1903), RegulatoryTradeIDType (1906), RegulatoryLegRefID (2411);
- The fourth component **Legs** is composed of the fields: NoLegs (555), LegSymbol (600), LegSecurityID (602), LegSecurityIDSource (603), LegLastPx (637), LegLastQty (1418), LegSide (624), LegExecID (1893), LegID (1788);
- The fifth 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), *LongClientID* (21804) 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.

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

<u>NonExecutionBrokerShortCode</u>

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.

For the Cash Markets - 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)

For the Derivatives Markets - 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
	<u>Header</u>					

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, sssssssss = 000000000- 999999999 (nanoseconds)	Conditional
21005	ClientMessageSe ndingTime	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, sssssssss = 000000000- 999999999 (nanoseconds)	Conditional
5979	OEGINFromMem ber	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, 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).	UTCTimesta mp	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
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, 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).	UTCTimesta mp	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
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, sssssssss = 000000000- 999999999 (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

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	<u>SecurityID</u>	Exchange identification code of the instrument/contract.	String	10	From 0 to 2^32-2	Mandatory
22	SecurityIDSourc e	Gives the type of SecurityID.	String	1	(See field description)	Mandatory
20020	ЕММ	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	<u>OrdStatus</u>	Identifies the current status of the order.	Char	1	(See field description)	Mandatory
21004	<u>OrderPriority</u>	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	DarkExecutionIn struction	Field used as instruction for dark order handling. This field can contain up to 8 values, space delimited, provided in different positions.	MultipleChar Value	9	(See field description)	Conditional
44	<u>Price</u>	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	<u>OrderQty</u>	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
151	<u>LeavesQty</u>	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	<u>ParentExecID</u>	Unique identifier of a parent trade executed on the strategy.	String	10	From 0 to 2^32-2	Optional

TAG	FIELD	SHORT DESCRIPTION	FORMAT	LEN	VALUES	PRESENCE
21093	<u>ParentSecurityID</u>	Exchange identification code used to point to the strategy in the leg specific messages	String	10	From 0 to 2^32-2	Optional
150	ExecType	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	<u>DisplayQty</u>	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	<u>UndisclosedIcebe</u> <u>rgType</u>	[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	TriggeredStopTi meInForce	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	MassStatusReqI D	Unique Identifier assigned by the client to the OrderMassStatusRequest (AF).	String	20	From -2^63+1 to 2^63-1	Conditional
378	ExecRestatement Reason	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	RFQAnswerIndic ator	[Not used] 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	RFQConfirmation Indicator	[Not used] 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	ConditionalOrder Flag	Field used to specify if the order is a conditional or a firm order.	Char	1	(See field description)	Conditional

TAG	FIELD	SHORT DESCRIPTION	FORMAT	LEN	VALUES	PRESENCE
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
21807	ParentRegulatory TradeID	Trade Unique Identifier of the strategy.	String	16	(See field description)	Conditional
453	<u>NoPartyIDs</u>	Number of PartyID entries.	NumInGroup	1	If provided, From 1 to 2	Conditional
448	<u>PartyID</u>	Party identifier/code. See PartyIDSource (447) and PartyRole (452).	String	11	Alphanumeric	Conditional
447	<u>PartyIDSource</u>	Source of PartyID value.	Char	1	(See field description)	Conditional
452	<u>PartyRole</u>	Identifies the type or role of the PartyID (448) specified.	Int	3	(See field description)	Conditional
2376	PartyRoleQualifie r	Used to further qualify the value of PartyRole(452).	Int	2	(See field description)	Conditional
1724	<u>OrderOrigination</u>	Identifies the origin of the order.	Int	1	(See field description)	Conditional
2593	NoOrderAttribute <u>s</u>	Number of order attribute entries.	NumInGroup	1	If provided, From 1 to 2	Conditional
2594	OrderAttributeTy pe	The type of order attribute.	Int	1	(See field description)	Conditional
2595	OrderAttributeVa lue	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	<u>AckPhase</u>	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	<u>AckQualifiers</u>	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
21010	<u>TradeType</u>	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

TAG	FIELD	SHORT DESCRIPTION	FORMAT	LEN	VALUES	PRESENCE
21080	<u>TradeQualifier</u>	Trade Qualifier. This field can contain up to 7 values, space delimited, provided in different positions.	MultipleChar Value	13	(See field description)	Conditional
375	<u>ContraBroker</u>	ID of the clearing house or ID of the Counterpart Firm.	String	20	From 0 to 2^64-2	Conditional
21019	<u>OEPartitionID</u>	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	ESCBMembershi D	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	MessagePriceNot ation	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
1907	NoRegulatoryTra deIDs	Number of RegulatoryTradeIDGrp entries.	NumInGroup		From 1 to 33	Conditional

TAG	FIELD	SHORT DESCRIPTION	FORMAT	LEN	VALUES	PRESENCE
1903	RequiatoryTradeI D	Trade identifier required by government regulators or other regulatory organizations for regulatory reporting purposes. When RegulatoryTradeIDType (1906) = 5 (TVTIC) this field is filled by the Trade Unique Identifier.	String	16	(See field description)	Conditional
1906	RegulatoryTradeI DType	Specifies the type of trade identifier provided in RegulatoryTradeID(1903).	Int	1	5 = TVTIC	Conditional
2411	RegulatoryLegRe fID	Identifies the leg of the trade the entry applies to by referencing the leg's LegID(1788).	String	10	From 0 to 2^32-2	Conditional
555	<u>NoLegs</u>	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	LegSecurityIDSo urce	Gives the type of LegSecurityID (602).	String	1	(See field description)	Conditional
637	<u>LegLastPx</u>	Leg Last Traded Price	Price	20	From -2^63+1 to 2^63-1	Conditional
1418	<u>LegLastQty</u>	Leg Last Traded Quantity	Qty	20	From 0 to 2^64-2	Conditional
624	<u>LegSide</u>	Indicates the side of the trade leg.	Char	1	(See field description)	Conditional
1893	<u>LegExecID</u>	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
1788	<u>LegID</u>	Unique identifier for the leg within the context of a message.	String	10	From 0 to 2^32-2	Conditional
19	<u>ExecRefID</u>	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.	LocalMktDat e	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

TAG	FIELD	SHORT DESCRIPTION	FORMAT	LEN	VALUES	PRESENCE
336	TradingSessionI	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	<u>OrdType</u>	Type of Order.	Char	1	(See field description)	Conditional
59	<u>TimeInForce</u>	Specifies the maximum validity of an order.	Char	1	(See field description)	Conditional
552	<u>NoSides</u>	Number of sides.	NumInGroup	1	From 1 to 2	Conditional
54	<u>Side</u>	Indicates the side of the order.	Char	1	(See field description)	Conditional
577	<u>ClearingInstructi</u> <u>on</u>	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	TechnicalOrdTyp e	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
7443	PostingAction	Open Close Indicator, Posting action. This field is part of the clearing aggregate.	MultipleChar Value	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. For Cash Markets this field is ignored except for IPO where this field is used to provide the information of the tax code.	String	16	(See field description)	Optional
539	NoNestedPartyID S	Number of NestedPartyID entries.	NumInGroup	1	From 1 to 5	Conditional

TAG	FIELD	SHORT DESCRIPTION	FORMAT	LEN	VALUES	PRESENCE
524	<u>NestedPartyID</u>	Party identifier/code within a repeating group. See NestedPartyIDSource (525) and NestedPartyRole (538).	String	11	Alphanumeric	Conditional
525	NestedPartyIDSo urce	Source of NestedPartyID (524) value.	Char	1	(See field description)	Conditional
538	<u>NestedPartyRole</u>	Identifies the type or role of the NestedPartyID (524) specified.	Int	3	(See field description)	Conditional
2384	NestedPartyRole Qualifier	Used to further qualify the value of NestedPartyRole(538).	Int	2	(See field description)	Conditional
126	<u>ExpireTime</u>	[N/A] Field used as time of order expiration for GTT orders.	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
21015	STPAggressorInd icator	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	SelfMatchPrevent ionID	For Future Use.	String	5	From 0 to 2^16-2	Conditional
21016	<u>DisclosedQtyRan</u> <u>dIndicator</u>	Indicates whether the client requests or not a randomization for the DisplayQty (1138) of his iceberg order.	Int	1	(See field description)	Conditional
21018	CancelOnDisconn ectionIndicator	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
1094	<u>PegPriceType</u>	Defines the type of the peg order.	Int	1	(See field description)	Conditional
211	<u>PegOffsetValue</u>	Tick offset for a pegged order.	Int	3	From -127 to 127	Conditional
9955	<u>ErrorCode</u>	Error code in case of rejection.	Int	5	From 0 to 2^16-2	Conditional

TAG	FIELD	SHORT DESCRIPTION	FORMAT	LEN	VALUES	PRESENCE
9962	<u>CollarRejType</u>	Hit collar type (high or low) in case of order rejection due to collar breach.	Char	1	(See field description)	Conditional
21001	BreachedCollarPr ice	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
	<u>KillReason</u>	Future Use	Char	5	(See field description)	Conditional
21822	OrderTolerablePr ice	Allows the RFC Initiator to provide the tolerable price that's he's willing to trade for in case of price improvement. In case RFC Initiator does not want to match RFC Reactors improved prices, this new field shall not be sent.	<u>Price</u>	20	From -2^63+1 to 2^63-1	Optional
	<u>Trailer</u>					

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: <u>NoPartyIDs</u>, <u>PartyID partyIDSource</u>, <u>PartyRole</u> and <u>PartyRoleQualifier</u>

The nested repeating group **NestedParties** is composed of *NoNestedPartyIDs*, *NestedPartyID*, *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 algorithm 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) = 3 (for 'NORE') should be 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
	<u>Header</u>					
117	<u>QuoteID</u>	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
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
2002	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	OrderOriginati on	Identifies the origin of the order.	Int	1	(See field description)	Conditional
2593	NoOrderAttrib utes	Number of order attribute entries.	NumInGroup	1	If provided, From 1 to 2	Optional
2594	OrderAttribute Type	The type of order attribute.	Int	1	(See field description)	Optional
2595	OrderAttribute Value	The value associated with the order attribute type specified in OrderAttributeType (2594).	String	1	(See field description)	Optional
2002	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	<u>ClearingInstru</u> <u>ction</u>	Clearing Instruction.	Int	4	(See field description)	Optional
58	<u>Text</u>	Free Text is manually entered by the trader issuing the order. This field is part of the clearing aggregate.	String	18	Alphanumeric	Optional
453	<u>NoPartyIDs</u>	Number of PartyID entries.	NumInGroup	1	Always set to 1	Mandatory
448	<u>PartyID</u>	Party identifier/code. See PartyIDSource (447) and PartyRole (452).	String	11	Alphanumeric	Mandatory
447	<u>PartyIDSource</u>	Source of PartyID value.	Char	1	(See field description)	Mandatory
452	<u>PartyRole</u>	Identifies the type or role of the PartyID (448) specified.	Int	3	(See field description)	Mandatory
2376	PartyRoleQuali fier	Used to further qualify the value of PartyRole(452).	Int	2	(See field description)	Mandatory

TAG	FIELD	SHORT DESCRIPTION	FORMAT	LEN	VALUES	PRESENCE
539	NoNestedParty IDs	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	NestedPartyID Source	Source of NestedPartyID (524) value.	Char	1	(See field description)	Conditional
538	NestedPartyRo le	Identifies the type or role of the NestedPartyID (524) specified.	Int	3	(See field description)	Conditional
2384	NestedPartyRo leQualifier	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	TechnicalOrdT ype	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
296	<u>NoQuoteSets</u>	The number of sets of quotes in the message	NumInGroup	3	From 1 to 150	Mandatory
302	QuoteSetID	Unique ID for the Quote set.	String	10	From 1 to 2^32-2	Mandatory
304	TotNoQuotEnt ries	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	NoQuoteEntrie <u>s</u>	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	SecurityIDSou rce	Gives the type of SecurityID.	String	1	(See field description)	Mandatory
2002	<u>EMM</u>	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	<u>OfferSize</u>	Quote offer quantity, (To be calculated with Quantity Decimals).	Qty	20	From 0 to 2^64-1	Optional
133	<u>OfferPx</u>	Quote offer price, (To be calculated with Price/Index Level Decimals).	Price	20	From -2^63+1 to 2^63-1	Optional

l	TAG	FIELD	SHORT DESCRIPTION	FORMAT	LEN	VALUES	PRESENCE
		<u>Trailer</u>					

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
	<u>Header</u>					
2100 5	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)	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, sssssssss = 000000000-999999999 (nanoseconds)	Conditional

TAG	FIELD	SHORT	FORMAT	LEN	VALUES	PRESENCE
2100	BookINTime	Matching Engine IN time (in ns), time at which the	UTCTimesta mp	27	Valid values: YYYY = 0000-9999, MM = 01-12, DD = 01-31, HH = 00-	Conditional
		corresponding inbound message entered the Matching Engine. (Time in number of nanoseconds since 01/01/1970 UTC)			23, MM = 00-59, SS = 00-59, sssssssss = 0000000000-99999999 (nanoseconds)	
2100 3	<u>BookOUTTime</u>	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 = 000000000-99999999 (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).	UTCTimesta mp	27	Valid values: YYYY = 0000-9999, MM = 01-12, DD = 01-31, HH = 00-23, MM = 00-59, SS = 00-59, ssssssss = 0000000000-99999999 (nanoseconds)	Conditional
7764	<u>OEGOUTToME</u>	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 = 000000000-99999999 (nanoseconds)	Conditional
117	QuoteID	Quote identifier.	String	20	From -2^63+1 to 2^63-1	Mandatory
297	<u>QuoteStatus</u>	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
2002	<u>LPRole</u>	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	<u>TechnicalOrdType</u>	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.	MultipleCha rValue	19	(See field description)	Optional

TAG	FIELD	SHORT	FORMAT	LEN	VALUES	PRESENCE
IAG		DESCRIPTION	TORMAT		VALUE	
2101 4	<u>AckQualifiers</u>	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.	MultipleCha rValue	15	(See field description)	Conditional
296	<u>NoQuoteSets</u>	The number of sets of quotes in the message	NumInGrou p	3	From 1 to 150	Optional
302	<u>QuoteSetID</u>	Unique ID for the Quote set.	String	10	From 1 to 2^32-2	Optional
304	<u>TotNoQuotEntries</u>	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	<u>NoQuoteEntries</u>	Number of entries in Quotes repeating group.	NumInGrou p	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	<u>BidQuoteID</u>	Numerical order identifier assigned by the matching engine, unique per instrument and EMM.	String	20	From 0 to 2^64-2	Conditional
1748	<u>OfferQuoteID</u>	Numerical order identifier assigned by the matching engine, unique per instrument and EMM.	String	20	From 0 to 2^64-2	Conditional
48	<u>SecurityID</u>	Exchange identification code of the instrument/contract.	String	10	From 0 to 2^32-2	Mandatory
22	<u>SecurityIDSource</u>	Gives the type of SecurityID.	String	1	(See field description)	Mandatory
2002 0	<u>EMM</u>	Defines the Exchange Market Mechanism applied on each platform.	Int	2	(See field description)	Mandatory
9934	<u>BidErrorCode</u>	Error code returned when quote contains an invalid bid.	Int	6	From 0 to 2^16-2	Conditional
9935	<u>OfferErrorCode</u>	Error code returned when a quote contains an invalid offer.	Int	6	From 0 to 2^16-2	Conditional
2100 8	<u>BuyRevisionIndicator</u>	Indicates whether the bid quote is a new quote, a replacement of a previous quote or a cancellation.	Int	1	(See field description)	Conditional
2100 9	<u>SellRevisionIndicator</u>	Indicates whether the offer quote is a new quote, a replacement of a previous quote or a cancellation.	Int	1	(See field description)	Conditional
	<u>Trailer</u>					

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.

Important Note: 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.)

Note:

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 algorithm 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) = 3 (for 'NORE') should be 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
	<u>Header</u>					
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	<u>SecurityID</u>	Exchange identification code of the instrument/contract.	String	10	From 0 to 2^32-2	Mandatory

TAG	FIELD	SHORT DESCRIPTION	FORMAT	LEN	VALUES	PRESENCE
22	<u>SecurityIDSource</u>	Gives the type of SecurityID.	String	1	(See field description)	Mandatory
2002 0	<u>EMM</u>	Defines the Exchange Market Mechanism applied on each platform.	Int	2	(See field description)	Mandatory
37	<u>OrderID</u>	Numerical order identifier assigned by the matching engine, unique per instrument and EMM.	String	20	From 0 to 2^64-2	Conditional
41	<u>OrigClOrdID</u>	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	<u>Side</u>	Indicates the side of the order.	Char	1	(See field description)	Mandatory
453	<u>NoPartyIDs</u>	Number of PartyID entries.	NumInGr oup	1	From 1 to 2	Mandatory
448	<u>PartyID</u>	Party identifier/code. See PartyIDSource (447) and PartyRole (452).	String	11	Alphanumeric	Mandatory
447	<u>PartyIDSource</u>	Source of PartyID value.	Char	1	(See field description)	Mandatory
452	<u>PartyRole</u>	Identifies the type or role of the PartyID (448) specified.	Int	3	(See field description)	Mandatory
2376	<u>PartyRoleQualifier</u>	Used to further qualify the value of PartyRole(452).	Int	2	(See field description)	Mandatory
2593	<u>NoOrderAttributes</u>	Number of order attribute entries.	NumInGr oup	1	If provided, From 1 to 2	Optional
2594	OrderAttributeTyp e	The type of order attribute.	Int	1	(See field description)	Optional
2595	OrderAttributeVal ue	The value associated with the order attribute type specified in OrderAttributeType (2594).	String	1	(See field description)	Optional
60	<u>TransactTime</u>	Indicates the time of message transmission (Format: YYYYMMDD-HH:MM:SS.ssssssss).	UTCTime stamp	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
40	<u>OrdType</u>	Type of Order.	Char	1	(See field description)	Mandatory
1094	<u>PegPriceType</u>	Defines the type of the peg order.	Int	1	(See field description)	Conditional
2104 1	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
	<u>Trailer</u>					

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 to modify active orders in the order book.

Please note that only the originating Firm (regardless of the Logical Access) is authorized to modify its orders.

- 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 ClOrdID (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 Stoplimit, 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.

• For Cash, in the context of the Tax ID functionality (part of the IPO market model), LongClientID (21804) field present in this message will always be ignored by the system. If modification is required clients must cancel their existing order and submit a new one with a **NewOrderSingle** (D) message.

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 algorithm 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) = 3 (for 'NORE') should be 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

- If fields are populated, they will override the previously submitted fields. And if fields are not populated, the previous submitted fields will be deleted.
- 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.

<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
	<u>Header</u>					
60	<u>TransactTime</u>	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, sssssssss = 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

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	SecurityIDSourc e	Gives the type of SecurityID.	String	1	(See field description)	Mandatory
2002	<u>EMM</u>	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	<u>OrigClOrdID</u>	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	<u>NoPartyIDs</u>	Number of PartyID entries.	NumInGroup	1	Always set to 1	Mandatory
448	<u>PartyID</u>	Party identifier/code. See PartyIDSource (447) and PartyRole (452).	String	11	Alphanumeric	Mandatory
447	<u>PartyIDSource</u>	Source of PartyID value.	Char	1	(See field description)	Mandatory
452	<u>PartyRole</u>	Identifies the type or role of the PartyID (448) specified.	Int	3	(See field description)	Mandatory
2376	<u>PartyRoleQualifi</u> <u>er</u>	Used to further qualify the value of PartyRole(452).	Int	2	(See field description)	Mandatory
539	NoNestedPartyI Ds	Number of NestedPartyID entries.	NumInGroup	1	From 1 to 5	Conditional
524	<u>NestedPartyID</u>	Party identifier/code within a repeating group. See NestedPartyIDSource (525) and NestedPartyRole (538).	String	11	Alphanumeric	Conditional
525	NestedPartyIDS ource	Source of NestedPartyID (524) value.	Char	1	(See field description)	Conditional
538	<u>NestedPartyRole</u>	Identifies the type or role of the NestedPartyID (524) specified.	Int	3	(See field description)	Conditional
2384	<u>NestedPartyRole</u> <u>Qualifier</u>	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	<u>OrderQty</u>	Total order quantity, per quantity unit.(To be calculated with Quantity Decimals).	Qty	20	From 0 to 2^64-2	Mandatory
40	<u>OrdType</u>	Type of Order.	Char	1	(See field description)	Mandatory
54	Side	Indicates the side of the order.	Char	1	(See field description)	Mandatory
59	<u>TimeInForce</u>	Specifies the maximum validity of an order.	Char	1	(See field description)	Mandatory
<u>2002</u> <u>1</u>	<u>LPRole</u>	[NA] Liquidity Provider Role identifies the type of the Liquidity Provider when Account Type is equal to "Liquidity Provider".	<u>Int</u>	<u>5</u>	(See field description)	<u>Optional</u>

TAG	FIELD	SHORT DESCRIPTION	FORMAT	LEN	VALUES	PRESENCE
6399	<u>AccountCode</u>	[NA] Indicates the account	<u>Int</u>	<u>2</u>	(See field description)	<u>Optional</u>
		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.				
2101 5	STPAggressorIn dicator	Field used as instruction for order handling. - Cancel resting order: indicates that the STP mechanism is "cancel resting order". - Cancel incoming order: indicates that the STP mechanism is "cancel incoming order". - Cancel both orders: indicates that the STP mechanism is "cancel both orders: indicates that the STP mechanism is "cancel both orders". - Disable STP is not applicable for Dark Orders.	Int	1	(See field description)	Optional
2101	DisclosedQtyRan dIndicator	Indicates whether the client requests or not a randomization for the DisplayQty (1138) of his iceberg order.	Int	1	(See field description)	Optional
2101	CancelOnDiscon nectionIndicator	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	<u>PegPriceType</u>	Defines the type of the peg order.	Int	1	(See field description)	Conditional
211	<u>PegOffsetValue</u>	Tick offset for a pegged order.	Int	3	From -127 to 127	Conditional
2005	DarkExecutionIn struction	Field used as instruction for dark order handling. This field can contain up to 8 values, space delimited, provided in different positions.	MultipleCharVa lue	9	(See field description)	Conditional
1724	<u>OrderOrigination</u>	Identifies the origin of the order.	Int	1	(See field description)	Conditional
2593	NoOrderAttribut es	Number of order attribute entries.	NumInGroup	1	If provided, From 1 to 2	Optional
2594	OrderAttributeTy pe	The type of order attribute.	Int	1	(See field description)	Optional
2595	OrderAttributeVa lue	The value associated with the order attribute type specified in OrderAttributeType (2594).	String	1	(See field description)	Optional
2362	SelfMatchPreven tionID	An identifier of a group of Users or Traders sharing the same business activity at the same Firm.	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

TAG	FIELD	SHORT DESCRIPTION	FORMAT	LEN	VALUES	PRESENCE
99	<u>StopPx</u>	Stop Trigger Price is mandatory for stop orders.	Price	20	From -2^63+1 to 2^63- 1	Conditional
2000 4	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	<u>DisplayQty</u>	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	<u>ExpireTime</u>	[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, sssssssss = 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	TradingSessionI D	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
2017 5	TriggeredStopTi meInForce	Specifies the maximum validity of an triggered stop order.	Char	1	(See field description)	Conditional
2000 5	<u>UndisclosedIceb</u> <u>ergType</u>	[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
2180 4	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. For Cash Markets this field is ignored except for IPO where this field is used to provide the information of the tax code.	String	16	(See field description)	Optional
9941	TechnicalOrdTyp e	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.	MultipleCharVa lue	19	(See field description)	Optional
577	<u>ClearingInstructi</u> <u>on</u>	Clearing Instruction.	Int	4	(See field description)	Optional
9930	ConfirmFlag	[N/A] (Not used anymore) 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
2180 0	ConditionalOrder Flag	Field used to specify if the order is a conditional or a firm order.	Char	1	(See field description)	Conditional
2180	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
	<u>Trailer</u>					

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), OrigClOrdID (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 <u>Error Code List</u>.

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
	<u>Header</u>					
2100 5	ClientMessageSen dingTime	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 = 0000000000-999999999 (nanoseconds)	Conditional
5979	OEGINFromMemb er	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 = 000000000-999999999 (nanoseconds)	Conditional
7764	<u>OEGOUTToME</u>	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
2100	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

TAG	FIELD	SHORT DESCRIPTION	FORMAT	LEN	VALUES	PRESENCE
2100	<u>BookOUTTime</u>	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
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	<u>SecurityID</u>	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
2002	ЕММ	Defines the Exchange Market Mechanism applied on each platform.	Int	2	(See field description)	Conditional
37	<u>OrderID</u>	Numerical order identifier assigned by the matching engine, unique per instrument and EMM.	String	20	From 0 to 2^64-2	Conditional
9955	<u>ErrorCode</u>	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
2100 1	BreachedCollarPri ce	Breached collar price in case of collar rejection.	Price	20	From -2^63+1 to 2^63-1	Conditional
39	<u>OrdStatus</u>	Identifies the current status of the order.	Char	1	(See field description)	Mandatory
2101	<u>AckQualifiers</u>	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
2102 1	LogicalAccessID	Identifier of the Logical Access	Int	10	From 0 to 2^32-2	Conditional
2101 9	OEPartitionID	Idenifies uniquely an OE Optiq partition by which the engine is reached	Int	5	From 0 to 2^16-2	Conditional
	<u>Trailer</u>					

5.3.8 RequestAckMessage (Uy)

Client **◀**OEG

Available for: EQ FND FXI SP EQD IDD CMO

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 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
	<u>Header</u>					
2100 5	ClientMessageS endingTime	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	OEGINFromMe mber	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, sssssssss = 000000000- 999999999 (nanoseconds)	Conditional
2100	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

TAG	FIELD	SHORT DESCRIPTION	FORMAT	LEN	VALUES	PRESENCE
2100	<u>BookOUTTime</u>	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- 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, sssssssss = 000000000- 999999999 (nanoseconds)	Conditional
2106 0	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	<u>SecurityID</u>	Exchange identification code of the instrument/contract.	String	10	From 0 to 2^32-2	Conditional
22	SecurityIDSour ce	Gives the type of SecurityID.	String	1	(See field description)	Conditional
2002 0	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	Conditional
9955	<u>ErrorCode</u>	Error code in case of rejection.	Int	5	From 0 to 2^16-2	Conditional
1007 6	LPActionCode	Action the LP wants to apply on the specified instrument of warrant type.	Char	1	(See field description)	Conditional
	<u>Trailer</u>					

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.

Note regarding Dark Orders:

- For Dark (Not Sweep) Orders, the field "Order Category" of an OwnershipRequest [U18] is mandatory and must be set to '2' (LIS Order) to properly identify a Dark Not Sweep Order.
- For Dark (Sweep) Orders, the field "Order Category" of an OwnershipRequest [U18] is not mandatory (LIS Order) to properly identify a Dark Sweep Order (set to Null or to '1')

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
	<u>Header</u>					
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	<u>OrderID</u>	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
48	<u>SecurityID</u>	Exchange identification code of the instrument/contract.	String	10	From 0 to 2^32-2	Mandatory
22	<u>SecurityIDSource</u>	Gives the type of SecurityID.	String	1	(See field description)	Mandatory
453	<u>NoPartyIDs</u>	Number of PartyID entries.	NumInGroup	1	From 1 to 2	Mandatory
448	<u>PartyID</u>	Party identifier/code. See PartyIDSource (447) and PartyRole (452).	String	11	Alphanumeric	Mandatory
447	<u>PartyIDSource</u>	Source of PartyID value.	Char	1	(See field description)	Mandatory
452	<u>PartyRole</u>	Identifies the type or role of the PartyID (448) specified.	Int	3	(See field description)	Mandatory
2376	<u>PartyRoleQualifier</u>	Used to further qualify the value of PartyRole(452).	Int	2	(See field description)	Mandatory
2593	<u>NoOrderAttributes</u>	Number of order attribute entries.	NumInGroup	1	If provided, always set to 1	Optional
2594	OrderAttributeTyp e	The type of order attribute.	Int	1	(See field description)	Optional

TAG	FIELD	SHORT DESCRIPTION	FORMAT	LEN	VALUES	PRESENCE
2595	OrderAttributeVal ue	The value associated with the order attribute type specified in OrderAttributeType (2594).	String	1	(See field description)	Optional
2002 0	EMM	Defines the Exchange Market Mechanism applied on each platform.	Int	2	(See field description)	Mandatory
2101 9	<u>OEPartitionID</u>	Identifies uniquely an OE Optiq partition by which the engine is reached.	Int	5	From 0 to 2^16-2	Optional
2102 1	<u>LogicalAccessID</u>	Identifier of the Logical Access.	Int	10	From 0 to 2^32-2	Conditional
2104	<u>OrderCategory</u>	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
	<u>Trailer</u>					

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	LE N	VALUES	PRESENCE
	<u>Header</u>					
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	SecurityIDSour ce	Gives the type of SecurityID.	String	1	(See field description)	Mandatory
37	<u>OrderID</u>	Numerical order identifier assigned by the matching engine, unique per instrument and EMM.	String	20	From 0 to 2^64-2	Conditional
2101 9	<u>OEPartitionID</u>	Identifies uniquely an OE Optiq partition by which the engine is reached.	Int	5	From 0 to 2^16-2	Conditional
2102 1	LogicalAccessID	Identifier of the Logical Access.	Int	10	From 0 to 2^32-2	Conditional

TAG	FIELD	SHORT DESCRIPTION	FORMAT	LE N	VALUES	PRESENCE
533	TotalAffectedOr ders	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
2104	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
	<u>Trailer</u>					

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 algorithm 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) = 3 (for 'NORE') should be 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)

MinQty

The field *MinQty* (110) is conditional as the client must enter a quantity when the field *DarkExecutionInstruction* (20052) bit in position 5 from the left (corresponding to Minimum Quantity Type) is equal to 1 (MES); else the order could never be executed during the RFQ matching mechanism.

5.3.11.2 Message Structure

TAG	FIELD	SHORT DESCRIPTION	FORMAT	LEN	VALUES	PRESENCE
	<u>Header</u>					
60	<u>TransactTime</u>	Indicates the time of message transmission (Format: YYYYMMDD-HH:MM:SS.ssssssss).	UTCTime stamp	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

TAG	FIELD	SHORT DESCRIPTION	FORMAT	LEN	VALUES	PRESENCE
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	<u>SecurityID</u>	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
2002	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	<u>OrderQty</u>	Total order quantity, per quantity unit.(To be calculated with Quantity Decimals).	Qty	20	From 0 to 2^64-2	Mandatory
2005	DarkExecutionInst ruction	Field used as instruction for dark order handling. This field can contain up to 8 values, space delimited, provided in different positions.	MultipleC harValue	9	(See field description)	Optional
110	MinOty	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
453	<u>NoPartyIDs</u>	Number of PartyID entries.	NumInGr oup	1	From 1 to 2	Mandatory
448	<u>PartyID</u>	Party identifier/code. See PartyIDSource (447) and PartyRole (452).	String	11	Alphanumeric	Mandatory
447	<u>PartyIDSource</u>	Source of PartyID value.	Char	1	(See field description)	Mandatory
452	<u>PartyRole</u>	Identifies the type or role of the PartyID (448) specified.	Int	3	(See field description)	Mandatory
2376	<u>PartyRoleQualifier</u>	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
	<u>Trailer</u>					

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
	<u>Header</u>					
5979	OEGINFromMe mber	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)	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 = 000000000-99999999 (nanoseconds)	Mandatory
2100	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
2100	<u>BookOUTTime</u>	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)	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	QuoteRequestR ejectReason	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	<u>Text</u>	Free Text is manually entered by the trader issuing the order. This field is part of the clearing aggregate.	String	18	Alphanumeric	Optional
146	<u>NoRelatedSym</u>	Number of related symbols (instruments) in a message	NumInGroup	3	Always set to 1	Mandatory

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	SecurityIDSour ce	Gives the type of SecurityID.	String	1	(See field description)	Mandatory
	<u>Trailer</u>					

5.3.13 AskForQuote (UL)

Client **◀**OEG

Available for: SP

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
	<u>Header</u>					
48	<u>SecurityID</u>	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
2002	<u>EMM</u>	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
	<u>Trailer</u>					

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.

- In order to allow Sponsor Firms to monitor the Sponsored Firms activity, a new feature has been introduced within Drop Copy Members Gateway. The feature enables to automatically send a Kill Switch command targeting a Sponsored Firm when his Sponsor Firm loses connection with Drop Copy. Similarly, once the Sponsor Firm successfully (re)connects to Drop Copy, an Unsuspension command is triggered which will lift the suspension. Both of these commands lead to the standard sending of the UserNotification (CB) with the already known UserStatus (926) values.7
- After the sending of the notification for the suspension, and until this suspension is cleared, any following messages are rejected either with error code 2512 "Suspended by EMS" or 2582 "Suspended by Risk Manager". For details on which messages are used for the rejection please refer to section <u>Direct Responses to</u> Applications Messages.
- For RiskGuard the UserNotification (CB) is sent:
 - if client's access has been Blocked or Unblocked on a given contract, and it includes the scope for which this action has been applied;
 - if for Derivatives, Order Size Limit has been activated or deactivated on a given contract, and the scope on which this action has been applied.
 - For derivatives, for Maximum Exposure Position control if MEP has been activated or deactivated on a given Firm, and if a Breach Action has kicked in/kicked out;
 - when the action in place is Block (User Status MEP Threshold Action Activated: Incoming requests are blocked or MEP Threshold Action Activated: Book was purged and incoming requests are blocked) the Exposure Side (ExposureSide (21818) field indicates, as for other actions, the side which was breached **BUT**, despite that, as the action is block, the block applies to all incoming requests and not only to the ones on the side of the breach.
 - ExposureSide (21818) isn't populated when the notification is sent to indicate MEP Activation/Deactivation;
 - For Cash, if the Order Amount Limit has been activated or deactivated on a given instrument or globally for all instruments in scope of the Risk Manager/TargetFirmID (21098) monitoring authorizations, and the scope on which this action has been applied. In case of "Global OAL" the InstrumentScopeSecurityID (1538) and InstrumentScopeSecurityIDSource (1539) are not provided.
 - - For Non-Sponsored Firms, where only "individual OAL" is allowed, a UserNotification (CB) is sent for each activation/deactivation:
 - For Sponsored Firms, where both "global and individual OAL" can be submitted and live in parallel:
 - 1. When a command is sent to activate "global OAL" then a single UserNotification (CB) is triggered to indicate it to the firm and NO message is sent to indicate the explicit removal of any "individual OAL" which was previously activated and got overridden by the sending of the "global OAL";
 - 2. When there is the activation of "global OAL" followed by the activation of the "individual OAL" on different instruments then the following happens:

 - One UserNotification (CB) is sent to indicate the activation of "global OAL" AND Upon reception of "individual OAL", one UserNotification (CB) is sent, per TargetFirmID (21098) + SecurityID (48), to indicate the activation of it;

Overall, the Members notification, through the UserNotification (CB) message is managed as following:

- sent when MEP is activated or deactivated;
 - in case MEP is activated/deactivated, for a given firm, through multiple risk managers then UserNotification (CB) is sent per Risk Manager which sent the MEP command;
 - in case upon activation/deactivation there is an immediate triggering of a threshold breach or the removal of a threshold currently in use, respectively, then the UserNotification (CB) to indicate activation/deactivation and only after the notification of the threshold breach triggering or threshold breach removal;
- when the Risk Manager adjusts the initial submitted MEP command (threshold values, or breach actions or all – as described in section Message Description of ERGCommand (U68))
 - no notification is sent as the indication that MEP was activated had already been sent. In case the adjustment leads to a threshold breach then that is communicated;
- in case the Firm breaches thresholds set by different risk managers which have different breach actions

⁷ Please note this mechanism is only triggered for the Drop Copy accesses which have been configured with "Automatic Kill Switch and Unsuspension" set to Yes.

- o a single UserNotification (CB) is sent, with the most restrictive action (as it is the one in place to validate the incoming requests from the trading member)
- o in case the action is Block or Pull and Block then the different risk managers have to remove the block for the firm to be able to trade again;
- in case the Firm breaches thresholds set by different risk managers which have the same breach action
 - o a single UserNotification (CB) is sent
 - o in case the action is Block or Pull and Block then the different risk managers have to remove the block for the firm to be able to trade again;
- in case the Firm breaches thresholds which may have been set by different risk managers (or by a single risk manager) and lead to the same action, meaning same action already triggered once the other threshold is breached
 - no UserNotification (CB) is sent,
 - o in case the action is Block or Pull and Block then the different risk managers have to remove the block for the firm to be able to trade again;
- for the specific case created by block either because of action Block or action Pull and Block, where notifications are sent to the risk manager indicating that, in normal situations, another action would have been activated once the exposure moves, no notification is sent to the trading firm. In further details:
 - if there is no action in place or an action that is not Block or Pull and Block and there is a breach of the threshold that leads to Block or Pull and Block - a UserNotification (CB) is sent to indicate the new action in place;
 - if the trading firm is in Block state following a breach of a threshold which had the action "Block" associated and then there is a breach of the threshold that leads to Pull and Block a UserNotification (CB) is sent to indicate the new action in place;
 - if the trading firm is breaching the threshold with the action "pull and block" associated and there is an exposure adjustment which leads to the breach of the threshold with action "block" no UserNotification (CB) is sent to indicate the new action in place;
 - if the trading firm is breaching a threshold which has the action pull and block or Block and there is an exposure adjustment which leads to breach down, which would move to any of the other actions (going down means theoretically, because practically the block is persisted so the action doesn't change) - no UserNotification (CB) is sent to indicate the new action in place;
- Once a limit is breached or multiple limits are breached simultaneously, either the MEP 100% or one/multiple of the three individual thresholds, the following messages are triggered:
 - UserNotification (CB) is sent to the Firm in case the breach of the threshold has triggered a "breach action";
 - Please note that in case of successive breach of individual thresholds no message is sent to clear the previous breached threshold, only a message to indicate the new threshold in place is sent;
- Concerning the "Clearing" of previously breached thresholds (i.e, when the exposure is recomputed and it's no longer breaching the defined threshold):
 - o In case the recomputation leads to a clear of the current threshold to a lower one:
 - UserNotification (CB) is sent to the Firm to indicate the new threshold and action which are activated;
 - o In case the recomputation leads to "no threshold is longer being breached":
 - UserNotification (CB) is sent to the Firm to indicate no threshold neither action are activated;

After notification of one of the above events and until the restriction is lifted, any of the inbound messages (for derivatives: except for strategies creation, open order request, mass cancelations, ownership request, request for implied execution and quote request) 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 (Derivatives Only)	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.
Risk Guard	Order Amount Limit (Cash Only)	orders submitted on a given instrument cannot have an amount higher than the Order Amount Limit defined per instrument or globally for all instruments, of an Optiq segment, on which the Risk Manager is authorized to monitor the TargetFirmID (21098) – only applicable to Sponsored Firms. The limit is applied per individual order and not cumulative cross orders.
Risk Guard	Maximum Exposure Limit (Derivatives only)	orders (excluding Wholesales, RFC)/quotes/trades (excluding TRF temporary trades) are taken into account to validate if the maximum allowed position for the contract is being respected or not.

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, Order Size Limit or Maximum Exposure Position;

SCOPE	DESCRIPTION	IDENTIFIER FIELD PROVIDED
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.	
	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.	

SCOPE	DESCRIPTION	IDENTIFIER FIELD PROVIDED
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/ClientIdentificationShortCo	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)	PartyID (448)
	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 <i>ClientIdentificationShortCode</i> . In this case the field <i>ClientIdentificationShortCode</i> in the message will be populated with the stipulated value	
	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.	LogicalAccessID
	In case the action is applied at Logical Access level, only the Firm that owns the connection receives the UserNotification (CB).	

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), OrderAmountLimit (21809);

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: 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: 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)
- 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 Risk Guard, 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)

<u>ClientIdentificationShortCode</u>

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 Risk Guard, only the following combination, concerning ClientIdentificationShortCode, is provided:

- 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	LE	VALUES	PRESENCE	l
				N			1

TAG	FIELD	SHORT DESCRIPTION	FORMAT	LE N	VALUES	PRESENCE
	<u>Header</u>					
926	<u>UserStatus</u>	Status of the user.	Int	3	(See field description)	Mandatory
453	<u>NoPartyIDs</u>	Number of PartyID entries.	NumInGrou p	1	If provided, always set to 1	Conditional
448	<u>PartyID</u>	Party identifier/code. See PartyIDSource (447) and PartyRole (452).	String	11	Alphanumeric	Conditional
447	<u>PartyIDSource</u>	Source of PartyID value.	Char	1	(See field description)	Conditional
452	<u>PartyRole</u>	Identifies the type or role of the PartyID (448) specified.	Int	3	(See field description)	Conditional
2376	<u>PartyRoleQualifier</u>	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	<u>Text</u>	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	NoInstrumentSco pes	Number of Instrument scopes entries.	NumInGrou p	1	If provided, always set to 1	Conditional
1538	InstrumentScope SecurityID	Security ID.	String	10	From 0 to 2^32-2	Conditional
1539	InstrumentScope SecurityIDSource	Used to limit instrument scope.	String	1	(See field description)	Conditional
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
21808	OrderAmountLimi t	Indicates the Maximum Order Amount above which all orders will be rejected by the Matching Engine.	Amount	20	From 0 to 2^64-2	Conditional
21818	ExposureSide	Indicates the side of the exposure. This field must always be populated for Derivatives and not be sent for Cash.	Int	1	(See field description)	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. 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	FORMA T	LEN	VALUES	PRESENCE
	<u>Header</u>					
11	CIOrdID	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	<u>SecurityID</u>	Exchange identification code of the instrument/contract.	String	10	From 0 to 2^32-2	Mandatory
22	<u>SecurityIDSource</u>	Gives the type of SecurityID.	String	1	(See field description)	Mandatory
453	<u>NoPartyIDs</u>	Number of PartyID entries.	NumInG roup	1	From 1 to 2	Mandatory
448	<u>PartyID</u>	Party identifier/code. See PartyIDSource (447) and PartyRole (452).	String	11	Alphanumeric	Mandatory
447	<u>PartyIDSource</u>	Source of PartyID value.	Char	1	(See field description)	Mandatory
452	<u>PartyRole</u>	Identifies the type or role of the PartyID (448) specified.	Int	3	(See field description)	Mandatory
2376	<u>PartyRoleQualifier</u>	Used to further qualify the value of PartyRole(452).	Int	2	(See field description)	Mandatory
2593	<u>NoOrderAttributes</u>	Number of order attribute entries.	NumInG roup	1	If provided, From 1 to 2	Optional
2594	<u>OrderAttributeType</u>	The type of order attribute.	Int	1	(See field description)	Optional
2595	<u>OrderAttributeValue</u>	The value associated with the order attribute type specified in OrderAttributeType (2594).	String	1	(See field description)	Optional
2002 0	<u>EMM</u>	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

TAG	FIELD	SHORT DESCRIPTION	FORMA T	LEN	VALUES	PRESENCE
9950	<u>InputPxType</u>	Type of input price.	Char	1	(See field description)	Mandatory
	<u>Trailer</u>					

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 algorithm 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) = 3 (for 'NORE') should be 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
	<u>Header</u>					
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	<u>SecurityID</u>	Exchange identification code of the instrument/contract.	String	10	From 0 to 2^32-2	Mandatory
22	SecurityIDSourc e	Gives the type of SecurityID.	String	1	(See field description)	Mandatory
453	<u>NoPartyIDs</u>	Number of PartyID entries.	NumInGrou p	1	From 1 to 2	Mandatory

TAG	FIELD	SHORT DESCRIPTION	FORMAT	LEN	VALUES	PRESENCE
448	<u>PartyID</u>	Party identifier/code. See PartyIDSource (447) and PartyRole (452).	String	11	Alphanumeric	Mandatory
447	<u>PartyIDSource</u>	Source of PartyID value.	Char	1	(See field description)	Mandatory
452	<u>PartyRole</u>	Identifies the type or role of the PartyID (448) specified.	Int	3	(See field description)	Mandatory
2376	<u>PartyRoleQualifi</u> <u>er</u>	Used to further qualify the value of PartyRole(452).	Int	2	(See field description)	Mandatory
2593	NoOrderAttribut es	Number of order attribute entries.	NumInGrou p	1	If provided, From 1 to 2	Optional
2594	OrderAttributeTy pe	The type of order attribute.	Int	1	(See field description)	Optional
2595	OrderAttributeVa lue	The value associated with the order attribute type specified in OrderAttributeType (2594).	String	1	(See field description)	Optional
2002 0	<u>EMM</u>	Defines the Exchange Market Mechanism applied on each platform.	Int	2	(See field description)	Mandatory
1007 6	<u>LPActionCode</u>	Action the LP wants to apply on the specified instrument of warrant type.	Char	1	(See field description)	Mandatory
	<u>Trailer</u>					

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 *OrigClOrdID* (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.

Note regarding Dark Orders:

- For Dark (Not Sweep) Orders, the field "Order Category" of an OrderMassStatusRequest [AF] is mandatory and must be set to '2' (LIS Order) to properly identify a Dark Not Sweep Order.
- For Dark (Sweep) Orders, the field "Order Category" of an OrderMassStatusRequest [AF] is not mandatory (LIS Order) to properly identify a Dark Sweep Order (set to Null or to '1').

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 algorithm 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) = 3 (for 'NORE') should be provided
 - PartyIDSource (447) = P (Short code identifier)
 - PartyRole (452) = 3 (Client ID)
 - PartyRoleQualifier (2376) = 23 (Firm or legal entity) OR 24 (Natural person)

<u>ClientIdentificationShortCode</u>

<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

of the instrument/contract. 22 SecurityIDSource Gives the type of SecurityID. String 1 (See field description) 37 OrderID Numerical order identifier assigned by the matching engine, unique per instrument and EMM. 41 OrigClOrdID Identifies the Client Order ID of the original order, used to identify the previous order on cancel and replacement requests. 453 NoPartyIDs Number of PartyID entries. NumInGroup 1 From 1 to 2 Manda PartyID Party identifier/code. See PartyIDSource (447) and PartyIDSource (447) and PartyRole (452). 447 PartyIDSource Source of PartyID value. Char 1 (See field description) 452 PartyRole Identifies the type or role of the PartyID (448) specified. 2376 PartyRoleQualifier Used to further qualify the value of PartyRole(452). Number of order attribute NumInGroup 1 If provided, From 1 to 2 NumInGroup 1 If provided, From 1 Option	TAG	FIELD	SHORT DESCRIPTION	FORMAT	LEN	VALUES	PRESENCE
of the instrument/contract. 22 SecurityIDSource Gives the type of SecurityID. String 1 (See field description) 37 OrderID Numerical order identifier assigned by the matching engine, unique per instrument and EMM. 41 OrigClOrdID Identifies the Client Order ID of the original order, used to identify the previous order on cancel and replacement requests. 453 NoPartyIDs Number of PartyID entries. NumInGroup 1 From 1 to 2 Manda PartyID Party identifier/code. See PartyIDSource (447) and PartyIDSource (447) and PartyRole (452). 447 PartyIDSource Source of PartyID value. Char 1 (See field description) 452 PartyRole Identifies the type or role of the PartyID (448) specified. 2376 PartyRoleQualifier Used to further qualify the value of PartyRole(452). Number of order attribute entries. NumInGroup 1 If provided, From 1 to 2							
Authorized Condition	48	<u>SecurityID</u>		String	10	From 0 to 2^32-2	Mandatory
assigned by the matching engine, unique per instrument and EMM. 41 OrigClOrdID Identifies the Client Order ID of the original order, used to identify the previous order on cancel and replacement requests. 453 NoPartyIDs Number of PartyID entries. NumInGroup 1 From 1 to 2 Manda PartyIDSource (447) and PartyIDSource (447) and PartyRole (452). 447 PartyIDSource Source of PartyID value. Char 1 (See field description) 452 PartyRole Identifies the type or role of the PartyID (448) specified. 2376 PartyRoleQualifier Used to further qualify the value of PartyRole(452). Number of order attribute NumInGroup 1 If provided, From 1 Option entries.	22	SecurityIDSource	Gives the type of SecurityID.	String	1		Mandatory
of the original order, used to identify the previous order on cancel and replacement requests. 453 NoPartyIDs Number of PartyID entries. NumInGroup 1 From 1 to 2 Manda PartyID entryIDsource (447) and PartyIDsource (447) and PartyRole (452). 447 PartyIDSource Source of PartyID value. Char 1 (See field description) 452 PartyRole Identifies the type or role of the PartyID (448) specified. 2376 PartyRoleQualifier Used to further qualify the value of PartyRole(452). NumDer of order attribute NumInGroup 1 If provided, From 1 to 2	37	<u>OrderID</u>	assigned by the matching engine, unique per	String	20	From 0 to 2^64-2	Conditional
448PartyIDParty identifier/code. See PartyIDSource (447) and PartyRole (452).String11AlphanumericMandar447PartyIDSourceSource of PartyID value.Char1(See field description)Mandar452PartyRoleIdentifies the type or role of the PartyID (448) specified.Int3(See field description)Mandar2376PartyRoleQualifierUsed to further qualify the value of PartyRole(452).Int2(See field description)Mandar2593NoOrderAttributesNumber of order attribute entries.NumInGroup1If provided, From 1 to 2Option	41	<u>OrigClOrdID</u>	of the original order, used to identify the previous order on cancel and replacement	String	20		Conditional
PartyIDSource (447) and PartyRole (452). 447 PartyIDSource Source of PartyID value. Char 1 (See field description) 452 PartyRole Identifies the type or role of the PartyID (448) specified. 2376 PartyRoleQualifier Used to further qualify the value of PartyRole(452). Discrete PartyRoleQualifier Source of PartyRole(452). NumInGroup 1 If provided, From 1 to 2	453	<u>NoPartyIDs</u>	Number of PartyID entries.	NumInGroup	1	From 1 to 2	Mandatory
A52 PartyRole Identifies the type or role of the PartyID (448) specified. Int 3 (See field description)	448	<u>PartyID</u>	PartyIDSource (447) and	String	11	Alphanumeric	Mandatory
the PartyID (448) specified. 2376 PartyRoleQualifier Used to further qualify the value of PartyRole(452). 1 If provided, From 1 to 2 Option	447	<u>PartyIDSource</u>	Source of PartyID value.	Char	1		Mandatory
value of PartyRole(452). 2593 NoOrderAttributes Number of order attribute entries. NumInGroup 1 If provided, From 1 to 2	452	<u>PartyRole</u>		Int	3		Mandatory
entries. to 2	2376	<u>PartyRoleQualifier</u>		Int	2		Mandatory
2594 OrderAttributeTyp The type of order attribute. Int 1 (See field Option	2593	<u>NoOrderAttributes</u>		NumInGroup	1		Optional
description)	2594	OrderAttributeTyp e	The type of order attribute.	Int	1	•	Optional
2595 OrderAttributeVal ue The value associated with the order attribute type specified in OrderAttributeType (2594). The value associated with the order attribute type description)	2595		the order attribute type specified in	String	1		Optional
584 MassStatusReqID Unique Identifier assigned by the client to the OrderMassStatusRequest (AF). String 20 From -2^63+1 to 2^63-1	584	MassStatusReqID	the client to the OrderMassStatusRequest	String	20		Mandatory
585 MassStatusReqTy pe Specifies the scope of the OrderMassStatusRequest (AF). Specifies the scope of the Int 3 (See field description)	585		OrderMassStatusRequest	Int	3		Mandatory
2002 EMM Defines the Exchange Market Int 2 (See field Mechanism applied on each platform.		ЕММ	Mechanism applied on each	Int	2		Mandatory
2104 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)		<u>OrderCategory</u>	order handling. When not provided or provided at the Null Value, it is assumed to	Char	1		Conditional
<u>Trailer</u>		<u>Trailer</u>					

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, <u>MassCancelRequestType</u> (530) must be set to '1' and the <u>SecurityID</u> (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, <u>MassCancelRequestType</u> (530) must be set to 'A' (cancel orders for a security group) and the <u>ClassID</u> (9945) field must be populated with the code of the trading group concerned.

Optional additional criteria can be specified: *EMM* (20020)⁸, *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 <code>TargetPartyID</code> (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 <code>OrderMassCancelRequest</code> (q) message. When an error is detected in any field of the message, the matching engine responds with the <code>OrderCancelReject</code> (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.

⁸ COB EMMs only.

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 algorithm 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) = 3 (for 'NORE') should be 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
	<u>Header</u>					
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, sssssssss = 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
530	MassCancelReque stType	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	<u>SecurityID</u>	Exchange identification code of the instrument/contract.	String	10	From 0 to 2^32-2	Conditional
22	<u>SecurityIDSource</u>	Gives the type of SecurityID.	String	1	(See field description)	Conditional
453	<u>NoPartyIDs</u>	Number of PartyID entries.	NumInGroup	1	From 1 to 2	Mandatory
448	<u>PartyID</u>	Party identifier/code. See PartyIDSource (447) and PartyRole (452).	String	11	Alphanumeric	Mandatory
447	<u>PartyIDSource</u>	Source of PartyID value.	Char	1	(See field description)	Mandatory
452	<u>PartyRole</u>	Identifies the type or role of the PartyID (448) specified.	Int	3	(See field description)	Mandatory
2376	<u>PartyRoleQualifier</u>	Used to further qualify the value of PartyRole(452).	Int	2	(See field description)	Mandatory

TAG	FIELD	SHORT DESCRIPTION	FORMAT	LEN	VALUES	PRESENCE
2109 5	<u>TargetPartyID</u>	Identifier of the ShortCode used as a filter to reduce the scope of the OrderMassCancelRequest (r).	String	11	Alphanumeric	Optional
2593	<u>NoOrderAttributes</u>	Number of order attribute entries.	NumInGroup	1	If provided, From 1 to 2	Optional
2594	OrderAttributeTyp e	The type of order attribute.	Int	1	(See field description)	Optional
2595	OrderAttributeVal ue	The value associated with the order attribute type specified in OrderAttributeType (2594).	String	1	(See field description)	Optional
2002	EMM	Defines the Exchange Market Mechanism applied on each platform.	Int	2	(See field description)	Optional
54	<u>Side</u>	Indicates the side of the order.	Char	1	(See field description)	Optional
2101 9	<u>OEPartitionID</u>	Identifies uniquely an OE Optiq partition by which the engine is reached.	Int	5	From 0 to 2^16-2	Optional
2102 1	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
2104	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
	<u>Trailer</u>					

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 **OrderMassCancelRequest** (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 algorithm 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) = 3 (for 'NORE') should be 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
	<u>Header</u>					
2100 5	ClientMessageSen dingTime	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	OEGINFromMemb er	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- 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, sssssssss = 000000000- 999999999 (nanoseconds)	Conditional
2100	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)	Mandatory
2100	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- 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
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	TotalAffectedOrde rs	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	<u>SecurityID</u>	Exchange identification code of the instrument/contract.	String	10	From 0 to 2^32-2	Conditional
22	<u>SecurityIDSource</u>	Gives the type of SecurityID.	String	1	(See field description)	Conditional
2002	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
2101 9	OEPartitionID	Identifies uniquely an OE Optiq partition by which the engine is reached.	Int	5	From 0 to 2^16-2	Conditional
2102 1	LogicalAccessID	Identifier of the Logical Access.	Int	10	From 0 to 2^32-2	Conditional

TAG	FIELD	SHORT DESCRIPTION	FORMAT	LEN	VALUES	PRESENCE
6399	<u>AccountCode</u>	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
1369	MassActionReport ID	Exchange allocated order mass cancel report ID.	String	20	Value provided by the Trading Engine	Mandatory
530	MassCancelReque stType	Specifies the scope of the OrderMassCancelReques t (q). The specified action is only applicable to the orders already present in the book.	Char	1	(See field description)	Mandatory
531	MassCancelRespo nse	Specifies the action taken by counterparty order handling system as a result of the OrderMassCancelReques t (AF).	Char	1	(See field description)	Mandatory
2104	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
2101	<u>AckQualifiers</u>	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
2109 5	<u>TargetPartyID</u>	Identifier of the ShortCode used as a filter to reduce the scope of the OrderMassCancelReques t (q).	String	11	Alphanumeric	Optional
453	<u>NoPartyIDs</u>	Number of PartyID entries.	NumInGroup	1	From 1 to 2	Mandatory
448	<u>PartyID</u>	Party identifier/code. See PartyIDSource (447) and PartyRole (452).	String	11	Alphanumeric	Mandatory
447	<u>PartyIDSource</u>	Source of PartyID value.	Char	1	(See field description)	Mandatory
452	<u>PartyRole</u>	Identifies the type or role of the PartyID (448) specified.	Int	3	(See field description)	Mandatory
2376	<u>PartyRoleQualifier</u>	Used to further qualify the value of PartyRole (452).	Int	2	(See field description)	Mandatory
	<u>Trailer</u>					

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
	<u>Header</u>					
2100 2	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 = 00000000- 99999999 (nanoseconds)	Mandatory
2100	<u>BookOUTTime</u>	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
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 = 000000000-999999999 (nanoseconds)	Conditional
131	QuoteRegID	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	SecurityIDSour ce	Gives the type of SecurityID.	String	1	(See field description)	Mandatory
2002	<u>EMM</u>	Defines the Exchange Market Mechanism applied on each platform.	Int	2	(See field description)	Mandatory

TAG	FIELD	SHORT DESCRIPTION	FORMAT	LEN	VALUES	PRESENCE
38	<u>OrderQty</u>	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
2005	DarkExecutionI nstruction	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
2104	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
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
	<u>Trailer</u>					

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
	<u>Header</u>					
2100	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)	Mandatory

TAG	FIELD	SHORT DESCRIPTION	FORMAT	LEN	VALUES	PRESENCE
2100	<u>BookOUTTime</u>	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, SSSSSSS = 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
48	<u>SecurityID</u>	Exchange identification code of the instrument/contract.	String	10	From 0 to 2^32-2	Mandatory
22	SecurityIDSour ce	Gives the type of SecurityID.	String	1	(See field description)	Mandatory
2002	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
2103 0	PotentialMatchi ngPrice	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
2103	PotentialMatchi ngQuantity	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
2103 4	NumberOfLPs	Indicates the number of LPs who sent an answer to a specific RFQ.	Int	2	From 0 to 2^8-2	Conditional
	<u>Trailer</u>					

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
	<u>Header</u>					
2100	<u>BookINTime</u>	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)	UTCTime stamp	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
2100	BookOUTTime	Matching Engine OUT time (in ns), when message leaves the Matching Engine (Time in number of nanoseconds since 01/01/1970 UTC).	UTCTime stamp	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
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).	UTCTime stamp	27	Valid values: YYYY = 0000-9999, MM = 01-12, DD = 01-31, HH = 00-23, MM = 00-59, SS = 00-59, ssssssss = 000000000-9999999999 (nanoseconds)	Conditional
7764	<u>OEGOUTToME</u>	Gateway OUT time to ME (in ns), measured when inbound message leaves the gateway (Time in number of nanoseconds since 01/01/1970 UTC).	UTCTime stamp	27	Valid values: YYYY = 0000-9999, MM = 01-12, DD = 01-31, HH = 00-23, MM = 00-59, SS = 00-59, ssssssss = 000000000-9999999999 (nanoseconds)	Conditional
48	<u>SecurityID</u>	Exchange identification code of the instrument/contract.	String	10	From 0 to 2^32-2	Mandatory
22	SecurityIDSour ce	Gives the type of SecurityID.	String	1	(See field description)	Mandatory
2002 0	EMM	Defines the Exchange Market Mechanism applied on each platform.	Int	2	(See field description)	Mandatory
131	QuoteRegID	Numerical RFQ identifier assigned by the matching engine, unique per instrument and EMM.	String	20	From 0 to 2^64-2	Mandatory
2103 1	PotentialMatchi ngQuantity	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
	<u>Trailer</u>					

5.3.23 RequestForExecution (UM)

Client **◀**OEG Available for: SP

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
	<u>Header</u>					
48	<u>SecurityID</u>	Exchange identification code of the instrument/contract.	String	10	From 0 to 2^32-2	Mandatory
22	<u>SecurityIDSource</u>	Gives the type of SecurityID.	String	1	(See field description)	Mandatory
2002	ЕММ	Defines the Exchange Market Mechanism applied on each platform.	Int	2	(See field description)	Mandatory
	<u>Trailer</u>					

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 L₁, as a buy;
- Ratio 1 for the second leg L₂, as a sell;
- Front leg expiry precedes second leg expiry.

This corresponds to the definition of the spread strategy L_1 - L_2 .

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 no 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
	<u>Header</u>					
320	<u>SecurityReqID</u>	ID of a strategy security definition request	String	30	From -2^63+1 to 2^63-1	Mandatory
321	SecurityRequestTyp e	Gives the type of Security Definition Request.	Int	2	(See field description)	Mandatory
48	<u>SecurityID</u>	Exchange identification code of the Contract.	String	10	From 0 to 2^32-2	Optional
22	<u>SecurityIDSource</u>	Gives the type of SecurityID.	String	1	(See field description)	Optional
167	<u>SecurityType</u>	Indicates type of security.	String	4	(See field description)	Mandatory
762	<u>SecuritySubType</u>	Exchange-recognized strategy code	String	1	From 0 to 2^32-2	Mandatory
555	<u>NoLegs</u>	Number of legs entries for the requested strategy.	NumInGr oup	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	<u>LegSecurityID</u>	MDG proprietary identification code of the instrument leg for the strategy.	String	10	From 0 to 2^32-2	Mandatory
603	<u>LegSecurityIDSourc</u> <u>e</u>	Gives the type of LegSecurityID (602).	String	1	(See field description)	Mandatory
609	<u>LegSecurityType</u>	Defines the type of instrument of the Leg	String	11	(See field description)	Mandatory
2109 2	<u>LegLastTradingDate</u>	Last Trading Date of the leg of the strategy (text formatted as YYYYMMDD).	LocalMkt Date	8	Valid values: YYYY = 0000-9999, MM = 01-12, DD = 01-31	Optional
612	<u>LegStrikePrice</u>	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

TAG	FIELD	SHORT DESCRIPTION	FORMAT	LEN	VALUES	PRESENCE
2109	<u>LegRatio</u>	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	<u>LegSide</u>	Indicates the side of the trade leg.	Char	1	(See field description)	Mandatory
1358	<u>LegPutOrCall</u>	Type of the option as leg.	Int	1	(See field description)	Optional
566	<u>LegPrice</u>	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
	<u>Trailer</u>					

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
	<u>Header</u>					

TAG	FIELD	SHORT DESCRIPTION	FORMAT	LEN	VALUES	PRESENCE
2100 5	ClientMessage SendingTime	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	OEGINFromMe mber	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 = 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, SS = 00-59, SSSSSSS = 000000000-999999999 (nanoseconds)	Conditional
2100	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
2100	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
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	SecurityIDSou rce	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
	<u>Trailer</u>					

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 algorithm 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) = 3 (for 'NORE') should be 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

<u>InvestmentDecisionwithinFirmShortCode</u>

<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)

Note: 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
	<u>Header</u>					
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	<u>SecurityID</u>	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
2108 3	WholesaleTradeTyp e	Type of the Wholesale trade.	Char	1	(See field description)	Mandatory
2108 5	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	<u>SecurityType</u>	Indicates type of security.	String	4	(See field description)	Conditional
762	<u>SecuritySubType</u>	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	<u>NoPartyIDs</u>	Number of PartyID entries.	NumInGro up	1	Always set to 1	Mandatory
448	<u>PartyID</u>	Party identifier/code. See PartyIDSource (447) and PartyRole (452).	String	11	Alphanumeric	Mandatory
447	<u>PartyIDSource</u>	Source of PartyID value.	Char	1	(See field description)	Mandatory
452	<u>PartyRole</u>	Identifies the type or role of the PartyID (448) specified.	Int	3	(See field description)	Mandatory
2376	<u>PartyRoleQualifier</u>	Used to further qualify the value of PartyRole(452).	Int	2	(See field description)	Mandatory

TAG	FIELD	SHORT DESCRIPTION	FORMAT	LEN	VALUES	PRESENCE
1724	<u>OrderOrigination</u>	Identifies the origin of the order.	Int	1	(See field description)	Conditional
2593	<u>NoOrderAttributes</u>	Number of order attribute entries.	NumInGro up	1	If provided, Always set to 1	Optional
2594	<u>OrderAttributeType</u>	The type of order attribute.	Int	1	(See field description)	Optional
2595	<u>OrderAttributeValue</u>	The value associated with the order attribute type specified in OrderAttributeType (2594).	String	1	(See field description)	Optional
2108 2	WholesaleSide	Indicates the side of the Wholesale order.	Char	1	(See field description)	Mandatory
2109 6	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
2180 3	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 = Price2 = Spread in basis points3 = Spread	Conditional
555	<u>NoLegs</u>	Number of legs entries for the requested strategy.	NumInGro up	2	From 1 to 32	Mandatory
600	<u>LegSymbol</u>	Identifies the contract of this instrument by its Symbol Index.	String	10	From 0 to 2^32-2	Mandatory
602	<u>LegSecurityID</u>	MDG proprietary identification code of the instrument leg for the strategy.	String	10	From 0 to 2^32-2	Mandatory
603	<u>LegSecurityIDSourc</u> <u>e</u>	Gives the type of LegSecurityID (602).	String	1	(See field description)	Conditional
609	<u>LegSecurityType</u>	Defines the type of instrument of the Leg	String	11	(See field description)	Mandatory
2109 2	<u>LegLastTradingDate</u>	Last Trading Date of the leg of the strategy (text formatted as YYYYMMDD).	LocalMktD ate	8	Valid values: YYYY = 0000- 9999, MM = 01- 12, DD = 01-31	Conditional
1358	<u>LegPutOrCall</u>	Type of the option as leg.	Int	1	(See field description)	Conditional
566	<u>LegPrice</u>	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	<u>LegSide</u>	Indicates the side of the trade leg.	Char	1	(See field description)	Conditional
134	<u>BidSize</u>	Quote bid quantity, (To be calculated with Quantity Decimals).	Qty	20	From 0 to 2^64-1	Conditional
135	<u>OfferSize</u>	Quote offer quantity, (To be calculated with Quantity Decimals).	Qty	20	From 0 to 2^64-1	Conditional
2108 9	BidNonExecClID	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
2109 0	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	<u>LegStrikePrice</u>	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
2109	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	Conditional
552	<u>NoSides</u>	Number of sides.	NumInGro up	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	<u>Text</u>	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	<u>AccountCode</u>	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
9941	<u>TechnicalOrdType</u>	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	<u>PostingAction</u>	Open Close Indicator, Posting action. This field is part of the clearing aggregate.	MultipleCh arValue	19	(See field description)	Optional
29	<u>LastCapacity</u>	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
2180	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. For Cash Markets this field is ignored except for IPO where this field is used to provide the information of the tax code.	String	16	(See field description)	Optional
		codei				
539	<u>NoNestedPartyIDs</u>	Number of NestedPartyID entries.	NumInGro up	1	From 1 to 4	Conditional
539 524	NoNestedPartyIDs NestedPartyID	Number of NestedPartyID		1 11	From 1 to 4 Alphanumeric	Conditional Conditional
		Number of NestedPartyID entries. Party identifier/code within a repeating group. See NestedPartyIDSource (525)	up			
524	NestedPartyID NestedPartyIDSourc	Number of NestedPartyID entries. Party identifier/code within a repeating group. See NestedPartyIDSource (525) and NestedPartyRole (538). Source of NestedPartyID	up String	11	Alphanumeric (See field	Conditional
524	NestedPartyID NestedPartyIDSourc e	Number of NestedPartyID entries. Party identifier/code within a repeating group. See NestedPartyIDSource (525) and NestedPartyRole (538). Source of NestedPartyID (524) value. Identifies the type or role of the NestedPartyID (524)	up String Char	11	(See field description) (See field	Conditional Conditional
524 525 538	NestedPartyID NestedPartyIDSourc e NestedPartyRole NestedPartyRoleQua	Number of NestedPartyID entries. Party identifier/code within a repeating group. See NestedPartyIDSource (525) and NestedPartyRole (538). Source of NestedPartyID (524) value. Identifies the type or role of the NestedPartyID (524) specified. Used to further qualify the value of	up String Char Int	11 1 3	(See field description) (See field description) (See field description)	Conditional Conditional Conditional
524 525 538 2384	NestedPartyID NestedPartyIDSourc e NestedPartyRole NestedPartyRole NestedPartyRoleQua lifier	Number of NestedPartyID entries. Party identifier/code within a repeating group. See NestedPartyIDSource (525) and NestedPartyRole (538). Source of NestedPartyID (524) value. Identifies the type or role of the NestedPartyID (524) specified. Used to further qualify the value of NestedPartyRole(538). Number of NoNestedOrderAttributes	String Char Int Int NumInGro	11 1 3	(See field description) (See field description) (See field description) (See field description)	Conditional Conditional Conditional
524 525 538 2384 2108 6	NestedPartyID NestedPartyIDSourc NestedPartyRole NestedPartyRoleQualifier NoNestedOrderAttributes	Number of NestedPartyID entries. Party identifier/code within a repeating group. See NestedPartyIDSource (525) and NestedPartyRole (538). Source of NestedPartyID (524) value. Identifies the type or role of the NestedPartyID (524) specified. Used to further qualify the value of NestedPartyRole(538). Number of NoNestedOrderAttributes entries. Represents the type of order	up String Char Int Int NumInGro up	11 1 3 2	Alphanumeric (See field description) (See field description) (See field description) If provided, Always set to 1 (See field	Conditional Conditional Conditional Conditional

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
	<u>Header</u>					
2100 5	ClientMessageSen dingTime	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- 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).	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
2100	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	PRESENCE
2100	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- 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).	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
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	<u>SecurityID</u>	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
2108 3	WholesaleTradeTy pe	Type of the Wholesale trade.	Char	1	(See field description)	Mandatory
2108 5	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	<u>SecurityType</u>	Indicates type of security.	String	4	(See field description)	Conditional
762	<u>SecuritySubType</u>	Exchange-recognized strategy code	String	1	From 0 to 2^32-2	Conditional
44	<u>Price</u>	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	<u>NoPartyIDs</u>	Number of PartyID entries.	NumInGroup	1	Always set to 1	Mandatory
448	<u>PartyID</u>	Party identifier/code. See PartyIDSource (447) and PartyRole (452).	String	11	Alphanumeric	Mandatory
447	<u>PartyIDSource</u>	Source of PartyID value.	Char	1	(See field description)	Mandatory
452	<u>PartyRole</u>	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	<u>PartyRoleQualifier</u>	Used to further qualify the value of PartyRole(452).	Int	2	(See field description)	Mandatory
1724	<u>OrderOrigination</u>	Identifies the origin of the order.	Int	1	(See field description)	Conditional
2593	<u>NoOrderAttributes</u>	Number of order attribute entries.	NumInGroup	1	If provided, Always set to 1	Optional
2594	OrderAttributeTyp e	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
2108 2	<u>WholesaleSide</u>	Indicates the side of the Wholesale order.	Char	1	(See field description)	Mandatory
2109 6	<u>ESCBMembership</u>	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	<u>AckStatus</u>	Indicates if incoming message is accepted or rejected.	Char	1	(See field description)	Mandatory
2101	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)	Mandatory
9955	<u>ErrorCode</u>	Error code in case of rejection.	Int	5	From 0 to 2^16-2	Conditional
555	<u>NoLegs</u>	Number of legs entries for the requested strategy.	NumInGroup	2	From 1 to 7	Mandatory
600	<u>LegSymbol</u>	Identifies the contract of this instrument by its Symbol Index.	String	10	From 0 to 2^32-2	Mandatory
602	<u>LegSecurityID</u>	MDG proprietary identification code of the instrument leg for the strategy.	String	10	From 0 to 2^32-2	Mandatory
603	<u>LegSecurityIDSour</u> <u>ce</u>	Gives the type of LegSecurityID (602).	String	1	(See field description)	Mandatory
1747	<u>BidQuoteID</u>	Numerical order identifier assigned by the matching engine, unique per instrument and EMM.	String	20	From 0 to 2^64-2	Conditional
1748	<u>OfferQuoteID</u>	Numerical order identifier assigned by the matching engine, unique per instrument and EMM.	String	20	From 0 to 2^64-2	Conditional
2108 9	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
2109 0	<u>OfferNonExecClID</u>	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	<u>LegSide</u>	Indicates the side of the trade leg.	Char	1	(See field description)	Conditional
2108 4	<u>LegErrorCode</u>	Error code of the Leg in case of rejection.	Int	5	From 0 to 2^16-2	Conditional
539	<u>NoNestedPartyIDs</u>	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	NestedPartyIDSour ce	Source of NestedPartyID (524) value.	Char	1	(See field description)	Conditional
538	<u>NestedPartyRole</u>	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
2108 6	NoNestedOrderAttr ibutes	Number of NoNestedOrderAttributes entries.	NumInGroup	1	If provided, From 1 to 2	Optional
2108 7	NestedOrderAttrib uteType	Represents the type of order attribute.	Int	1	(See field description)	Optional
2108 8	NestedOrderAttrib uteValue	The value associated with the order attribute type specified in NestedOrderAttributeType (21087).	String	1	(See field description)	Optional
	<u>Trailer</u>					

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 algorithm 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) = 3 (for 'NORE') should be 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
	<u>Header</u>					
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	<u>SecurityID</u>	Exchange identification code of the instrument/contract.	String	10	From 0 to 2^32-2	Mandatory
22	<u>SecurityIDSource</u>	Gives the type of SecurityID.	String	1	(See field description)	Mandatory
2002	<u>EMM</u>	Defines the Exchange Market Mechanism applied on each platform.	Int	2	(See field description)	Mandatory
37	<u>OrderID</u>	Numerical order identifier assigned by the matching engine, unique per instrument and EMM.	String	20	From 0 to 2^64-2	Mandatory
453	<u>NoPartyIDs</u>	Number of PartyID entries.	NumInGro up	1	Always set to 1	Mandatory
448	<u>PartyID</u>	Party identifier/code. See PartyIDSource (447) and PartyRole (452).	String	11	Alphanumeric	Mandatory
447	<u>PartyIDSource</u>	Source of PartyID value.	Char	1	(See field description)	Mandatory
452	<u>PartyRole</u>	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	<u>PartyRoleQualifier</u>	Used to further qualify the value of PartyRole(452).	Int	2	(See field description)	Mandatory
1724	<u>OrderOrigination</u>	Identifies the origin of the order.	Int	1	(See field description)	Conditional
2593	<u>NoOrderAttributes</u>	Number of order attribute entries.	NumInGro up	1	If provided, From 1 to 2	Optional
2594	OrderAttributeTyp e	The type of order attribute.	Int	1	(See field description)	Optional
2595	OrderAttributeVal ue	The value associated with the order attribute type specified in OrderAttributeType (2594).	String	1	(See field description)	Optional
539	<u>NoNestedPartyIDs</u>	Number of NestedPartyID entries.	NumInGro up	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	NestedPartyIDSou rce	Source of NestedPartyID (524) value.	Char	1	(See field description)	Conditional
538	<u>NestedPartyRole</u>	Identifies the type or role of the NestedPartyID (524) specified.	Int	3	(See field description)	Conditional
2384	NestedPartyRoleQ ualifier	Used to further qualify the value of NestedPartyRole(538).	Int	2	(See field description)	Conditional
	<u>Trailer</u>					

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 Reactors may 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 algorithm 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) = 3 (for 'NORE') should be 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

<u>InvestmentDecisionwithinFirmShortCode</u>

<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"

- 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.

TAG FIELD SHORT DESCRIPTION FORMAT LEN VALUES PRESENCE

5.3.29.2 Message Structure

TAG	FIELD	SHORT DESCRIPTION	FORMAT	LEN	VALUES	PRESENCE
	<u>Header</u>					
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	<u>SecurityID</u>	Exchange identification code of the instrument/contract.	String	10	From 0 to 2^32-2	Mandatory
22	SecurityIDSo urce	Gives the type of SecurityID.	String	1	(See field description)	Mandatory
20020	<u>EMM</u>	Defines the Exchange Market Mechanism applied on each platform.	Int	2	(See field description)	Mandatory
44	<u>Price</u>	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	<u>OrderQty</u>	Total order quantity, per quantity unit.(To be calculated with Quantity Decimals).	Qty	20	From 0 to 2^64-2	Mandatory
40	<u>OrdType</u>	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.	Int	5	From 0 to 2^16-1	Optional
21109	OrderActorTy pe	Member role for RFC.	Int	1	1 = Initiator 2 = Reactor	Mandatory
453	<u>NoPartyIDs</u>	Number of PartyID entries.	NumInGrou p	1	Always set to 1	Mandatory
448	<u>PartyID</u>	Party identifier/code. See PartyIDSource (447) and PartyRole (452).	String	11	Alphanumeric	Mandatory
447	PartyIDSourc <u>e</u>	Source of PartyID value.	Char	1	(See field description)	Mandatory
452	<u>PartyRole</u>	Identifies the type or role of the PartyID (448) specified.	Int	3	(See field description)	Mandatory
2376	PartyRoleQual ifier	Used to further qualify the value of PartyRole(452).	Int	2	(See field description)	Mandatory
1724	OrderOriginat ion	Identifies the origin of the order.	Int	1	(See field description)	Conditional
2593	NoOrderAttrib utes	Number of order attribute entries.	NumInGrou p	1	If provided, From 1 to 2	Optional
2594	OrderAttribut eType	The type of order attribute.	Int	1	(See field description)	Optional

TAG	FIELD	SHORT DESCRIPTION	FORMAT	LEN	VALUES	PRESENCE
2595	OrderAttribut eValue	The value associated with the order attribute type specified in OrderAttributeType (2594).	String	1	(See field description)	Optional
21803	MessagePrice Notation	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 = Price2 = Spread in basis points3 = Spread	Optional
552	<u>NoSides</u>	Number of sides.	NumInGrou p	1	From 1 to 2	Mandatory
54	Side	Indicates the side of the order.	Char	1	(See field description)	Mandatory
577	ClearingInstr uction	Clearing Instruction.	Int	4	(See field description)	Optional
58	<u>Text</u>	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	TechnicalOrd Type	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.	MultipleCha rValue	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. For Cash Markets this field is ignored except for IPO where this field is used to provide the information of the tax code.	String	16	(See field description)	Optional
555	NoLegs	Number of legs entries for the requested strategy.	NumInGrou p	2	From 1 to 32	Conditional
600	<u>LegSymbol</u>	Identifies the contract of this instrument by its Symbol Index.	String	10	From 0 to 2^32-2	Conditional
602	<u>LegSecurityID</u>	MDG proprietary identification code of the instrument leg for the strategy.	String	10	From 0 to 2^32-2	Conditional

TAG	FIELD	SHORT DESCRIPTION	FORMAT	LEN	VALUES	PRESENCE
603	<u>LegSecurityID</u> <u>Source</u>	Gives the type of LegSecurityID (602).	String	1	(See field description)	Conditional
637	<u>LegLastPx</u>	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	<u>LegLastQty</u>	Leg Last Traded Quantity	Qty	20	From 0 to 2^64-2	Conditional
539	NoNestedPart yIDs	Number of NestedPartyID entries.	NumInGrou p	1	If provided, From 1 to 4	Conditional
524	NestedPartyI D	Party identifier/code within a repeating group. See NestedPartyIDSource (525) and NestedPartyRole (538).	String	11	Alphanumeric	Conditional
525	NestedPartyI DSource	Source of NestedPartyID (524) value.	Char	1	(See field description)	Conditional
538	NestedPartyR ole	Identifies the type or role of the NestedPartyID (524) specified.	Int	3	(See field description)	Conditional
2384	NestedPartyR oleQualifier	Used to further qualify the value of NestedPartyRole(538).	Int	2	(See field description)	Conditional
21822	OrderTolerabl ePrice	Allows the RFC Initiator to provide the tolerable price that's he's willing to trade for in case of price improvement. In case RFC Initiator does not want to match RFC Reactors improved prices, this new field shall not be sent.	Price	<u>20</u>	From -2^63+1 to 2^63-1	<u>Optional</u>
	<u>Trailer</u>					

5.3.30 ERGCommand (U68)

Client ► OEG

Available for: EQ FND FXI 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 *PartyID* (448)) or ClientIdentificationShortCode (provided through *NestedPartyID* (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.

Note: 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	GRANULARITY	REFERENTI	DESCRIPTION	IDENTIFIER FIELD
CONTROL TYPE		AL SCOPE		PROVIDED
	Firm	N/A	Authorizations for trading of a given	TargetFirmID (21098)
	Logical Access	N/A	Firm, Logical Access, Trader or Algorithm (identified via the short	TargetLogicalAccessID (21099)
Suspend	ExecutionWithinFir mShortCode	N/A	codes) has been suspended. Cancellation of the remaining open	TargetPartyID (21095)
	ClientIdentification ShortCode	N/A	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 authorizations for trading, of a	TargetLogicalAccessID (21099)
Unsuspend	ExecutionWithinFir mShortCode	N/A	given Firm, Logical Access, Trader or Algorithm (identified via the short	TargetPartyID (21095)
	ClientIdentification ShortCode	N/A	codes), have been restored.	TargetClientShortCode (21108)
	Firm	Contract /Instrument	Access of a given Firm, Logical Access, Trader or Algorithm (identified via the	TargetFirmID (21098)
	Logical Access	Contract /Instrument	short codes) to a given Contract/Instrument has been blocked.	TargetLogicalAccessID (21099)
Block	ExecutionWithinFir mShortCode	Contract /Instrument	Cancellation of the remaining open orders in the identified Contract/Instrument may be triggered	TargetPartyID (21095)
	ClientIdentification ShortCode	Contract /Instrument	depending on the setting specified in field <i>Purge</i> (21100).	TargetClientShortCode (21108)
	Firm	Contract /Instrument		TargetFirmID (21098)
	Logical Access	Contract /Instrument	The authorizations for trading, of a given Firm, Logical Access. Trader or Algorithm (identified via the short	TargetLogicalAccessID
Unblock	ExecutionWithinFir mShortCode	Contract /Instrument	codes), on a given Contract/Instrument has been unblocked (or restored).	TargetPartyID (21095)
	ClientIdentification ShortCode	Contract /Instrument	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)
Order Amount Limit	Firm	N/A/ Instrument	Order Amount Limit control has been Activated or Deactivated for a given Firm/Logical Access on a given	TargetFirmID (21098)

RISK CONTROL TYPE	GRANULARITY	REFERENTI AL SCOPE	DESCRIPTION	IDENTIFIER FIELD PROVIDED
	Logical Access		Instrument. 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 OALFlag (21101). When the TargetFirmID (21098) is a Sponsored Firm then SecurityID (48) and SecurityIDSource (22) might not be provided and the Order Amount Limit applies to all Instruments on which the Risk Manager is authorized to monitor the Sponsored Firm. Please note that this functionality is not available for Logical Access granularity.	TargetLogicalAccessID (21099)
Maximum Exposure Position	Firm	Contract	The Maximum Exposure Position feature provides Risk Members the ability, via a single command, to prevent their monitored members – Sponsored firms included – from trading beyond a financial limit set on Quantity.	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
- When TargetFirmID (21098) is sponsored then Risk Managers are able to submit what will be referred to as "Global OAL", i.e, an Order Amount Limit which can be set without specifying the instrument to which it applies. Optiq takes the limit and set it for all instruments, belonging to the Optiq Segment on which the command was submitted, and on which the Risk Manager is authorized to monitor the TargetFirmID (21098).
 - In case there is (are) any Order Amount Limit (s) defined for the same population of instruments they are overridden by the value defined at the successful submission of the "Global OAL";
 - In case the Risk Manager wishes to then, after setting the "Global OAL", set specific limits for an instrument or a set of them it can use the Order Amount Limit command but specify the instrument (SecurityID (48)) to which the limit should be applied;
 - Please note that if a specific limit is defined for an instrument or a set of them, the system uses the limit within the "individual OAL" for all specified instruments and considers the "global OAL" for the remaining ones;

- Please note that "Global OAL" is only available for the granularity TargetFirmID (21098) and it's ignored if submitted with TargetLogicalAccessID (21099) populated;
- If the ERGCommand (U68) is sent during the Close phase, it must be accepted.
- If the ERGCommand (U68) is sent during the Inaccessible phase, it must be rejected with ERGCommandAck (U69) and ErrorCode set to "2194 Request forbidden as the book is Inaccessible"
- If the ERGCommand (U68) is sent while Book State is set to "Halted", it must be rejected with ERGCommandAck (U69) and ErrorCode set to "2250 Request forbidden as the book is Halted"
 - During Suspensions, reservations, the command is to be accepted;
- In case the command is sent on a segment which is cross partitions and, the command is submitted through a connection to a partition which is halted or Inaccessible then the command is rejected regardless if the targeted instrument is hosted on that partition or not;
- In case the command is sent on a segment which is cross partition and for some technical reason one or several (but not all) partitions are halted and or in Inaccessible status, the command should be accepted on the partitions that are not halted (assuming the command was submitted through a partition which was not halted or Inaccessible, else the command is rejected);
- In case the command is sent on a segment which is cross partitions and, in those partitions, some instruments
 are halted and others are not, the action triggered by the command will be effective for all instruments only
 if the fact that the partition through which the command is submitted is halted has an impact;
- Regardless of the "Order Entry" parameter value, at Firm and/or Instrument level, the ERGCommand (U68) is to be accepted;
- In case both TargetPartyID (21095) and TargetClientShortCode (21108) are filled the message is rejected;
- In case TargetClientShortCode (21108), TargetPartyID (21095) and TargetLogicalAccessID (21099) are all filled the message is rejected;
- In case TargetClientShortCode (21108) and TargetLogicalAccessID (21099) are both filled or TargetPartyID (21095) and TargetLogicalAccessID (21099) are both filled the message is rejected;
- 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).
- LogicalAccessID (21021) is unique per segment, in order to be able to act upon a given LogicalAccessID (21021), Risk Manager has to connect to the segment at which the LogicalAccessID (21021) is linked to;
- In case the TargetFirmID (21098) is populated and the ERGActionType (21097) is 6 = Order Amount Limit:
 - If other granularities are also populated (one or more) TargetClientShortCode (21108), TargetPartyID (21095) the command must be rejected with ERGCommandAck (U69) and ErrorCode (9955) set to "1524 OAL Command only allowed at FirmID and LogicalAccessID level";
 - If a Risk Manager sends a command to activate OAL for a Firm and another one to activate OAL on a Firm
 + LA, the most restrictive limit should be considered;

Example 1:

Risk Manager	Firm ID	LA ID	OAL Amount 2000	
1	123	ABC		
1	123	-	3000	

- \Rightarrow All orders sent by Firm 1 on a LA different than ABC are validated against the OAL = 3000;
- ⇒ All orders sent by Firm 1 on LA ABC are validated against the OAL = 2000;

Example 2:

Risk Manager	Firm ID	LA ID	OAL Amount		
1	123	ABC	3000		
1	123	-	2000		

- \Rightarrow All orders sent by Firm 1 on a LA different than ABC are validated against the OAL = 2000;
- ⇒ All orders sent by Firm 1 on LA ABC are validated against the OAL = 2000 the most restrictive);
- If TargetFirmID (21098) is a Sponsored Firm and SecurityID (48), SecurityIDSource (22) are not populated neither the EMM (20220) is set to 1 = Central order Book then the message is rejected with ERGCommandAck (U69) and ErrorCode (9955) set to 4016 (Missing Symbol Index);
- If TargetFirmID (21098) is not a Sponsored Firm and SecurityID (48), SecurityIDSource (22) are not populated then the message is rejected with ERGCommandAck (U69) and ErrorCode (9955) set to 4016 (Missing Symbol Index);

- If the OALFlag (21808) field is not populated, the message is rejected with ERGCommandAck (U69) and ErrorCode (9955) set to 1522 (OALFlag (21808) is required for ERGActionType (21097)- set to Order Amount Limit);
- If the OrderAmountLimit (21809) is not populated, the message is rejected with ERGCommandAck (U69) and ErrorCode (9955) set to 1523 (OrderAmountLimit (21809) is required for ERGActionType (21097) is set to Order Amount Limit and OALFlag (21808) is set to Yes);
- If the Risk Manager sends more than one OAL command (Activate/Deactivate) targeting the same Firm/LogicalAccess and instrument, only the last one received is taken into account the previous one(s) are overridden;
- If the ERGCommand (U68) is sent with Purge (21100) to Yes and ERGActionType (21097) is different than Suspend or Block then it must be rejected with ERGCommandAck (U69) and ErrorCode (9955) set to 1533 -Purge not allowed for the selected RiskGuard command;
- If the ERGCommand (U68) is sent with OSLFlag (21101) set to Yes and/or OrderSizeLimit (21102) populated and ERGActionType (21097) is different than OSL then it must be rejected with ERGCommandAck (U69) and ErrorCode (9955) set to 1534 Order Size Limit specific fields only relevant when sending Order Size Limit RiskGuard command
- If the ERGCommand (U68) is sent with OALFlag (21808) set to Yes and/or OrderAmountLimit (21809) populated and ERGActionType (21097) is different than OAL then it must be rejected with ERGCommandAck (U69) and ErrorCode (9955) set to 1535 Order Amount Limit specific fields only relevant when sending Order Amount Limit RiskGuard command
- If the ERGCommand (U68) is sent with ERGActionType (21097) set to OSL or OAL **AND** OSLFlag (21101) and/or OALFlag (21808) set to No **BUT** with OrderSizeLimit (21102) and/or OrderAmountLimit (21809) populated then it must be rejected with ERGCommandAck (U69) and ErrorCode (9955) set to 1536 Order Size Limit and Order Amount Limit only relevant for the activation of Order Size Limit and Order Amount Limit RiskGuard commands, respectively;
- If the ERGCommand (U68) contains the EMM field populated with a valid value when ERGActionType (21097) is different than OAL or OSL then it must be rejected with ERGCommandAck (U69) and ErrorCode (9955) set to 1537 EMM isn't relevant;
- If the ERGCommand (U68) is sent with SecurityID (48) populated when ERGActionType (21097) is different than Block, Unblock, OAL, OSL, MEP then it must be rejected with ERGCommandAck (U69) and ErrorCode (9955) set to 1538 Symbol Index isn't relevant;
- If the ERGCommand (U68) is sent without SecurityID (48) when ERGActionType (21097) is MEP then it must be rejected with ERGCommandAck (U69) and ErrorCode (9955) set to 4016 Missing Symbol Index;
- If the MEPFlag (21811) field is set to "No" and any of the other related MEP fields are populated (MEPBreachAction (21814), MaximumLongExposure (21812), MaximumShortExposure (21813), ThresholdValue (21817) and ThresholdBreachAction (21816)) then it must be rejected with ERGCommandAck (U69) and ErrorCode (9955) set to 1539 Maximum Exposure Position specific fields are only relevant when activating MEP;
- If ERGActionType (21097) is different than MEP and MEPFlag (21811) field is set to "Yes" and/or any of the other related MEP fields are populated (MEPBreachAction (21814), MaximumLongExposure (21812), MaximumShortExposure (21813), ThresholdValue (21817) and ThresholdBreachAction (21816)) then it must be rejected with ERGCommandAck (U69) and ErrorCode (9955) set to 1539 Maximum Exposure Position specific fields are only relevant when activating MEP;
- If the ERGCommand (U68) is sent with MEPFlag (21811) set to "No" and there is no MEP activated at that moment, then the message gets accepted (assuming it's technically valid), an ack is sent back but, as there is no actual change on the status, no notifications are sent to trading member through user notification;
- If the Risk Manager (RM) is not authorized to monitor the TargetFirmID, the message is rejected with ERGCommandAck (U69) and ErrorCode (9955) set to "2586 Risk Manager not Authorized";
- If the ERGCommand (U68) is sent during the Inaccessible phase, it must be rejected with ERGCommandAck (U69) and ErrorCode (9955) set to "2194 - Request forbidden as the book is Inaccessible";
 - For all other phase id's there is no control, meaning, if sent the ERGCommand (U68) is accepted;
- If the ERGCommand (U68) is sent while Book State is set to "Halted", it must be rejected with ERGCommandAck (U69) and ErrorCode (9955) set to "2250 - Request forbidden as the book is Halted"
- Regardless of the "Order Entry" parameter value, at Firm and/or contract level and/or phase id, the ERGCommand (U68) is to be accepted;
- In case the TargetFirmID (21098) is populated and the ERGActionType (21097) is 7 = Maximum Exposure Position:
 - If other granularities are also populated (one or more) TargetClientShortCode (21108), TargetPartyID (21095) and TargetLogicalAccessID (21099) the command must be rejected with ERGCommandAck (U69) and ErrorCode (9955) set to "1524 Risk Guard Command not Allowed";

- If the MEPFlag (21811) field is not populated, the message is rejected with ERGCommandAck (U69) and ErrorCode (9955) set to "1528 - MEPFlag (21811) must be populated when ERGActionType (21097) is set to 7 = Maximum Exposure Exposition;
- If ERGActionType (21097) is set to 7 = Maximum Exposure Exposition and MEPFlag (21811) field is set to "Yes" then:
 - If none of the fields MaximumLongExposure (21812) or MaximumShortExposure (21813) or MEPBreachAction (21814) is provided **but the threshold details are and there is no previous**Max values ⁹for the combination RM + Firm ID + Contract then the message is rejected with ERGCommandAck (U69) and ErrorCode (9955) set to "1529 MaximumLongExposure (21812) AND MaximumShortExposure (21813) AND MEPBreachAction (21814) must be populated when ERGActionType (21097) is set to 7 = Maximum Exposure Exposition and MEPFlag (21811) is set to "Yes";
 - If none of the fields MaximumLongExposure (21812) or MaximumShortExposure (21813) or MEPBreachAction (21814) is provided **but the threshold details are and there is previous Max** values ¹⁰for the combination RM + Firm ID + Contract then the message is accepted and Optiq replaces the threshold details with the new values while keeping the previous values for the max parameters.
 - If none of the MEP related fields, aside from MEPFlag (21811) set to Yes, are provided then the message is rejected with ERGCommandAck (U69) and ErrorCode (9955) set to "1530 – MEP Max values or thresholds must be populated"
- If the value of MaximumLongExposure (21812) AND/OR MaximumShortExposure (21813) is equal to "0", the message should be rejected with the Reject (3) message. In case the Risk Manager intends to activate MEP for the 100% plus the individual thresholds (meaning the threshold details provided within the repeating section which are to be used to have the intermediary, i.e, below 100%, controls of the MEP Position) the following is expected:
 - Send the ERGCommand (U68) with ERGActionType (21097) is set to 7 = Maximum Exposure Position, MEPFlag (21811) set to Y, MaximumLongExposure (21812) as well as MaximumShortExposure (21813), MEPBreachAction (21814) set to the action expected once the 100% is reached plus the repeating section containing the individual thresholds (composed of ThresholdValue (21817) and ThresholdBreachAction (21816));
- In case the Risk Manager intends to fully deactivate MEP the following is expected:
 - Send the ERGCommand (U68) with ERGActionType (21097) is set to 7 = Maximum Exposure Position, MEPFlag (21811) set to N;
- In case the Risk Manager intends to adjust the breach action expected once the 100% is reached plus the max values for long and short exposure while keeping the individual thresholds the following is expected:
 - Send the ERGCommand (U68) with ERGActionType (21097) is set to 7 = Maximum Exposure Position, MEPFlag (21811) set to Y, MEPBreachAction (21814) set to the action expected once the 100% is reached plus MaximumLongExposure (21812) and/or MaximumShortExposure (21812) and no repeating section regarding the details of the individual thresholds;
- In case the Risk Manager intends to adjust the individual thresholds and keep the breach action expected once the 100% is reached as well as the max values for long and short exposure the following is expected:
 - Send the ERGCommand (U68) with ERGActionType (21097) is set to 7 = Maximum Exposure Position, MEPFlag (21811) set to Y, do not provide the MEPBreachAction (21814) used to know the action expected once the 100% is reached neither MaximumLongExposure (21812) or MaximumShortExposure (21813) BUT **provide the repeating section** regarding the details of the individual thresholds. Please note that in case the need is to update only some and not all the individual thresholds then Risk Manager must still provide the details of the ones that are not to be changed as per the "original" command;
- In case the Risk Manager intends to remove the individual thresholds and keep the details of the one
 expected at the 100% as well as the max values for long and short exposure the following is expected:
 - Send the ERGCommand (U68) with ERGActionType (21097) is set to 7 = Maximum Exposure Position, MEPFlag (21811) set to N (from this moment on it's not possible to re-enable the command without sending all details), without providing any further info AND
 - Resubmit an ERGCommand (U68) with ERGActionType (21097) is set to 7 = Maximum Exposure Position, MEPFlag (21811) set to Y plus the MEPBreachAction (21814) used to know the action expected once the 100% is reached **without** providing any of the individual thresholds;

⁹ Previous max values cover the scenario where a MEP Command had been previously sent and got then deactivated

 $^{^{10}}$ Previous max values cover the scenario where a MEP Command had been previously sent and got then deactivated

Note: Risk Managers may want to adjust the Limits (Max short and/or long and keep the previous thresholds) which means the system must keep the threshold values (the ones received in the inbound message) and actions set at that moment and only adjust the exposure;

- The OEG enforces that the threshold values are provided sorted by increasing threshold values and the associated action restrictiveness. Please note that as it's only more restrictive and not "strictly restrictive" which means Risk Managers can set the same action for different thresholds;
 - Restrictiveness rules -from the less restrictive to the more restrictive- are the following:
 - 0 = No Action, Alert Only;
 - 1 = Accept Actions that Decrease the Position Only;
 - 2 = Block Only
 - 3 = Pull all orders and Block;

Example:

- If the ThresholdValue1=80%, and ThresholdValue2=60% for example, AND/OR
- If ThresholdBreachAction1 = "Block" for ThresholdValue1=50%, and ThresholdBreachAction2 = "No Action, Alert only" for ThresholdValue2=75%, the message should be rejected with the following error code "1163 - Sequencing and restrictiveness of the Threshold values and Threshold breach action not respected.
- Restrictiveness rules are the following:
 - 0 = No Action, Alert Only;
 - 1 = Accept Actions that Decrease the Position Only;
 - 2 = Block Only / 3 = Pull all orders and Block at the same level of restrictiveness;

5.3.30.2 Message Structure

TAG	FIELD	SHORT DESCRIPTION	FORMAT	LEN	VALUES	PRESENCE
	<u>Header</u>					
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	<u>SecurityID</u>	Exchange identification code of the instrument/contract.	String	10	From 0 to 2^32-2	Conditional
22	SecurityIDSourc e	Gives the type of SecurityID.	String	1	(See field description)	Conditional
20020	ЕММ	Defines the Exchange Market Mechanism applied on each platform.	Int	2	(See field description)	Conditional
21097	ERGActionType	Specifies the scope of the message.	Int	1	1 = Suspend 2 = Unsuspend 3 = Block 4 = Unblock 5 = Order Size Limit 6 = Order Amount Limit 7 = Maximum Exposure Position	Mandatory
21098	<u>TargetFirmID</u>	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

TAG	FIELD	SHORT DESCRIPTION	FORMAT	LEN	VALUES	PRESENCE
21108	TargetClientSho rtCode	Identifier of the ClientIdentificationShortCode (provided through <i>Parties or NestedParties</i>) to which the action will be applied.	String	11	Alphanumeric	Optional
21099	TargetLogicalAc cessID	Identifier of the Logical Access to which the specified action is to be applied.	Int	10	From 0 to 2^32-2	Optional
21100	<u>Purge</u>	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
21808	OALFlag	Indicates if the Order Amount Limit functionality is to be activated or deactivated.	Boolean	1	Y = True N = False	Conditional
21809	OrderAmountLi mit	Indicates the Maximum Order Amount above which all orders will be rejected by the Matching Engine (applied per order level).	Amount	20	From 0 to 2^64-2	Conditional
21811	MEPFlag	Indicates if the Maximum Exposure Position functionality is to be activated or deactivated.	Boolean	1	Y = True N = False	Conditional
21812	MaximumLongE xposure	Indicates the Maximum Long Exposure limit. For Derivatives it must be populated with a quantity.	Quantity	20	From 1 to 2^64-2	Conditional
21813	MaximumShortE xposure	Indicates the Maximum Short Exposure limit. For Derivatives it must be populated with a quantity.	Quantity	20	From 1 to 2^64-2	Conditional
21814	MEPBreachActio n	This field indicates the type of action that will be triggered when the MEP 100% is breached.	Int	1	0 = No Action, Alert Only 1 = Accept actions that decrease position only 2 = Block Only 3 = Pull all orders and Block	Conditional
21815	<u>NoThresholds</u>	Indicates the Number of repeating sections providing the threshold details.	Int	1	If provided, between 1 and 3	Conditional
21817	<u>ThresholdValue</u>	Defines the percentage of the MEP at which the action might be triggered. The value to be provided is an integer, meaning, in case the Threshold is to be set at 65%, Risk Manager should populate the field with 65.	Int	2	From1 to 99	Conditional

TAG	FIELD	SHORT DESCRIPTION	FORMAT	LEN	VALUES	PRESENCE
21816	ThresholdBreac hAction	This field indicates the type of action that will be triggered when a given threshold is breached.	Int	1	0 = No Action, Alert Only 1 = Accept actions that decrease position only 2 = Block Only 3 = Pull all orders and Block	Conditional
	<u>Trailer</u>					

5.3.31 ERGCommandAck (U69)

Client **◀**OEG

Available for: EQ FND FXI 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.
- Regarding the management of Boolean fields:
 - if the boolean tag is provided in the inbound message, and tag is set to Y and that same tag is part of the outbound message it should be sent set to yes as long as the Boolean field is relevant for the specified ERGActionType (21097), else it won't be sent back;
 - if the boolean tag is provided in the inbound message, and is set to N OR if the tag is not provided in the inbound message (which implicitly means the tag is set to "No") and the tag is part of the structure of the outbound message, the tag appears in the outbound message set to N;

5.3.31.2 Message Structure

TAG	FIELD	SHORT DESCRIPTION	FORMAT	LEN	VALUES	PRESENCE
	<u>Header</u>					
21005	ClientMessageSen dingTime	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	OEGINFromMemb er	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- 999999999 (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 = 00000000- 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 = 00000000- 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 = 00000000- 99999999 (nanoseconds)	Conditional
7764	<u>OEGOUTToME</u>	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
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	<u>TargetFirmID</u>	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 OrderMassCancelReque st (q) or an identifier of the shortcode to which the Risk Guard command is to be applied	String	11	Alphanumeric	Optional
21108	TargetClientshort Code	Identifier of the ClientIdentificationShor tCode (provided through <i>Parties or NestedParties</i>) to which the action will be applied.	String	11	Alphanumeric	Optional

TAG	FIELD	SHORT DESCRIPTION	FORMAT	LEN	VALUES	PRESENCE
21099	TargetLogicalAcce ssID	Identifier of the Logical Access to which the specified action is to be applied.	Int	10	From 0 to 2^32-2	Optional
48	<u>SecurityID</u>	Exchange identification code of the instrument/contract.	String	10	From 0 to 2^32-2	Optional
22	<u>SecurityIDSource</u>	Gives the type of SecurityID.	String	1	(See field description)	Optional
20020	ЕММ	Defines the Exchange Market Mechanism applied on each platform.	Int	2	(See field description)	Optional
21100	<u>Purqe</u>	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
21808	OALFlag	Indicates if the Order Amount Limit functionality is to be activated or deactivated.	Boolean	1	Y = True N = False	Optional
21809	OrderAmountLimit	Indicates the Maximum Order Amount above which all orders will be rejected by the Matching Engine.	Amount	20	From 0 to 2^64-2	Optional
5711	<u>AckStatus</u>	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
21811	MEPFlag	Indicates if the Maximum Exposure Position functionality is to be activated or deactivated.	Boolean	1	Y = True N = False	Conditional
21812	MaximumLongExp osure	Indicates the Maximum Long Exposure limit. For Derivatives it must be populated with a quantity.	Quantity	20	From 1 to 2^64-2	Conditional
21813	MaximumShortEx posure	Indicates the Maximum Short Exposure limit. For Derivatives it must be populated with a quantity.	Quantity	20	From 1 to 2^64-2	Conditional
21814	MEPBreachAction	This field indicates the type of action that will be triggered when MEP 100% is breached.	Int	1	0 = No Action, Alert Only 1 = Accept actions that decrease position only 2 = Block Only 3 = Pull all orders and Block	Conditional

TAG	FIELD	SHORT DESCRIPTION	FORMAT	LEN	VALUES	PRESENCE
21815	<u>NoThresholds</u>	Indicates the Number of repeating sections providing the threshold details.	Int	1	If provided, between 1 and 3	Conditional
21817	<u>ThresholdValue</u>	Defines the percentage of the MEP at which an action might be triggered.	Int	2	From 1 to 99	Conditional
21816	ThresholdBreachA ction	This field indicates the type of action that will be triggered when a given threshold is breached.	Int	1	0 = No Action, Alert Only 1 = Accept actions that decrease position only 2 = Block Only 3 = Pull all orders and Block	Conditional
	<u>Trailer</u>					

5.3.32 ERGMEPBreachAlert (U76)

Client **◀**0EG

Available for: **EQD IDD CMO**

5.3.32.1 Message Description

This message is used to notify the Risk Managers that a given Firm has hit the MEP limit or one/several of the MEP thresholds that were configured by the Risk Manager. In case more than one limit is breached (MEP 100% or the three Thresholds) an ERGMEPBreachAlert (U76) is sent indicating the last threshold that was breached.

<u>Once a limit is breached or multiple limits are breached simultaneously</u>, either the MEP 100% or one/multiple of the three individual thresholds, the following messages are triggered:

- ERGMEPBreachAlert (U76) is sent to the Risk Manager to indicate the breach, providing the new breached threshold;
- UserNotification (CB) is sent to the Firm in case the breach of the threshold has triggered a new "breach action";

When the action associated to the threshold breached is Block or Pull and Block then:

- ERGMEPBreachAlert (U76) is sent each time there is a new threshold in place or no threshold in place anymore plus,
 - for the cases where the breach lead to a block:
 - there is an ERGMEPBreachAlert, at the moment of the block, to indicate it (and UserNotification (CB)) to the trading member) plus
 - assuming there would be a recomputation that in scenarios where the action in place wouldn't be block would lead to the move for another threshold value and the equivalent breach action then ERGMEPBreachAlert (U76) is sent with a new field indicating "still blocked" (no UserNotification (CB) is sent). Meaning, from the moment the firm is in Block status (either because of Block or Pull and Block) no user notification is sent until the Block is actually removed below the details regarding the population of the fields in ERGMEPBreachAlert (U76):
 - assuming the threshold breached was the 100%: Field MEPBreachAction (21814) must be populated, plus ThresholdValue (21817), ThresholdBreachAction (21816) fields to provide the details of the action that was supposed to be in place;
 - assuming the threshold breached wouldn't be 100%: the fields ThresholdValue (21817) plus ThresholdBreachAction (21816) populated with the threshold which would be in place in case the block was deactivated. Field MEPBreachAction (21814) mustn't be sent;
 - assuming the threshold breached would be "no breach at all": the field ThresholdValue (21817) would be set to 0 and fields MEPBreachAction (21814) and ThresholdBreachAction (21816) mustn't be sent;

Concerning the "Cleaning" of previously breached thresholds (i.e, when the exposure is recomputed and it's no longer breaching the defined threshold):

- In case the recomputation leads to a clear of the current threshold to a lower one or to no threshold being breached at all:
 - ERGMEPBreachAlert (U76) is sent to the Risk Manager to indicate the new threshold and action which are activated. In case no more threshold is breached then the ThresholdValue (21817) is sent with 0 and ThresholdBreachAction (21816) is not provided;
 - UserNotification (CB) is sent to the to the trading member to indicate the new threshold and action which are activated;

5.3.32.2 Message Structure

TAG	FIELD	SHORT DESCRIPTION	FORMAT	LEN	VALUES	PRESENCE
	<u>Header</u>					
21098	<u>TargetFirmID</u>	Identifier of the member firm to which the specified action is to be applied.	String	8	Alphanumeric	Mandatory
48	<u>SecurityID</u>	Exchange identification code of the instrument/contract.	String	10	From 0 to 2^32-2	Optional
22	<u>SecurityIDSource</u>	Gives the type of SecurityID.	String	1	(See field description)	Optional
21818	ExposureSide	Indicates the side of the exposure.	Boolean	1	1 = Buy 2 = Sell	Conditional
21819	PositionLimit	Indicates the Maximum Long Exposure or Maximum Short Exposure, depending on the ExposureSide (21818) field.	Quantity	20	From 1 to 2^64-2	Conditional
21820	CurrentExposure	Current Exposure Position, can be negative. Expressed in number of underlying shares when it comes to Equity Derivatives and in number of lots when it comes to Index Derivatives. (to be calculated with Amount or Quantity Decimals).	Quantity	20	From -2^63+1 to 2^63-1	Mandatory
21814	MEPBreachAction	This field indicates the type of action that will be triggered when MEP 100% is breached.	Int	1	0 = No Action, Alert Only 1 = Accept actions that decrease position only 2 = Block Only 3 = Pull all orders and Block	Conditional
21817	<u>ThresholdValue</u>	Defines the percentage of the MEP at which the action might be triggered.	Int	2	From 1 to 99	Conditional
21816	ThresholdBreachA ction	This field indicates the type of action that will be triggered when a given threshold is breached.	Int	1	0 = No Action, Alert Only 1 = Accept actions that decrease position only 2 = Block Only 3 = Pull all orders and Block	Conditional

TAG	FIELD	SHORT DESCRIPTION	FORMAT	LEN	VALUES	PRESENCE
21821	<u>IsBlocked</u>	Indicates if the Firm is blocked or not. If set to Yes, overrides whatever setup is flagged in MEPBreachAction (21814) and/or ThresholdBreachAction (21816).	Boolean	1	Y = True N = False	Optional
	<u>Trailer</u>					

- Fields population when MEP is breached at 100%:
 - All fields but the ThresholdValue (21817), ThresholdBreachAction (21816) must be populated;
- Fields population when one or multiple of the MEP thresholds are breached (either up or down):
 - The message is sent with all the mandatory fields populated plus ThresholdValue (21817), ThresholdBreachAction (21816). The ThresholdValue (21817), ThresholdBreachAction (21816) are the ones currently in usage by the trading engine based on the current exposure except in the scenario where the action is different than Block or Pull and Block and the field IsBlocked (21821) is populated.
 - If the field IsBlocked (21821) is populated it means the action in place is Block or Pull and Block and not the one indicated in the field ThresholdBreachAction (21816);
- Fields population when there is no more a threshold being breached but <u>there is a block in place</u> and MEP is still activated:
 - The message is sent with all the mandatory fields populated plus Thresholdvalue (21817) = 0, meaning "There is no breach of any threshold". In this case ThresholdBreachAction (21816) is not sent.
- Fields population when <u>there are no longer</u> thresholds being breached and Block is not in place but MEP still activated:
 - The message is sent with all the mandatory fields populated plus Thresholdvalue (21817) = 0, meaning "There is no breach of any threshold". In this case ThresholdBreachAction (21816) is not sent.
- Fields population when MEP is deactivated and there were thresholds being breached prior to the deactivation:
 - The message is sent with all the mandatory fields populated plus Thresholdvalue (21817) = 0, meaning "There is no breach of any threshold". In this case ThresholdBreachAction (21816) is not sent, neither the PositionLimit (21819).

5.3.33 GetRiskControls (U70)

Client ▶ OEG

Available for: EQ FND FXI EQD IDD CMO

5.3.33.1 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.

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 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 case both TargetPartyID (21095) and TargetClientShortCode (21108) are filled the message is rejected;
- In case TargetClientShortCode (21108), TargetPartyID (21095) and TargetLogicalAccessID (21099) are all filled the message is rejected;
- In case TargetClientShortCode (21108) and TargetLogicalAccessID (21099) are both filled or TargetPartyID (21095) and TargetLogicalAccessID (21099) are both filled the message is rejected;
- If the **GetRiskControls** (U70) is sent during the Close phase, it must be accepted.

- If the **GetRiskControls** (U70) is sent during the Inaccessible phase, it must be rejected with **ERGCommandAck** (U69) and *ErrorCode* set to "2194 *Request forbidden as the book is Inaccessible"*
- If the **GetRiskControls** (U70) is sent while Book State is set to "Halted", it must be rejected with **RiskControlDetails** (U71) and *ErrorCode* set to "2250 *Request forbidden as the book is Halted*"
 - During Suspensions, reservations, the command is to be accepted;
- Regardless of the "Order Entry" parameter value, at Firm and/or Instrument level, the ERGCommand (U68) is to be accepted;
- In case the command is sent on a segment which is cross partitions and, the command is submitted through a connection to a partition which is halted or Inaccessible then the command is rejected regardless if the targeted instrument is hosted on that partition or not;
- Please note that when sending the GetRiskControls (U70) with RiskControlType (21103) set to 1 = All Parameters even if there is MEP activated, those details won't be sent in the RiskControlDetails (U71). The only way to get the details for MEP is by sending a GetRiskControls (U70) message, with RiskControlType (21103) set to 6 = Maximum Exposure Position and with the info of the SecurityID (48) containing the contract symbol index for which the details are needed. A message needs to be sent **per contract**.
- In case TargetPartyID (21095) or TargetLogicalAccessID (21099) are populated and RiskControlType (21103) is set to "6 = Maximum Exposure Position", the system must ignore them and provide the details at firm level only;
- In case RiskControlType (21103) **is set to 6** = Maximum Exposure Position then SecurityID (48) and SecurityIDSource (22) **must be populated** else the message is rejected with "1531 SecurityID (48) must be provided when RiskControlType (21103) is set to 6 = Maximum Exposure Position"
- In case RiskControlType (21103) is set to **any value other than 6** = Maximum Exposure Position and SecurityID (48)/SecurityIDSource (22) are populated the message is rejected with "1532 SecurityID (48) cannot be populated for RiskControlType (21103) other than 6 = Maximum Exposure Position"

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
ExecutionWithinFirmShortCode	TargetFirmID (21098) and TargetPartyID (21095)
ClientIdentificationShortCode	TargetFirmID (21098) and TargetClientShortCode

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 targeting a given granularity for which no Risk Guard command has been submitted, the message will be rejected with the following error code **"1521 – No ERG command has been set"**;

5.3.33.2 Message Structure

TAG	FIELD	SHORT DESCRIPTION	FORMAT	LEN	VALUES	PRESENCE
	Header					

TAG	FIELD	SHORT DESCRIPTION	FORMAT	LEN	VALUES	PRESENCE
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	<u>TargetFirmID</u>	Identifier of the member firm to which the specified action is to be applied.	String	8	Alphanumeric	Mandatory
21095	<u>TargetPartyID</u>	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	TargetClientShort Code	Identifier of the ClientIdentificationShortCod e (provided through <i>Parties or NestedParties</i>) to which the action will be applied.	String	11	Alphanumeric	Optional
21099	TargetLogicalAcce ssID	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 5 = Order Amount Limit 6 = Maximum Exposure Position	Mandatory
48	<u>SecurityID</u>	Exchange identification code of the instrument/contract.	String	10	From 0 to 2^32-2	Conditional
22	<u>SecurityIDSource</u>	Gives the type of SecurityID.	String	1	(See field description)	Conditional
	<u>Trailer</u>					

5.3.34 RiskControlDetails (U71)

Client **◀**OEG

Available for: EQ FND FXI EQD IDD CMO

5.3.34.1 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.

Regarding the management of Boolean fields:

if the boolean tag is provided in the inbound message, and tag is set to Y and that same tag is part of the outbound message it should be sent set to yes – as long as the Boolean field is relevant for the specified RiskControlType (21103), else it won't be sent back;

if the boolean tag is provided in the inbound message, and is set to N OR if the tag is not provided in the inbound message (which implicitly means the tag is set to "No") and the tag is part of the structure of the outbound message, the tag appears in the outbound message set to N;

Note:

- 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".
- The cascading effect (for example, a given LA gets suspended because the Firm attached to it was suspended) is not reflected in the message meaning, there is no dedicated occurrence of the repeating section to indicate that the LA (lower level when compared to firm) was suspended as a consequence of the firm being suspended;
- For *TargetFirmID* (21098) which are sponsored, in case both the "Global OAL", meaning, sent without specifying the *SecurityID* (48), and "Individual OAL", limit set for a specific instrument, are active then:
 - There is an occurrence of the NoParameters repeating group with SecurityID (48) and SecurityIDSource
 (22) not provided PLUS
 - An occurrence (or multiple depending on the number of instruments for which OAL is activated) of the NoParameters repeating group with SecurityID (48) and SecurityIDSource (22) provided;

5.3.34.2 Message Structure

TAG	FIELD	SHORT DESCRIPTION	FORMAT	LE N	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, 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
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

TAG	FIELD	SHORT DESCRIPTION	FORMAT	LE N	VALUES	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).	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
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- 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, sssssssss = 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
5711	<u>AckStatus</u>	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 5 = Order Amount Limit 6 = Maximum Exposure Position	Mandatory
21107	<u>NoParameters</u>	Indicates the number of control parameters provided after a request of the risk controls.	NumInGroup	3	From 1 to 254	Conditional
21098	<u>TargetFirmID</u>	Identifier of the member firm to which the specified action is to be applied.	String	8	Alphanumeric	Conditional

TAG	FIELD	SHORT DESCRIPTION	FORMAT	LE N	VALUES	PRESENCE
21095	<u>TargetPartyID</u>	Identifier of the ShortCode used as a filter to reduce the scope of the OrderMassCancelReques t (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 ClientIdentificationShort Code (provided through Parties or NestedParties) 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
48	<u>SecurityID</u>	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	ЕММ	Defines the Exchange Market Mechanism applied on each platform.	Int	2	(See field description)	Conditional
21105	<u>ERGStatus</u>	Indicates the Status of the Broker, Logical Access, Trader or ClientIdentificationShort Code.	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	<u>OrderSizeLimit</u>	Indicates the Maximum Order Size above which all orders will be rejected by Matching Engine.	Qty	20	From 0 to 2^64-2	Conditional
21808	OALFlag	Indicates if the Order Amount Limit functionality is to be activated or deactivated.	Boolean	1	Y = True N = False	Conditional
21809	<u>OrderAmountLimit</u>	Indicates the Maximum Order Amount above which all orders will be rejected by Matching Engine.	Amount	20	From 0 to 2^64-2	Conditional
21811	<u>MEPFlag</u>	Indicates if the Maximum Exposure Position functionality is to be activated or deactivated.	Boolean	1	Y = True N = False	Conditional
21812	MaximumLongExpos ure	Indicates the Maximum Long Exposure limit. For Derivatives it must be populated with a quantity.	Quantity	20	From 1 to 2^64-2	Conditional

TAG	FIELD	SHORT DESCRIPTION	FORMAT	LE N	VALUES	PRESENCE
21813	MaximumShortExpo sure	Indicates the Maximum Short Exposure limit. For Derivatives it must be populated with a quantity.	Quantity	20	From 1 to 2^64-2	Conditional
21814	MEPBreachAction	This field indicates the type of action that will be triggered when MEP 100% is breached.	Int	1	0 = No Action, Alert Only 1 = Accept actions that decrease position only 2 = Block Only 3 = Pull all orders and Block	Conditional
21815	NoThresholds	Indicates the Number of repeating sections providing the threshold details.	Int	1	If provided, between 1 and 3	Conditional
21817	ThresholdValue	Defines the percentage of the MEP at which an action might be triggered.	Int	2	From 1 to 99	Conditional
21816	ThresholdBreachActi on	This field indicates the type of action that will be triggered when a given threshold is breached.	Int	1	0 = No Action, Alert Only 1 = Accept actions that decrease position only 2 = Block Only 3 = Pull all orders and Block	Conditional
	<u>Trailer</u>					

5.3.35 InstrumentSynchronizationList (U50)

Client **◀**OEG

Available for: EQ FND FXI SP EQD IDD CMO BLK

5.3.35.1 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.

5.3.35.2 Message Structure

TAG	FIELD	SHORT DESCRIPTION	FORMAT	LEN	VALUES	PRESENCE
	<u>Header</u>					
2003	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
146	<u>NoRelatedSym</u>	Number of related symbols (instruments) in a message.	NumInGr oup	3	From 1 to 254	Mandatory
48	<u>SecurityID</u>	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

	TAG	FIELD	SHORT DESCRIPTION	FORMAT	LEN	VALUES	PRESENCE
	2002 0	<u>EMM</u>	Defines the Exchange Market Mechanism applied on each platform.	Int	2	(See field description)	Mandatory
Ī		<u>Trailer</u>					

5.3.36 SynchronizationTime (U51)

Client **◀**OEG

Available for: EQ FND FXI SP EQD IDD CMO BLK

5.3.36.1 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.

5.3.36.2 Message Structure

TAG	FIELD	SHORT DESCRIPTION	FORMAT	LEN	VALUES	PRESENCE
	<u>Header</u>					
2003	Resynchronization ID	Each instrument is assigned to a Resynchronization ID, that is use in case of failover.	Int	5	From 0 to 2^16-2	Mandatory
2003	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 = 000000000- 999999999 (nanoseconds)	Mandatory
	<u>Trailer</u>					

5.3.37 ClearBook (U75)

Client **◀**OEG

Available for: EQ

5.3.37.1 Message Description

In case of a Trading Chain Failover and under certain circumstances, Market Operations team can trigger the sending of **Clear Book** (U75) message. Kill orders (through **ExecutionReport** message) are sent to members followed by the **ClearBook** (U75) message. Only members having orders on the halted book are concerned.

5.3.37.2 Message Structure

TAG	FIELD	SHORT DESCRIPTION	FORMAT	LEN	VALUES	PRESENCE
	Header					Mandatory
22	SecurityIDSource	Gives the type of SecurityID.	String	1	8 = Symbol Index	Mandatory
48	<u>SecurityID</u>	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	ЕММ	Defines the Exchange Market Mechanism applied on each platform.	String	2	(See field description)	Mandatory
	Trailer					Mandatory

5.3.38 RFQAudit (U72)

Client **◀**OEG

Available for: FND

5.3.38.1 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.

This message is used only for the Cash Markets, 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.

5.3.38.2 Message Structure

TAG	FIELD	SHORT DESCRIPTION	FORMAT	LEN	VALUES	PRESENCE
	<u>Header</u>					
2100	<u>BookINTime</u>	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

TAG	FIELD	SHORT DESCRIPTION	FORMAT	LEN	VALUES	PRESENCE
2100 3	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
7764	<u>OEGOUTToME</u>	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 = 000000000-999999999 (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	<u>SecurityID</u>	Exchange identification code of the instrument/contract.	String	10	From 0 to 2^32-2	Mandatory
22	SecurityIDSour ce	Gives the type of SecurityID.	String	1	(See field description)	Mandatory
2002 0	EMM	Defines the Exchange Market Mechanism applied on each platform.	Int	2	(See field description)	Mandatory
2111	NoRFQCounter parts	Indicates the number of counterpart having participated to the RFQ	NumInGroup	1	From 1 to 50	Conditional
1724	OrderOriginationn	Identifies the origin of the order.	Int	1	(See field description)	Optional
44	<u>Price</u>	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
2005 2	<u>DarkExecutionI</u> <u>nstruction</u>	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	<u>MinQty</u>	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
	<u>Trailer</u>					

5.3.39 **IOI** (6)

Client ▶OEG
Available for: BLK

5.3.39.1 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 ExchangeIOIID
 (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:
 - <u>In case no order</u> 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.
- IOIQltyInd (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".

5.3.39.2 Message Structure

TAG	FIELD	SHORT DESCRIPTION	FORMAT	LEN	VALUES	PRESENCE
	<u>Header</u>					
23	IOIID	Unique identifier of IOI message.	String	20	From -2^63+1 to 2^63-1	Mandatory
28	<u>IOITransType</u>	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	<u>SecurityID</u>	Exchange identification code of the instrument/contract.	String	10	From 0 to 2^32-2	Mandatory
22	<u>SecurityIDSource</u>	Gives the type of SecurityID.	String	1	(See field description)	Mandatory
2002	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	<u>OrderQty</u>	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	<u>NoRoutingIDS</u>	Required if any RoutingType and RoutingIDs are specified.	NumInGrou p	2	From 1 to 10	Mandatory
216	RoutingTypes	Indicates type of RoutingID.	Int	2	2 = Target List	Mandatory

TA	G FIELD	SHORT DESCRIPTION	FORMAT	LEN	VALUES	PRESENCE
21	7 RoutingID	Identifies routing destination.	String	30	BUYSIDE SELLSIDE LOCALSPECIALISTS AMS LOCALSPECIALISTS LIS LOCALSPECIALISTS BRU LOCALSPECIALISTS PAR INTERESTLIST HOLDINGS SELLSIDEQUALITY EURONEXTDRIVEN	Mandatory
	<u>Trailer</u>					

5.3.40 IOINotification (U73)

Client **◀**OEG

Available for: BLK

5.3.40.1 Message Description

IOINotification (U73) is 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 <u>was submitted</u> 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);

5.3.40.2 Message Structure

TAG	FIELD	SHORT DESCRIPTION	FORMAT	LEN	VALUES	PRESENCE
	<u>Header</u>					
2100 5	ClientMessageSen dingTime	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
2100	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

TAG	FIELD	SHORT DESCRIPTION	FORMAT	LEN	VALUES	PRESENCE
2100	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
5979	OEGINFromMemb er	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- 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
23	IOIID	Unique identifier of IOI message.	String	20	From -2^63+1 to 2^63-1	Conditional
2111	ExchangeIOIID	Unique identifier of IOI message, assigned by the Exchange.	String	20	From -2^63+1 to 2^63-1	Conditional
2111	<u>IOIType</u>	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	<u>SecurityID</u>	Exchange identification code of the instrument/contract.	String	10	From 0 to 2^32-2	Mandatory
22	<u>SecurityIDSource</u>	Gives the type of SecurityID.	String	1	(See field description)	Mandatory

TAG	FIELD	SHORT DESCRIPTION	FORMAT	LEN	VALUES	PRESENCE
2002	<u>EMM</u>	Defines the Exchange Market Mechanism applied on each platform.	Int	2	(See field description)	Conditional
54	<u>Side</u>	Indicates the side of the order.	Char	1	1 = Buy 2 = Sell 7 = Undisclosed	Conditional
38	<u>OrderQty</u>	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	<u>ErrorCode</u>	Error code in case of rejection.	Int	5	From 0 to 2^16-2	Conditional
	<u>Trailer</u>					

5.3.41 TradeCaptureReport (AE)

Client ▶OEG Available for: TCS

5.3.41.1 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
- Refusing 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 identificatin 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.
- Following combination of LastCapacity (29) values is rejected:
 - DEAL vs. DEAL
 - DEAL vs. MTCH

- MTCH vs. DEAL
- MTCH vs. MTCH

Cancellation of a Declaration already matched can be sent by either sending the TradeID (1003) with the Declaration ID or either by sending the RegulatoryTradeID (1903) with the Trade Unique Identifier. In case both are sent, the TradeID (1003) is ignored by Optiq.

5.3.41.2 Message Structure

TAG	FIELD	SHORT DESCRIPTION	FORMAT	LEN	VALUES	PRESENCE
	<u>Header</u>					
571	<u>TradeReportID</u>	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	<u>TradeReportTransTy</u> <u>pe</u>	Trade Report Transaction Type.	Int	1	0 = New 1 = Cancel	Mandatory
856	<u>TradeReportType</u>	Trade Report Type.	Int	1	1 = Alleged3 = Decline6 = Trade Report Cancel	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
2002 0	EMM	Defines the Exchange Market Mechanism applied on each platform.	String	2	(See field description)	Mandatory
1907	NoRegulatoryTradeI Ds	Number of RegulatoryTradeIDGrp entries.	NumInGro up	1	If provided, 1	Optional
1903	<u>RegulatoryTradeID</u>	Trade identifier required by government regulators or other regulatory organizations for regulatory reporting purposes. When RegulatoryTradeIDType (1906) = 5 (TVTIC) this field is filled by the Trade Unique Identifier.	String	16	(See field description)	Optional
1906	RegulatoryTradeIDTy pe	Specifies the type of trade identifier provided in RegulatoryTradeID(1903).	Int	1	5 = TVTIC	Optional
552	<u>NoSides</u>	Number of sides.	NumInGro up	1	If provided, from 1 to 2	Conditional
54	<u>Side</u>	Indicates the side of the order.	Char	1	1 = Buy 2 = Sell	Conditional

TAG	FIELD	SHORT DESCRIPTION	FORMAT	LEN	VALUES	PRESENCE
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
2015 5	<u>PrincipalCode</u>	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	<u>Price</u>	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	<u>NoPartyIDs</u>	Number of PartyID entries.	NumInGro up	1	If provided, from 1 to 2	Conditional
448	<u>PartyID</u>	Party identifier/code. See PartyIDSource (447) and PartyRole (452).	String	11	Alphanumeric	Conditional
447	<u>PartyIDSource</u>	Source of PartyID value.	Char	1	D = Proprietary / Custom code P = Short code identifier	Conditional
452	<u>PartyRole</u>	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	<u>PartyRoleQualifier</u>	Used to further qualify the value of PartyRole(452).	Int	2	22 = Algorithm 23 = Firm or legal entity 24 = Natural person	Conditional
2106 5	MICofSecondaryListi ng	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	<u>NoOrderAttributes</u>	Number of order attribute entries.	NumInGro up	1	If provided, from 1 to 2	Optional

TAG	FIELD	SHORT DESCRIPTION	FORMAT	LEN	VALUES	PRESENCE
2594	<u>OrderAttributeType</u>	The type of order attribute.	Int	1	0 = Aggregated order 1 = Pending allocation 3 = Risk reduction order	Optional
2595	<u>OrderAttributeValue</u>	The value associated with the order attribute type specified in OrderAttributeType (2594).	String	1	Y = Yes	Optional
539	<u>NoNestedPartyIDs</u>	Number of NestedPartyID entries.	NumInGro up	1	If provided, from 1 to 3	Conditional
524	<u>NestedPartyID</u>	Party identifier/code. See NestedPartyIDSource (525) and NestedPartyRole (538).	String	11	Alphanumeric	Conditional
525	<u>NestedPartyIDSource</u>	Source of NestedPartyID value.	Char	1	D = Proprietary / Custom code P = Short code identifier	Conditional
538	<u>NestedPartyRole</u>	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	NestedPartyRoleQual ifier	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
2106 3	<u>DeferralIndicator</u>	Trade publication type indicator. Indicates whether the publication is immediate or not (differed). (1: Immediate; 0: Differed)	Char	1	0 = False 1 = True	Conditional
1005 5	SettlPeriod	[N/A] Indicates the settlement delay in trading days, from 0 to 30 days. (Not relevant anymore, TCS is using the Settlement Period defined in the referential at instrument level).	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

TAG	FIELD	SHORT DESCRIPTION	FORMAT	LEN	VALUES	PRESENCE
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
1002 6	<u>VWAPBegTime</u>	Start time for the Volume Weight Average price computation period.	UTCTimest amp	27	YYYYMMDD- HH:MM:SS.sss. nnn	Optional
1002 7	VWAPEndTime	End time for the Volume Weight Average price computation period.	UTCTimest amp	27	YYYYMMDD- HH:MM:SS.sss. nnn	Optional
381	GrossTradeAmt	Total amount of a Declaration.	Amt	9	Amount	Conditional
2106 8	<u>CentralisationDate</u>	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
	<u>Header</u>					

5.3.42 TradeCaptureReportAck (AR)

Client **◀**OEG Available for: TCS

5.3.42.1 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.

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)

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 TCS trades

The different ways to get a TCS trade TVTIC are:

- Using the public Market Data feed, getting the Trade Unique Identifier field in the Full Trade Information (1004) message;
- Using the private Order Entry feed, getting the RegulatoryTradeID for which RegulatoryTradeIDType equals 5
 (TVTIC) from the FIX TradeCaptureReportAck (AR) message

5.3.42.2 Message Structure

TAG	FIELD	SHORT DESCRIPTION	FORMAT	LEN	VALUES	PRESENCE
	<u>Header</u>					
571	<u>TradeReportID</u>	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	<u>TrdRptStatus</u>	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
2002 0	<u>EMM</u>	Defines the Exchange Market Mechanism applied on each platform.	String	2	(See field description)	Conditional
1907	NoRegulatoryTradeIDs	Number of RegulatoryTradeIDGrp entries.	NumInGrou p	1	If provided, 1	Conditional

TAG	FIELD	SHORT DESCRIPTION	FORMAT	LEN	VALUES	PRESENCE
1903	RegulatoryTradeID	Trade identifier required by government regulators or other regulatory organizations for regulatory reporting purposes. When RegulatoryTradeIDType (1906) = 5 (TVTIC) this field is filled by the Trade Unique Identifier.	String	16	(See field description)	Conditional
1906	RegulatoryTradeIDTyp e	Specifies the type of trade identifier provided in RegulatoryTradeID(1903).	Int	1	5 = TVTIC	Conditional
2106 5	MICofSecondaryListin g	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
1004	PreMatchingIndicator	Pre-matching delay indicator for a TCS Declaration.	Int	1	(See field description)	Conditional
60	TransactTime	Indicates the time of message transmission (Format: YYYYMMDD-HH:MM:SS.ssssssss).	UTCTimest amp	27	Valid values: YYYY = 0000- 9999, MM = 01-12, DD = 01-31, HH = 00-23, MM = 00-59, SS = 00-59, ssssssss = 00000000- 99999999 (nanoseconds)	Conditional
2670	TrdRegPublicationRea son	Waiver Indicator. ESMA description of the field: Indication as to whether the transaction was executed under a pretrade waiver in accordance with Articles 4 and 9 of Regulation (EU) 600/2014.	Int	2	(See field description)	Conditional
552	<u>NoSides</u>	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	<u>AccountCode</u>	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

TAG	FIELD	SHORT DESCRIPTION	FORMAT	LEN	VALUES	PRESENCE
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
2015 5	<u>PrincipalCode</u>	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	<u>Price</u>	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	<u>NoPartyIDs</u>	Number of PartyID entries.	NumInGrou p	1	If provided, from 1 to 2	Conditional
448	<u>PartyID</u>	Party identifier/code. See PartyIDSource (447) and PartyRole (452).	String	11	Alphanumeric	Conditional
447	<u>PartyIDSource</u>	Source of PartyID value.	Char	1	D = Proprietary / Custom code	Conditional
452	<u>PartyRole</u>	Identifies the type or role of the PartyID (448) specified.	Int	3	1 = Executing Firm 17 = Contra Firm	Conditional
2376	<u>PartyRoleQualifier</u>	Used to further qualify the value of PartyRole(452).	Int	2	23 = Firm or legal entity	Conditional
539	<u>NoNestedPartyIDs</u>	Number of NestedPartyID entries.	NumInGrou p	1	If provided, from 1 to 2	Conditional
524	<u>NestedPartyID</u>	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	<u>NestedPartyRole</u>	Identifies the type or role of the NestedPartyID (524) specified.	Int	3	4 = Clearing Firm 17 = Contra Firm 122 = Investment decision maker	Conditional
2384	NestedPartyRoleQualif ier	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
1005 5	SettlPeriod	[N/A] Indicates the settlement delay in trading days, from 0 to 30 days. (Not relevant anymore, TCS is using the Settlement Period defined in the referential at instrument level).	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

TAG	FIELD	SHORT DESCRIPTION	FORMAT	LEN	VALUES	PRESENCE
9971	<u>GuaranteeFlaq</u>	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
1002 6	<u>VWAPBegTime</u>	Start time for the Volume Weight Average price computation period.	UTCTimest amp	27	YYYYMMDD- HH:MM:SS.sss. nnn	Optional
1002 7	<u>VWAPEndTime</u>	End time for the Volume Weight Average price computation period.	UTCTimest amp	27	YYYYMMDD- HH:MM:SS.sss. nnn	Optional
381	<u>GrossTradeAmt</u>	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
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	<u>ErrorCode</u>	Error code in case of rejection.	Int	5	From 0 to 2^16- 2	Conditional
372	<u>RefMsgType</u>	The MsgType (35) of the FIX message being referenced.	String	3	Value received in the rejected inbound message, if any	Conditional
2106 8	<u>CentralisationDate</u>	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
2104 0	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 9 = Euronext Clearing	Conditionnal
	<u>Header</u>					

5.3.43 FundPriceInput (U44)

Client ▶OEG Available for: TCS

5.3.43.1 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'.

5.3.43.2 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	<u>SecurityID</u>	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
2002	EMM	Defines the Exchange Market Mechanism applied on each platform.	String	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
1005 3	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

5.3.44 FundPriceInputAck (U45)

Client **◀**OEG Available for: TCS

5.3.44.1 Message Description

The **FundPriceInputAck** (U45) message is sent to provide the positive acknowlewdgement of a previously submitted **FundPriceInput** (U44) message.

5.3.44.2 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	SecurityIDSourc e	Gives the type of SecurityID.	String	1	8 = Symbol Index	Mandatory

TAG	FIELD	SHORT DESCRIPTION	FORMAT	LEN	VALUES	PRESENCE
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
2002	ЕММ	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
1005	ByPassControlFI ag	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

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) TradeCaptureReportAck (AR)
Used For	Cash and Derivatives

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 5 = Assigned Broker 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) NewOrderSingle (D) OrderCancelReplaceRequest (G) OrderMassCancelReport (r) OrderMassCancelRequest (q) NewWholesaleOrder (U64)

	CrossOrder (U67)
	QuoteRequest (R)
	RFQNotification (U35)
	<u>TradeCaptureReport (AE)</u>
	TradeCaptureReportAck (AR)
Used For	Cash and Derivatives

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

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
	3 = Use of Cross Partition
	4 = Internal1
	5 = Internal2
	6 = Execution Upon Entry flag Enabled
0 1111	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

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

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

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

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	<u>Header</u>
Used For	Cash and Derivatives

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

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.
Format	Int
Length	5
Possible Values	From 0 to 2^16-1
Used In	NewWholesaleOrder (U64) WholesaleOrderAck (U65)
Used For	Derivatives

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

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

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

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	<u>Header</u>
Used For	Cash and Derivatives

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)
	<u>QuoteRequestReject (AG)</u>
	RequestAckMessage (Uy)
	RFQLPMatchingStatus (U37)
	RFQMatchingStatus (U36)
	RFQNotification (U35)
	SecurityDefinition (d)
	RFQAudit (U72)
	ERGCommandAck (U69)
	RiskControlDetails (U71)
	IOINotification (U73)
Used For	Cash and Derivatives

BookOUTTime

Tag	21003
Description	Matching Engine OUT time (in ns), when message leaves 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 = $00-59$, sssssssss = $000000000-9999999999$ (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

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

${\bf Buy Revision Indicator}$

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

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 2 = Bilateral Settlement Traditional Model 3 = LCH Limited 5 = SIX x-clear 6 = EuroCCP 7 = Bilateral Settlement Italian Model 9 = Euronext Clearing
Conditions	This field is mandatory when a transaction is cleared by a CCP.
Used In	TradeCaptureReportAck (AR)
Used For	TCS (Cash)

CentralisationDate

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

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

Tag	9945
Description	Instrument Trading Group / Class Identifier.
Format	String
Length	2
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

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

ClientMessageSendingTime

Tag	21005
Description	Indicates the time of inbound 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, sssssssss = 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)
	WholesaleOrderAck (U65)
	ERGCommandAck (U69)
	RiskControlDetails (U71)
	IOINotification (U73)
Used For	Cash and Derivatives

CIOrdID

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 ClOrdID (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 ClOrdID (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) OrderCancelReplaceRequest (F) OrderMassCancelReport (r) OrderMassCancelRequest (q) OwnershipRequest (U18) 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

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

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

Tag	9930
Description	[N/A] (Not used anymore) 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

Tag	375
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
	`9': Euronext Clearing
	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,
	- a transaction performed on the Public Auctions Market (VPU),
	- a transaction performed on a non-clearable 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

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

CurrentExposure

Tag	21820
Description	Current Exposure Position. Can be negative. Expressed in number of underlying shares when it comes to Equity Derivatives and in number of lots when it comes to Index Derivatives. (to be calculated with Quantity Decimals).
Format	Quantity
Length	20
Possible Values	From -2^63+1 to 2^63-1
Used In	ERGMEPBreachAlert (U76)
Used For	Derivatives

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

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 - Deprecated 2 = Displayed Order Interaction - Deprecated 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

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	DESCRIBALISHDE ATOR
Tag	21063
Description	Trade publication type indicator. Indicates whether the publication is immediate or not (differed). (1: Immediate; 0: Differed)
Possible Values	0 = False
	1 = True
Conditions	For TradeCaptureReport (AE) message, it is mandatory when TrdType = '51', '1001' or '1004'.
Used In	<u>TradeCaptureReport (AE)</u>
Used For	TCS (Cash and Derivatives)

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	<u>Header</u>
Used For	Cash and Derivatives

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
Length20	
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) OrderCancelReplaceRequest (G)
Used For	Cash

${\bf Disclosed Qty Rand Indicator}$

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	In NewOrderSingle (D) and OrderCancelReplaceRequest (G), mandatory if OrdType (40) = X (Iceberg).
Used In	ExecutionReport (8)
	NewOrderSingle (D)
	OrderCancelReplaceRequest (G)
Used For	Cash and Derivatives



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; - 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 (AF)

	OwnershipRequest (U18)
	PriceInput (UI)
	QuoteRequest (R) RequestAckMessage (Uk)
	RequestAckMessage (Uy)
	RequestForExecution (UM)
	RFQLPMatchingStatus (U37)
	RFQMatchingStatus (U36)
	RFQNotification (U35)
	RequestForImpliedExecution (U66)
	CrossOrder (U67)
	ERGCommand (U68)
	ERGCommandAck (U69)
	TradeCaptureReport (AE)
	TradeCaptureReportAck (AR)
	FundPriceInput (U44)
	FundPriceInputAck (U45)
	RFQAudit (U72)
	IOI (6)
	IOINotification (U73)
	ClearBook (U75)
Used For	Cash and Derivatives

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

Tag	16
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

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
	6 = Order Amount Limit
	7 = Maximum Exposure Position
Used In	ERGCommand (U68)
Used For	Cash and Derivatives

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	Cash and Derivatives

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)
	WholesaleOrderAck (U65)
	ERGCommandAck (U69)
	RiskControlDetails (U71)
	TradeCaptureReportAck (AR)
	IOINotification (U73)
Used For	Cash and Derivatives

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

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

ExchangeIOIID

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; - to notify counterparties that an existing indication of interest was cancelled; - to notify counterparties that an existing indication of interest was modified;
Used In	IOINotification (U73)
Used For	Cash

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

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

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
rossible values	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
	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
	t = Order cancelled due to Static Collars
	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
	- = Order cancelled due to Order Price Control Collar breach attempt
	^ = Order cancelled due to Execution Prevention Across All Firms

	* = Cancelled due to Breach of MEP set by a clearing risk manager
	# = Cancelled due to Breach of MEP set by a member risk manager
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

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.
	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

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

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

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, sssssssss = 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

ExposureSide

Tag	21818
Description	Indicates the side of the exposure. This field must always be populated for Derivatives and not be sent for Cash.
Format	Int
Length	1
Possible Values	1 = Buy 2 = Sell
Conditions	For User status related to MEP: when value is "135 = MEP Activated by Risk Manager, 136 = MEP Deactivated by Risk Manager" ExposureSide (21818) tag is not sent. For User status not related to MEP: ExposureSide (21818) tag is never sent.
Used In	<u>UserNotification (CB)</u> <u>ERGMEPBreachAlert (U76)</u>
Used For	Derivatives



FRMARAMPLP

Tag	21801
Description	Indicates whether the order is subject to French Market Abuse Regulation Accepted Market Practice Liquidity provision (FR MAR AMP LP) or not. French Market Abuse Regulation Accepted Market Practice Liquidity provision is related to the AMAFI (Association française des marchés financiers) market abuse prevention.
Format	Char
Length	1
Possible Values	0 = Not subject to FR MAR AMP LP (AMAFI) (default) 1 = Subject to FR MAR AMP LP (AMAFI)
Used In	ExecutionReport (8) OrderCancelReplaceRequest (G) NewOrderSingle (D)
Used For	Cash

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)
Used For	Derivatives

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

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

GrossTradeAmt

1-11-1-10-10/6/101	
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)
	<u>TradeCaptureReportAck (AR)</u>
Used For	TCS (Cash and Derivatives)

GuaranteeFlag

ETELD MAINE	
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)
	<u>TradeCaptureReportAck (AR)</u>
Used For	TCS (Cash and Derivatives)



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

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

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

${\bf Instrument Scope Security ID Source}$

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	UserNotification (CB)
Used For	Cash and Derivatives

IOIQItyInd

Tag	25
Description	Relative Quality of the indication of interest.
Format	Char
Length	1
Possible Values	H = High L = Low M = Medium
Used In	IOI (6) IOINotification (U73)

Used For	Cash

IOIQty

Tag	27
Description	Indication of the size of the indication of interest.
Format	Char
Length	1
Possible Values	S = Small
	M = Medium
	L = Large
	U = Undisclosed Qty
Used In	<u>IOI (6)</u>
	IOINotification (U73)
Used For	Cash

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: - attempting to cancel or modify a previously submitted indication of interest; In IOINotification (U73) provided when: - the message is being sent to acknowledge the cancellation or modification of a previously submitted indication of interest;
Used In	IOI (6) IOINotification (U73)
Used For	Cash

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

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
Used In	IOINotification (U73)
Used For	Cash

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 ExchangeIOIID (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

IsBlocked

Tag	21821
Description	Indicates if the Firm is blocked or not. If set to Yes, overrides whatever setup is flagged in MEPBreachAction (21814) and/or ThresholdBreachAction (21816).
Format	Boolean
Length	1
Possible Values	Y = True
	N = False
Used In	ERGMEPBreachAlert (U76)
Used For	Derivatives



KillReason

Tag	Not Applicable
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
	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

Tag	20031
Description	Last Matching Engine In Time (in ns) processed on the associated ResynchronizationID. (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 = $00-59$, sssssssss = $000000000-9999999999$ (nanoseconds)
Used In	SynchronizationTime (U51)
Used For	Cash and Derivatives

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 F	or	Cash and Derivatives

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

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

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	<u>Header</u>
Used For	Cash and Derivatives

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).

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

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

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

LegID

Tag	1788
Description	Unique identifier for the leg within the context of a message.
Format	String
Length	10
Possible Values	From 0 to 2^32-2
Used In	ExecutionReport (8)
Used For	Derivatives

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

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

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

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 Deltaneutral 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) message. 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

Tag	1358
Description	Type of the option as leg.
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

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

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

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

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

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

Tag	600
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

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

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

Tag	21021
Description	Identifier of the Logical Access.
Format	Int
Length	10
Possible Values	From 0 to 2^32-2
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) UserNotification (CB) OrderCancelReject (9)
Used For	Cash and Derivatives

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. For Cash Markets this field is ignored except for IPO where this field is used to provide the information of the tax code.
Format	String
Length	16
Possible Values	(see field description)
Conditions	For Cash Markets, the field is mandatory to provide the information of the tax code for IPO else the field will be ignored.
Used In	ExecutionReport (8) NewOrderSingle (D) OrderCancelReplaceRequest (G) NewWholesaleOrder (U64) CrossOrder (U67)
Used For	Derivatives

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)
Used For	Cash

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

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

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 (cash and derivatives) or a contract (derivatives only) A = Cancel orders for a security group
Used In	OrderMassCancelReport (r) OrderMassCancelRequest (q)
Used For	Cash and Derivatives

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

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

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

${\bf Maximum Long Exposure}$

Tag	21812
Description	Indicates the Maximum Long Exposure limit. For Derivatives it must be populated with a quantity. (to be calculated with Quantity Decimals).
Format	Quantity
Length	20
Possible Values	From 0 to 2^64-2
Conditions	In ERGCommand (U68), required when ERGActionType (21097) is set to $7 = Maximum$ Exposure Position and MEPFlag (21811) is set to $Y = True$.
Used In	ERGCommand (U68) ERGCommandAck (U69) GetRiskControls (U70) RiskControlDetails (U71)
Used For	Derivatives

${\bf Maximum Short Exposure}$

Tag	21813
Description	Indicates the Maximum Short Exposure limit. For Derivatives it must be populated with a quantity. (to be calculated with Quantity Decimals).
Format	Quantity
Length	20
Possible Values	From 0 to 2^64-2
Conditions	In ERGCommand (U68), required when ERGActionType (21097) is set to $7 = Maximum$ Exposure Position and MEPFlag (21811) is set to $Y = True$.
Used In	ERGCommand (U68) ERGCommandAck (U69) GetRiskControls (U70) RiskControlDetails (U71)
Used For	Derivatives

MEPFlag

Tag	21811
Description	Indicates if the Maximum Exposure Position functionality is to be activated or deactivated.
Format	Boolean

Length	1
Possible Values	Y = True
	N = False
Conditions	In ERGCommand (U68), required when ERGActionType (21097) is set to 7 = Maximum Exposure Position.
Used In	ERGCommand (U68)
	ERGCommandAck (U69)
	RiskControlDetails (U71)
Used For	Derivatives

MEPBreachAction

Tag	21814
Description	This field indicates the type of action that will be triggered when the MEP 100% is breached.
Format	Int
Length	1
Possible Values	0 = No Action, Alert Only 1 = Accept actions that decrease position only 2 = Block Only 3 = Pull all orders and Block
Used In	ERGCommand (U68) ERGCommandAck (U69) RiskControlDetails (U71) ERGMEPBreachAlert (U76)
Used For	Derivatives

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
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

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).
	Must be provided when field DarkExecutionInstruction (20052) bit in position 5 from the left (corresponding

	to Minimum Quantity Type) is equal to 1 (MES), else the order could never be executed during the RFQ matching mechanism
Used In	ExecutionReport (8) NewOrderSingle (D) QuoteRequest (R) RFQNotification (U35) RFOAudit (U72)
Used For	Cash and Derivatives

MICofSecondaryListing

THE DEMARK	
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

111 10 144 61	
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	<u>TradeCaptureReportAck (AR)</u>
Used For	TCS (Cash)

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	<u>Header</u>
Used For	Cash and Derivatives

MsgType

Tag	35

Description	Specifies the Message type.
Format	String
Length	3
Possible Values	0 = Heartbeat
rossible values	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
	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 U76 = ERGMEPBreachAlert
	U50 = InstrumentSynchronizationList
	U51 = SynchronizationTime
	AE = TradeCaptureReport
	AR = TradeCaptureReportAck
	U44 = FundPriceInput
	U45 = FundPriceInputAck
Used In	Header
Used For	Cash and Derivatives
0360 101	Cash and Derivatives



${\bf NestedOrderAttributeType}$

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

Tag	21088
Description	The value associated with the order attribute type specified in NestedOrderAttributeType (21087).
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

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

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) OrderCancelReplaceRequest (G) NewWholesaleOrder (U64) WholesaleOrderAck (U65) RequestForImpliedExecution (U66) CrossOrder (U67) TradeCaptureReport (AE) TradeCaptureReportAck (AR)
Used For	Cash and Derivatives

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

${\bf Nested Party Role Qualifier}$

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. 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

${\bf NextExpected Msg Seq Num}$

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

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

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.
Used In	<u>UserNotification (CB)</u>
Used For	Cash and Derivatives

NoLegs

Tag	555
Description	Number of legs entries for the requested strategy.
Format	NumInGroup
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

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

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)

	CrossOrder (U67)
	<u>TradeCaptureReport (AE)</u>
	<u>TradeCaptureReportAck (AR)</u>
Used For	Cash and Derivatives

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 (UI)
	NewWholesaleOrder (U64) WholesaleOrderAck (U65) RequestForImpliedExecution (U66) CrossOrder (U67) TradeCaptureReport (AE)
Used For	Cash and Derivatives

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

Tag	21107
Description	Indicates the number of control parameters provided after a request of the risk controls.
Format	NumInGroup
Length	3
Possible Values	From 1 to 254
Used In	RiskControlDetails (U71)
Used For	Derivatives

NoPartyIDs

Tag	453
Description	Number of PartyID entries.
Format	NumInGroup
Length	1
Possible Values	From 1 to 2
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 (AE) TradeCaptureReport (AE) TradeCaptureReportAck (AR)
Used For	Cash and Derivatives

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

Tag	296
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

NoRegulatoryTradeIDs

Tag	1907
Description	Number of RegulatoryTradeIDGrp entries.
Format	NumInGroup
Length	2
Possible Values	From 1 to 33
Conditions	In ExecutionReport (8): Provided for Trade Creation or Trade Cancellation. In TradeCaptureReportAck (AR): Provided for Declaration fully matched.
Used In	ExecutionReport (8) TradeCaptureReportAck (AR) TradeCaptureReport (AE)
Used For	Cash and Derivatives

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

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

Tag	552
Description	Number of sides.
Format	NumInGroup
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

Tag	21110
Description	Indicates the number of counterpart having participated to the RFQ.
Format	NumInGroup
Length	1
Possible Values	From 1 to 50
Used In	RFQAudit (U72)
Used For	Cash

NoThresholds

Tag	21815
Description	Indicates the Number of repeating sections providing the threshold details.
Format	NumInGroup
Length	1
Possible Values	From 1 to 3
Used In	ERGCommand (U68)
	ERGCommandAck (U69)
	GetRiskControls (U70)
	RiskControlDetails (U71)
Used For	Derivatives

NumberOfLPs

Tag	21034
Description	Indicates the number of LP answers to the RFQ (whether they can be executed or not)
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



OALFlag

Tag	21808
Description	Indicates if the Order Size Limit functionality is to be activated or deactivated.
Format	Boolean
Length	1
Possible Values	Y = True
	N = False
Conditions	In ERGCommand (U68), required when ERGActionType (21097) is set to 6 = Order Amount Limit.
Used In	ERGCommand (U68)
	ERGCommandAck (U69)
	GetRiskControls (U70)

	RiskControlDetails (U71)
Used For	Cash

OEPartitionID

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)
Used For	Cash and Derivatives

OEGINFromME

Tag	7765
Description	Gateway IN time from ME (in ns), measured when outbound message enters the gateway (Format: YYYYMMDD-HH:MM:SS.ssssssss).
Format	UTCTimestamp
Length	27
Possible Values	Valid values: YYYY = 0000-9999, $MM = 01-12$, $DD = 01-31$, $HH = 00-23$, $MM = 00-59$, $SS = 00-59$, $SSSSSSSSS = 000000000-999999999$ (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) IOI (6) IOINotification (U73)

Used For	Cash and Derivatives

OEGINFromMember

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 = $00-59$, sssssssss = $000000000-999999999$ (nanoseconds)
Used In	ExecutionReport (8) MassQuoteAck (b) OrderCancelReject (9) OrderMassCancelReport (r) QuoteRequestReject (AG) RequestAckMessage (Uy) SecurityDefinition (d) WholesaleOrderAck (U65) ERGCommandAck (U69) RiskControlDetails (U71) IOI (6) IOINotification (U73)
Used For	Cash and Derivatives

OEGOUTTOME

Tag	7764
Description	Gateway OUT time to ME (in ns), measured when inbound message leaves 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 = $00-59$, sssssssss = $000000000-9999999999$ (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

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

Tag	1748
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 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

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

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

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

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	<u>Header</u>
Used For	Cash and Derivatives

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

OrderAmountLimit

Tag	21809
Description	Indicates the Maximum Order Amount above which all orders will be rejected by the Matching Engine (applied per order level). (to be calculated with Amount Decimals).
Format	Amount
Length	20
Possible Values	From 0 to 2^64-2
Conditions	In ERGCommand (U68), required when ActionType (21097) is set to $6 = 0$ Order Amount Limit and OALFlag (21808) is set to $Y = 0$ True.
	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)
	<u>UserNotification (CB)</u>
Used For	Cash

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)
Used For	Cash

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

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

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) IOI (6) IOINotification (U73)
Used For	Cash and Derivatives

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 . 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

OrderTolerablePrice

FIELD NAME	PRICE
<u>Tag</u>	<u>21822</u>
<u>Description</u>	Allows the RFC Initiator to provide an improving tolerable price on the non-client side of the cross. This tolerable price is intended to anticipate possible price improvements, generated by RFC Reactors. In case RFC Initiator does not want to match RFC Reactors improved prices, this new field shall not be sent. (to be calculated with Price/Index Level Decimals).
<u>Format</u>	<u>Price</u>
<u>Length</u>	<u>20</u>
<u>Possible Values</u>	From -2^63+1 to 2^63-1
Conditions	In ExecutionReport (8) provided only when this message is sent as with ExecType (150) = 2 (Cross Order Ack), only for the House leg of the RFC and only when provided in the inbound request.
<u>Used In</u>	CrossOrder (U67) ExecutionReport (8)
<u>Used For</u>	<u>Derivatives</u>

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.
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. In ExecutionReport (8), field is not provided when related to acknowledgment of QuoteRequest (R) message.
Used In	ExecutionReport (8)

	OrderCancelRequest (F) CrossOrder (U67)
	OrderCancelRequest (G) OrderCancelRequest (F)
	NewOrderSingle (D)

${\bf Order Attribute Type}$

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) LiquidityProviderCommand (UZ) 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)
Used For	Cash and Derivatives

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) LiquidityProviderCommand (UZ) 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

OrderCapacity

Tag	528
Description	Indicates for a cross order 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 NewOrderSingle (D), filled for Cross Orders.
Used In	NewOrderSingle (D)
Used For	Cash and Derivatives

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) CrossOrder (U67) RFQAudit (U72) TradeCaptureReport (AE)
Used For	Cash and Derivatives

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
	K = Move Dark to COB as Limit
	<u>L = Move Dark to COB as Market</u>
	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

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) only. If both OrigClOrdID and ClOrdID are provided in a modification or cancellation request, the <i>OrigClOrdID</i> is totally ignored and the request is performed on OrderID only, and then only OrderID is present in ExecutionReport(8).
Used In	ExecutionReport (8) OrderCancelReplaceRequest (G) OrderCancelRequest (F) OrderMassStatusRequest (AF) OwnershipRequest (U18)
Used For	Cash and Derivatives

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, $MM = 01-12$, $DD = 01-31$, $HH = 00-23$, $MM = 00-59$, $SS = 00-$
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	<u>Header</u>
Used For	Cash and Derivatives

OSLFlag

Tag	21101
Description	Indicates if the Order Size Limit functionality is to be activated or deactivated.
Format	Boolean
Length	1
Possible Values	Y = True
	N = False
Conditions	In ERGCommand (U68), required when ERGActionType (21097) is set to 5 = Order Size Limit.
Used In	ERGCommand (U68)
	ERGCommandAck (U69)
	GetRiskControls (U70)
	RiskControlDetails (U71)
Used For	Derivatives



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

ParentRegulatoryTradeID

Tag	21807
Description	Trade unique identifier of the strategy.
Format	String
Length	16
Possible Values	Alphanumeric
Conditions	Provided in case of leg trade cancellation.
Used In	ExecutionReport (8)
Used For	Derivatives

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

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) TradeCaptureReportAck (AR)
Used For	Cash and Derivatives

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) LiquidityProviderCommand (UZ) 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)
	<u>TradeCaptureReport (AE)</u>
	<u>TradeCaptureReportAck (AR)</u>
Used For	Cash and Derivatives

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) 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) TradeCaptureReportAck (AR)
Used For	Cash and Derivatives

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)
	<u>LiquidityProviderCommand (UZ)</u>
	MassQuote (i)
	NewOrderSingle (D)
	NewWholesaleOrder (U64)
	OrderCancelReplaceRequest (G)
	OrderCancelRequest (F)
	OrderMassCancelRequest (q)
	<u>OrderMassStatusRequest (AF)</u>
	OwnershipRequest (U18)
	PriceInput (UI)
	QuoteRequest (R)
	<u>UserNotification (CB)</u>
	WholesaleOrderAck (U65)
	RequestForImpliedExecution (U66)
	CrossOrder (U67)
	OrderMassCancelReport (r)
	TradeCaptureReport (AE)
	<u>TradeCaptureReportAck (AR)</u>
Used For	Cash and Derivatives

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

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

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	<u>Header</u>
Used For	Cash and Derivatives

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	<u>Header</u>
Used For	Cash and Derivatives

PositionLimit

Tag	21819
Description	Indicates the Maximum Long Exposure or Maximum Short Exposure, depending on the ExposureSide (21818) field. (to be calculated with Quantity Decimals).
Format	Quantity
Length	20
Possible Values	From 0 to 2^64-2
Used In	ERGMEPBreachAlert (U76)
Used For	Derivatives

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

${\bf Potential Matching Price}$

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).
	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

${\bf Potential Matching Quantity}$

Tag	21031
Description	The PotentialMatchingQuantity (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 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

1.31(1.10.14/4.19)	
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	TradeCaptureReportAck (AR)
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	TradeCaptureReportAck (AR)
Used For	TCS (Cash)

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

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, Stop-market, Peg, MTL).
Format	Price
Length	20
Possible Values	From -2^63+1 to 2^63-1
Conditions	In NewOrderSingle (D) and OrderCancelReplaceRequest (G) requests: - Mandatory if: OrdType (40) = 2 (Limit), OrdType (40) = 4 (Stop Limit), OrdType (40) = T (Average Price) or OrdType (40) = X (Iceberg); - 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). 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) CrossOrder (U67) TradeCaptureReport (AE) TradeCaptureReportAck (AR) FundPriceInput (U44) FundPriceInputAck (U45) RFOAudit (U72)
Used For	Cash and Derivatives

PrincipalCode

11110 (0.00)	
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

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

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
	1 = True
Used In	Logon (A)
Used For	Cash and Derivatives

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

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

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

${\bf Quote Request Reject Reason}$

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

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

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

Tag	372

Description	The MsgType (35) of the FIX message being referenced.
Format	String
Length	3
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) TradeCaptureReportAck (AR)
Used For	Cash and Derivatives

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

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

RegulatoryLegRefID

Tag	2411
Description	Identifies the leg of the trade the entry applies to by referencing the leg's LegID (1788).
Format	String
Length	10
Possible Values	From 0 to 2^32-2
Conditions	Used for Trade Creation and Trade Cancellation
Used In	ExecutionReport (8)
Used For	Derivatives

RegulatoryTradeID

Tag	1903
Description	Trade identifier required by government regulators or other regulatory organizations for regulatory reporting purposes. When RegulatoryTradeIDType (1906) = 5 (TVTIC) this field is filled by the Trade Unique Identifier (TUI).

Format	String
Length	16
Possible Values	Alphanumeric
Conditions	In ExecutionReport (8): Provided for Trade Creation or Trade Cancellation.
	In TradeCaptureReportAck (AR): Provided for Declaration fully matched.
Used In	ExecutionReport (8)
	TradeCaptureReportAck (AR)
	• <u>TradeCaptureReport (AE)</u>
Used For	Cash and Derivatives

${\bf Regulatory Trade ID Type}$

_	
Tag	1906
Description	Specifies the type of trade identifier provided in RegulatoryTradeID (1903).
Format	Int
Length	1
Possible Values	5 = TVTIC
Conditions	In ExecutionReport (8): Provided for Trade Creation or Trade Cancellation.
	In TradeCaptureReportAck (AR): Provided for Declaration fully matched.
Used In	ExecutionReport (8)
	TradeCaptureReportAck (AR)
	TradeCaptureReport (AE)
Used For	Cash and Derivatives

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) RiskControlDetails (U71)
Used For	Cash and Derivatives

${\bf Resynchronization ID}$

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

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 5 = Order Amount Limit 6 = Maximum Exposure Position
Used In	GetRiskControls (U70) RiskControlDetails (U71)
Used For	Derivatives

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

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])
Format	Int
Length	1
Possible Values	0 = False
	1 = True
Used In	MassQuote (i)
Used For	Cash and Derivatives

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	NewOrderSingle (D)
Used For	Cash and Derivatives

${\bf RFQConfirmation Indicator}$

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	NewOrderSingle (D)
Used For	Cash and Derivatives

RoutingID

Tag	217
Description	Identifies routing destination.
Format	String
Length	30
Possible Values	BUYSIDE
	SELLSIDE
	LOCALSPECIALISTSAMS
	LOCALSPECIALISTSLIS
	LOCALSPECIALISTSBRU
	LOCALSPECIALISTSPAR
	INTERESTLIST
	HOLDINGS
	SELLSIDEQUALITY
	EURONEXTDRIVEN
Used In	<u>IOI (6)</u>
Used For	Cash

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

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) MassQuoteAck (b) NewOrderSingle (D) NewWholesaleOrder (U64) OrderCancelReject (9) OrderCancelReject (9) OrderCancelReplaceRequest (6) OrderCancelReplaceRequest (7) OrderMassCancelReport (r) OrderMassCancelReport (r) OrderMassCancelReport (r) OrderMassCancelRepuest (AF) OwnershipRequest (U18) OwnershipRequest (U19) PriceInput (U1) OutoteRequest (R) QuoteRequest (R) QuoteRequest (AG) RequestCorexection (UM) RFOLPMatchingStatus (U37) RFOMMatchingStatus (U35) SecurityDefinition (d) SecurityDefinition (d) SecurityDefinitionRequest (C) WholesaleOrderAck (U55) RequestForImpliedExecution (U66) CrossOrder (U67) ERGCommand (U68) ERGCommandAck (U70) IradeCaptureReportAck (AR) IrradeCaptureReportAck (AR) IrradeCap
	RequestForImpliedExecution (U66) CrossOrder (U67) ERGCommand (U68) ERGCommandAck (U69) GetRiskControls (U70) RiskControlDetails (U71) ERGMEPBreachAlert (U76) TradeCaptureReportAck (AR) TradeCaptureReportAck (AR) FundPriceInput (U44)

	FundPriceInputAck (U45)
	ClearBook (U75)
Used For	Cash and Derivatives

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

Tag	22
Description	Gives the type of SecurityID.
Format	String
Length	1
Possible Values	8 = Symbol Index
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)
	<u>LiquidityProviderCommand (UZ)</u>
	MassQuote (i)
	MassQuoteAck (b)
	NewOrderSingle (D)
	NewWholesaleOrder (U64)
	OrderCancelReject (9) OrderCancelReplaceRequest (G)
	OrderCancelRequest (F)
	OrderMassCancelReport (r)
	OrderMassCancelRequest (g)
	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) WhelevelsOrderAsk (USE)
	WholesaleOrderAck (U65)
	RequestForImpliedExecution (U66)
	CrossOrder (U67)
	ERGCommand (U68)
	ERGCommandAck (U69)
	GetRiskControls (U70)
	RiskControlDetails (U71)
	ERGMEPBreachAlert (U76)
	<u>TradeCaptureReport (AE)</u>
	TradeCaptureReportAck (AR)
	FundPriceInput (U44)
	FundPriceInputAck (U45)
	RFQAudit (U72)
	IOI (6)
	IOINotification (U73)
	ClearBook (U75)
Used Fee	
Used For	Cash and Derivatives

SecurityRequestType

Tag	321
Description	Gives the type of SecurityDefinitionRequest (c)
Format	Int
Length	2
Possible Values	4 = Symbol
Used In	SecurityDefinitionRequest (c)
Used For	Derivatives

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

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
	W = Condor
	X = Box
	Y = Bundle
	a = Ladder versus Underlying
	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)
2004 111	SecurityDefinitionRequest (c)
	WholesaleOrderAck (U65)
Used For	Derivatives
USEU FUI	Delivatives

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.

U	sed In	MassQuoteAck (b)
U	sed For	Cash and Derivatives

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
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	<u>Header</u>
Used For	Cash and Derivatives

SendingTime

Tag	52
Description	Time (in ns) of message transmission (Format: YYYYMMDD-HH:MM:SS.ssssssss).
Format	UTCTimestamp
Length	27
Possible Values	YYYY = 0000-9999, $MM = 01-12$, $DD = 01-31$, $HH = 00-23$, $MM = 00-59$, $SS = 00-$
Used In	<u>Header</u>
Used For	Cash and Derivatives

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

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
	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	[N/A] Indicates the settlement delay in trading days, from 0 to 30 days. (Not relevant anymore, TCS is using the Settlement Period defined in the referential at instrument level.)
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 but the data entered in the field is ignored by TCS. 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 $7 = \text{Undisclosed it's only allowed while sending an IOI (6)} - \text{if used in any other inbound message, the message will be rejected;}$
Used In	ExecutionReport (8)
	NewOrderSingle (D)
	NewWholesaleOrder (U64)
	OrderCancelReplaceRequest (G)
	OrderCancelRequest (F)
	OrderMassCancelReport (r) OrderMassCancelRequest (q)
	QuoteRequest (R)
	RFQLPMatchingStatus (U37)
	RFQMatchingStatus (U36)
	RFQNotification (U35)
	CrossOrder (U67)
	TradeCaptureReport (AE)
	TradeCaptureReportAck (AR)
	<u>IOI (6)</u>
	IOINotification (U73)
Used For	Cash

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

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

Tag	2362
Description	An identifier of a group of Users or Traders sharing the same business activity at the same Firm.
Format	String
Length	5
Possible Values	From 0 to 2^16-2
Used In	ExecutionReport (8) NewOrderSingle (D)
	OrderCancelReplaceRequest (G)

STPAggressorIndicator

Tag	21015
Description	Field used as instruction for order handling. - Cancel resting order: indicates that the STP mechanism is "cancel resting order". - Cancel incoming order: indicates that the STP mechanism is "cancel incoming order". - Cancel both orders: indicates that the STP mechanism is "cancel both orders". - Disable STP is not applicable for Dark Orders.
Format	Int
Length	1
Possible Values	0 = Cancel resting order

	1 = Cancel incoming order
	2 = Cancel both orders
	9 = Disable STP
Used In	ExecutionReport (8)
	NewOrderSingle (D)
	OrderCancelReplaceRequest (G)
Used For	Cash and Derivatives



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

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 ERGActionType (21097) is 5 = Order Size Limit. In GetRiskControls (U70) message required in case TargetLogicalAccessID (21099), TargetPartyID (21095) or TargetClientShortCode (21108) are specified.
Used In	ERGCommand (U68) ERGCommandAck (U69) GetRiskControls (U70) RiskControlDetails (U71) ERGMEPBreachAlert (U76)
Used For	Derivatives

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	<u>Header</u>
Used For	Cash and Derivatives

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

TargetPartyID

Tag	21095
Description	Identifier of the ShortCode used as:
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)
Used For	Cash and Derivatives

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

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

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
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) TradeCaptureReport (AE) TradeCaptureReportAck (AR)
Used For	Cash and Derivatives

ThresholdBreachAction

Tag	21816
Description	This field indicates the type of action that will be triggered when a given threshold is breached.
Format	Int

Length	1
Possible Values	0 = No Action, Alert Only 1 = Accept actions that decrease position only 2 = Block Only 3 = Pull all orders and Block
Used In	ERGCommand (U68) ERGCommandAck (U69) RiskControlDetails (U71) ERGMEPBreachAlert (U76)
Used For	Derivatives

ThresholdValue

Tag	21817
Description	Defines the percentage of the MEP at which the action might be triggered. The value to be provided is an integer, meaning, in case the Threshold is to be set at 65%, Risk Manager should populate the field with 65.
Format	Int
Length	2
Possible Values	From 0 to 99
Conditions	In inbound messages: allowed values are from 1 to 99 In outbound messages: allowed values are from 0 to 99.
Used In	ERGCommand (U68) ERGCommandAck (U69) RiskControlDetails (U71) ERGMEPBreachAlert (U76)
Used For	Cash

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

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
Possible Values	From -2^31+1 to 2^31-1
Used In	OrderMassCancelReport (r)
	OwnershipRequestAck (U29)
Used For	Cash and Derivatives

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 declaration.
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 TradeCaptureReportAck (AR) message provided only if previously set in the corresponding inbound TradeCaptureReport (AE) message
Used In	<u>TradeCaptureReport (AE)</u>
	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	<u>TradeCaptureReport (AE)</u>
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	<u>TradeCaptureReport (AE)</u>
Used For	TCS (Cash and Detivatives)

TradeQualifier

Tag	21080
Description	Trade Qualifier. This field can contain up to 7 values, space delimited, provided in different positions.

ExecutionReport (8)

Cash and Derivatives

	 - 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
Length13	
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.

TradeType

Used In

Used For

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)
	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)

	10 C
	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
	103 = Issuing or Tender Offer Trade
	104 = RFO Trade
Conditions	For the ExecutionReport (8) message, the following values are <u>NOT</u> 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

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) Session 3 - Extended Trading Hours (for Index Derivatives segment, corresponds to the extension 17.30 CET - 22.00 CET for future use - for legacy Structured Products, corresponds to the first extension 18.30 CET - 20.00 CET - for Borsa Italiana Structured Products, corresponds to the extension 17.30 CET - 20.30 CET) Session 4 - Second Extended Trading Hours (for legacy Structured Products, corresponds to the second extension 20.00 CET to 22.00 CET - for Borsa Italiana Structured Products, corresponds to the extension 20.30 CET - 22.00 CET).
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: Session 1 (101) Session 1 + Session 3 (205) Session 1 + Session 3 + Session 4 (313) Scenario 1: to send an order valid only during the Normal Trading Hours (no ETH):

	For Derivatives Markets, this field is not provided.
Used In	ExecutionReport (8) NewOrderSingle (D)
	OrderCancelReplaceRequest (G)
Used For	Cash and Derivatives

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 = $00-59$, sssssssss = $000000000-9999999999$ (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

${\bf Triggered Stop Time In Force}$

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 3 = Immediate or 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

${\bf Trd Reg Publication Reason}$

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	<u>TradeCaptureReportAck (AR)</u>
Used For	TCS (Cash)

TrdRptStatus

1.31 10 10 10 10	
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 pending declaration 16 = 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

THEID MANE	TRIDITION
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	<u>TradeCaptureReport (AE)</u>
	<u>TradeCaptureReportAck (AR)</u>
Used For	TCS (Cash)



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

Tag	20004
Description	(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
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

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
	131 = OAL Activated for a Firm by Risk Manager
	132 = OAL Deactivated for a Firm by Risk Manager
	133 = OAL Activated for a Firm on a Logical Access by Risk Manager
	134 = OAL Deactivated for a Firm on a Logical Access by Risk Manager
	135 = MEP Activated by Risk Manager
	136 = MEP Deactivated by Risk Manager
	137 = MEP Action Activated: Accept only actions that decrease the position
	138 = MEP Action Activated: Incoming requests are blocked
	139 = MEP Action Activated: Book was purged and incoming requests are blocked
	140 = MEP Action Activated: No Action, Alert Only
	141 = No Action in place
Conditions	For the cases where value "130 = Order Size Limit Deactivated by Risk Manager", "132 = OAL Deactivated for a Firm by Risk Manager" and "134 = OAL Deactivated for a Firm on a Logical Access by Risk Manager" are sent, OrderSizeLimit (21102)/Order Amount Limit (212808) tags are not sent.
Used In	<u>UserNotification (CB)</u>
Used For	Cash and Derivatives



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

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 WAIGH		
Tag	10026	
Description	Start time for the Volume Weight Average price computation period.	
Format	UTCTimestamp	
Length	27	
Possible Values	e Values YYYYMMDD-HH:MM:SS.sss.nnn	
Conditions For TradeCaptureReport (AE) message, it is provided only for declarations when (Volume weighted average trade), and if not provided it is assumed that the VWA period lasts until the end of the trading session, and if not provided it is assumed calculation period starts at the beginning of the trading session.		
Used In	TradeCaptureReport (AE) TradeCaptureReportAck (AR)	

VWAPEndTime

FIELD KARE	WWADE BOOK TO THE STATE OF THE		
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.

```
#
    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 messages proceeds during the session
    NewOrderSingle (D) order #1
    MsgSeqNum(34) = 2
    Side(54) = 1 (Buy)
                                                     < ExecutionReport (8)
                                                        MsgSeqNum(34) = 2
                                                        OrdStatus (39) = 0 (New) / ExecType (150)
                                                        = 0 (New)
    NewOrderSingle (D) order #2
    MsgSeqNum(34) = 3
    Side (54) = 1 (Buy)
                                                       ExecutionReport (8)
                                                        MsgSeqNum(34) = 3
                                                        OrdStatus (39) = 0 (New) / ExecType (150)
                                                        = 0 (New)
    Following a period of inactivity Exchange sends a TestRequest (1) message to check the status of the
    connection
                                                     < TestRequest (1)
                                                        MsgSeqNum(34) = 4
    In the meantime client is sending messages for new orders, that do not 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) = 6
    Side (54) = 1 (Buy)
    Either due to inactivity or as a delayed answer to the TestRequest (1) message in step 3 client's system
    sends a HeartBeat (0) message
    HeartBeat (0)
    MsgSegNum(34) = 7
    Exchange detects a gap in the HeartBeat (0) message from client, and issues a ResendRequest (2) to fill
6
    the gap.
                                                     < ResendRequest (2)
                                                        MsgSeqNum(34) = 5
                                                        BeginSeqNo(7) = 4
                                                        EndSeqNo(16) = 7
    Client resends order messages that were missed, starting with the indicated sequence number of 4 to fill
    the gap, with Exchange acknowledging them
    NewOrderSingle (D) order #3
                                                     >
    MsqSeqNum(34) = 4
    Side (54) = 1 (Buy)
    PossDupFlag (43) = Y (Possible duplicate)
    OrgSendingTime (122) = set to time of original
    sending
                                                    < ExecutionReport (8)
```

```
Received From Client
                                                    Sent by Exchange
                                                    MsgSegNum(34) = 6
                                                   OrdStatus (39) = 0 (New) /
                                                                                ExecType (150)
                                                    = 0 (New)
NewOrderSingle (D) order #4
MsgSeqNum(34) = 5
Side (54) = 1 (Buy)
PossDupFlag (43) = Y (Possible duplicate)
OrgSendingTime (122) = set to time of original
sendina
                                                 < ExecutionReport (8)
                                                   MsgSeqNum(34) = 7
                                                   OrdStatus (39) = 0 (New) / ExecType (150)
                                                    = 0 (New)
NewOrderSingle (D) order #5
MsgSeqNum(34) = 6
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)
After resending missed order messages client sends a SequenceReset (4) message, to replace the
HeartBeat (0) message, before resending a HeartBeat (0) message that is assigned the new sequence
number identified
SequenceReset (4)
MsgSeqNum(34) = 7
PossDupFlag (43) = Y (Possible duplicate)
OrgSendingTime (122) = set to current time
NewSeqNo (36) = 8
HeartBeat (0)
MsgSeqNum(34) = 8
```

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 messages proceeds during the session
NewOrderSingle (D) order #1
MsgSeqNum(34) = 2
Side (54) = 1 (Buy)
                                                  ExecutionReport (8)
                                                  MsgSeqNum(34) = 2
                                                  OrdStatus (39) = 0 (New) / ExecType (150) =
                                                  0 (New)
NewOrderSingle (D) order #2
                                               >
MsqSeqNum(34) = 3
Side (54) = 1 (Buy)
                                                  ExecutionReport (8)
                                                  MsgSeqNum(34) = 3
                                                  OrdStatus (39) = 0 (New) / ExecType (150) =
                                                  0 (New)
Client sends three (3) messages for new orders that do not appear to be reaching the exchange
```

#	Received From Client		Sent by Exchange
	NewOrderSingle (D) order #3 <i>MsgSeqNum</i> (34) = 4 <i>Side</i> (54) = 1 (Buy)	>	
	NewOrderSingle (D) order #4 MsgSeqNum (34) = 5 Side (54) = 1 (Buy)	>	
	NewOrderSingle (D) order #5 MsgSeqNum (34) = 6 Side (54) = 1 (Buy)	>	
4	Client sends one more order message that reaches missed messages	the	exchange, that indicates the gap of the previously
	NewOrderSingle (D) order #6 MsgSeqNum (34) = 7 Side (54) = 1 (Buy)	>	
6	Exchange detects a gap in sequence numbers in th which reaches the exchange, and issues a ResendR ignored by the exchange		
		<	ResendRequest (2) <i>MsgSeqNum</i> (34) = 4 <i>BeginSeqNo</i> (7) = 4 <i>EndSeqNo</i> (16) = 7
7	Client resends the four (4) order messages that we		missed, starting with the indicated sequence
/	number of 4 to fill the gap, with Exchange acknowl		ing them
	NewOrderSingle (D) order #3 <i>MsgSeqNum</i> (34) = 4	>	
	Side (54) = 1 (Buy)		
	PossDupFlag (43) = Y (Possible duplicate)		
	OrgSendingTime (122) = set to time of original sending		
		<	ExecutionReport (8)
			MsgSeqNum (34) = 5 OrdStatus (39) = 0 (New) / ExecType (150) =
			0 (New)
	NewOrderSingle (D) order #4	>	,
	MsgSeqNum (34) = 5 Side (54) = 1 (Buy)		
	PossDupFlag (43) = Y (Possible duplicate)		
	OrgSendingTime (122) = set to time of original		
	sending	<	ExecutionReport (8)
			MsgSeqNum(34) = 6
			OrdStatus (39) = 0 (New) / ExecType (150) = 0 (New)
	NewOrderSingle (D) order #5	>	o (ivew)
	MsgSeqNum (34) = 6 $Side (54) = 1 (Bury)$		
	Side (54) = 1 (Buy) PossDupFlag (43) = Y (Possible duplicate)		
	OrgSendingTime (122) = set to time of original		
	sending	<	ExecutionReport (8)
			MsgSeqNum (34) = 7
			OrdStatus (39) = 0 (New) / ExecType (150) = 0 (New)
	NewOrderSingle (D) order #6	>	U (New)
	MsgSeqNum (34) = 7		
	Side (54) = 1 (Buy) PossDupFlag (43) = Y (Possible duplicate)		
	OrgSendingTime (122) = set to time of original		
	sending		Evacution Papart (9)
		<	ExecutionReport (8) MsgSeqNum (34) = 8
			OrdStatus (39) = 0 (New) / ExecType (150) =
			0 (New)

Example 3: Gap in Logout Request

```
Received From Client
                                                   Sent by Exchange
At the start of session client sends the first Logon (A) message
Logon (A)
MsgSeqNum(34) = 1
NextExpectedMsgSegNum (789) = 1
                                                < Logon (A)
                                                   MsqSeqNum(34) = 1
                                                   NextExpectedMsgSeqNum (789) = 2
Following a successful logon the exchange of application messages proceeds during the session
NewOrderSingle (D) order #1
MsgSeqNum(34) = 2
Side (54) = 1 (Buy)
                                                  ExecutionReport (8)
                                                   MsgSeqNum(34) = 2
                                                   OrdStatus (39) = 0 (New) / ExecType (150) =
                                                   0 (New)
Client sends two (2) messages for new orders that do not appear to be reaching the exchange
NewOrderSingle (D) order #2
MsgSeqNum(34) = 3
Side (54) = 1 (Buy)
NewOrderSingle (D) order #3
MsgSeqNum(34) = 4
Side (54) = 1 (Buy)
Client chooses to close connection, and send a Logout (5) message
Logout (5)
MsgSegNum(34) = 5
Exchange detects a gap in sequence numbers in the Logout (5) message and issues a ResendRequest (2)
to fill the gap. The Logout message is ignored by the exchange
                                                < ResendRequest (2)
                                                   MsgSeqNum(34) = 3
                                                   BeginSeqNo (7) = 3
                                                   EndSeqNo(16) = 5
Client resends the two orders with Exchange acknowledging the orders
NewOrderSingle (D) order #2
MsgSeqNum(34) = 3
Side (54) = 1 (Buy)
PossDupFlag (43) = Y (Possible duplicate)
OrgSendingTime (122) = set to time of original
sending
                                                  ExecutionReport (8)
                                                   MsgSeqNum(34) = 4
                                                   OrdStatus (39) = 0 (New) / ExecType (150) =
                                                   0 (New)
NewOrderSingle (D) order #3
                                                >
MsaSeaNum(34) = 4
Side (54) = 1 (Buy)
PossDupFlag (43) = Y (Possible duplicate)
OrgSendingTime (122) = set to time of original
sending
                                                < ExecutionReport (8)
                                                   MsgSeqNum(34) = 5
                                                   OrdStatus (39) = 0 (New) / ExecType (150) =
                                                   0 (New)
Then clients sends the last message of SequenceReset (4) to replace the sequence id of the previously
sent Logout message and is logged out by the Exchange
SequenceReset (4)
MsgSeqNum(34) = 5
PossDupFlag (43) = Y (Possible duplicate)
OrgSendingTime (122) = set to current time
NewSeqNo (36) = 6
                                                < Logout (5)
                                                   MsqSeqNum(34) = 6
```

APPENDIX A: DOCUMENT HISTORY TABLE

Revision No.	Date	Author	Change Description
1.0.0			First Version
1.1.0			Specifications, including all messages, components, structures, descriptions and values have been fully revamped to take into consideration:
			 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 subworking 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)
1.2.0			The following sections have been updated:

Revision No.	Date	Author	Change Description
			 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:
			- 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:

Revision No.	Date	Author	Change Description
			Removed unused field: OrigClOrdID Updated field from Mandatory to
			Conditional: <i>ErrorCode</i>
			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
1.3.0			The following messages have been
			<pre>updated:</pre>
			- 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,

Revision No.	Date	Author	Change Description
			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 <i>DarkExecutionInstruction</i> 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

Revision No.	Date	Author	Change Description
			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 <i>OrderAttributeGrp</i> 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) - 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'; MassStatusReqID: from '30' to '20'; PostingAction: from '19' to '17'
			- <u>Updated or Added conditions for fields:</u> Account; AckPhase; BidErrorCode; BidPx; BidQuoteID; BidSize;

Revision	Date	Author	Change Description
No.			BuyRevisionIndicator; ClOrdID;
	Date	Author	BuyRevisionIndicator; ClOrdID; CancelOnDisconnectionIndicator; ClearingInstruction; DarkExecutionInstruction; DeliverToCompID; DisplayQty; ExecID; ExpireDate; ExpireTime; InstrumentScopeSecurityID; InstrumentScopeSecurityIDSource; InvestmentDecisionWFirmShortCode; LPRole; OfferErrorCode; OfferPx; OfferQuoteID; OfferSize; OrderOrigination; OrderQty; OrdType; PegOffsetValue; PegPriceType; Price; QuoteReqID; RequestID; SelfMatchPreventionID; SelfMatchPreventionID; SelfMatchPreventionID; Side; StopPx; STPAggressorIndicator; TargetCompID; TechnicalOrdType; Text; TimeInForce; TradeType; TradingSessionID; TriggeredStopTimeInForce; UndisclosedIcebergType; UndisclosedIrce 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'; MassStatusReqID: 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'; MsgType: 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

Revision No.	Date	Author	Change Description
			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
1.3.1			The following messages have been
			updated: - Header: Added field
			LastMsgSeqNumProcessed (369).
			 UserNotification (CB): The fields NoOrderAttributes (2593), OrderAttributeType (2594), OrderAttributeValue (2595) have been removed.
			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 <i>ExecType</i> (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):

Revision No.	Date	Author	Change Description
			 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
			 UserNotification (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"
			/ Examples

Revision No.	Date	Author	Change Description
			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 2018"
			,
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:
			<u> </u>
			 SessionRejectReason (373): addition of values values identified for rejection in case of throttling:
			25 = Throttling queue full; 26 = Throttling
			Rate exceeded; 27 = System busy <i>DisplayQty</i> (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.
			- "4.7.1 Message Header": Values
			indicated for field
			LastMsgSeqNumProcessed (369) are
			incorrect and are changed to "From 1 to

	Change Description
1.4.0	2^32-2". Clarification regarding OnBehalfOfCompID (115) and DeliverToCompID (128) fields. "4.8 Rejection and Disconnection when handling missing mandatory tags or incorrect values in tags": addition of a clarification regarding unknown tags in messages. "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). "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 (U1)", "5.3.16 LiquidityProviderCommand (UZ)", "5.3.17 OrderMassStatusRequest (AF)", "5.3.18 OrderMassCancelRequest (AF)", "5.3.19 OrderMassCancelRequest (AF)", add clarification on Components Usage within the message section for ClientIdentificationShortcode: if the information in the repeating group is not identical, the message section for ClientIdentificationShortcode: if the information in the reseage 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" The following field description has been undersections.
1.4.1	The following messages have been been updated:

Revision No.	Date	Author	Change Description
			- ExecutionReport (8): field IDCCP has been removed. The following field description has been updated: ContraBroker (375)
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
			- OrderCancelReplaceRequest (G): Dark Execution Instruction, Peg Offset: 'For Future Use' has been removed from field description
			 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
			- RFQNotification (U35): fields OrderCategory and MinQty have been added. Fields EndClient, ContraBroker and RFQUpdateType have been removed
			 RFQMatchingStatus (U36): field RecipientType has been removed; 'For Future Use' has been removed from message description
			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
			r = LP Order cancelled due to RFQ
			expiration f = LP Order cancelled due to RFQ

Revision No.	Date	Author	Change Description
			cancellation q = RFQ Remaining quantity killed s = LP Order cancelled due to RFQ confirmation
			DarkExecutionInstruction (20052):
			First Position = Dark Indicator (0: No; 1: Yes) Forfth Position = Sweep Order Indicator (0: No; 1: Yes)
			Fifth Position = Minimum Quantity Type (0: MAQ ; 1: MES)
			<u>Descriptions have been updated for the</u>
			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 has been added
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 has been added in the whole document for each message on which Block Optiq Segment is applied on.
1.6.1			Correction in ExecutionReport (8) Message
			Signature Tags table for two cases: - Cancellation due to RFQ cancellation
1.6.2			Cancellation due to RFQ confirmation OrderCategory (21041) has been removed from
			RFQNotification (U35) message.
			DarkExecutionInstruction (20052) has been removed from OrderCancelRequest (F)
ı			message.

Revision No.	Date	Author	Change Description
			(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.
1.6.3			DarkExecutionInstruction (20052) has been added in RFQNotification (U35) message.
2.0.0			 added in RFQNotification (U35) message. 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: Security Definition Request (c) and Security Definition (d) for intraday strategy creation 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: NewOrderSingle (D): Added new fields NonExecCIID (21081) for Derivatives segments, FRMARAMPLP (21810) and UndisclosedIcebergType (20005) – for future use on Cash segments; Removed field CustOrderCapacity (582); Added support for the Derivative segments ExecutionReport (8): Added new fields NonExecCIID (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), QtyDelta (8011), OtherLegSecurityID (7773), QtyDelta (8011), OtherLegSecurityID (7774); Added support for the Derivative segments; Updated description to clarify use for Cash and 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 Derivative segments; OrderCancelReplaceRequest (G): Added new fields FRMARAMPLP (21810) and UndisclosedIcebergType (20005) – for future use on Cash segments; Added
			support for the Derivative segments; Updated description to clarify use for Cash and Derivative segments

Revision No.	Date	Author	Ch	ange Description
				OrderCancelReject (9): Added new field AckQualifier (21014); Added support for the Derivative segments; Updated description to clarify use for Cash and Derivative segments QuoteRequest (R): Added support for the Derivative segments without changes to the message structure; Updated description to clarify use for Cash and Derivative segments
				a) 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 <i>OrderCategory</i> (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: b) Added new fields: AckStatus (5711), BidNonExecCIID (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), NonExecCIID (21081),

Revision No.	Date	Author	Cha	ange Description
No.			•	OfferNonExecCIID (21090), ParentExecID (21094), ParentSecurityID (21093), Quantity (53), SecurityReqID (320), SecurityRequestType (321), SecurityType (167), SecuritySubType (762), TargetPartyID (21095), UndisclosedIcebergType (20005), WholesaleSide (21082), WholesaleTradeType (21083) c) 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), CumQty (14), CxlrejResponseTo (434), DarkExecutionInstruction (20052), DisclosedQtyRandIndicator (21016), DisplayQty (1138), EMM (20020), ExecID (17), ExecPhase (21023), ExecRefID (19), ExecType (150), ExpireDate (432), ExpireTime (126), InstrumentScopeSecurityID (1538), InstrumentScopeSecurityID (1538), InstrumentScopeSecurityID (1538), LastCapacity (29), LastMsgSeqNumProcessed (369), LastPx (31), LastQty (32), LegSecurityType (609), LogicalAccessID (21021), LegExecID (1893), LegLastPx (637), LegLastQty (1418), LegRatioQty (623), LegSecurityID (602), LegSecurityType (609), LogicalAccessID (21021), NestedPartyIDSource (525),

Revision	Date	Author	Change Description
No.			(131), QuoteSetID (302), RefSeqNum (45), RefTagID (371), RFQAnswerIndicator (21037), RFQConfirmationIndicator (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), OtherLegReferenceNo (7774) Use of the following fields extended to be for both Cash and Derivatives: BuyRevisionIndicator (21008), OrderPriority (21004), RFEAnswer (20022), SellRevisionIndicator (21009), TechnicalOrdType (9941) Throughout the document: 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 4.5.2 "Order Priority" added clarification for prices in basis points Section 4.5.9 "Price, Quantity, Ratio and Amount Formats" added clarification 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
2.1.0			The following changes have been made: The following new messages have been
			added: d) RequestForImpliedExecution (U66) e) CrossOrder (U67); f) ERGCommand (U68); g) ERGCommandAck (U69);

Revision No.	Date	Author	Cha	inge Description
	Date Da	Author		h) GetRiskControls (U70); i) RiskControlDetails (U71); The following changes have been applied in the existing messages: UserNotification (CB): Added fields LogicalAccessID (21021) and OrderSizeLimit (21102) for Risk Guard Service; Message description updated to accommodate Risk Guard Service; Added Combinations used to provide ShortCodes for Risk Guard Service; NoPartyIDs and NoInstrumentScope changed from Mandatory to Conditional; ExecutionReport (8): Message description adjusted: with clarifications concerning cancellation of orders triggered by an OrderCancelRequest (F) or an OrderMassCancelRequest (q); with clarifications concerning QuoteRequest (R) message; with clarifications concerning how to fill clearing data information for both Cash and Derivatives Markets; with clarifications concerning cancellation of orders at the close of business; notes on processing of Fill messages sent for Strategy transactions submitted as Wholesales. Table updated to accommodate CrossOrder functionality; Added fields: LongClient (21804) for clearing data information, FinalSecurityID (21805), FinalExecID (21806), MessagePriceNotation (21803) for TRF and MOC; RequestAckMessage (Uy): Message description updated to accommodate request for implied execution functionality; TestRequest (1): Message description adjusted; NewWholesaleOrder (U64): Message description updated to: clarify delta neutral functionality; Remove Client ID information as one of the possible combinations to be provided within NestedParties repeating group; Added notes on processing of Fill messages sent for Strategy transactions submitted as
				sent for Strategy transactions submitted as Wholesales. Added LongClient (21804) for clearing data information and MessagePriceNotation (21803) for TRF and MOC;
				LastCapacity (29) moved into NoSides group; WholesaleOrderAck (U65):
			•	Changed presence of the field <i>LegSide</i> (624) to conditional; <i>LastCapacity</i> (29) removed;
				OrderCancelReplaceRequest (G):
				Added LongClient (21804) for clearing data

Revision No.	Date	Author	Change Description
			 information; Message description adjusted concerning how to fill clearing data information for both Cash and Derivatives markets; NewOrderSingle (D): Added LongClient (21804) for clearing data information; Message description adjusted concerning how to fill clearing data information for both Cash and Derivatives markets; Field Descriptions: a) Added fields: LongClient (21804), FinalSecurityID (21805), FinalExecID (21806), MessagePriceNotation (21803); KillReason (21807) b) Enriched values for fields as follows: ExecType (150) with values v= Order Cancelled by Clearing Risk Manager, n = 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; ! = 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, 115 = Firm Suspended by Risk Manager, 116 = Firm Unsuspended 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, 121 = Trader - Algo Blocked by Risk Manager, 124 = Firm Blocked by Risk Manager, 125 = DEA Blocked by Risk Manager, 126 = DEA Unblocked by Risk Manager, 127 = Logical Access Blocked by Risk Manager, 126 = DEA Unblocked by Risk Manager, 126 = DEA Unblocked by Risk Manager, 126 = DEA Unblocked by Risk Manager, 127 = Logical Access Blocked by Risk Manager, 127 = Logical Access Blocked by Risk Manager, 127 = Logical Access Blocked by Risk Manager, 128 = Logical Access Unblocked by Risk Manager, 129 = Order Size Limit Deactivated by Risk Manager; EMM (20020) - 15 = Delta Neutral Contingency Leg; PartyRole (452) - 999 = Not Applicable; PartyRole (452) - 999 = Not Applicable; PartyRole (452) - 999 = Not Applicable; PartyRole (

Revision No.	Date	Author	Change Description
			Tick Spread, 'u' - Buy Write; d) Possible Values updated for NoLegs (555), from "1 to 7" to "1 to 32"; e) Updated description for field <i>LegRatio</i> (21091);";
			 Conditions updated for fields SecurityID (48), UserStatus (926), RequestID (21060), PartyD (448), PartyRole (452), PartyRoleQualifier (2376), NestedPartyID (524), NestedPartyRoleQualifier (2384), OrderID (37), QuoteReqID (131), RFQAnswerIndicator (21037), RFQConfirmationIndicator (21038), CumQty (14) and LeavesQty (151)); Conditions removed for field SelfMatchPreventionID (2362) – field is for future use;
			 "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 messages;
			 Section 4.10 Direct response to Application messages adjusted with Risk Guard service messages;
			Clarifications added for how ClientIdentificationShortCode should be provided
2.1.1			Fix: in Execution Report (8) message description, it was mentioned that using this message in case of order collar rejection report was restricted to cash markets, which is not the case.
4.0.0			The following changes have been made to this version of the document:
			 Document Improvements: Change StrikeLegPrice by LegPrice in 3 sections for Deulta Neutral Strategy description.
			In section 5.3.30 ERGCommand (U68), the case of TargetFirmID (21098) description is updated
			 In OrderCancelReject (9) message section, update description to highlight that fields LogicalAccessID (21021) and 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 RequestForImpliedExecution (U66) and its reject message RequestAck (Uy).
			Update Delta-Neutral description in page

Revision No.	Date	Author	Change Description
NO.			 Update the Wholesale Transaction paragraph in page 133. Following fields are optional in message SecurityDefinition (d): SecurityID (48) and SecurityIDSource (22). 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. ETF Access / Oslo Migration and ETF Warrant Updates: Add the field AccountCode as optional for following messages: RFQNotification (35) and QuoteRequest (R). Add new message RFQ Audit in section 5.3.36 Add new field "NoRFOCounterparts" definition. This field is used in message RFQ Audit. OrderOrigination field updated by adding two values: 11 and 12. RFQ issuer description added in sections
			5.3.5.1, 5.3.11.1 and 5.3.18.1 Contrabroker field updated by adding 3 new values: 2 = Bilateral Settlement, 3 = LCH Limited and 5 = SIX x-clear.
4.0.1			The following changes have been made to this version of the document: Document Improvements: Update the Support contact information. Change the name of Purpose section to "About This document". Add Scope section. Add note about Financial Derivatives segment which is out of scope in page 40 (Optiq segment table). 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. Add all TCS Application messages are added under 5.4 Application Messages section. (From section 5.3.37 to section 5.3.40). 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

Revision No.	Date	Author	Change Description
			messages using that fields in "Used in" at field description level. Update CCP ID field description by adding new values used for Oslo Market Place.
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. ConditionalOrderFlag field "Used In" is update to "Cash" instead of "Cash and Derivatives" because it is only used for Block. 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.
4.0.3			The following changes have been made to this version of the document: Field OEGOUTTOME is conditional in messages: RFQNotification (U35), RFQMatchingStatus (U36) and RFQLPMatchingStatus (U37).
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 <u>OrderMassCancelRequest (q)</u> – added details for processing of mass cancellation. In <u>Application Messages</u> : - <u>OuoteRequest (R)</u> : AccountCode changed from Optional to Conditional (Mandatory for ETF Access Platform). In <u>Field Description</u> : - Enriched conditions and descriptions of fields: <u>ContraBroker</u> (375), <u>NumberOfLPs</u> (21034), AccountCode (6399), <u>TradingSessionID</u> (334); Enriched values for field as follows: <u>TradingSessionID</u> (334) with new value '104' (Session 4).
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 Added note on TVTIC determination in section 5.3.2.1 ExecutionReport (8) ExecutionReport (8) message description.
4.2.1			Adjusted section 4.2 Structure RepresentationStructure Representation: Representation of examples of components and nested components within the messages structures adjusted; Text describing those same representations adjusted as well.

Revision No.	Date	Author	Change Description
4.3.0			The following changes have been made to this version of the document: In <u>Error Codes</u> , 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
4.4.0			Introduction of SBE 304 – no impacts
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: 4.10 Direct Response to Application Messages to include the new IOI (6) message; 5.3.1.1 Message Description; The following field got the possible values updated: MsgType (35): Value 6 = IOI added; Value U72 = RFQAudit added; SessionRejectReason (373): 28 = Message type not allowed for the functional configuration of the Logical Access; The following field got the conditions updated: OrderQty (38): adjusted to include "In IOI (6) message: required only when IOIQty (27) different than "Undisclosed Qty" – ignored in all other cases" 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); OEGINFromMember (5979); OEGOUTTOME (7764);
4.6.0			ErrorCode (9955); The following changes have been made to this version of the document: In Field Description: Updated description of field: ExpireDate and ContraBroker
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

Revision No.	Date	Author	Change Description
			Access in the sessionRejectReason (373) list of authorized values;
4.6.2			The following changes have been made to this version of the document: In ExecutionReport (8): Update description of Trading Venue Transaction Identification Code (TVTIC) In TradeCaptureReportAck (AR): Add description of Trading Venue Transaction
4.7.0			Identification Code (TVTIC) The following changes have been made to this version of the document: ■ In ExecutionReport (8): Update description of ExecutionReport (8) Message Signature Tags
4.8.0			Introduction of SBE 308 – no impacts
4.10.0			The following changes have been made to this version of the document: Add clarification on tag 41 OrigClOrdID field conditions: If both OrigClOrdID and ClOrdID are provided in a modification or cancellation request, the OrigClOrdID is totally ignored and the request is performed on OrderID only, and then only OrderID is present in ExecutionReport(8). Add clarification on tag530 MassCancelRequestType possible values: '1' = Cancel orders for a security (cash and derivatives) or a contract (derivatives only) Update in OrderMassCancelRequest(q) Message Description: The MassCancelRequestType (530) field defines the scope of the mass cancellation request: Derivatives only: To cancel orders assigned to instruments of a derivative contract, MassCancelRequestType (530) must be set to '1' and the SecurityID (48) field must be populated with the symbol index of the contract concerned. Improved description of 2.4 Order ID section Update in CrossOrder (U67): The field OrderActorType (21109) is mandatory Add clarification on tag 21801 FRMARAMPLP description:
			French Market Abuse Regulation Accepted Market Practice Liquidity provision is related to the AMAFI (Association française des marchés financiers) market abuse prevention.
4.11.0			Introduction of SBE 311 - no impacts.
4.12.0			Introduction of SBE 312 – Self Trade Prevention (STP) feature The following changes have been made to this version of the document: In NewOrderSingle (D): - Updated description of fields: SelfMatchPreventionID and

Revision No.	Date	Author	Change Description
			STPAggressorIndicator. In OrderCancelReplaceRequest (G): - Updated description of fields: SelfMatchPreventionID and STPAggressorIndicator. In Field Description: - Updated description of fields: SelfMatchPreventionID and STPAggressorIndicator. - Added value 2 (Cancel both orders) in
4.13.0			STPAggressorIndicator. Introduction of SBE 313. The following changes have been made to this version of the document: ■ In OrderCancelReplaceRequest (G): - Description updated: this message cannot be used anymore to confirm trade outside of collars. - ConfirmFlag (9930) becomes irrelevant ■ In Field Description: Field ConfirmFlag (9930) becomes irrelevant
5.16.0			Introduction of SBE 316. The following changes have been made to this version of the document: In §5.3.1 - NewOrderSingle (D): Description added for: Trading Capacity (29) from Mandatory to Conditional Field added: OrderCapacity (528) in SideCrossOrdModGrp repeating section In §5.3.2 - ExecutionReport (8): Description updated for: Trading Venue Transaction Identification Code (TVTIC) Fields added: ParentRegulatoryTradeID (21807), NoRegulatoryTradeID (1903), RegulatoryTradeIDType (1906), RegulatoryLegRefID (2411), LegID (1788) Cancellation case added: Due to Order Price Control Collar breach In §5.3.39 - TradeCaptureReport (AE): Fields added: NoRegulatoryTradeIDs (1907), RegulatoryTradeIDType (1906) Fields added: NoRegulatoryTradeIDs (1907), RegulatoryTradeIDType (1906) In §5.3.40 - TradeCaptureReportAck (AR): Description updated for: Trading Venue Transaction Identification Code (TVTIC) Fields added: NoRegulatoryTradeIDs (1907), RegulatoryTradeIDType (1906), RegulatoryLegRefID (2411), LegID (1788) Value added: "9" (Euronext Clearing) in CCPID field In §6 - Field Description: Fields added: NoRegulatoryTradeIDs (1907), RegulatoryTradeID (1903), RegulatoryTradeIDType (1906), RegulatoryTradeIDType (1906), RegulatoryTradeIDripe (1906),

Revision No.	Date	Author	Change Description
			(1788) - Value added: "9" (Euronext Clearing) in CCPID field, - Value added: "9" (Euronext Clearing) in ContraBroker field Value added: "-" (Order cancelled due to Order Price Control Collar breach attempt) in
5.17.0	1 Aug 2022	IT Market Services - SBE - YOU - WMA	ExecType field The following changes have been made to this version of the document: In 5.3.1 - NewOrderSingle (D): Added rejection rules for LastCapacity (29) field In 5.3.30 - ERGCommand (U68): Impacted Cash Optiq Segments added Description updated to include the RiskGuard Cash scope Functional rules added In 5.3.31 - ERGCommandAck (U69): Impacted Cash Optiq Segments added Description updated to include the RiskGuard Cash scope Functional rules added In 5.3.32 - GetRiskControls (U70): Impacted Cash Optiq Segments added Functional rules added In 5.3.32 - GetRiskControls (U70): Impacted Cash Optiq Segments added Functional rules added In 5.3.33 - RiskControlDetails (U71): Added rejection rules for LastCapacity (29) field Details added for presence rule and condition for NoRegulatoryIDs section and fields inside (Trade Unique Identifier)
5.18.0	15 Sep 2022	IT Market Services – SBE – WMA	The following changes have been made to this version of the document: In 5.3.14 – UserNotification (CB): Field added: OrderAmountLimit (21809) In 5.3.30 – ERGCommand (U68): Fields added: OALFlag (21808) and OrderAmountLimit (21809) In 5.3.31 – ERGCommandAck (U69): Fields added: OALFlag (21808) and OrderAmountLimit (21809) In 5.3.33 – RiskControlDetails (U71): Fields added: OALFlag (21808) and OrderAmountLimit (21809) In 6 – Field Description: Fields added: OALFlag (21808) and OrderAmountLimit (21809) Value added for field RiskControlType (21103): "5" (Order Amount Limit) Values added for field UserStatus (926): "131" (OAL Activated for a Firm by Risk Manager), "132" (OAL Deactivated for a Firm by Risk Manager), "133" (OAL Activated for a Firm on a Logical Access by Risk Manager), "134" (OAL Deactivated for a

Revision No.	Date	Author	Change Description
			Firm on a Logical Access by Risk Manager)
5.19.0	24 Oct 2022	WMA	The following changes have been made to this version of the document: In <u>Field Description</u> : Value added for field <u>AccountCode</u> : '5' (Assigned Broker) Value added for field <u>TradeType</u> : '103' (Issuing or Tender Offer Trade)
5.20.0	14 Nov 2022	FLO - WMA	The following changes have been made to this version of the document: In Field Description: Value added for field CCPID: '7' (Bilateral Settlement Italian Model) Value renamed for field CCPID: '2' (Bilateral Settlement) is now '2' (Bilateral Settlement Traditional Model) Value added for field TradeType: '104' (RFQ Trade) Description updated for field: OrderAmountLimit (is to be combined with Amount Decimals instead of Quantity Decimals) Clarification in the description of field Number Of LPs
5.21.0	16 Dec 2022	FNS - YOU - WMA	The following changes have been made to this version of the document: Added ClearBook (U75) message Description of UserNotification (CB) adjusted to cover the new functionality related to Sponsored Connections The field SettlPeriod has been marked as [N/A] for TradeCaptureReport (AE) and TradeCaptureReportAck (AR): TCS will use the Settlement Period defined in the Referential at instrument level.
5.21.1	31 Jan 2023	FNS	The following changes have been made to this version of the document: Description of <u>ERGCommand (U68)</u> , <u>RiskControlDetails (U71)</u> and <u>UserNotification (CB)</u> adjusted to cover the new functionality related to Sponsored Firms
5.23.0	6 Mar 2023	WMA	The following changes have been made to this version of the document: In For Regular Accesses via ISV: section updated – ISV ID is optional In Field Description: Field ExecType: Value '^' (Order cancelled due to Execution Prevention Across All Firms)

Revision No.	Date	Author	Change Description
5.24.0	10 Apr 2023	WMA	The following changes have been made to this version of the document: In NewOrderSingle (D): Price is mandatory for an RFQ Confirmation (OrdType = Average Price) In Field Description: Field Price: Is not to be sent for OrdType (40) = T (Average Price)
5.25.0	15 May 2023	FNS - WMA	The following changes have been made to this version of the document: In NewOrderSingle (D) and OrderCancelReplaceRequest (G) message description adjusted to indicate the usage of LongClientID (21804) between Cash and Derivatives In Field Description: - Field LongClientID (21804): adjusted to indicate its usage for cash markets and the respective conditions Field TradingSessionID (336): description updated for Session 3 and Session 4 used in Borsa Italiana Markets
5.28.0	31/07/2023	FNS	The following changes have been made to this version of the document: In ExecutionReport (8) message description adjusted to indicate the usage of the new ExecType (150) added to support the kill notifications triggered by Maximum Exposure Position functionality; In UserNotification (CB): message description adjusted to indicate it's usage due to the new Risk Guard Maximum Exposure Position functionality; message structure adjusted to include the new field needed to indicate the side of the exposure; In ERGCommand (U68): message description adjusted to indicate it's usage due to the new Risk Guard Maximum Exposure Position functionality as well as to explain the different cases where the inbound message gets rejected by the system. Please note that there were cases where the value of a given field (s) was ignored when not relevant - now the message gets rejected; message agets rejected; message structure adjusted to include the new fields needed to support Maximum Exposure Position; In ERGCommandAck (U69): message description adjusted to include the new fields needed to support Maximum Exposure Position; In GetRiskControls (U70): message description adjusted to indicate it's usage due to the new Risk Guard Maximum Exposure Position functionality. Please note that to retrieve the details of the set MEP Command (s), a message has to be sent per contract; message structure adjusted to include the new fields needed to support Maximum

Revision No.	Date	Author	Change Description
			 Exposure Position; In RiskControlDetails (U71): message description adjusted to indicate the rules of Boolean fields management; message structure adjusted to include the new fields needed to support Maximum Exposure Position; New message was added: ERGMEPBreachAlert (U76). User to notify Risk Managers when a given threshold has been hit/cleared; In Field Description:
5.29.0	23 Oct 2023	IT Market Services – WMA	message have been added; The following changes have been made to this version of the document: In NewOrderSingle (D) and OrderCancelReplaceRequest (G): message description adjusted indicating how clearing fields are managed (populated or not). In NewOrderSingle (D) and QuoteRequest (R): the field MinQty (110) is conditional as the client must enter a quantity when the field_DarkExecutionInstruction (20052) bit in position 5 from the left (corresponding to Minimum Quantity Type) is equal to 1
			(MES); else the LP RFQ answer could never be executed during the RFQ matching mechanism In <u>Field Description</u> : Value 't' (Order Cancelled due to Static Collars) for field ExecType is added
5.30.0	13 Nov 2023	IT Market Services – NTDP - WMA	The following changes have been made to this version of the document: Added explanation on how to provide ExecutionWithinFirmShortCode for 'NORE' in NewOrderSingle (D), MassQuote (i), OrderCancelRequest (F), OrderCancelRequest (F), QuoteRequest (R), LiquidityProviderCommand (UZ), OrderMassStatusRequest (AF), OrderMassCancelRequest (q), OrderMassCancelReport (r), NewWholesaleOrder (U64), RequestForImpliedExecution (U66) and CrossOrder (U67) messages 4.6.2 Order Priority: Added "For both Cash and Derivative Markets" note regarding the Order Priority of Stop Orders. Small typos (commas) corrected 5.3.2 Message Description: Added sentence stating that Order Priority is provided in the

Revision No.	Date	Author	Change Description
			ExecutionReport (8) for Derivative Orders - Fields RFQAnswerIndicator and RFQConfirmationIndicator are not used in ExecutionReport (8) message In Field Description: - Field TriggeredStopTimeInForce: value '3 - Immediate or Cancel' added to the list of possible values
	5.31.0 1 Dec 2023	IT Market Services - NTDP - WMA	The following changes have been made to this version of the document: Section 4.6.2 Order Priority – updated to reflect the behaviour regarding Order Priority of Dark Sweep Orders once they move to the Central Order Book Section 5.3.2 ExecutionReport (8): OrderTolerablePrice field is added Section 5.3.9 OwnershipRequest (U18) message – Added explanation on how to properly identify Dark (Sweep and not Sweep) Orders to be identified through the "OrderCategory" field Section 5.3.17 OrderMassStatusRequest (AF) message – Added explanation on how to properly identify Dark (Sweep and not Sweep) Orders to be identified through the "OrderCategory" field Section 5.3.17 OrderMassStatusRequest (AF) message – Added explanation on how to properly identify Dark (Sweep and not Sweep) Orders to be identified through the "OrderCategory" field Section 5.3.29 CrossOrder (U67): OrderTolerablePrice field is added Section 5.3.43 FundPriceInput (U44): Removal of "Dutch" mention as trading in amount is authorized on both Dutch Fund and ATFund markets In 6. Field Description: Field "OrdStatus" – Added new possible values used for the acknowledgment of Dark Sweep Orders becoming Lit Orders Field "OrderTolerablePrice" is addedOrders Field "OrderTolerablePrice" is addedOrders Field "OrderTolerablePrice" is addedOrders